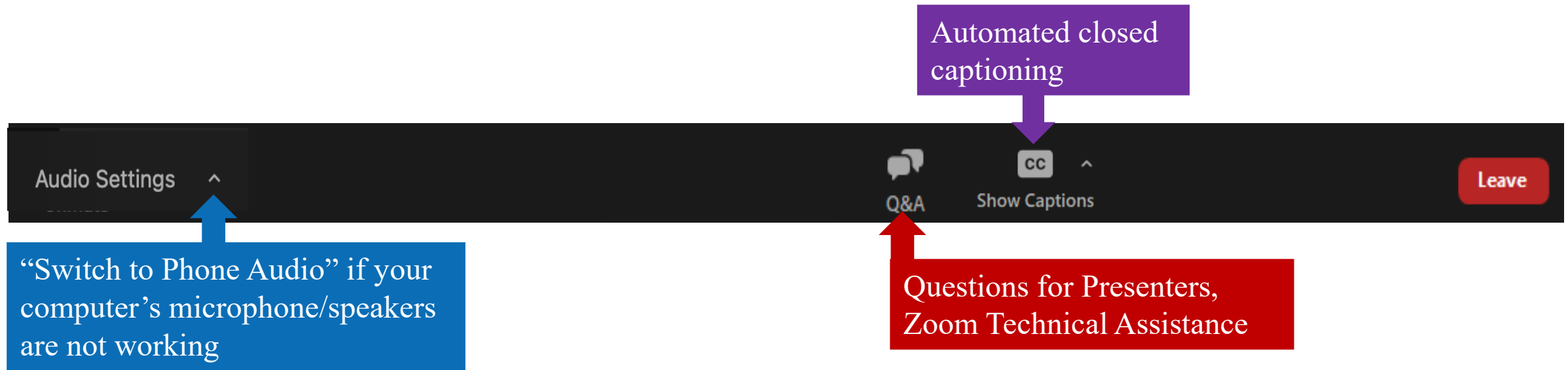


2024 Supplemental Steam Electric Effluent Limitations Guidelines and Standards Implementation Briefings



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Welcoming Remarks

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Overview of Today's Briefing

- Introduction
- Applicability
- Wastestreams
- Interim and legacy wastewater limitations
- 2024 generally applicable limitations
- Permanent cessation of coal combustion subcategories
- Other reporting and recordkeeping requirements

