



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 423

[EPA–HQ–OW–2009–0819; FRL– 8794.3-01-OW]

RIN 2040-AG48

### Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category – Deadline Extensions

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The U.S. Environmental Protection Agency (the EPA or Agency) is proposing a Clean Water Act (CWA) rule to extend deadlines, promulgated in the 2024 “Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category” (2024 rule), update the transfer provisions to allow facilities to switch between compliance alternatives, and create authority for an alternative applicability dates and paperwork submission dates, based on site-specific factors. The EPA is also seeking comment on several issues relevant to a separate, future rulemaking on the underlying standards.

**DATES:** Comments must be received on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, identified by Docket ID No. EPA–HQ–OW–2009–0819, by any of the following methods:

Federal eRulemaking Portal: <https://www.regulations.gov/> (our preferred method). Follow the online instructions for submitting comments.

Mail: U.S. Environmental Protection Agency, EPA Docket Center, Office of Water, Office of Science and Technology, Docket, Mail Code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

Hand Delivery or Courier: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. The Docket Center's hours of operations are 8:30 a.m. to 4:30 p.m., Monday through Friday (except Federal Holidays).

*Instructions:* All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to <https://www.regulations.gov>, including personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the "Public Participation" heading of the **SUPPLEMENTARY INFORMATION** section of this document.

*Public hearing:* If requested, the EPA may conduct an online public hearing on this proposed rule on October 14, 2025. After a brief presentation by EPA personnel, the Agency will accept oral comments that will be limited to three (3) minutes per commenter. The hearing will be recorded and transcribed, and the EPA will consider all the oral comments provided, along with the written public comments submitted via the docket for this rulemaking.

**FOR FURTHER INFORMATION CONTACT:** Richard Benware, Engineering and Analysis Division Office of Water (Mail Code 4303T), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW; Washington, DC 20460; telephone number: 202-566-1369; email address: [benware.richard@epa.gov](mailto:benware.richard@epa.gov). Information about the Steam Electric Effluent Limitations Guidelines and Standards (ELGs) is available online at: <https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines>.

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## **I. Executive Summary**

The EPA is proposing regulations that apply to wastewater discharges from steam electric power plants, particularly coal-fired power plants. In 2024, the EPA finalized a CWA regulation that revised the technology-based effluent limitations guidelines and standards (ELGs) for the steam electric power generating point source category applicable to flue gas desulfurization (FGD), bottom ash (BA) transport water, and legacy wastewater at existing sources, and combustion residual leachate (CRL) at new and existing sources. 89 FR 40198 (May 9, 2024).

In the last year, the EPA has observed extraordinary increases in energy demand across the U.S., decreases in energy reserves, difficulties in transmission across the electricity grid, and decreased energy reliability. This proposal, if finalized, would revise the compliance deadlines for existing sources subject to the 2024 rule, as seen in the following table, at a time of growing

energy crisis. These compliance deadline extensions would give utilities flexibilities needed to provide affordable and reliable power.

Table 1 – Summary of Proposed Deadline Extensions

Rule	Wastestream/Submission	Current Deadline	Proposed Deadline	Extendable by 40 CFR 423.18?
2020 Rule	BA Transport Water (Generally Applicable BAT)	December 31, 2025	December 31, 2025	Yes
	FGD Wastewater (Generally Applicable BAT)	December 31, 2025	December 31, 2025	
	FGD Wastewater (VIP limitations)	December 31, 2028	December 31, 2028	
2024 Rule	NOPP for the Permanent Cessation of Coal Combustion by 2034 Subcategory	December 31, 2025	December 31, 2031	X
	BA Transport Water (Generally Applicable PSES)	May 9, 2027	Promulgation Date Plus Three Years and One Day -or- Site-Specific Date for BAT	X
	FGD Wastewater (Generally Applicable PSES)			
	CRL (Generally Applicable PSES)			
	BA Transport Water (Generally Applicable BAT)	No later than December 31, 2029	No later than December 31, 2034	Yes
	FGD Wastewater (Generally Applicable BAT)			
	CRL (Generally Applicable BAT)			

