

SECOND NOTICE OF COMMENT PERIOD

LSA Document #21-458

COAL COMBUSTION RESIDUALS**PURPOSE OF NOTICE**

The Indiana Department of Environmental Management (IDEM) is soliciting public comment on amendments to rules at [329 IAC 10-3-1](#), [329 IAC 10-3-4](#), and [329 IAC 10-9-1](#), and the addition of a new article at [329 IAC 14](#), concerning the establishment of a state permitting program for coal combustion residuals (CCR). IDEM seeks comment on the affected citations listed and any other provisions of Title 329 that may be affected by this rulemaking.

HISTORY

First Notice of Comment Period: October 13, 2021, Indiana Register (DIN: [20211013-IR-329210458FNA](#)).

CITATIONS AFFECTED: [329 IAC 10-3-1](#); [329 IAC 10-3-4](#); [329 IAC 10-9-1](#); [329 IAC 14](#).

AUTHORITY: [IC 13-14-8-7](#); [IC 13-15-2-1](#); [IC 13-19-3-1](#); [IC 13-19-3-3](#).

SUBJECT MATTER AND BASIC PURPOSE OF RULEMAKING**Basic Purpose and Background**

On April 17, 2015, the United States Environmental Protection Agency (U.S. EPA) published a final rule in the Federal Register (FR) at 80 FR 21302 that established national minimum criteria for the disposal of CCR as a solid waste, and the design, operation, and closure of new and existing CCR landfills and surface impoundments under Subtitle D of the Resource Conservation and Recovery Act of 1976. This final rule became effective on October 19, 2015, and is codified in the Code of Federal Regulations (CFR) at 40 CFR 257, Subpart D.

When the federal CCR rule was first established in 2015, Indiana rules at [329 IAC 10](#) permitted regulated entities to dispose of CCR in restricted waste sites. These requirements were created before promulgation of the federal standards at 40 CFR 257, Subpart D, and differed from the federal standards in some cases.

Consequently, IDEM published a final rule in the Indiana Register on December 7, 2016, that incorporated by reference the federal standards for CCR surface impoundments at 40 CFR 257, Subpart D into [329 IAC 10-9-1](#).

After promulgation of the U.S. EPA final rule in 2015, the United States Congress passed the Water Infrastructure Improvement for the Nation Act of 2016 (WIIN Act). Section 2301 of the WIIN Act, codified at 42 U.S.C. 6945(d), provides the opportunity for states to seek U.S. EPA approval to operate a state permit program for CCR units that is at least as protective as the federal standards.

This rulemaking is mandated by portions of Indiana Public Law 100-2021, codified at [IC 13-19-3-1](#) and [IC 13-19-3-3](#). The goal of this rulemaking is to comply with those amended statutes and establishes a state permit program under Section 2301 of the WIIN Act, 42 U.S.C. 6945(d), for the implementation in Indiana of the federal CCR rule. This comprehensive state-operated permit program for CCR units replaces the current partial incorporation of the federal rule at [329 IAC 10-9-1](#) and is at least as protective as the federal standards at 40 CFR 257, Subpart D for both CCR surface impoundments and CCR landfills. To ensure successful implementation of the federal program, this rulemaking incorporates by reference sections from U.S. EPA's 2015 final rule and the subsequent amendments to that rule.

The federal requirements at 40 CFR 257, Subpart D for CCR surface impoundments and landfills are self-implementing, but there is currently no federal rule that establishes permitting regulations for CCR owners and operators, although it is U.S. EPA's intention to establish a CCR permitting rule in the future. The state-specific standards and amendments to the incorporated federal regulations included in the draft rule language closely align with IDEM's existing closure approval program and requirements for surface impoundments and landfills, and some of these standards include requirements beyond what is specified in the federal rule while others offer compliance alternatives and flexibility. These additional requirements are as follows:

- Length requirements for final covers and submittal of final cover design at 40 CFR 257.102(d)(3)(i)(A) and 40 CFR 257.102(d)(3)(i)(B).
- Replacement of deed notations at 40 CFR 257.102(i) and 40 CFR 257.105(i)(9) with environmental restrictive covenants.
- Addition of closure plan requirements from MSWLF state rules at [329 IAC 10-22-2\(c\)\(2\)](#), [329 IAC 10-22-2\(c\)\(5\)](#), [329 IAC 10-22-2\(c\)\(8\)](#), [329 IAC 10-22-2\(c\)\(10\)](#), and [329 IAC 10-22-2\(c\)\(11\)](#), and in conjunction with CCR state rule requirements, and inclusion of items needed for cost estimates and financial assurance.
- Inclusion of [329 IAC 10-22-3](#) concerning partial closure certification for CCR units and overfills.
- Addition of [329 IAC 10-23-3\(c\)\(4\)](#) for leachate collection requirements, cost estimates, and financial

assurance.

- Inclusion of [329 IAC 10-30-4](#)(b)(8) plan specifications for Type I or Type II restricted waste sites for the incremental closure standard for CCR landfills and overfills.
- Addition of [329 IAC 10-31-2](#)(a)(1), [329 IAC 10-31-2](#)(a)(2), [329 IAC 10-31-2](#)(a)(4), [329 IAC 10-31-2](#)(a)(5), [329 IAC 10-31-2](#)(a)(6), and [329 IAC 10-31-2](#)(a)(7) for post-closure duties, post-closure plan, and post-closure certification.
- Addition of [329 IAC 10-28-13](#) for fugitive dust controls from restricted waste sites.
- Addition of a requirement to 40 CFR 257.81 that states that CCR landfills must not deposit solid waste in standing or ponded water except for that water resulting from precipitation directly upon the working face.
- Addition of 40 CFR 257.83, 40 CFR 257.84, and [329 IAC 10-20-28](#) that describe the criteria of an inspection.
- Revision of 40 CFR 257.90(e) to semiannual monitoring reports, and when applicable, a corrective action report, and requirement to submit to IDEM within 60 days of sampling event.
- Addition of new provisions at 40 CFR 257.90(e) that state: "the owner, operator, or permittee shall prepare groundwater potentiometric-surface maps, or flow maps, of each aquifer being monitored at the site each time groundwater samples are collected from groundwater monitoring wells"; and "the owner, operator, or permittee shall submit a copy of the water levels, analytical results, and field measurements submitted in an electronic file format as prescribed by the commissioner."
- Replacement of the introductory paragraph at 40 CFR 257.91(a)(1) with the following: "Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit or facility activities that may contribute constituents listed in Appendices III and IV of this part against which background comparisons occur. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the CCR management area where: (i) and (ii) remain unchanged."
- Revision to 40 CFR 257.91(c)(1) to require a maximum 500-foot horizontal spacing for downgradient wells.
- Replacement of paragraph at 40 CFR 257.91(c)(2) with the following: "Additional monitoring wells as necessary to accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit or facility activities that may contribute constituents listed in Appendices III and IV of this part against which background comparisons occur, and the quality of groundwater passing the waste boundary of the CCR unit."
- Revision to 40 CFR 257.91(e) to add the requirement that the design and installation of the monitoring wells must follow [329 IAC 10-21-4](#) and [312 IAC 13-8-3](#).
- Revision to 40 CFR 257.93(h)(2) to be within sixty days.
- Addition of the following language to 40 CFR 257.94(a)(1): "Appropriate monitoring constituents must be determined and added to the Appendix III list by the commissioner based on constituents of any nonCCR waste permitted to be accepted at the facility."
- Addition of the following language to 40 CFR 257.95(b)(1): "Appropriate monitoring constituents must be determined and added to the Appendix IV list by the commissioner based on constituents of any nonCCR waste permitted to be accepted at the facility."
- Addition of concluding sentence to 40 CFR 257.95(f): "Whenever results of total chromium occur at or above its maximum contaminant level, the permittee must speciate and report both trivalent and hexavalent chromium."
- Addition of "Boron 4,000 µg/l" to 40 CFR 257.95(h)(2).
- Addition of the following language to 40 CFR 257.95(h)(4): "For constituents for which there are no levels specified in paragraphs (h)(1) and (h)(2) of this section, the background concentration."
- Revision to 40 CFR 257.97(a) to specify the submission of semiannual report(s) and the final report to the commissioner.
- Revision to 40 CFR 257.105(h)(1) from "annual" to "semiannual".
- Addition of word "post" before "closure" in 40 CFR 257.105(i)(12).
- Addition of "Boron" to Appendix IV.

After adoption of this rulemaking, IDEM will submit the state permit program to U.S. EPA for approval, in accordance with the provisions of Section 2301 of the WIIN Act. IDEM seeks comment on the affected citations listed, including suggestions for specific language, any other provisions of Title 329 that may be affected by this rulemaking, and alternative ways to achieve the purpose of the rulemaking.

[IC 13-14-9-4](#) Identification of Rule Elements that Impose Restrictions and Requirements More Stringent Than Federal Law or That Apply in a Subject Area in which Federal Law does not Impose a Restriction or Requirement

In addition to incorporating federal standards into Indiana rules, as mandated by [IC 13-19-3-1](#) and [IC 13-19-3-3](#), this rulemaking codifies restrictions and requirements already imposed under existing Indiana closure rules. These rules have been the basis for closure of CCR units, closures that began prior to the codification of the current federal regulations. One of the goals of this rulemaking is to integrate the existing state closure regulations

with the federal requirements to ensure that all closure activities are protective of human health and the environment and align with the closure standards under the federal program.

The list above in the Basic Purpose and Background Section identifies draft rule elements that diverge from or make changes to the federal CCR rule at 40 CFR 257, Subpart D, to codify state-specific standards, some of which could be construed as more stringent than federal law.

Potential Fiscal Impact

Public Law 165-2021 appropriates \$100,000 to the newly established CCR Program Fund for Fiscal Year (FY) 2021-2022, and \$450,000 for FY 2022-2023. Additionally, a portion of Public Law 165-2021, codified at [IC 13-19-3-3\(i\)](#), establishes new fees for CCR surface impoundments as follows:

- An initial one (1) time permit fee of twenty thousand five hundred dollars (\$20,500) for each CCR surface impoundment regulated under the state permit program.
- An annual fee of twenty thousand five hundred dollars (\$20,500) for each CCR surface impoundment regulated under the state permit program that has not completed closure in accordance with Section 257.102 of the federal CCR rule. The duty to pay the fee established by this subdivision does not apply on an annual basis until three hundred sixty-five (365) days after the initial one (1) time permit fee established by subdivision (1) has been assessed.
- An annual fee of ten thousand dollars (\$10,000) for each CCR surface impoundment regulated under the state permit program that has been closed and for which post-closure care has been initiated and is still required in accordance with Section 257.104 of the federal CCR rule. The duty to pay the fee established by this subdivision does not apply on an annual basis until three hundred sixty-five (365) days after the initial one (1) time permit fee established by subdivision (1) has been assessed.