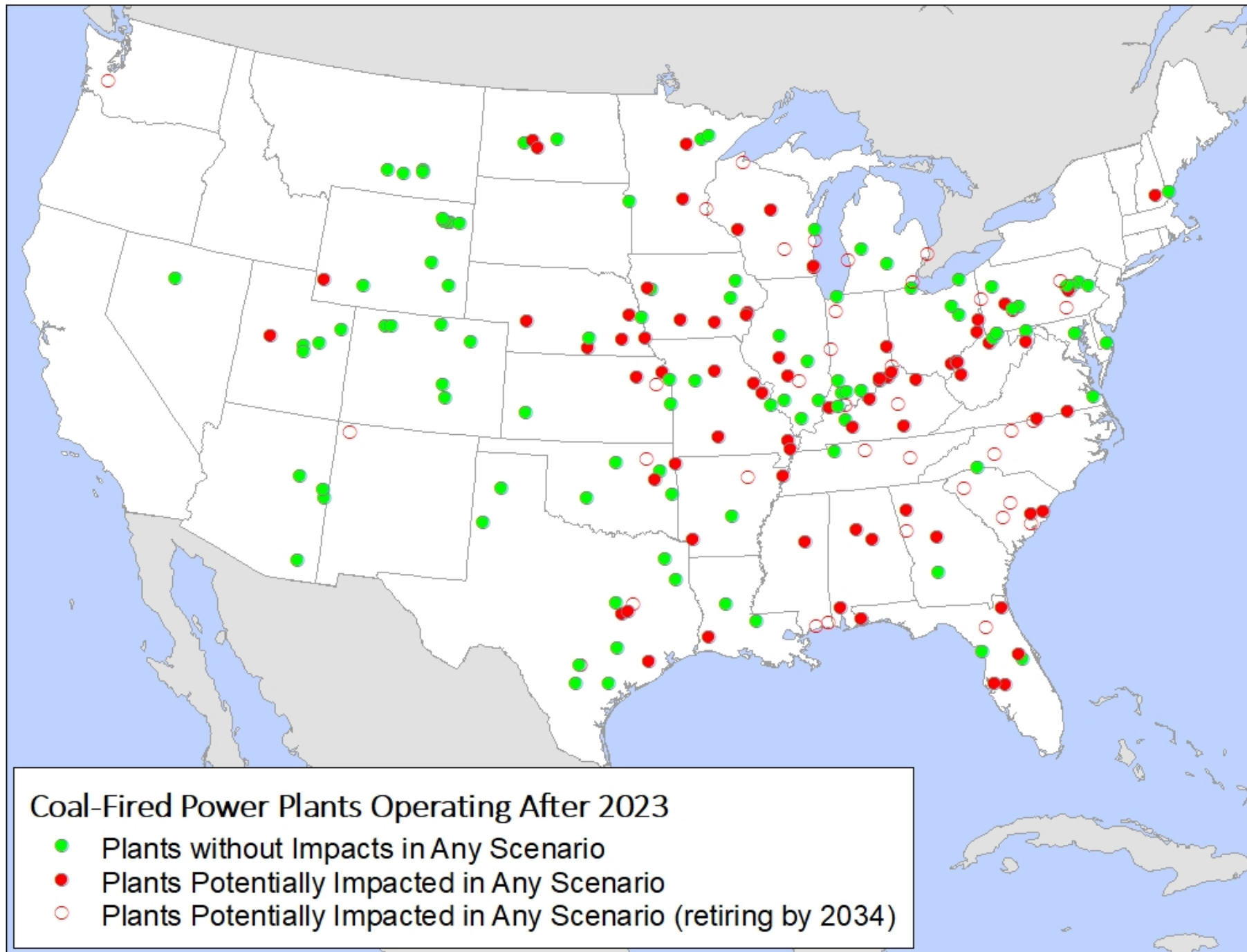
Introduction to the Effluent Limitations Guidelines and Standards (ELG) Program

- ELGs are national regulatory standards for wastewater discharged to surface waters and municipal sewage treatment plants.
- ELGs are based on performance of specific technologies, but the regulations do not require use of a specific control technology.
- EPA issues these regulations for industrial categories, based on the performance of treatment and control technologies.
- Part 423 regulates the steam electric point source category

Applicability

What facilities are covered under the applicability of the Steam Electric ELGs and how did the 2024 rule change the applicability of part 423?

The 2024 rule did not modify the applicability of part 423 and provisions of this part continue to apply to discharges **resulting from the operation of a generating unit by an establishment whose generation of electricity is the predominant source of revenue or principal reason for operation**, and whose generation of electricity results primarily from a process utilizing fossil-type fuel (coal, oil, or gas), fuel derived from fossil fuel (e.g., petroleum coke, synthesis gas), or nuclear fuel in conjunction with a thermal cycle employing the steam water system as the thermodynamic medium. This part applies to discharges associated with both the combustion turbine and steam turbine portions of a combined cycle generating unit.