The revised deadlines would also extend the date for existing steam electric power plants that would seek to achieve permanent cessation of coal combustion by December 31, 2034, to submit a notice of planned participation (NOPP), allowing utilities additional time to assess evolving power demand needed to inform operational planning and decision making. In addition to specific extensions to regulatory deadlines, this proposal would also update the existing transfer provisions at 40 CFR 423.13(o) to allow facilities to switch between compliance alternatives and would create authority in 40 CFR 423.18 for alternative applicability dates and paperwork submission dates, based on site-specific factors. This proposed rule would further establish tiered pretreatment standards for existing sources (PSES). In so doing, it would create a compliance pathway for indirect dischargers that plan to become direct dischargers and, furthermore, would change the compliance deadlines to provide consistency between the compliance deadlines proposed for direct dischargers meeting best available technology economically achievable (BAT) limitations. This proposal would not change the underlying

technology bases for the effluent limitations based on BAT. However, this proposal solicits comment on new pilot plant studies and other data on technological availability; new engineering analysis, bids, and actual costs data; and reliability changes in the previous integrated resource planning cycle. The EPA intends to reconsider the 2024 BAT requirements in a subsequent notice of proposed rulemaking.

## II. Does this action apply to me?

Entities potentially regulated by this action include:

Category	Example of regulated entity	North American Industry Classification System (NAICS) Code
Industry	Electric Power Generation Facilities – Electric Power Generation	22111
	Electric Power Generation Facilities – Fossil Fuel Electric Power Generation	221112

This table is not intended to be exhaustive but rather provides a guide for readers regarding entities likely to be regulated by this action. This table includes the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not included could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria found in 40 CFR 423.10 (Applicability). If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

## III. What is the Agency’s authority for taking this action?

The authority for this rule is the Federal Water Pollution Control Act, 33 U.S.C. 1251 *et seq.*, including CWA sections 301, 304(b), 304(g), 307, and 501(a); 33 U.S.C. 1311, 1314(b), 1314(g), 1317, and 1361(a).

Unless otherwise provided by law, agencies may reconsider past decisions and revise, replace or repeal a decision so long as the agency provides a reasoned explanation and considers significant reliance interests. *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009); *Motor Vehicle Mfrs. Ass’n v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 42 (1983); *see also*

*Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1038 & 1043 (D.C. Cir. 2012) (a revised rulemaking based “on a reevaluation of which policy would be better in light of the facts” is “well within an agency’s discretion,” and “[a] change in administration brought about by the people casting their votes is a perfectly reasonable basis for an executive agency’s reappraisal” of its policy choices) (citations omitted).

#### **IV. Background**

##### *A. Clean Water Act*

Congress passed the Federal Water Pollution Control Act Amendments of 1972, also known as the Clean Water Act (CWA), to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. 1251(a). The CWA establishes a comprehensive program for protecting our nation’s waters. Among its core provisions, the CWA prohibits the direct discharge of pollutants from a point source to waters of the United States (WOTUS), except as authorized under the CWA. Under CWA section 402, discharges may be authorized through a National Pollutant Discharge Elimination System (NPDES) permit. 33 U.S.C. 1342. The CWA also authorizes the EPA to establish nationally applicable, technology-based ELGs for discharges from different categories of point sources, such as industrial, commercial, and public sources. 33 U.S.C. 1311, 1314.

Furthermore, the CWA authorizes the EPA to promulgate nationally applicable pretreatment standards that restrict pollutant discharges from facilities that discharge wastewater to WOTUS indirectly through sewers flowing to publicly owned treatment works (POTWs), as outlined in CWA sections 307(b) and (c). 33 U.S.C. 1317(b)-(c). The EPA establishes national pretreatment standards for those pollutants in wastewater from indirect dischargers that may pass through, interfere with, or are otherwise incompatible with POTW operations. Pretreatment standards are designed to ensure that wastewaters from direct and indirect industrial dischargers are subject to similar levels of treatment. *See* CWA section 301(b), 33 U.S.C. 1311(b). In addition, the EPA has by regulation required POTWs to implement local treatment limits

applicable to their industrial indirect dischargers to satisfy any local requirements. *See* 40 CFR 403.5.