Administrative costs will also be incurred by IDEM for the preparation of permit applications. In accordance with the portion of Public Law 100-2021 codified at [IC 13-19-3-3\(g\)](#), IDEM cannot collect any of the fees for CCR surface impoundments until the Environmental Rules Board has adopted a final rule for the establishment of the new state CCR permit program and U.S. EPA has approved the permit program pursuant to 42 U.S.C. 6945(d)(1).

Public Participation and Work Group Information

At this time, no work group is planned for the rulemaking. If you feel that a work group or other informal discussion on the rule is appropriate, please contact Keelyn Walsh, Rules Development Branch, Office of Legal Counsel at kwash@idem.in.gov, (317) 232-8229, or (800) 451-6027 (in Indiana).

SUMMARY/RESPONSE TO COMMENTS FROM THE FIRST COMMENT PERIOD

IDEM requested public comment from October 13, 2021, through November 12, 2021, on alternative ways to achieve the purpose of the rule and suggestions for the development of draft rule language. IDEM received comments from the following parties by the comment period deadline:

Mindy Westrick Brown, Indiana Energy Association (IEA)
Lisa Evans, Earthjustice (EJ)
Tim Maloney, Hoosier Environmental Council (HEC)
Kerwin Olson, Citizens Action Coalition (CAC)
Amanda Shepherd, Sierra Club Hoosier Chapter (SCHC)
Susan Thomas, Just Transition Northwest Indiana (JTNI)

Following is a summary of the comments received and IDEM's responses thereto:

Comment: The commenter supports this rulemaking conditioned on the requirement that a state CCR permit program does not include requirements more stringent than the federal CCR rule. (IEA)

Response: IDEM's CCR permit program must be at least as stringent as federal law in order to gain EPA approval and operate in lieu of federal law. There are some state-specific requirements, listed above, in the rulemaking that differ from federal law but are consistent with IDEM's permitting process for other, similar facilities.

Comment: The commenter requests that IDEM create a workgroup for industry to collaborate with IDEM on the next steps of the rulemaking. (IEA)

Response: IDEM will determine whether a workgroup will be necessary upon publication of the Second Notice of Comment Period and the comments received.

Comment: The commenter requests that IDEM consider expanding the rule or pursuing an additional rulemaking in the future to bring references of the federal CCR rule to the latest federal rule. (IEA)

Response: IDEM appreciates this suggestion and will consider a potential rulemaking in the future when a new federal rule is finalized.

Comment: Commenters request that, due to the lack of circulation of the First Notice, including to known interested stakeholders including the undersigned, the comment period should be extended for 60 days. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: IDEM did not extend the First Notice of Comment Period but will consider a continuation of the Second Notice of Comment Period if it is determined to be necessary after publication in the Indiana Register.

Comment: Commenters state that there was a lack of adequate notice to the public and interested stakeholders about the rulemaking prior to publication of the First Notice in the Indiana Register. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: IDEM appreciates this feedback and strives to ensure that adequate notice is given to stakeholders and the public prior to the publication of rulemakings that are considered of great interest to the community. The First Notice is the initial notice to the public announcing the start of a new rulemaking and the subject matter to be covered.

Comment: Commenters feel that the state must strengthen its regulation of CCR disposal practices given the well-documented environmental contamination and public health risks resulting from production and disposal of CCR. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The purpose of this rulemaking is to establish a new state permitting program for disposal of CCR at [329 IAC 14](#) that is similar to the existing permitting program for municipal solid waste landfills (MSWLFs), and that will be at least as stringent as the federal rule at 40 CFR 257, Subpart D.

Comment: Commenters state that the new CCR permitting program should not authorize or allow CCR disposal practices to continue that have created the environmental and public health risks that are currently present in multiple CCR disposal sites throughout the state. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: This rulemaking is designed to minimize or eliminate risk to the environment and public health posed by CCR. It closely aligns with the current state permitting program for MSWLFs and is at least as stringent as the federal rule at 40 CFR 257, Subpart D.

Comment: Commenters assert that the new CCR permitting program should not perpetuate the use of coal for production of electricity at the same time that the state's electric utilities are reducing or eliminating coal as a fuel source. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The use of coal for electricity production is outside the scope of this rulemaking.

Comment: Commenters believe that the goals of the new CCR permitting program should be:

- To eliminate any present or future contact between groundwater and surface water and CCR at existing or new CCR disposal units;
- To prevent CCR from being released to the atmosphere as fugitive dust; and
- To prevent spills or other releases of CCR to surface waters or the land. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The goal of this rulemaking and IDEM's other environmental regulations is to minimize or eliminate environmental hazards and address human health concerns, including the specific goals stated by the commenters.

Comment: Commenters state that compliance capability should not be considered and opportunity for weakening the requirements of 40 CFR 257, Subpart D, as adopted in [329 IAC 10-9-1](#). (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The CCR permitting program established by this rulemaking is an incorporation of the federal requirements at 40 CFR 257, Subpart D, and closely follows the permitting program currently in place in state rules for MSWLFs. As such, this rulemaking is at least as stringent as the federal rule, and therefore does not weaken its requirements.

Comment: Commenters state that the new CCR permit program rule should presume that there is no need for the construction and permitting of new CCR surface impoundments, and accordingly prohibit construction of new impoundments. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: This rulemaking will allow new CCR units to be constructed in accordance with the federal rule at 40 CFR 257, Subpart D.

Comment: Commenters believe the rule should require that new CCR landfills meet the existing requirements in 40 CFR 257 Subpart D, and that no new CCR landfills are located in a floodplain. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: This rulemaking incorporates by reference the federal rule at 40 CFR 257, Subpart D, and will therefore require that new CCR landfills meet those requirements.

Comment: Commenters state that no CCR surface impoundment should be permitted to close in place:

- If the impoundment is leaking, as determined by groundwater sampling that has identified GWPS exceedances.
- If the impoundment is unlined as defined in 40 CFR 257, Subpart D.
- If the impoundment has CCR in contact with groundwater, or likely to be in contact with groundwater during periods of seasonally high water levels in the neighboring water body.
- If the impoundment is located in a wellhead protection zone, floodplain, or seismic zone. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The CCR permitting program at [329 IAC 14](#) established by this rulemaking will require that impoundments be closed according to the federal rule at 40 CFR 257, Subpart D.

Comment: Commenters state that the financial assurance requirements now required for solid waste disposal units under Indiana rules should apply to all CCR disposal units, whether operating or closed. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: Under the federal rule at 40 CFR 257, Subpart D, and the new CCR permitting program at [329 IAC 14](#) established by this rulemaking, all permitted CCR units will follow financial assurance requirements.

Comment: Commenters state that public participation procedures for CCR permits should follow the procedural requirements of [IC 13-15](#) and [329 IAC 10-12](#) and [329 IAC 10-13](#), and:

- IDEM shall ensure that notices for all CCR permitting, regulatory, and rulemaking activities are posted on its "Coal Combustion Residuals" webpage in a timely fashion, notwithstanding any other notice posting requirements or procedures. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: IDEM complies with federal requirements that require states with approved permitting programs to have a robust public participation program in place, including modern methods of communication such as emails and websites.

Comment: Commenters state that the closure requirements of 40 CFR 257, Subpart D should apply to open dump sites where CCR was stored, disposed of, or used as fill at a power plant site. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: This rulemaking incorporates the federal rule at 40 CFR 257, Subpart D, which requires that all sites meet the applicability requirements for CCR units. This rule does not extend beyond these requirements.

Comment: Commenters state that all requests for extensions in achieving compliance with 40 CFR 257, Subpart D and Indiana's rules be a matter of public information and open to public comment. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: Documents submitted to IDEM can be found in IDEM's Virtual File Cabinet and are available for public review. While the public may always provide comments on a document, official public comment periods will comply with the federal rule at 40 CFR 257, Subpart D, and the state's new CCR permitting rule at [329 IAC 14](#).

Comment: Commenters state that CCR program permits should be fixed at a five-year period, as provided in [329 IAC 10-13-3](#). (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The new CCR permitting rule at [329 IAC 14](#) will follow a five-year permit period consistent with other permitting programs such as the current restricted waste site rules, under which current CCR landfills are permitted.

Comment: Commenters state that all inactive surface impoundments, at active or inactive generating facilities, which contain CCR and have CCR in contact with groundwater or have CCR likely to be in contact with groundwater, or that have CCR in contact with surface water, should be considered as subject to 40 CFR 257, Subpart D and Indiana's CCR permit program rule. More broadly, all current and former CCR disposal units at a power plant site should be subject to the monitoring and cleanup standards in 40 CFR Part 257, Subpart D. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: Closure for CCR units under the federal rule at 40 CFR 257, Subpart D, and the new state rule at [329 IAC 14](#), is required for all sites that meet the applicability requirements but does not extend beyond those requirements. The existing state rules at [329 IAC 10](#) may also apply to certain CCR sites.

Comment: Commenters assert that beneficial use of CCR should be defined as only those uses that encapsulate the CCR and prevent its contact with water. Use of CCR as structural fill in any application, whether in closing surface impoundments or landfills, construction or roadway fills, or other unencapsulated uses, should be prohibited. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: The beneficial use of CCR sites will be allowed according to the requirements under the federal rule at 40 CFR 257, Subpart D, and the new state rule at [329 IAC 14](#).

Comment: Commenters state that boron should be added to the list of Appendix IV constituents found in 40 CFR Part 257, Subpart D, for the purposes of the CCR permit program rule. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: Boron will be added to the list of constituents in the new state rule at [329 IAC 14](#) and will be consistent with the federal rule at 40 CFR 257, Subpart D.