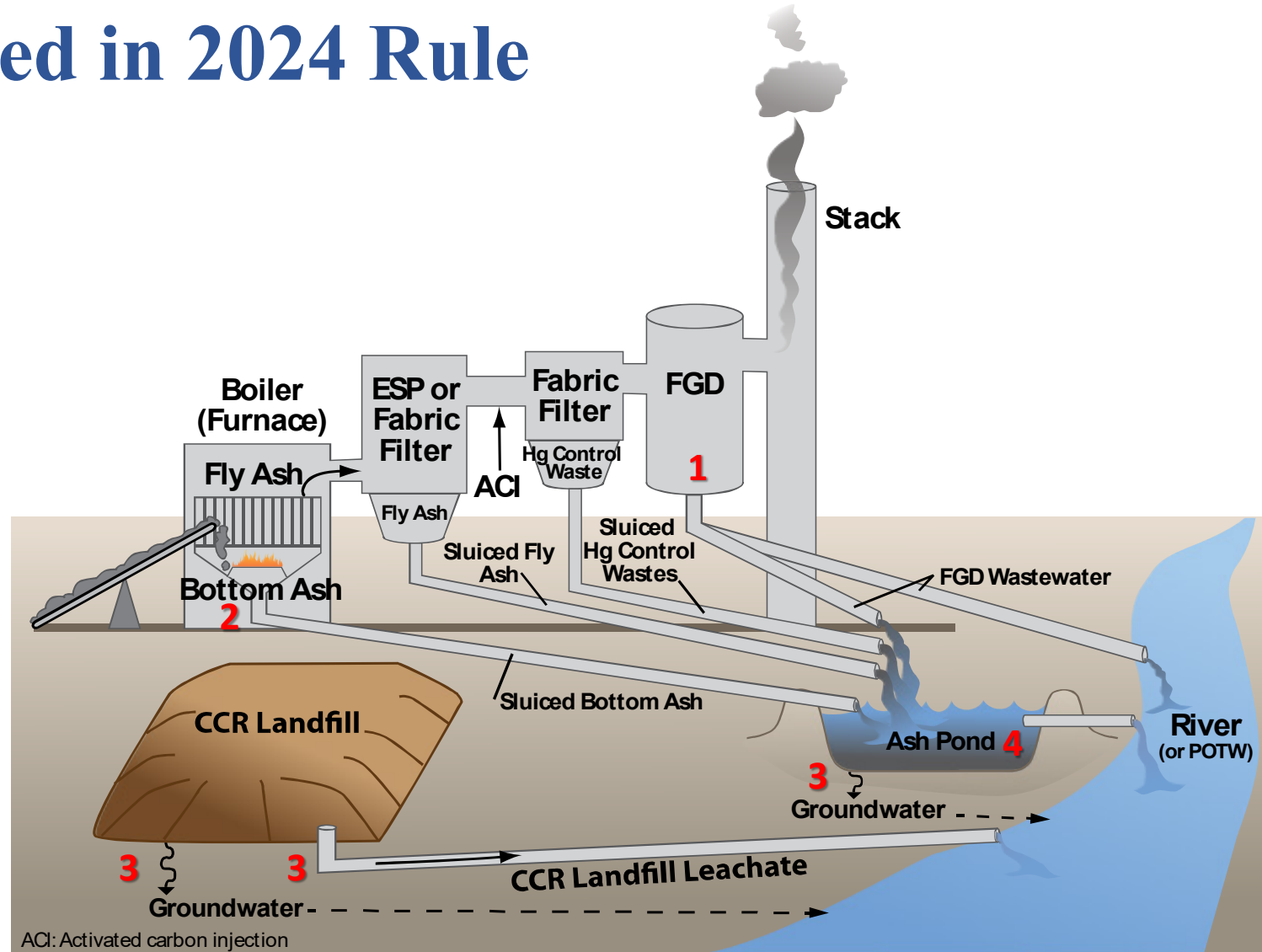
Do the 2024 Supplemental Steam Electric ELGs apply to facilities that retired all EGUs prior to 2015? Prior to 2024?

No. The 2024 ELGs only apply prospectively. Facilities which had retired all electric generating units (EGUs) prior to the effective date (July 8, 2024) are not subject to the new limitations and standards; however, the permitting authority would still develop case-by-case technology-based effluent limitations for any discharges subject to Clean Water Act permitting.