Direct dischargers (*i.e.*, those discharging directly to WOTUS rather than through POTWs) must comply with effluent limitations in NPDES permits. Indirect dischargers that discharge through POTWs must comply with pretreatment standards. Technology-based effluent limitations (TBELs) in NPDES permits are derived from effluent limitations guidelines (CWA sections 301 and 304, 33 U.S.C. 1311 and 1314) and new source performance standards (CWA section 306, 33 U.S.C. 1316) promulgated by the EPA, or based on best professional judgment (BPJ) where the EPA has not promulgated an applicable effluent guideline or new source performance standard. CWA section 402(a)(1)(B), 33 U.S.C. 1342(a)(1)(B); 40 CFR 125.3(c). Additional limitations based on water quality standards are also included in the permit in certain circumstances. CWA section 301(b)(1)(C), 33 U.S.C. 1311(b)(1)(C); 40 CFR 122.44(d).

The EPA establishes ELGs by regulation for categories of point source dischargers that are based on the degree of control that can be achieved using various levels of pollution control technology. The EPA promulgates national ELGs for major industrial categories for three classes of pollutants: (1) conventional pollutants (*i.e.*, total suspended solids or TSS, oil and grease, biochemical oxygen demand or BOD<sub>5</sub>, fecal coliform, and pH), as outlined in CWA section 304(a)(4) and 40 CFR 401.16; (2) toxic pollutants (*e.g.*, toxic metals such as arsenic, mercury, selenium, and chromium; toxic organic pollutants such as benzene, benzo-a-pyrene, phenol, and naphthalene), as outlined in CWA section 307(a), 40 CFR 401.15 and 40 CFR part 423 appendix A; and (3) nonconventional pollutants, which are those pollutants that are not categorized as conventional or toxic (*e.g.*, ammonia-N, phosphorus, and total dissolved solids or TDS).

### *B. Relevant Effluent Guidelines*

The EPA develops effluent guidelines that are technology-based regulations for a category of dischargers. The EPA bases these regulations on the performance of control and treatment technologies. *See, e.g., Sw. Elec. Power Co. v. EPA*, 920 F.3d 999, 1005 (5th Cir.

2019) (“[T]he Administrator must require industry, regardless of a discharge’s effect on water quality, to employ defined levels of technology to meet effluent limitations.”) (citations and internal quotations omitted).

There are several TBELs that may apply to a given discharger under the CWA: four types of standards applicable to direct dischargers, two types of standards applicable to indirect dischargers, and a default site-specific approach. The TBELs relevant to this rulemaking are described in detail below.

#### 1. Best Practicable Control Technology Currently Available

Traditionally, the EPA defines best practicable control technology (BPT) effluent limitations based on the average of the best performances of facilities within the industry, grouped to reflect various ages, sizes, processes, or other common characteristics. The EPA may promulgate BPT effluent limitations for conventional, toxic, and nonconventional pollutants. In specifying BPT, the EPA looks at a number of factors. The EPA first considers the cost of achieving effluent reductions in relation to the effluent reduction benefits. The Agency also considers the age of equipment and facilities, the processes employed, engineering aspects of the control technologies, any required process changes, non-water quality environmental impacts (NWQEI, including energy requirements), and such other factors as the Administrator deems appropriate. *See* CWA section 304(b)(1)(B), 33 U.S.C. 1314(b)(1)(B). If, however, existing performance is uniformly inadequate, the EPA may establish limitations based on higher levels of control than what is currently in place in an industrial category, when based on an Agency determination that the technology is available in another category or subcategory and can be practicably applied.

#### 2. Best Available Technology Economically Achievable

BAT represents the second level of stringency for controlling direct discharge of toxic and nonconventional pollutants, after BPT. Courts have referred to this as the CWA’s “gold standard” for controlling discharges from existing sources. *See, e.g., Sw. Elec. Power Co.*, 920