Comment: Commenters state that the existing MSWLF requirements should incorporate the fugitive dust criteria of 40 CFR 257, Subpart D to minimize coal ash from becoming airborne at the facility. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters state that the existing MSWLF requirements should incorporate the liner design and leachate collection and removal system criteria of 40 CFR 257, Subpart D for new and expanded municipal solid waste landfills to prevent the leaching of coal ash contaminants into groundwater. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters request that the existing MSWLF requirements incorporate the relevant groundwater monitoring and corrective action requirements of 40 CFR 257, Subpart D to ensure that releases of coal ash contaminants are promptly detected and remediated. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters state that the existing MSWLF requirements should require municipal solid waste landfills to evaluate coal ash for waste compatibility and placement by establishing a "CCR acceptance plan" maintained in the facility operating record that ensures the facility is aware of the physical and chemical

characteristics of the coal ash and handles it with the additional precautions necessary to avoid dust, maintain structural integrity, and avoid compromising the gas and leachate collection systems of the landfill so that human health and the environment are protected. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters request that the existing MSWLF requirements include public notifications to ensure impacted communities are able to access groundwater monitoring data, inspections, and other compliance documents. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters request that the existing MSWLF requirements include weekly and annual inspections of municipal solid waste landfills receiving coal ash and require owners and operators to remedy all deficiencies found during landfill inspections. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters stated that the existing MSWLF requirements should restrict the siting of new municipal solid waste landfills and lateral expansions to ensure the placement of coal ash above the uppermost aquifer. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Comment: Commenters request that the existing MSWLF requirements incorporate environmental justice into permitting activities for municipal solid waste landfills that receive coal ash to the greatest extent practicable. This should include requiring permitting agencies:

- to identify and address disproportionately high and adverse human health or environmental effects of coal ash disposal on minority populations and low-income populations;
- to employ tools to avoid or reduce potential environmental justice effects, including increasing public involvement; and
- to consider cumulative impacts of waste disposal on already over-burdened communities. (EJ), (HEC), (CAC), (SCHC), (JTNI)

Response: Amending the requirements for MSWLFs is not within the scope of this rulemaking. It is acceptable for CCR waste to be disposed of in a permitted MSWLF per the applicability requirements in the federal rule at 40 CFR 257, Subpart D, and [329 IAC 10](#).

REQUEST FOR PUBLIC COMMENTS

This notice requests the submission of comments on the draft rule language, including suggestions for specific revisions to language to be contained in the draft rule. Comments may be submitted in one of the following ways:

- (1) By mail or common carrier to the following address:

LSA Document #21-458 Coal Combustion Residuals
Keelyn Walsh
Rules Development Branch
Office of Legal Counsel
Indiana Department of Environmental Management
Indiana Government Center North
100 North Senate Avenue
Indianapolis, IN 46204-2251

- (2) By electronic mail to kwalsh@idem.in.gov. To confirm timely delivery of submitted comments, please request a document receipt when sending the electronic mail. **PLEASE NOTE: Electronic mail comments will NOT be considered part of the official written comment period unless they are sent to the address indicated in this notice.**

Contact Karla Kindrick at kkindric@idem.in.gov or (317) 232-8922 if another method of submitting comments within the comment period is desired. Regardless of the delivery method used, in order to properly identify each comment with the rulemaking action it is intended to address, each comment document must clearly specify the LSA document number of the rulemaking.

COMMENT PERIOD DEADLINE

All comments must be postmarked or time stamped not later than January 20, 2023.

Additional information regarding this action may be obtained from Keelyn Walsh, Rules Development Branch, Office of Legal Counsel, kwalsh@idem.in.gov, (317) 232-8229, or (800) 451-6027 (in Indiana).

DRAFT RULE

SECTION 1. [329 IAC 10-3-1](#) IS AMENDED TO READ AS FOLLOWS:

[329 IAC 10-3-1](#) Exclusions; general

Authority: [IC 13-14-8-7](#); [IC 13-15-2-1](#); [IC 13-19-3-1](#)

Affected: [IC 13-14](#); [IC 13-19-3](#); [IC 13-20](#); [IC 36-9-30](#)

Sec. 1. The following solid waste management activities are not subject to the provisions of this article:

- (1) Disposal of only uncontaminated rocks, bricks, concrete, road demolition waste materials, or dirt.
- (2) Land application activities regulated under [327 IAC 6.1](#) and [327 IAC 7.1](#).
- (3) Confined feeding control activities regulated under [327 IAC 19](#).
- (4) Wastewater discharge activities regulated under [327 IAC 5](#).
- (5) Solid waste management activities regulated under [329 IAC 11](#).
- (6) Disposal of uncontaminated and untreated natural growth solid waste, including tree limbs, stumps, leaves, and grass clippings.
- (7) Disposal of saw dust derived from processing untreated natural wood.
- ~~(8) Except as provided in [329 IAC 10-9-1](#), coal combustion residuals impoundments subject to 40 CFR 257, Subpart D, disposal of coal ash, transported by water, into an ash pond which has received a water pollution control facility construction permit under [327 IAC 3](#).~~
- ~~(9) Except as provided in [329 IAC 10-9-1](#), (8) Coal combustion residuals impoundments (CCR) units subject to 40 CFR 257, Subpart D, the operation of surface impoundments; [329 IAC 14](#); however, the final disposal of solid waste in surface impoundments at the end of their operation is subject to approval by the commissioner. except as excluded under subdivisions (8) and (10). The commissioner's approval is based on management practices that are protective of human health and the environment.~~
- (9) Non-CCR surface impoundments. For CCR units not subject to [329 IAC 14](#), the commissioner's approval for closure:**
 - (A) in place is based on the restricted waste site Type 1 landfill closure standards in [329 IAC 10-30](#) and [329 IAC 10-31](#); and**
 - (B) by removal or closure with partial excavation is based on the applicable standards in [329 IAC 14](#).**
- ~~(10) Disposal of coal ash at a site receiving a total of less than one hundred (100) cubic yards per year from generators who each produce less than one hundred (100) cubic yards per year.~~
- ~~(11) (10) The uses and disposal of coal waste not subject to [329 IAC 14](#), as exempted under [IC 13-19-3-3](#).~~
- ~~(12) (11) Activities concerning wastes containing polychlorinated biphenyls (PCBs) regulated under [329 IAC 4.1](#), except those regulated as alternative daily cover under [329 IAC 10-20-14.1](#).~~
- ~~(13) (12) Storage, transportation, and processing of used oil as regulated under [329 IAC 13](#).~~
- ~~(14) (13) The legitimate use of slag under [IC 13-19-3-8](#).~~
- ~~(15) (14) The legitimate use of foundry sand under [IC 13-19-3-7](#).~~
- ~~(16) (15) Any other use of solid waste approved by the commissioner based on the commissioner's determination that the use is a legitimate use that does not pose a threat to public health or the environment.~~

(Solid Waste Management Division; [329 IAC 10-3-1](#); filed Mar 14, 1996, 5:00 p.m.: 19 IR 1795; filed Mar 19, 1998, 11:07 a.m.: 21 IR 2749; filed Aug 2, 1999, 11:50 a.m.: 22 IR 3771; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535; filed Feb 9, 2004, 4:51 p.m.: 27 IR 1797, eff Apr 1, 2004; filed Nov 10, 2016, 1:37 p.m.: [20161207-IR-329160217FRA](#))

SECTION 2. [329 IAC 10-3-4](#) IS AMENDED TO READ AS FOLLOWS:

[329 IAC 10-3-4](#) Exclusion; disposal of wastes that meet restricted waste site Type IV criteria

Authority: [IC 13-14-8-7](#); [IC 13-15-2-1](#); [IC 13-19-3-1](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 4. (a) Except as provided in this section, the disposal of **the following is not subject to this article:**

- (1) Coal ash residues that are not subject to [329 IAC 14](#), including flue gas desulphurization sludge.**
- (2) Foundry sands. and**
- (3) Other wastes that have been classified by the commissioner to meet the criteria established in [329 IAC 10-9-4](#) for restricted waste site Type IV waste. is not subject to this article**

(b) Restricted waste site Type IV waste must not be disposed of in violation of the prohibitions specified under the following:

- (1) Wetlands in violation of Section 404 of the Clean Water Act.
- (2) The critical habitat of an endangered species as defined by 50 CFR 17.
- (3) Any floodways:
 - (A) with drainage areas greater than one (1) square mile without the approval of the department of natural resources; or
 - (B) without provisions to prevent washout of the waste.
- (4) Within areas of karst topography:

- (A) without provisions to collect and contain all of the leachate generated; and
- (B) without a demonstration that the integrity of the area within the solid waste boundary will not be damaged by subsidence.

(5) Over mines unless it is demonstrated that the integrity of the area within the solid waste boundary will not be damaged by subsidence.

(6) Within six hundred (600) feet of a potable water well in use as a water supply for a dwelling or dwellings on the date of public notice for zoning approval for the permitted activity or the date of waste classification by the commissioner, whichever occurs first, unless written consent is obtained from the owner of the well.

(c) The disposal of all restricted waste site Type IV waste must meet the disposal control requirements specified under the following:

(1) If the disposal operation is found to be in violation of fugitive dust regulations ~~of the air pollution control board in 326 IAC 6-4~~ or if the commissioner documents evidence of visible waste deposits carried by wind or surface water beyond the site property boundary, restricted waste site Type IV must:

- (A) apply daily cover; and
- (B) submit a plan to control dispersal.

(2) Application of daily cover must continue until a dispersal control plan is approved by the commissioner.

(d) Restricted waste site Type IV waste must not be disposed into standing water where the standing water reflects the water table.

(Solid Waste Management Division; 329 IAC 10-3-4; filed Mar 14, 1996, 5:00 p.m.: 19 IR 1796; errata filed Apr 4, 1996, 4:00 p.m.: 19 IR 2045; filed Aug 2, 1999, 11:50 a.m.: 22 IR 3777; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535)

SECTION 3. [329 IAC 10-9-1](#) IS AMENDED TO READ AS FOLLOWS:

Rule 9. Solid Waste Land Disposal Facility Classifications

[329 IAC 10-9-1](#) Types of facilities

Authority: [IC 13-14-8-7](#); [IC 13-15-2-1](#); [IC 13-19-3-1](#)

Affected: [IC 13-30-2](#); [IC 36-9-30](#)

Sec. 1. ~~(a)~~ The following categories must be used for the purpose of defining site requirements and permissible wastes to be received for all solid waste land disposal facilities except **coal combustion residuals (CCR) units that are subject to 40 CFR 257, Subpart D under [329 IAC 14](#):**

- (1) Municipal solid waste landfill (MSWLF).
- (2) Construction/demolition site.
- (3) Restricted waste site as follows:
 - (A) Restricted waste site Type I.
 - (B) Restricted waste site Type II.
 - (C) Restricted waste site Type III.
 - (D) Restricted waste site Type IV.
- (4) Nonmunicipal solid waste landfill.

