



Online Public Hearing

EPA Office Of Water
Office of Science and Technology
Washington, DC

Hearing #1:
April 20, 2023 at 10:00 AM (EDT)

Hearing #2:
April 25, 2023 at 1:00 PM (EDT)

Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Category



Agenda

Proposed Supplemental Effluent
Limitations Guidelines and Standards
for the Steam Electric Power
Generating Category

- Opening Remarks
- Overview of Proposed Rule
- Public Comments



Opening Remarks

Proposed Supplemental Effluent
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Robert Wood

Director, Engineering and Analysis Division



Overview of Proposed Rule

Proposed Supplemental Effluent
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Richard Benware

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Overview of Proposed Rule

Outline

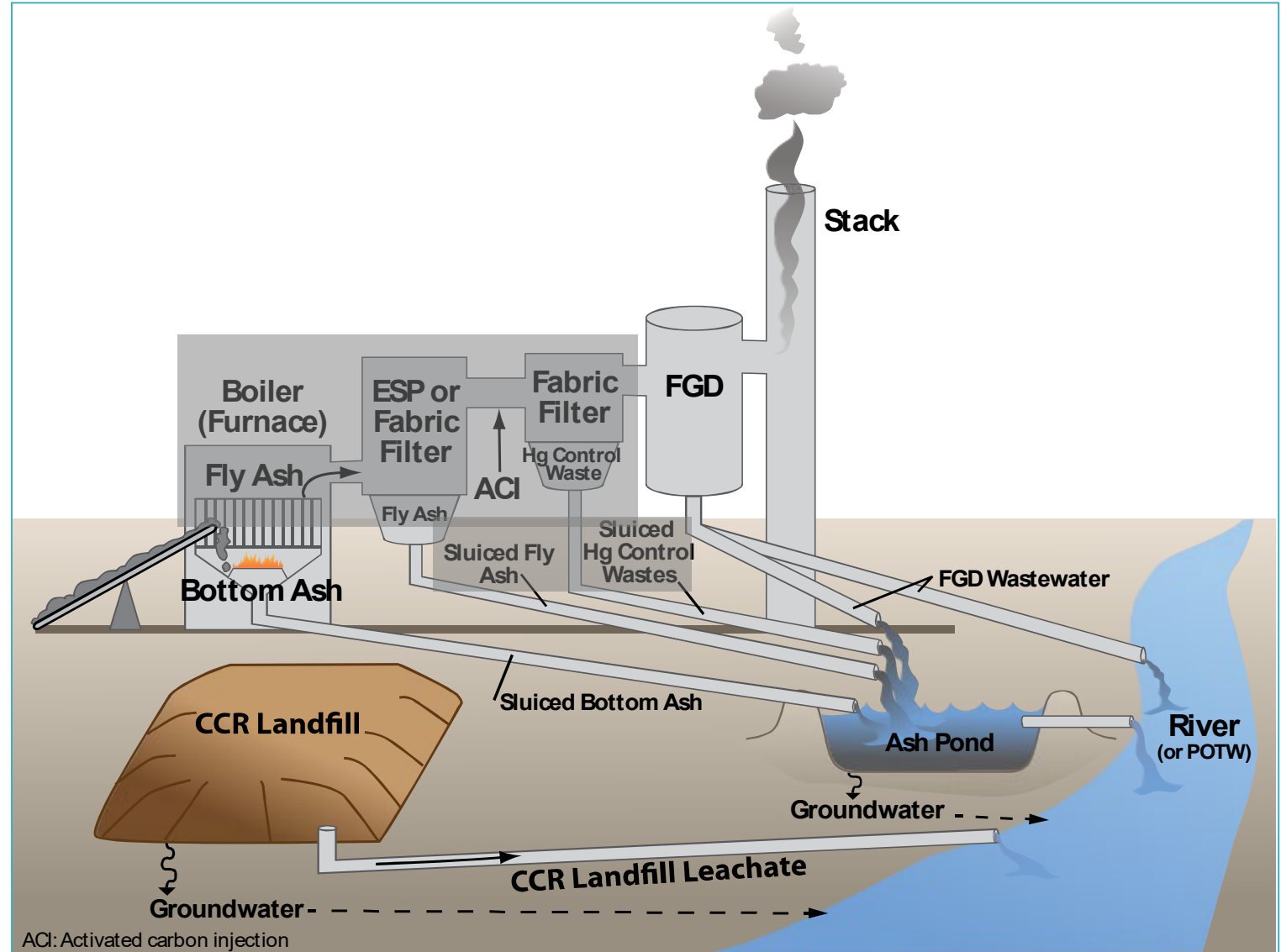
- Background
- Bottom Ash (BA) Transport Water
- Flue Gas Desulfurization (FGD) Wastewater
- Combustion Residual Leachate (CRL)
- Legacy Wastewater
- Subcategorization
- Timing

Characteristic	Proposed Rule	2015+2020 Rule (Baseline)
FGD Technology Basis	CP + Membrane Filtration (2024-2029)	CP + LRTR (2020-2025)
BA Technology Basis	Dry Handling/Closed Loop (2024-2029)	High Recycle Rate/10% Purge (2020-2025)
CRL Technology Basis	CP (2024-2029)	Vacated; Default to Case-by-Case (Currently Applicable)
Legacy Technology Basis	Retain Case-by-Case (Effective date of rule)	Vacated; Default to Case-by-Case (Currently Applicable)
Low Utilization/High Flow Subcategories	No	Yes
Permanent Cessation of Coal Combustion Subcategory	Yes (Cease coal combustion by 2028)	Yes (Cease coal combustion by 2028)
Early Adopter Subcategory	Yes (Cease coal combustion by 2032)	No (N/A)
Incremental Pollutant Removals vs Baseline	584 million lbs/yr removed	N/A
Incremental Social Costs vs Baseline (\$/yr)	\$200 million	N/A
Incremental Capacity vs Baseline (nameplate capacity retired) ²	0.3 GW Retired	N/A
Incremental Electricity Price vs Baseline	0.006¢/kWh	N/A