F.3d at 1003. In general, BAT represents the best available, economically achievable performance of facilities in the industrial subcategory or category. Consistent with the statutory language, the EPA considers technological availability and economic achievability in determining what level of control represents BAT. CWA section 301(b)(2)(A), 33 U.S.C. 1311(b)(2)(A). Other statutory factors that the EPA considers in assessing BAT are the cost of achieving BAT effluent reductions, the age of equipment and facilities involved, the process employed, potential process changes, NWQEI (including energy requirements), and such other factors as the Administrator deems appropriate. CWA section 304(b)(2)(B), 33 U.S.C. 1314(b)(2)(B). The Agency retains considerable discretion in assigning the weight to be accorded each factor. *Weyerhaeuser Co. v. Costle*, 590 F.2d 1011, 1045 (D.C. Cir. 1978). This is especially true for EPA's consideration of NWQEI. *BP Expl. & Oil, Inc. v. EPA*, 66 F.3d 784, 801-02 (6th Cir. 1995). Historically, the EPA has generally determined economic achievability on the basis of the effect of the cost of compliance with BAT limitations on overall industry and subcategory financial conditions. BAT reflects the highest performance in the industry and may reflect a higher level of performance than is currently being achieved in the industry. *See, e.g., Sw. Elec. Power Co.*, 920 F.3d at 1006; *Am. Paper Inst. v. Train*, 543 F.2d 328, 353 (D.C. Cir. 1976); *Am. Frozen Food Inst. v. Train*, 539 F.2d 107, 132 (D.C. Cir. 1976). Under this approach, BAT may be based upon process changes or internal controls, even when these technologies are not common industry practice. *See Am. Frozen Food*, 539 F.2d at 132, 140; *Reynolds Metals Co. v. EPA*, 760 F.2d 549, 562 (4th Cir. 1985); *Cal. & Hawaiian Sugar Co. v. EPA*, 553 F.2d 280, 285-88 (2nd Cir. 1977). Courts have previously endorsed this approach. *Kennecott v. EPA*, 780 F.2d 445, 448 (4th Cir. 1985); *see also Sw. Elec. Power Co.*, 920 F.3d at 1031.

### 3. Pretreatment Standards for Existing Sources

Section 307(b), 33 U.S.C. 1317(b), of the CWA calls for the EPA to issue pretreatment standards for discharges of pollutants to POTWs (*i.e.*, indirect discharges). PSES are designed to prevent the discharge of pollutants that pass through, interfere with, or are otherwise

incompatible with the operation of POTWs. Categorical pretreatment standards are technology-based and are analogous to BAT effluent limitations guidelines, and thus the Agency typically considers the same factors in promulgating PSES as it considers in promulgating BAT. *See, e.g., Reynolds Metals Co.*, 760 F.2d at 553; *Chem. Mfrs. Ass'n v. EPA*, 870 F.2d 177, 244 (5th Cir. 1989). The General Pretreatment Regulations, which set forth the framework for the implementation of categorical pretreatment standards, are found at 40 CFR part 403. These regulations establish pretreatment standards that apply to all non-domestic dischargers. *See* 52 FR 1586 (January 14, 1987).

#### 4. Best Professional Judgment

CWA section 301 and the EPA's implementing regulation at 40 CFR 125.3(a) indicate that technology-based treatment requirements under section 301(b) represent the minimum level of control that must be included in an NPDES permit. *See* 33 U.S.C. 1311. Where EPA-promulgated effluent guidelines are not applicable to a non-POTW discharge, or where such EPA-promulgated guidelines have been vacated by a court, the EPA has provided by regulation that such treatment requirements are established on a case-by-case basis using the permit writer's BPJ. Under the EPA's regulations, case-by-case TBELs are developed by permit writers on the theory that CWA section 402(a)(1) authorizes the EPA Administrator to issue a permit that will meet either: all applicable requirements developed under the authority of other sections of the CWA (*e.g.*, technology-based treatment standards, water quality standards, ocean discharge criteria) or, before taking the necessary implementing actions related to those requirements, "such conditions as the Administrator determines are necessary to carry out the provisions of this Act." 33 U.S.C. 1342(a)(1). The regulation at 40 CFR 125.3(c)(2) cites this section of the CWA, stating that technology-based treatment requirements may be imposed in a permit "on a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable." Furthermore, 40 CFR 125.3(c)(3) states that "[w]here promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to

certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis in order to carry out the provisions of the Act.” The factors considered by the permit writer are the same as those that the EPA considers when establishing effluent guidelines. *See* 40 CFR 125.3(d)(1) through (3).

### *C. 2015 Steam Electric Rule*

#### 1. Summary of the 2015 Rule

On November 3, 2015, the EPA promulgated a rule revising the regulations for the steam electric power generating point source category at 40 CFR part 423. 80 FR 67838 (2015 rule). The 2015 rule set the first Federal limitations on the levels of toxic pollutants (*e.g.*, arsenic) and nutrients (*e.g.*, nitrogen) that can be discharged in the steam electric power generating industry’s largest sources of wastewater, based on technology improvements in the industry over the preceding three decades. Before the 2015 rule, regulations for the industry were last updated in 1982 and, for the industry’s wastestreams with the largest pollutant loadings, contained only limitations on TSS and oil and grease.