(5) CCR units that are not subject to 40 CFR 257, Subpart D.

~~(b) The owner and operator of a coal combustion residuals impoundment subject to 40 CFR 257, Subpart D, shall comply with the requirements for surface impoundments in accordance with 40 CFR 257.50* through 40 CFR 257.107*, except the phrase "not to exceed a height of 6 inches above the slope of the dike" is deleted from the following sections:~~

- ~~(1) 40 CFR 257.73(a)(4).~~
- ~~(2) 40 CFR 257.73(d)(1)(iv).~~
- ~~(3) 40 CFR 257.74(a)(4).~~
- ~~(4) 40 CFR 257.74(d)(1)(iv).~~

~~(c) For a coal combustion residuals impoundment subject to 40 CFR 257, Subpart D, final disposal of solid waste in the impoundment at the end of the operation of the impoundment is subject to approval by the~~

commissioner, based on the requirements for coal combustion residuals impoundments in 40 CFR 257.50* through 40 CFR 257.107* and on other management practices that are protective of human health and the environment.

~~*These documents are incorporated by reference. Copies may be viewed online from the Government Publishing Office at www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, Indiana 46204.~~

~~(Solid Waste Management Division; [329 IAC 10-9-1](#); filed Mar 14, 1996, 5:00 p.m.: 19 IR 1805; filed Aug 2, 1999, 11:50 a.m.: 22 IR 3787; readopted filed Jan 10, 2001, 3:25 p.m.: 24 IR 1535; readopted filed May 14, 2007, 1:53 p.m.: [20070523-IR-329070138BFA](#); readopted filed Jul 29, 2013, 9:20 a.m.: [20130828-IR-329130179BFA](#); filed Nov 10, 2016, 1:37 p.m.: [20161207-IR-329160217FRA](#))~~

SECTION 4. [329 IAC 14](#) IS ADDED TO READ AS FOLLOWS:

ARTICLE 14. COAL COMBUSTION RESIDUALS FROM ELECTRIC UTILITIES AND INDEPENDENT POWER PRODUCERS

Rule 1. General Provisions

[329 IAC 14-1-1](#) Applicability

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 1. (a) This rule applies to the owners and operators of new or existing coal combustion residuals (CCR) landfills or surface impoundments, including lateral expansions, that:

- (1) dispose or otherwise engage in solid waste management of CCR generated from the combustion of coal at electric utilities and independent power producers; and
- (2) are subject to 40 CFR 257, Subpart D.

(b) For purposes of this article, a reference to municipal solid waste landfills (MSWLF) or other facilities regulated under [329 IAC 10](#) means a CCR unit.

(Solid Waste Management Division; [329 IAC 14-1-1](#))

[329 IAC 14-1-2](#) Incorporation by reference

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 2. (a) Unless otherwise indicated, a reference to a provision of the Code of Federal Regulations (CFR) in this article means the July 1, 2022, edition.

(b) The owner or operator of a CCR unit shall comply with:

- (1) 40 CFR 257, Subpart D* as described and amended in this article;
- (2) Appendix III* to 40 CFR 257, Subpart D;
- (3) Appendix IV* to 40 CFR 257, Subpart D, as amended in this article; and
- (4) this article.

*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-1-2](#))

329 IAC 14-1-3 DefinitionsAuthority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)Affected: [IC 13-11-2](#); [IC 13-19](#); [IC 13-20](#); [IC 25-31](#); [IC 36-9-30-35](#)

Sec. 3. (a) Except as identified in subsections (b) and (c), the definitions in the following statutes and rules apply to CCR units and the owners and operators of CCR units:

- (1) [IC 13-11-2](#).
- (2) [329 IAC 10-2](#).
- (3) 40 CFR 257.53*.

(b) For the purposes of this article, the definitions in 40 CFR 257.53* are modified as follows:

- (1) "Active life", or "in operation", means the period of operation beginning with the initial placement of CCR in the CCR unit and ending at completion of closure activities in accordance with [329 IAC 14-3-5](#).
- (2) "Active portion" means that part of the CCR unit that has received or is receiving CCR or non-CCR waste and that has not completed closure in accordance with [329 IAC 14-3-5](#).
- (3) "Aquifer" means a consolidated or unconsolidated geologic formation or group of formations or a portion of a formation, that is hydraulically interconnected and that has the ability to receive, store, or transmit water to wells, springs, or other surface water bodies.
- (4) "Areas susceptible to mass movement" means those areas of influence that are characterized as having an active or substantial possibility of mass movement where the movement of earth material at, beneath, or adjacent to the CCR unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement may include the following:
 - (A) Landslides.
 - (B) Avalanches.
 - (C) Debris slides and flows.
 - (D) Solifluction.
 - (E) Block sliding.
 - (F) Underground mine collapse.
 - (G) Rock fall.
- (5) "Closed" means placement of CCR in a CCR unit has ceased, and the owner or operator has completed closure of the CCR unit in accordance with [329 IAC 14-3-5](#) and has initiated post-closure care in accordance with [329 IAC 14-3-5](#).
- (6) "Dike" means an embankment, berm, or ridge of either natural or manmade materials used to prevent, control, or confine the movement of liquids, sludges, solids, or other materials.
- (7) "Eligible unlined CCR surface impoundment" means an existing CCR surface impoundment that meets all of the following conditions:
 - (A) The owner or operator has documented that the CCR unit is in compliance with the location restrictions specified under [329 IAC 14-3-1](#).
 - (B) The owner or operator has documented that the CCR unit is in compliance with the periodic safety factor assessment requirements under [329 IAC 14-3-2\(f\)](#).
 - (C) No constituent listed in Appendix IV* of 40 CFR 257, as amended by [329 IAC 14-3-4\(c\)\(2\)](#), has been detected at a statistically significant level exceeding a groundwater protection standard defined under [329 IAC 14-3-4](#).
- (8) "Facility" has the meaning set forth in 40 CFR 257.53*, except "disposal operational units" is changed to "disposal units, either operational or closed".
- (9) "Fault" means a fracture or a zone of fractures in any material along which strata on one (1) side have been displaced with respect to that on the other side.
- (10) "Ground water" or "groundwater" means accumulations of underground water, natural and artificial, public and private, or parts thereof, which are wholly or partially within, flow through, or border upon this state, but excluding manmade underground storage or conveyance structures.
- (11) "Karst terrain" has the meaning set forth in 40 CFR 257.53*, with the addition of the following characteristic physiographic features:
 - (A) Grikes.
 - (B) Karren.
 - (C) Solution widened joints or bedding planes.
 - (D) Loss of drilling fluid during core drilling.
 - (E) Anastomosis, and conduits of less than one (1) meter, but more than two and five-tenths (2.5)

millimeters.

(F) Karst aquifer.

(12) "Lithified earth material" means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals, or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. The term does not include manmade materials, such as fill, concrete, asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth's surface.

(13) "Qualified professional engineer" means a professional engineer registered in the state under [IC 25-31](#).

(14) "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the CCR unit's structural components responsible for preventing releases from within the solid waste boundary. The term may include poor foundation conditions, underground mines, mine spoil, areas susceptible to mass movements, and karst terrains.

(c) In addition to subsections (a) and (b), the following definitions apply throughout this article:

(1) "Insignificant facility modification" means the following:

(A) Relocation of a solid waste land disposal facility waste hauling road.

(B) Relocation of office buildings.

(C) Changes in sequences of filling in permitted areas.

(D) Installation of temporary sediment control measures.

(E) Installation of leachate control systems to prevent leachate migration off-site.

(F) Installation of additional methane venting wells to an approved system.

(G) Installation of weighing scales.

(H) Replacement of a ground water monitoring well or piezometer not more than fifteen (15) feet horizontally from the original location and at an equal depth.

(I) Use of an alternative daily cover (ADC) under [329 IAC 10-20-14.1\(c\)](#).

(J) Approvals granted under [329 IAC 10-21](#) and [329 IAC 10-29](#), unless the commissioner determines the approval to be a minor modification.

(K) Alternative storage methods for salvaged or recycled materials under [329 IAC 10-20-6\(b\)](#).

(L) Changes in the frequency that collection containers regulated under [329 IAC 10-20-4\(g\)\(1\)](#) and [329 IAC 10-20-4\(g\)\(2\)](#) must be emptied.

(M) Improvements to drainage at the facility or modifications to sediment controls.

(N) Use of an ADC under [329 IAC 10-20-14.1\(d\)](#).

(O) Modification to the solid waste land disposal facility that the commissioner determines will improve the operation of the facility without significantly altering the approved solid waste land disposal permit.

(2) "Major modification of solid waste land disposal facilities", for purposes of this article, means an increase in a CCR unit that would:

(A) change the closure plan for the lesser of:

(i) more than ten percent (10%) of the area or volume of the unit; or

(ii) five hundred thousand (500,000) cubic yards; or

(B) increase the closure area by more than one (1) acre.

(3) "Minor modification of solid waste land disposal facilities", for purposes of this article, means a modification in a CCR unit that is not:

(A) a major modification of solid waste land disposal facilities; or

(B) an insignificant facility modification.

*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-1-3](#))

[329 IAC 14-1-4](#) CCR fees

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19-3-3](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 4. The owner, operator, or permittee of a CCR unit shall submit the applicable fees in accordance

with the requirements of [IC 13-19-3-3](#).

(Solid Waste Management Division; [329 IAC 14-1-4](#))

Rule 2. CCR Permitting

[329 IAC 14-2-1](#) CCR unit permitting

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 1. (a) Except as described in subsections (b) and (c), the owner or operator of each CCR unit shall submit a timely and complete permit application in accordance with [329 IAC 10-11](#) through [329 IAC 10-15](#).