Summary of 2015 and 2020 Final Rules

Wastestreams Covered

1. Bottom ash transport water
2. Fly ash transport water
3. Mercury (Hg) control waste
4. Flue gas desulfurization wastewater
5. Combustion residual leachate from ash/FGD landfills and ponds (surface impoundments)
6. Legacy wastewater
7. Gasification process discharges (Not pictured)



BA Transport Water

- 2020 Rule: High Recycle Rate Systems
 - Includes a site-specific purge allowance capped at 10% of system volume for direct dischargers as soon as possible beginning October 2021, but no later than December 31, 2025
 - Does not establish a nationwide PSES/BAT for the BA purge water (i.e., BPJ applies)
- Proposed Rule: Dry Handling/Closed Loop Systems
 - Would establish zero discharge of pollutants in BA transport water for direct dischargers, to be met as soon as possible beginning in 2024, but no later than December 31, 2029
 - Retains 2015 rule exception for discharge related to minor maintenance and leaks and solicits comment on modifications to these
 - Removes an additional 25.9 million lbs/yr of pollutants

FGD Wastewater

- 2020 Rule: Chemical Precipitation (CP) + Low Residence Time Reduction (LRTR) Biological Treatment
 - Included limits for mercury (Hg), arsenic (As), selenium (Se), and nitrate/nitrite (N) for direct dischargers as soon as possible beginning October 2021, but no later than December 31, 2025
 - Alternatively, facilities can comply with the voluntary incentives program (VIP) limits for Hg, As, Se, N, bromide (Br-), and total dissolved solids (TDS) based on a combination of chemical precipitation and membrane filtration no later than December 31, 2028
- Proposed Rule: CP + Membrane Filtration
 - Would establish zero discharge of pollutants in FGD wastewater for direct dischargers, to be met as soon as possible beginning in 2024, but no later than December 31, 2029
 - Retains the 2020 rule (VIP)
 - Removes an additional 557 million lbs/yr of pollutants

CRL

- 2015 Rule: Vacated

- In the absence of a nationwide standard, permitting authorities must establish technology-based effluent limitations on a case-by-case basis
- CRL includes leachate that first travels through groundwater before reaching surface water when it is the functional equivalent of a direct discharge

- Proposed Rule: CP

- Would establish limits for mercury (Hg) and arsenic (As) for direct dischargers to be met as soon as possible beginning in 2024, but no later than December 31, 2029
- Removes an additional 496,000 lbs/yr of pollutants
- Solicits comment on more stringent treatment options (including zero discharge)
- Solicits comment on alternative treatment standards for CRL discharged through groundwater

Legacy Wastewater

- 2015 Rule: Vacated
 - In the absence of a nationwide standard, permitting authorities must establish technology-based effluent limitations on a case-by-case basis
- Proposed Rule: No Nationwide Categorical Standard
 - Retains the existing case-by-case standard
 - Solicits comment on definitions of two specific types of legacy wastewater that may be amenable to nationwide treatment
 - Solicits comment on potential treatment options (including zero discharge) for these two legacy wastewaters
 - Upcoming coal combustion residuals proposal for legacy surface impoundments may increase the volumes of these wastewaters that are discharged

Proposed Subcategorization

1. Would remove two subcategories for facilities with high FGD flow rates and electric generating units with low utilization
2. Would retain subcategory for electric generating units that permanently cease coal combustion no later than December 31, 2028
3. Would establish a new subcategory for early adopters of biological treatment (and high recycle rate systems) that permanently cease coal combustion no later than December 31, 2032

Compliance Dates

- PSES compliance date three years from final rule (TBD 2027)
- For direct dischargers, this proposal retains the flexibility of 2015 and 2020 final rules by allowing permitting authorities to consider site-specific factors (including compliance with other environmental regulations) in establishing compliance dates between the effective date and the following “no later than” dates:
 - BA Transport Water (Zero Discharge) = December 31, 2029
 - FGD Wastewater (Zero Discharge) = December 31, 2029
 - CRL (Mercury and Arsenic) = December 31, 2029
 - Permanent Cessation of Coal Combustion Subcategory (Cease Coal Combustion) = December 31, 2028
 - Early Adopter Subcategory (Cease Coal Combustion) = December 31, 2032

Reporting and Recordkeeping

- Would require posting of reporting and recordkeeping requirements to publicly available websites to increase transparency for affected communities and other stakeholders
- Would require additional submissions for subcategories tied to the permanent cessation of coal combustion
- Would require additional monitoring submissions for CRL that is discharged through groundwater

Public Comments

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This concludes EPA's online public hearing for the Proposed Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Category

- If you wish to submit charts, photos, graphics other visual materials, or additional public comment, please upload them to [regulations.gov](https://www.regulations.gov).
- Docket No. EPA-HQ-OW-2009-0819
- Please take the short survey that will appear as you close out of the webinar to provide EPA with feedback about this public hearing.