The 2015 rule addressed effluent limitations and standards for multiple wastestreams generated by new and existing steam electric facilities: BA transport water, CRL, FGD wastewater, flue gas mercury control wastewater, fly ash transport water, gasification wastewater, and legacy wastewater. The 2015 rule required most steam electric facilities to comply with the effluent limitations “as soon as possible” after November 1, 2018, but no later than December 31, 2023. Permitting authorities established particular applicability date(s) within that range for each plant (except for indirect discharges, which discharge to POTWs) at the time they issued the plant’s NPDES permit. For plants that opted into the 2015 rule’s voluntary incentives program (VIP), which gave plants the certainty of more time to meet more stringent FGD wastewater limits, the compliance deadline was December 31, 2023.

#### 2. Vacatur of Limitations Applicable to CRL and Legacy Wastewater

Electric utilities, environmental groups, and drinking water utilities filed seven petitions for review of the 2015 rule in various circuit courts. The petitions were consolidated in the U.S. Court of Appeals for the Fifth Circuit as *Southwestern Electric Power Co. v. EPA*, Case No. 15-60821. In early 2017, the EPA received two administrative petitions to reconsider the 2015 rule: one from the Utility Water Act Group (UWAG) and one from the Small Business Administration.

On August 11, 2017, the EPA announced a rulemaking to potentially revise the new, more stringent BAT effluent limitations and PSES in the 2015 rule that apply to FGD wastewater and BA transport water. The Fifth Circuit subsequently granted the EPA's request to sever and hold in abeyance petitioners' claims related to those limitations and standards, and those claims are still in abeyance. With respect to the remaining claims related to limitations applicable to legacy wastewater and CRL, the court issued a decision in 2019 vacating those limitations as arbitrary and capricious under the Administrative Procedure Act and unlawful under the CWA, respectively. *Sw. Elec. Power Co.*, 920 F.3d at 1033. In particular, the court rejected the EPA's BAT limitations for each wastestream set equal to previously promulgated BPT limitations based on surface impoundments. In the case of legacy wastewater, the court held that the EPA's record did not support BAT limitations based on surface impoundments. *Id.* at 1015. In the case of CRL, the court held that the EPA's setting of BAT limitations equal to BPT limitations was an impermissible conflation of the two standards, which are supposed to be progressively more stringent, and that the EPA's rationale was not authorized by the statutory factors for determining BAT. *Id.* at 1026. After the court's decision, the EPA announced plans to address the vacated limitations in a later action.

#### *D. 2020 Steam Electric Reconsideration Rule*

##### 1. Summary of the 2020 Rule

On October 13, 2020, the EPA promulgated the Steam Electric Reconsideration Rule, 85 FR 64650 (2020 rule). The 2020 rule revised requirements applicable to existing sources for

FGD wastewater and BA transport water. Specifically, the 2020 rule made four changes to the 2015 rule. First, the rule changed the technology basis for control of FGD wastewater and BA transport water. For FGD wastewater, the technology basis was changed from chemical precipitation plus high hydraulic residence time biological reduction to chemical precipitation plus low hydraulic residence time biological reduction. This change in the technology basis resulted in less stringent selenium limitations and more stringent mercury and nitrogen limitations. For BA transport water, the technology basis was changed from dry-handling or closed-loop systems to high recycle rate systems, allowing for a site-specific purge not to exceed 10 percent of the BA transport system's volume. Second, the 2020 rule revised the technology basis for the VIP for FGD wastewater from vapor compression evaporation to chemical precipitation plus membrane filtration. Third, the 2020 rule created three new subcategories for high-flow facilities, low utilization electric generating units (EGUs), and EGUs permanently ceasing coal combustion by 2028. Facilities or units in these subcategories were subject to less stringent limitations: high-flow facilities were subject to FGD wastewater limitations based on chemical precipitation; low utilization EGUs were subject to FGD wastewater limitations based on chemical precipitation and BA transport water limitations based on surface impoundments and a best management plan; and EGUs permanently ceasing coal combustion by 2028 were subject to FGD wastewater and BA transport water limitations based on surface impoundments. Finally, the 2020 rule required most steam electric facilities to comply with the revised effluent limitations "as soon as possible" after October 13, 2021, but no later than December 31, 2025. NPDES permitting authorities established the particular applicability date(s) of the new limitations within that range for each facility (except for indirect dischargers) at the time they issued the facility's NPDES permit. Facilities opting into the VIP were given until December 31, 2028, to meet the revised FGD wastewater limitations.