(b) The following requirements do not apply to the permitting of CCR units:

- (1) The methane gas requirements in [329 IAC 10-15-6](#) and [329 IAC 10-18-1](#) and any other requirements related to methane gas or explosive gas plans in [329 IAC 10](#).
- (2) The stormwater pollution prevention plan in [329 IAC 10-15-12](#) and any other requirements related to stormwater pollution prevention plans in [329 IAC 10](#).
- (3) The baled waste management plan in [329 IAC 10-15-9](#) and any other requirements related to baled waste management in [329 IAC 10](#).
- (4) The requirements related to an aquifer of significance in [329 IAC 10](#).
- (5) The element of the operational plan related to procedures for the disposal of bulky solid waste, such as refrigerators, stoves, fence wire, and other similar items identified in [329 IAC 10-15-6\(17\)](#).

(c) In addition to the requirements of subsection (a), the owner or operator of the CCR unit shall provide the following items with the permit application. Each item must be certified by a qualified professional engineer:

- (1) Documentation of compliance with location restrictions in [329 IAC 10-16-2](#), [329 IAC 10-16-10](#) through [329 IAC 10-16-12](#), and 40 CFR 257.60 through 40 CFR 257.64*.
- (2) Documentation of compliance with 40 CFR 257.70 through 40 CFR 257.72.
- (3) Documentation of compliance with design and structural integrity criteria for all new surface impoundments as required by [329 IAC 10-15-8](#), 40 CFR 257.73*, and 40 CFR 257.74*.
- (4) Documentation of compliance with hydrologic and hydraulic capacity requirements for CCR surface impoundments as required by [329 IAC 10-15-4](#) and 40 CFR 257.82*.
- (5) Periodic hazard potential classification assessments as required by 40 CFR 257.73(a)(2)* and 40 CFR 257.74(a)(2)*.
- (6) Fugitive dust control plans as required by 40 CFR 257.80*.
- (7) Emergency action plan as required by 40 CFR 257.73(a)(3)* or 40 CFR 257.74(a)(3)*.
- (8) A quality assurance project plan as specified under 40 CFR 257.93*.
- (9) A sampling and analysis plan as specified under 40 CFR 257.93*.
- (10) A general description for developing the statistical evaluation plan following the statistical procedures and methods specified in 40 CFR 257.93*.
- (11) In addition to the requirements of [329 IAC 10-15-3\(b\)\(7\)](#), the owner or operator shall depict the following on the cross-sectional drawing:
 - (A) Subsurface drain system, including:
 - (i) subgrade elevation;
 - (ii) piping;
 - (iii) cleanout location;
 - (iv) drainage features and structures;
 - (v) sump, risers, and manholes; and
 - (vi) lift station elevations if applicable.
 - (B) Screened interval of all monitoring wells and piezometers along the transect used to prepare the cross-section.
- (12) In addition to the requirements of [329 IAC 10-15-5\(a\)\(4\)](#), the owner or operator shall determine the hydrogeologic conditions and the relationship to the proposed CCR unit to predict pollutant movement in the event of releases from the proposed CCR unit or facility activities that may contribute constituents listed in Appendix III* or Appendix IV* of 40 CFR 257 against which background comparisons occur.

(13) Documentation of compliance with surface water run-on and run-off controls for CCR landfills, lateral expansion of the landfill, or overfills as required under 40 CFR 257.81*.

(14) In addition to requirements in [329 IAC 10-15-4](#) and [329 IAC 10-15-5](#), facilities must also comply with [312 IAC 13-8-3](#) for installation of monitoring wells and piezometers.

(15) For a new or lateral expansion of a CCR surface impoundment, methods of disposal or sluicing of CCR in the operational plan.

(16) Procedures for CCR unit inspections as specified in 40 CFR 257.83* and 40 CFR 257.84*, including required inspection reports.

(d) For the purposes of this section, "CCR unit" also applies to overfills, retrofits, and lateral expansions.

*This document is incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-2-1](#))

[329 IAC 14-2-2](#) Permitting of non-CCR waste in a CCR unit

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 2. (a) Non-CCR waste may not be placed in a CCR unit until the permittee receives approval from the department through the following:

- (1) The original permit of the facility.
- (2) A renewal permit.
- (3) A major modification.
- (4) A minor modification.

(b) The permit application or modification must include a waste classification in accordance with [329 IAC 10-9-4](#).

(c) Non-CCR waste approved for disposal in the CCR unit must maintain a waste classification in accordance with [329 IAC 10-9-4](#).

(Solid Waste Management Division; [329 IAC 14-2-2](#))

[329 IAC 14-2-3](#) Transition requirements for existing CCR units

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 3. (a) The owner, operator, or permittee of an existing CCR unit that has not received the closure certification approval from the commissioner and, if applicable, post-closure certification, is required to obtain a permit under this article.

(b) The owner, operator, or permittee of an existing CCR unit must submit a permit application to the commissioner in accordance with [329 IAC 10-11](#) within the following timeframes:

- (1) For a CCR unit that is not approved to close or not permitted under [329 IAC 10](#), the owner, operator, or permittee must submit an application for the appropriate permit within thirty (30) days after the effective date of this article.
- (2) For a CCR unit that is approved to close or is permitted under [329 IAC 10](#), the owner, operator, or permittee must submit an application for the appropriate permit within one hundred eighty (180) days after the effective date of this article.

(Solid Waste Management Division; [329 IAC 14-2-3](#))

Rule 3. Incorporation of Federal CCR Requirements and State Requirements

[329 IAC 14-3-1](#) Location restrictions and setbacks

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 1. (a) The owner or operator of a CCR unit shall comply with the location restrictions in 40 CFR 257.60 through 40 CFR 257.64*, except as described in subsections (b) and (c). Each required demonstration must be certified by a qualified professional engineer and then submitted to the commissioner for approval.

(b) The solid waste boundaries of a CCR unit must adhere to the setback requirements at [329 IAC 10-16-11](#), except the testing parameters in [329 IAC 10-16-11](#)(a)(2)(B)(ii) are replaced with the requirements of 40 CFR 257, Appendix III* and Appendix IV*.

(c) In addition to the requirements of subsections (a) and (b), the owner or operator shall comply with the following requirements for CCR units:

- (1) Flood plain and floodway siting restrictions in [329 IAC 10-16-2](#).
- (2) Endangered species siting restrictions in [329 IAC 10-16-10](#) and [329 IAC 10-25-1](#)(2).

(d) Setback distances may only be reduced in accordance with [329 IAC 10-16-12](#).

(e) A stable foundation must meet the following criteria:

- (1) The loads and loading rate of the foundation must not cause or contribute to the failure of the leachate collection system.
- (2) The total and differential settlement of the foundation must not cause or contribute to the failure of the leachate collection system.
- (3) The new CCR unit must be designed to achieve a factor of safety against bearing capacity failure of at least two (2.0) under static conditions and of at least one and five-tenths (1.5) under seismic conditions.
- (4) The new CCR unit must be designed to achieve a factor of safety against slope failure in accordance with Table 1 in [329 IAC 10-15-8](#).
- (5) Factors of safety must be calculated for both long term and short term conditions expected at the site.
- (6) Earthquake induced liquefaction potential or blasting in the unstable area and the effect on the bearing capacity and integrity of the new CCR unit must be addressed in the design to the extent necessary based on seismic conditions at the site.
- (7) Other factors of safety that may be approved by the commissioner based on a demonstration that they are equally as protective as subdivisions (1) through (6).

*This document is incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-3-1](#))

[329 IAC 14-3-2](#) Design criteria

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 2. (a) On or after the effective date of this article, the owner or operator of a new or existing CCR unit or lateral expansion applying for a permit shall comply with:

- (1) the applicable design criteria requirements in 40 CFR 257.70 through 40 CFR 257.74* except for:
 - (A) 40 CFR 257.71(d); and

- (B) 40 CFR 257.72(c) and 40 CFR 257.72(d); and
(2) the design, construction, and CQA/CQC requirements described in subsection (c).

(b) The following are additions to 40 CFR 257.70 through 40 CFR 257.74*:

- (1) In 40 CFR 257.70 and 40 CFR 257.71, replace the phrase "or approval from the Participating State Director or approval from EPA where EPA is the permitting authority" with "and approval by the commissioner".
(2) In 40 CFR 257.73 and 40 CFR 257.74, replace the phrase "certification from a qualified engineer" with "certification from a qualified engineer and approval by the commissioner".
(3) Add to 40 CFR 257.73(d)(3), "The initial structural integrity assessment and subsequent periodic assessment must be submitted to the commissioner for review and approval."
(4) In 40 CFR 257.73(f)(1), replace "The owner or operator has completed an initial assessment when the owner or operator has placed the assessment required by paragraphs (a)(2), (d), and (e) of this section in the facility's operating record as required by § 257.105(f)(5), (10), and (12)." with "The owner or operator has completed an initial assessment when the owner or operator has received an approval from the commissioner and has placed the assessment required by paragraphs (a)(2), (d), and (e) of this section in the facility's operating record as required by § 257.105(f)(5), (10), and (12)."
(5) In 40 CFR 257.73(f)(3), replace "has been placed in the facility's operating record" with "has been approved by the commissioner and has been placed in the facility's operating record".
(6) Add to 40 CFR 257.74(d), "Vegetative slopes must be mowed a minimum of twice each year."

(c) In addition to subsection (a)(1), the owner or operator of a new or existing CCR unit shall comply with the following requirements of [329 IAC 10-17](#):

- (1) The construction and quality assurance/quality control requirements for the soil component of the liner in [329 IAC 10-17-5](#), except replace [329 IAC 10-17-5\(d\)\(2\)](#) with "Thin-walled tube samples using Shelby tube. Shelby tube samples must be collected from each compacted lift, with a minimum of six (6) tests required."

(2) The design requirements for the geomembrane component of the liner in [329 IAC 10-17-6](#).

(3) The construction and quality assurance/quality control requirements for the geomembrane component of the liner in [329 IAC 10-17-7](#).

(4) The construction and quality assurance/quality control requirements for the soil component of the liner in [329 IAC 10-17-8](#), with the addition of the following leachate conveyance and storage design criteria:

(A) Leachate conveyance and storage structures located outside the solid waste boundary must be designed and constructed to prevent and contain leachate spills.

(B) Leachate conveyance lines outside the solid waste boundary must be double cased.

(C) Leachate storage must meet the following minimum criteria, unless leachate is directly discharged to a sewage treatment plant or the facility's NPDES permitted structure:

(i) A capacity for seven (7) to ten (10) days of collection of leachate and other liquids combined in the leachate collection and storage system.