Wastestreams

Wastestreams Regulated in 2024 Rule

1. Flue Gas
Desulfurization (FGD)
Wastewater
2. Bottom Ash Transport
Water (BATW)
3. Combustion Residual
Leachate (CRL) from
ash/FGD ponds and
landfills
4. Legacy Wastewaters



What is the definition of FGD wastewater and how has it changed in the 2024 rule?

The definition of FGD wastewater is found at 40 CFR 423.11(n). The 2024 rule modified the existing definition to exclude water that is discharged within 120 days after permanent cessation of coal combustion when zero discharge equipment is decommissioned. The 2024 rule also modified the definition of FGD wastewater to exclude water generated by large, infrequent storm events when the discharges are accompanied by the appropriate documentation.

What is the definition of bottom ash transport wastewater and how has it changed in the 2024 rule?

The definition of bottom ash is found at 40 CFR 423.11(f) and remains unchanged by the 2024 rule.

The definition of transport water wastewater is found at 40 CFR 423.11(p). The 2024 rule modified the existing definition to exclude water that is discharged within 120 days after permanent cessation of coal combustion when zero discharge equipment is decommissioned. The 2024 rule also modified the definition of bottom ash transport water to exclude water generated by large, infrequent storm events when the discharges are accompanied by the appropriate documentation.

What is the definition of combustion residual leachate (CRL) and how has it changed in the 2024 rule?

The definition of CRL is found at 40 CFR 423.11(r). The 2024 rule modified the existing definition to exclude water generated by large, infrequent storm events when the discharges are accompanied by the appropriate documentation.

What is the definition of unmanaged CRL?

The term unmanaged combustion residual leachate means combustion residual leachate which either:

- (1) Is determined by the permitting authority to be the functional equivalent of a direct discharge to waters of the United States (WOTUS) through groundwater; or
- (2) Has leached from a waste management unit into the subsurface and mixed with groundwater prior to being captured and pumped to the surface for discharge directly to WOTUS.

What is the definition of legacy wastewater and how has it changed in the 2024 rule?

The definition of legacy wastewater was not changed by the 2024 rule. Legacy wastewater is not explicitly defined in 423.11 but consists of any coal combustion wastewaters covered in this rule (FGD wastewater, bottom ash transport water, and CRL) or the 2015 rule (fly ash transport water and flue gas mercury control wastewater) which are generated before the applicability dates of the new, more stringent limitations of the 2015, 2020, or 2024 rule.

Interim and Legacy Wastewater Limitations

Interim Limitations

- Consistent with the 2015 and 2020 rules, the more stringent limitations of the 2024 rule are not immediately applicable.
- The EPA has consistently explained since the announcement of this supplemental rulemaking that facilities and permitting authorities must continue to implement the 2020 rule limitations.
- To ensure that implementation of existing limitations continues the EPA explicitly retained the 2020 rule limitations as interim limitations when the Agency finalized the 2024 rule.
- Interim limitations include not only the 2020 rule's generally applicable limitations for FGD wastewater and bottom ash transport water, but also limitations associated with the 2020 rule subcategories.

Legacy Wastewater Limitations

- The EPA declined to establish generally applicable nationwide limitations for legacy wastewater in the final rule
 - Results in case-by-case determinations using the best professional judgment (BPJ) of the permitting authority
- The final rule establishes a subcategory for discharges of legacy wastewater from surface impoundments still in operation after the effective date (July 8, 2024)
 - Established mercury and arsenic limitations based on chemical precipitation
 - Applicability timing is immediately applicable when incorporated in a permit

What should I do if my permit has not yet been renewed with the 2020 limits?

In the case that a facility still does not have a permit incorporating the 2020 rule requirements for FGD wastewater and/or bottom ash transport water, a permitting authority must still include these limitations with the appropriate “as soon as possible” date. The permitting authority must include these limitations in addition to, and not in lieu of, any applicable requirements of the 2024 rule.