(ii) Above ground tanks used for leachate must be:

(AA) compatible with the leachate expected to be generated;

(BB) resistant to the temperature extremes; and

(CC) provided with a spill containment capacity of not less than one hundred ten percent (110%) of the largest storage tank system.

(iii) Surface impoundments or lagoons used for leachate must meet the following criteria:

(AA) Constructed with a bottom liner system consisting of the following, starting from the subgrade and extending upwards:

(aa) One (1) foot of 1×10^{-7} centimeters per second of compacted clay liner.

(bb) Leak detection in the bottom of the basin.

(cc) Two (2) feet of 1×10^{-7} centimeters per second of compacted clay liner.

(dd) Geomembrane.

(BB) Constructed with a side slopes liner system consisting of the following, starting from the subgrade and extending upwards:

(aa) Two (2) feet of 1×10^{-7} centimeters per second of compacted clay liner.

(bb) Geomembrane.

(CC) The leachate storage structure must be provided with two (2) feet of freeboard, unless provided with a secondary containment.

(5) The construction quality assurance and construction quality control requirements (CQA/CQC) for the drainage layer component of the liner in [329 IAC 10-17-9](#).

- (6) The design, construction, and CQA/CQC requirements for the geosynthetic clay component of the liner in [329 IAC 10-17-10](#).
- (7) The design requirements for a drainage layer component and leachate collection pipes in [329 IAC 10-17-13](#), except not in relation to gases.
- (8) The construction and quality assurance/quality control requirements for the optional drainage layer filter in [329 IAC 10-17-14](#).
- (9) The construction technologies and CQA/CQC plans for alternative liner designs in [329 IAC 10-17-15](#).
- (10) The post construction care requirements for a liner system in [329 IAC 10-17-16](#).
- (11) The test standards for a liner system in [329 IAC 10-17-17](#), except the ASTM standard in [329 IAC 10-17-17\(1\)](#) is replaced with the American Society for Testing and Materials (ASTM), 2021 Annual Book of ASTM Standards, Section 4 Construction, Volume 04.08 Soil and Rock (I): D 421-D 5876**.
- (12) The CQA/CQC preconstruction meeting requirements in [329 IAC 10-17-18](#).

(d) The owner or operator may meet the requirements for a geosynthetic liner in [329 IAC 10-17-10](#) as an alternative to the liner requirements in 40 CFR 257.70(a)(1).

(e) The owner or operator of a CCR unit shall comply with the preoperational requirements and operational approval requirements in accordance with [329 IAC 10-19-1](#), except for the following:

- (1) For the construction certification report, the items identified in [329 IAC 10-19-1\(a\)\(3\)\(C\)](#) are replaced with the requirements of 40 CFR 257, Appendix III.*
- (2) The construction certification report must include the safety factors for surface impoundments in 40 CFR 257.74.*

(f) The following liner design is required for any section of a new CCR landfill, lateral expansion of CCR landfill, or overfill to be permitted under this article:

- (1) The liner must be constructed with a base that is located not less than one and fifty-two hundredths (1.52) meters above the upper limit of the uppermost aquifer, or must demonstrate that there will not be an intermittent, recurring, or sustained hydraulic connection between any portion of the base of the CCR landfill unit and the uppermost aquifer due to normal fluctuations in groundwater elevations, including the seasonal high water table.
- (2) At the base and side slopes, starting from the subgrade and extending upward, the liner must include the following components:
 - (A) A minimum of two (2) feet of compacted soil, having a:
 - (i) hydraulic conductivity of 1×10^{-7} centimeters per second or less; or
 - (ii) combination of geosynthetic clay liner and twelve (12) inches of compacted soil having a hydraulic conductivity of 1×10^{-7} centimeters per second.
 - (B) A thirty (30) millimeters (mil) geomembrane. Geomembrane components consisting of high density polyethylene (HDPE) must be at least sixty (60) mil thick.
 - (C) A drainage layer.
- (3) Prior to construction of an overfill, the underlying surface impoundment must meet the requirements of 40 CFR 257.102(d)*.

*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

**This document is incorporated by reference. Copies are available from the American Society for Testing and Materials, 100 Barr Harbor Drive, Conshohocken, PA 19429, or for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, Thirteenth Floor, 100 North Senate Avenue, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-3-2](#))

[329 IAC 14-3-3](#) Operating criteria

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 3. (a) Except as provided in this section, the owner or operator of a CCR unit must follow the operating criteria requirements in 40 CFR 257.80 through 40 CFR 257.84.*

(b) The following additions and revisions apply to 40 CFR 257.80 through 40 CFR 257.84:

(1) Add to 40 CFR 257.80, "If the department documents evidence of visible waste deposits carried by wind or surface water beyond the solid waste boundary, the owner or operator of the CCR unit must complete the following:

(A) Apply six (6) inches of daily soil cover of Unified Soil Classification ML, CL, MH, CH, or OH, or other suitable material approved by the commissioner to provide an adequate level of environmental protection.

(B) Submit a revised plan to control dispersal.

Application of daily cover must continue until a revised dispersal control plan is approved by the commissioner."

(2) Add to 40 CFR 257.80(b)(5), "Additionally, the owner or operator must submit the initial CCR fugitive dust plan to the commissioner for review and approval."

(3) Add to 40 CFR 257.80(b)(6), "Additionally, the owner or operator must submit any amendments to the CCR fugitive dust plan to the commissioner within sixty (60) days of amendment for review and approval."

(4) Add to 40 CFR 257.80(c), "The annual CCR fugitive dust control report must be submitted to the commissioner within sixty (60) days of completion."

(5) Replace 40 CFR 257.81(b) with "Storm water run-off leaving a CCR landfill must be discharged in a manner that does not cause or contribute to erosion or sedimentation or a violation of [327 IAC 2-1-6\(a\)](#)."

(6) Add to 40 CFR 257.81, "CCR landfills must not deposit solid waste in standing or ponded water except for that water resulting from precipitation directly upon the working face."

(7) In 40 CFR 257.81(c)(5), replace the phrase "or approval from the Participating State Director or approval from EPA where EPA is the permitting authority" with "and approval by the commissioner".

(8) Add to 40 CFR 257.82(a), "The owner or operator must submit the hydrologic and hydraulic capacity calculations and the inflow flood control system plan to the commissioner for review and approval at the time of initial application."

(9) Add to 40 CFR 257.82(c)(4), "The owner or operator shall submit an inflow design flood control system plan to the department for approval every five (5) years. If an inflow design flood control system plan is revised, the owner or operator shall submit the revised plan to the department for approval within sixty (60) days after the date of a revision."

(10) Add the following to 40 CFR 257.83*:

(A) "The owner or operator shall inspect for malfunctions, deteriorations, operator errors, discharges, and seepage outcropping that may cause a release of pollutants to the environment or a threat to human health. Inspections must include erosion and sedimentation control measures."

(B) "Where a hazard is imminent or has already occurred, remedial action must be taken immediately to correct or repair the hazard."

(11) Add the following to 40 CFR 257.84*:

(A) "The owner or operator shall inspect for malfunctions, deteriorations, operator errors, discharges, leachate collection system, leachate storage, and leachate outcroppings that may cause a release of pollutants to the environment or a threat to human health. Inspections must include erosion and sedimentation control measures."

(B) "A qualified person shall inspect the CCR units monthly for cover, run-off control structures, erosion control structures, drainage ditches, monitoring wells, and sumps. The inspection report must include the following:

(i) The date and time of the inspection.

(ii) The name of the inspector.

(iii) A description of the inspection, including an identification of the specific equipment and structures inspected.

(iv) The observations recorded.

(v) The date and nature of any remedial actions implemented, or repairs made as a result of the inspection.

Where a hazard is imminent or has already occurred, remedial action must be taken immediately to correct or repair the hazard."

(12) Add to 40 CFR 257.84(b), "The owner or operator must submit the annual inspection report to the department within sixty (60) days after the date of the inspection."

(c) In addition to subsections (a) and (b), the owner or operator of a new or existing CCR unit shall comply with the following:

- (1) The waste deposit and compaction requirements in [329 IAC 10-20-10](#).
- (2) The erosion and sedimentation control measures in [329 IAC 10-20-12](#).
- (3) The daily and intermediate cover requirements in [329 IAC 10-20-14](#).
- (4) The cover storage sites and borrow pits requirements in [329 IAC 10-20-15](#).
- (5) The leachate collection, removal, and disposal requirements in [329 IAC 10-20-20](#).
- (6) The survey requirements in [329 IAC 10-20-24](#).
- (7) The surface water requirements in [329 IAC 10-20-26](#).
- (8) The liquids restrictions for landfills and overfills in [329 IAC 10-20-27](#)(a)(1). Other liquids or leachate may be used for dust control as approved by the commissioner.
- (9) The access control requirements in [329 IAC 10-28-1](#), except replace subsection (b) with "The owner, operator, or permittee of all CCR units shall control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes."
- (10) The on-site road requirements in [329 IAC 10-28-2](#).
- (11) The requirements for signs in [329 IAC 10-28-3](#), except add the facility contact phone number.
- (12) The nuisance control requirements in [329 IAC 10-28-4](#).
- (13) The scavenging requirements in [329 IAC 10-28-5](#).
- (14) The salvaging requirements in [329 IAC 10-28-6](#).
- (15) The safety requirements in [329 IAC 10-28-7](#).
- (16) The record keeping and reporting requirements in [329 IAC 10-28-8](#).
- (17) The open burning requirements in [329 IAC 10-28-9](#).
- (18) The standing water requirements in [329 IAC 10-28-10](#).
- (19) The cover requirements in [329 IAC 10-28-12](#).
- (20) The grading and soil stabilization requirements in [329 IAC 10-28-14](#).
- (21) The surface leachate control requirements in [329 IAC 10-28-15](#).

*This document is incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-3-3](#))

[329 IAC 14-3-4](#) Groundwater monitoring and corrective action

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 4. (a) The owner or operator of a CCR unit shall comply with the groundwater monitoring and corrective action requirements in 40 CFR 257.90 through 40 CFR 257.98*.

(b) The following are additions and revisions to 40 CFR 257.90 through 40 CFR 257.98*:

- (1) Replace the requirement for annual reporting with a requirement for semiannual reporting.
- (2) Revise 40 CFR 257.90(e) to change annual monitoring reports to semiannual monitoring reports. A corrective action report or other report required under this section must be submitted to the department within sixty (60) days of the sampling event.
- (3) Add the following to 40 CFR 257.90(e):
 - (A) "The owner, operator, or permittee shall prepare groundwater potentiometric-surface maps, or flow maps, of each aquifer being monitored at the site each time groundwater samples are collected from groundwater monitoring wells."
 - (B) "The owner, operator, or permittee shall submit a copy of the water levels, analytical results, and field measurements in an electronic file format as prescribed by the commissioner."
- (4) Revise 40 CFR 257.90(g) to allow certification by a licensed professional geologist.
- (5) In 40 CFR 257.91(a)(1), replace the introductory paragraph to read, "Accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit or facility activities that may contribute constituents listed in Appendices III and IV of this part against which background comparisons occur. A determination of background quality may include sampling of wells that are not hydraulically upgradient of the CCR management area where:".

- (6) In 40 CFR 257.91(a)(2), replace "The downgradient monitoring system must be installed at the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer." with "The downgradient monitoring system must be installed at or within fifty (50) feet of the waste boundary that ensures detection of groundwater contamination in the uppermost aquifer.".
- (7) Add to 40 CFR 257.91(c)(1), "There must be a maximum five hundred (500) feet of horizontal spacing for downgradient wells.".
- (8) Replace 40 CFR 257.91(c)(2) with "Additional monitoring wells as necessary to accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit or facility activities that may contribute constituents listed in Appendices III and IV of this part against which background comparisons occur, and the quality of groundwater passing the waste boundary of the CCR unit.".
- (9) Add to 40 CFR 257.91(e), "The design and installation of the monitoring wells must be completed in accordance with [329 IAC 10-21-4](#) and [312 IAC 13-8-3](#)."
- (10) All the demonstrations or documents in the following federal provisions must be submitted to the commissioner for approval and must be certified by a qualified professional engineer or a licensed professional geologist:
- (A) 40 CFR 257.91(e)(1).
 - (B) 40 CFR 257.91(f).
 - (C) 40 CFR 257.93(f)(6).
 - (D) 40 CFR 257.94(d)(3).
 - (E) 40 CFR 257.94(e)(2).
 - (F) 40 CFR 257.95(c)(3).
 - (G) 40 CFR 257.95(g)(3)(ii).
 - (H) 40 CFR 257.96(a), except the assessment of corrective measures does not need to be submitted to the commissioner for approval.
 - (I) 40 CFR 257.97(a).
 - (J) 40 CFR 257.98(e).
- (11) In 40 CFR 257.93(h)(2), change "90 days" to "60 days".
- (12) Add to 40 CFR 257.95(f), "Whenever results of total chromium occur at or above its maximum contaminant level, the permittee must speciate and report both trivalent and hexavalent chromium.".
- (13) Add to 40 CFR 257.95(h), "(4) For constituents for which there are no levels specified in paragraphs (h)(1) and (h)(2) of this section, the background concentration.".
- (14) In 40 CFR 257.97(a), the semiannual report and the final report must be submitted to the commissioner.
- (15) In 40 CFR 257.97(d), the schedule must be submitted to the commissioner.
- (16) In 40 CFR 257.98(b), a proposal of alternative methods must be submitted to and approved by the commissioner.
- (17) In 40 CFR 257.98(e), a certified notification must be submitted to the commissioner.

(c) Add the following constituent as follows:

- (1) Add "Boron 4,000 µg/l" to 40 CFR 257.95(h)(2)*.
- (2) Add "Boron" to 40 CFR 257, Appendix IV*.

(d) In addition to the constituents identified in 40 CFR 257, Appendix III* and Appendix IV*, as amended by subsection (c), the commissioner may require monitoring of additional constituents based on the constituents in non-CCR waste permitted to be accepted at the facility, and the additional constituents will be added to the permit.

*These documents are incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-3-4](#))

[329 IAC 14-3-5](#) Closure and post-closure

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-14-2-6](#); [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 5. (a) The owner or operator of a CCR unit must follow the closure and post-closure requirements in 40 CFR 257.100 through 40 CFR 257.104*, as revised by subsections (b) through (f).

(b) In 40 CFR 257.100 through 40 CFR 257.104*, the following phrases are replaced with "and approval from the commissioner.":

- (1) "Or approval from the Participating State Director or approval from EPA where EPA is the permitting authority."**
- (2) "Or an approval from the Participating State Director or an approval from EPA where EPA is the permitting authority."**

(c) The following revisions are made to 40 CFR 257.102*:

(1) Add to 40 CFR 257.102(a), "Closure of a CCR unit may be completed using the partial excavation method as an alternative permitted under (e)(3) of this section and as described in [329 IAC 14-3-5\(c\)\(6\)](#)."

(2) Add the following to 40 CFR 257.102(b)(1):

(A) "In addition, if the closure of the CCR unit will be accomplished using the partial excavation method, a description of the procedures to remove the CCR, visible stains, and one (1) foot of underlying soils; a description of the backfill and final cover system; and the methods and procedures to be used to install the backfill and final cover to accomplish closure."

(B) "An estimate of the cost per acre for dewatering, excavation, stabilization, transportation, disposal of excavated CCR and non-CCR materials, including labor, materials, and testing necessary to accomplish the closure."

(C) "The closure cost estimate must include a ten percent (10%) contingency cost on the total estimated closure cost."

(3) Replace the language in 40 CFR 257.102(b)(2)(ii) with "New CCR landfills, new CCR surface impoundments, any lateral expansion of a CCR unit, and overfills. The owner or operator must prepare an initial written closure plan consistent with the requirements specified in paragraph (b)(1) of this section and submit it with the permit application."

(4) Replace the language in 40 CFR 257.102(c) with "Closure by removal of CCR (Clean Closure). An owner or operator may elect to close a CCR unit by removing and decontaminating all areas affected by releases from the CCR unit. CCR removal and decontamination of the CCR unit are complete when constituent concentrations throughout the CCR unit and any areas affected by releases from the CCR unit have been removed to concentrations at or below those determined for background unaffected by facility activities, and groundwater monitoring concentrations do not exceed the groundwater protection standard established in accordance with 40 CFR 257.95(h)* for constituents listed in 40 CFR 257, Appendix IV*. Closure under paragraph (d) of this section must comply with the following performance standards:

(A) Remove all CCR, visible stains, and one (1) foot of underlying soils in the CCR unit and dispose of the material at a permitted solid waste disposal facility. The facility must remove all the material before acquiring confirmational samples.

(B) Remove or permanently plug all pipe connections to CCR impoundments.

(C) Collect a minimum of three (3) confirmational samples per acre from the CCR unit.

(D) Collect background samples at areas unaffected by facility activities. Background samples must accurately represent in-situ soils that have not been affected by leakage from a CCR unit or facility activities that may contribute constituents of concern against which confirmational sample comparisons occur. Acquisition of background samples at similar depths below the ground surface as those attained for confirmational samples may assist in sample acquisition of similar soil lithologies for both sample types.

(E) Analyze 40 CFR 257, Appendix IV*, as amended in this article, constituents at all sample locations. All confirmational and background samples must be individually analyzed and not composited.

(F) Individually compare confirmational sampling results to background concentrations. If the facility utilizes statistically determined background concentrations, the statistical analyses must calculate upper tolerance limits at a ninety-five percent (95%) level of confidence using a statistical test method that meets the performance standards of 40 CFR 257.93(g)*. If confirmational sampling results exceed background concentrations, additional soil removal may be necessary until results are at or below background concentrations. Alternatively, the facility may attempt to supplement the background concentrations by performing additional background sampling and analysis and utilize those results in the statistical calculations.

(G) Provide an evaluation of sampling results; photographic evidence of removal of all CCR and

visually stained soils; and documentation of the chosen disposal method of CCR, soil, and any other contaminated media in a clean closure certification report. A qualified professional engineer must certify in the report that all CCR and any underlying stained soil have been removed and that an additional one (1) foot of underlying soil has been removed."

(5) Revise 40 CFR 257.102(d)(1)(i) to read, "Control, minimize, or eliminate, to the maximum extent feasible:

(A) post-closure infiltration of liquids into the waste; and

(B) releases of CCR, leachate, or contaminated run-off to the groundwater or surface water or to the atmosphere."

(6) Add the following to 40 CFR 257.102(d)(3):

(A) "If a CCR unit is closed using the partial excavation method, the owner or operator must:

(i) remove all CCR, visible stains, and one (1) foot of underlying soils;

(ii) provide visual certification with photographic documentation by a qualified professional engineer that all CCR and any underlying stained soil have been removed;

(iii) provide survey results certifying that an additional one (1) foot of underlying soil has been removed;

(iv) apply a minimum of eighteen (18) inches of soil cover with a permeability not greater than 1×10^{-5} cm/sec over all areas where CCR has been removed;

(v) prevent the probability of future impoundment of water, sediment, or slurry;

(vi) include measures that provide for slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period;

(vii) include erosion control measures; and

(viii) a vegetative layer must overlay the soil cover. This layer must consist of at least six (6) inches of earthen material capable of sustaining vegetation.

(B) The following applies to all final cover systems:

(i) The maximum projected erosion rate of the final cover must be not more than five (5) tons per acre per year.

(ii) The final cover must have a slope of not less than five percent (5%) and not greater than thirty-three percent (33%).

(iii) A final cover required by this rule must be constructed and tested according to all the applicable construction quality control and construction quality assurance (CQC/CQA) requirements in [329 IAC 10-15-7](#) and [329 IAC 10-17](#)."

(7) Add the following to 40 CFR 257.102(d)(3)(i):

"If the cover system is composed of geomembrane, the owner or operator must provide the following:

(A) One (1) foot of compacted structural layer meeting:

(i) a hydraulic conductivity of 1×10^{-6} centimeters per second composed of clay-type soil; or

(ii) other alternative material with equal or lesser permeability.

(B) A minimum thirty (30) millimeters (mil) geomembrane top liner must be installed directly in contact with the upper portion of the structural layer. If the geomembrane is composed of high density polyethylene (HDPE), then it must be at least sixty (60) mil thick. The commissioner may require an increase in the thickness of the geomembrane if it is determined that increased thickness is necessary to prevent failure under stresses caused by construction equipment and waste settlement during the post-closure care period.