How do the case-by-case limitations for legacy wastewater account for ongoing dewatering of a surface impoundment closing under the coal combustion residual (CCR) disposal rule?

Permitting authorities can evaluate the precise stage of closure each CCR surface impoundment would be in at the time of its permit issuance or renewal and whether continuation with that stage of closure would be compatible with the operation of any specific technology through the best professional judgment (BPJ) process after gathering relevant information through the permit application or permit modification. This may require examination of the site-specific closure plan required under the CCR rule and any additional details regarding the ongoing closure process that are not contained in the closure plan itself.

2024 Generally Applicable Limitations

Generally Applicable Zero Discharge Limitations

- Eliminates two subcategories from the 2020 rule:
 - High flow subcategory (no facility participated in this subcategory)
 - Low utilization subcategory (two facilities participated in this subcategory)
- Established zero discharge limitations for FGD wastewater and CRL based on a suite of three technologies (membrane filtration, spray dry evaporators, and thermal systems)
- Established zero discharge limitations for BA transport water based on dry handling or closed loop systems
- Established a subcategory for unmanaged CRL with limitations for mercury and arsenic based on chemical precipitation
- Applicability timing:
 - For direct dischargers is “as soon as possible” after the effective date (July 8, 2024) but “no later than” December 31, 2029 as determined by the permitting authority after considering the factors in 423.11(t)
 - For indirect dischargers is May 9, 2027

Are the zero discharge requirements still applicable if my wastewater meets one of the definitional changes for decommissioning or large, infrequent storm events?

No. Due to these definitional exclusions, such discharges would not be subject to the zero-discharge requirements that otherwise apply to FGD wastewater, bottom ash transport water, and CRL under this final rule. Instead, these discharges would be considered a “low volume waste source” and the total suspended solids and oil and grease limitations of 423.12(b)(3) for such waste would apply, as well as any technology-based effluent limitations for the low volume waste source developed by a permitting authority using its BPJ.

How should a facility manage CRL under the zero discharge requirements during plant outages?

During a planned or unplanned outage, the facility should store CRL permeate or distillate for future reuse or treat CRL to the zero discharge standard. During an unplanned outage, if the facility cannot meet the zero discharge standard, the facility should coordinate with the permitting authority. The EPA also notes that the general permitting regulations contain flexibilities for upset and bypass. See 40 CFR 122.41(m) and (n).

What limitations are applicable for CRL after all EGUs have retired?

After retirement of all EGUs at a facility subject to zero discharge requirements for CRL, that facility may discharge membrane permeate or distillate of a thermal system as described in 423.13(1)(1)(i)(C) or 423.16(j)(1)(ii).

What should I do if I am not sure whether my facility has a functional equivalent direct discharge (FEDD) of unmanaged CRL?

The final rule makes no determination as to what constitutes a point source or what constitutes a FEDD. While FEDDs were already subject to Clean Water Act permitting prior to the 2024 rule, the recency of the Supreme Court decision in *Maui* means that there may be facilities not yet permitted for this type of discharge. To avoid potentially having an unpermitted discharge in violation of the Clean Water Act, where a facility believes that it may have a FEDD subject to Clean Water Act permitting, that facility could seek a formal determination from its permitting authority.

What limitations are applicable to pumped unmanaged CRL that may be reused on-site?

The limitations listed in Table 11 at 423.13(1)(2)(i)(A) apply to all discharges of unmanaged CRL. This includes unmanaged CRL that is pumped to the surface and ultimately discharged, whether or not it is reused or combined with other wastestreams before discharge. In the case where pumped unmanaged CRL is reused on-site, the most stringent limits in the combined wastestream apply. For example, if pumped unmanaged CRL is reused as FGD makeup water, the corresponding wastestream is subject to the zero discharge standards for FGD wastewater. If the pumped unmanaged CRL is combined with a wastewater that does not have BAT limitations, for example low volume waste, the limitations listed in Table 11 at 423.13(1)(2)(i)(A) still apply to the unmanaged CRL.

Permanent Cessation of Coal Combustion Subcategories

Subcategory for EGUs Permanently Ceasing Coal Combustion by December 31, 2028

- The final rule retains the subcategory for the permanent cessation of coal combustion by December 31, 2028
 - Only covers FGD wastewater and bottom ash transport water
 - 2023 direct final rule extended period to file initial notification
 - Retained total suspended solids limitations based on surface impoundments
 - Added additional reporting and recordkeeping requirements
 - Added tiered zero discharge limitations post-retirement

Subcategory for EGUs Permanently Ceasing Coal Combustion by December 31, 2034

- The final rule established a new subcategory for the permanent cessation of coal combustion by December 31, 2034
 - Must notify permitting authority of participation by December 31, 2025
 - Established FGD wastewater and bottom ash transport water limitations equivalent to the 2020 rule limitations
 - After permanent cessation of coal combustion, establishes mercury and arsenic limitations for CRL
 - Added reporting and recordkeeping requirements similar to those required in the similar 2020 rule subcategory for permanent cessation of coal combustion
 - Added tiered zero discharge limitations post-retirement

Does the 2034 permanent cessation of coal combustion (PCCC) subcategory apply to facilities that repowered? What if they repowered prior to the 2024 rule effective date?

Yes. Steam electric facilities with EGUs which have switched to non-coal fuels prior to December 31, 2034 may seek subcategorization where an owner submits a certification pursuant to 423.19(h) and where such unit has permanently ceases coal combustion by December 31, 2034. If this fuel conversion occurred prior to the effective date (July 8, 2024), the facility would no longer be generating FGD wastewater or bottom ash transport water but may still seek subcategorization for its CRL.

For the 2028 PCCC subcategory, do the CRL limitations for the 2034 subcategory apply? Do facilities with EGUs in the 2028 PCCC subcategory need to make any further notification to utilize the 2034 PCCC subcategory for CRL?

The notification of planned participation (NOPP) filed for FGD wastewater and/or bottom ash transport water to utilize the 2028 PCCC subcategory does not automatically subject the facility's CRL to the 2034 PCCC subcategory and corresponding requirements. Instead, a facility must file a new NOPP declaring the intent to utilize the 2034 PCCC subcategory for its CRL.

Other Reporting and Recordkeeping Requirements

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- Permit conditions in 423.18 were modified
 - To explicitly include energy emergency alerts
 - To allow a one-year flexibility to discharge permeate or distillate from a zero discharge system when the system is first commissioned
- The final rule requires all reporting and recordkeeping requirements of part 423 to be posted to a publicly available website
 - Some facilities have notified the EPA of their election to use joint websites that include both CCR and ELG documentation
 - Documentation submitted pursuant to the 2020 rule prior to the effective date has already been posted to these websites
 - The EPA is visiting and compiling the list of websites and intends to update the Steam Electric webpage as the Agency completes this work

Additional Information

- The Steam Electric Power Generating Effluent Guidelines - 2024 Final Rule was published on May 9, 2024 and is effective as of July 8, 2024. See the EPA's website for more information: <https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2024-final-rule>.
- The EPA is planning to publish a list of FAQs on the 2024 Rule website with answers to questions previously received and those discussed during the webinar today.
- For additional technical information about the rule, please contact Richard Benware (benware.richard@epa.gov) or 202-566-1369.
- For economic information, please contact James Covington (covington.james@epa.gov) or 202-566-1034.

Q&A

- If you have a question, please type it into the Q&A box located in your control panel. You can submit questions anonymously or non-anonymously.
- If you are called in by phone only, click *9 on your phone to raise your hand. The moderator will call on you by area code to ask your question out loud.