(C) A drainage layer must be installed over the geomembrane liner. The drainage layer must consist of twelve (12) inches of material that has a hydraulic conductivity of 1×10^{-2} centimeters per second or more. If geosynthetic materials are used as a drainage layer, the effective transmissivity must be equivalent to twelve (12) inches of drainage layer with a hydraulic conductivity of 1×10^{-2} centimeters per second or more.

(D) A top protective soil layer must overlay the drainage layer. This layer must consist of at least eighteen (18) inches of earthen material. If geosynthetic materials are used as a drainage layer, at a minimum, thirty (30) inches of earthen material must be placed on top of the geosynthetic materials. The protective soil layer material must be designed to not clog the drainage layer.

(E) A vegetative layer must overlay the top protective layer. This layer must consist of at least six (6) inches of earthen material capable of sustaining vegetation. In any case, a total thickness of earthen material over the geomembrane top liner must not be less than thirty-six (36) inches."

(8) In 40 CFR 257.102(d)(3)(i)(A), replace "no greater than 1×10^{-5} cm/sec" with "no greater than 1×10^{-6} centimeter per second."

(9) In 40 CFR 257.102(d)(3)(i)(B), replace "18 inches" with "24 inches".

(10) Add to 40 CFR 257.102(f), "The owner or operator must meet the performance standards, submit a clean closure certification report described under 40 CFR 257.102(c)".

(11) Add to 40 CFR 257.102(f)(2)(i), "The owner or operator of the CCR must submit the demonstration

for extension of closure timeframes to the commissioner for approval."

(12) In 40 CFR 257.102(i), replace the heading "Deed Notations" with "Environmental Restrictive Covenant (ERC)".

(13) Add the following to 40 CFR 257.102(i):

"The ERC must be submitted using the form provided by the department in compliance with [IC 13-14-2-6](#) and this rule. The ERC must do the following:

(A) Prohibit the use of the land for residential purposes, including daily child care or educational facilities for children.

(B) Prohibit the use of the land for agricultural use, unless otherwise approved by the commissioner.

(C) Prohibit excavation of soils in the area of the final cover, unless otherwise approved by the commissioner.

(D) Prohibit construction, installation of groundwater monitoring wells, pipes, conduits, or septic systems, or any other excavation on the land without approval of the commissioner.

(E) Restrict the use and extraction of groundwater on the land for any purpose, including human or animal consumption, gardening, or agriculture, or without the approval of the commissioner for industrial processes.

(F) Prohibit activity on the land that may interfere with the groundwater monitoring or well network.

(G) Include a list of activities that may be performed on or at the land or require the maintenance of engineering control on the land designed to protect human health or the environment, such as the final cover system.

(H) State, by its term, the restrictions are intended to run with the land and are binding on successors.

(I) Grant the department access to the land.

(J) Be recorded with the county recorder's office in the county in which the CCR unit is located.

(K) Include written notice of presence of contamination and notice to a transferee of the land or an interest in the land of the existence of the deed notation or restrictive of covenant.

(L) Require notification to the department of the conveyance of the land within thirty (30) days.

(M) State the ERC shall not be amended, modified, or terminated without the department's prior written approval."

(14) In 40 CFR 257.102(i)(3), replace "notation on the deed" with "ERC on the deed".

(15) Add to 40 CFR 257.102(k)(2)(ii)(B), "The plan must be certified by a qualified professional engineer and approved by the commissioner."

(16) Add to 40 CFR 257.102(k)(2)(iii), "Any amendment to the retrofit plan must be certified by a qualified professional engineer and approved by the commissioner."

(17) Add to 40 CFR 257.102(k)(2)(iii)(C), "If an approved retrofit plan is revised after retrofit activities have commenced for a CCR unit, then the amended plan must be approved by the commissioner prior to implementing the revisions."

(18) Add to 40 CFR 257.102(k)(5), "The retrofit plan must be approved by the commissioner and placed in the facility's operating record."

(d) The sentence that reads "The progress report must be approved by the commissioner and be placed in the facility's operating record." is added to the following provisions:

(1) 40 CFR 257.103(c)(2)(iii)*.

(2) 40 CFR 257.103(f)(1)(xi)(C)*.

(3) 40 CFR 257.103(f)(2)(X)*.

(e) The following changes are made to 40 CFR 257.104*:

(1) Add to 40 CFR 257.104(a)(1), "This section also applies to an owner or operator of a CCR unit that includes overfills, retrofits, and impoundments closed using the partial excavation method."

(2) Add to 40 CFR 257.104(d)(1)(iii), "The demonstration must be approved by the commissioner prior to any disturbance of the cover system."

(3) Replace the language in 40 CFR 257.104(d)(2)(ii) with "New CCR landfills, new CCR surface impoundments, any lateral expansion of a CCR unit, and overfills. The owner or operator must prepare an initial written post-closure plan consistent with the requirements specified in paragraph (d)(1) of this section and submit it with the permit application."

(4) Add to 40 CFR 257.104(d)(2)(iii), "The post-closure plan approved by the commissioner must be placed in the facility's operating record."

(5) Add to 40 CFR 257.104(d)(3)(iii), "Any amendment to the written post-closure plan must be certified by a qualified professional engineer and submitted to the commissioner for approval."

(f) In addition to subsections (a) through (e), the following requirements apply to closure and post-closure of a CCR unit:

(1) The requirements of [329 IAC 10-22-2\(c\)\(2\)](#), [329 IAC 10-22-2\(c\)\(10\)](#), and [329 IAC 10-22-2\(c\)\(11\)](#).

(2) Dike maintenance of surface impoundments as required by [329 IAC 10-22-2\(c\)\(8\)](#).

(3) The closure plan must include an estimate of the cost per acre of providing final cover and vegetation. The cost estimate must reflect the cost necessary to close the CCR unit by the third party as required by the approved plan, but must not be less than the following:

(A) Thirty-nine thousand four hundred dollars (\$39,400) per acre to close CCR units that are constructed with only a soil liner.

(B) One hundred eight thousand dollars (\$108,000) per acre for CCR units that are constructed with a composite bottom liner system.

For an application for a new CCR unit or a major modification submitted on or after June 15, 2022, the owner, operator, or permittee must adjust the minimum closure costs provided in clauses (A) and (B) for inflation, as described in [329 IAC 10-39-2\(c\)\(2\)](#).

(4) The requirements of [329 IAC 10-22-3](#).

(5) The requirements of [329 IAC 10-23-3\(c\)\(4\)](#), with the following changes:

(A) The leachate table in [329 IAC 10-23-3\(c\)\(4\)\(B\)](#) is replaced with leachate generation rate estimates obtained from the Hydrologic Evaluation of Landfill Performance (HELP) model or other similar tools.

(B) The following are added to [329 IAC 10-23-3\(c\)\(4\)\(C\)](#):

(i) Groundwater monitoring well replacement, maintenance of the access roads to the groundwater monitoring wells, and leachate pump replacement, if applicable.

(ii) Maintenance of dikes to comply with [329 IAC 10-16-2](#), 40 CFR 257.73*, and 40 CFR 257.74,* as applicable.

(iii) The post-closure cost estimate must include a fifteen percent (15%) contingency cost based on the total post-closure cost for units with a leachate collection system.

(iv) The post-closure cost estimate must include a ten percent (10%) contingency cost based on the total post-closure cost for units without a leachate collection system.

(6) The requirements of [329 IAC 10-30-4\(b\)\(8\)](#).

(7) The requirements of [329 IAC 10-30-7](#).

(8) The requirements of [329 IAC 10-31-2\(a\)\(1\)](#) and [329 IAC 10-31-2\(a\)\(2\)](#) and [329 IAC 10-31-2\(a\)\(4\)](#) through [329 IAC 10-31-2\(a\)\(7\)](#) with the following additions:

(A) Maintenance and monitoring of the dike or dikes required under [329 IAC 10-16-2](#).

(B) Erosion and sediment control measures must be instituted to comply with [329 IAC 10-20-12](#) and this rule.

(9) The requirements of [329 IAC 10-31-3\(a\)](#) for CCR units, overfills, and retrofits with the addition of a requirement that the post-closure plan remains effective and enforceable during the post-closure period if the permit expires or is revoked.

(10) The requirements of [329 IAC 10-31-4](#) through [329 IAC 10-31-7](#).

*This document is incorporated by reference. Copies may be obtained from the Government Publishing Office, www.gpo.gov, or are available for review at the Indiana Department of Environmental Management, Office of Legal Counsel, Indiana Government Center North, 100 North Senate Avenue, Thirteenth Floor, Indianapolis, IN 46204.

(Solid Waste Management Division; [329 IAC 14-3-5](#))

[329 IAC 14-3-6](#) Record keeping, notification, and posting information

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 1. (a) The owner or operator of a CCR unit shall comply with the requirements for record keeping, notification, and posting of information to the Internet in accordance with 40 CFR 257.105 through 40 CFR 257.107*, as amended in subsection (b).

(b) The following are revisions to 40 CFR 257.105 through 40 CFR 257.107*:

(1) Change "annual" to "semiannual" in:

- (A) 40 CFR 257.105(h)(1); and
- (B) 40 CFR 257.107(h)(1).
- (2) In 40 CFR 257.105(i)(9), change "notation on the deed" to "Environmental Restrictive Covenant".
- (3) In 40 CFR 257.105(i)(12), add "post" before "closure".
- (4) In 40 CFR 257.105, all plans must be approved by the department.
- (5) Delete 40 CFR 257.106(b).
- (6) In 40 CFR 257.106(i)(9), replace "§257.105(i)(9)" with "[329 IAC 1-2](#)".

(Solid Waste Management Division; [329 IAC 14-3-6](#))

Rule 4. Financial Assurance

[329 IAC 14-4-1](#) Financial assurance for CCR units

Authority: [IC 13-14-8-7](#); [IC 13-15](#); [IC 13-19-3](#)

Affected: [IC 13-19](#); [IC 13-20](#); [IC 36-9-30-35](#)

Sec. 1. The owner or operator of a CCR unit shall comply with the financial assurance requirements of [329 IAC 10-39](#).

(Solid Waste Management Division; [329 IAC 14-4-1](#))

[Notice of Public Hearing](#)

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