## 2. 2020 Rule Litigation

Environmental groups filed two petitions for review of the 2020 rule, which were consolidated in the U.S. Court of Appeals for the Fourth Circuit on November 19, 2020, as *Appalachian Voices, et al. v. EPA*, No. 20-2187. An industry trade group and certain energy companies moved to intervene in the litigation, which the court authorized on December 3, 2020. On April 8, 2022, the court granted the EPA’s motion to place the case into abeyance as a result of a new rulemaking announced in July 2021. The case is still in abeyance.

#### *E. 2024 Supplemental Steam Electric Rule*

##### 1. Summary of 2024 Rule

On May 9, 2024, as part of a “suite of final rules” imposing new requirements on the power generation sector, the EPA promulgated the Steam Electric Supplemental Rule (89 FR 40198) (2024 rule). This revision of the regulations at 40 CFR part 423 established a zero-discharge limitation for three wastewaters generated at steam electric power plants: FGD wastewater, BA transport water, and managed CRL. The 2024 rule also established non-zero numeric discharge limitations on mercury and arsenic on discharges of CRL that the permitting authority determines are the functional equivalent of a direct discharge to a WOTUS through groundwater or discharges of CRL that have leached from a waste management unit into the subsurface and mixed with groundwater before being captured and pumped to the surface for discharge directly to a WOTUS (*i.e.*, “unmanaged” CRL). These mercury and arsenic limitations also apply to a fourth wastestream called legacy wastewater, which is typically discharged from surface impoundments during the closure process, where those surface impoundments have not commenced closure under the EPA’s coal combustion residuals regulations under the Resource Conservation and Recovery Act as of the effective date of the 2024 rule. The 2024 rule eliminated the 2020 rule’s separate standards applicable to two subcategories of facilities or units (high flow facilities and low utilization EGUs), while retaining the 2020 rule’s subcategory for EGUs permanently ceasing combustion of coal by 2028. The 2024 rule also established a new subcategory for EGUs permanently ceasing combustion of coal by December 2034, as well as a

requirement for dischargers to post reporting and recordkeeping documentation to a publicly available website. For indirect discharges, the 2024 rule established PSES that are the same as the BAT limitations. Pretreatment standards are directly enforceable and apply no later than May 9, 2027.

For the 2024 rule, the EPA also conducted a variety of analyses on costs, benefits, electricity market impacts, pollutant loadings, and environmental impacts. The EPA is not proposing in this action to change the underlying BAT bases in the 2024 rule, and thus the annual pollutant loadings and environmental impacts of the fully implemented rule are not expected to change if this proposed rule were to be finalized, although they would occur later. Due to the postponement of these loadings and impacts, the EPA has conducted an analysis showing the changes in costs and benefits due to discounting, but has not otherwise updated any of its analyses from 2024. The EPA solicits comment on any other information, particularly new information, on relevant aspects of these prior analyses, to the extent they bear on factors that the EPA is authorized to consider under relevant provisions of the CWA.

## 2. 2024 Rule Litigation

A number of parties challenged the 2024 rule in various petitions that were consolidated before the U.S. Court of Appeals for the Eighth Circuit as *Southwestern Electric Power Co. v. EPA*, No. 24-2123. On August 27, 2025, the court granted the EPA's request for an abeyance and ordered the Agency to file a motion to govern further proceedings within 30 days after publication in the Federal Register of a final deadline-extension rule.

## 3. Administrative Petitions for Reconsideration of the 2024 Rule

The EPA has received two petitions for reconsideration, one from the Edison Electric Institute (EEI) and one from UWAG.

EEI is a trade association that represents U.S. investor-owned electric companies. On November 13, 2024, EEI sent a petition to the EPA, which included recommendations primarily related to CRL applicability (DCN: SE11943). This petition was updated with a supplemental

letter of EEI priorities on May 8, 2025, which reiterated recommendations for CRL, and which also included discussion of extending the deadlines in the 2020 and 2024 rules (DCN: SE11948). With respect to the 2024 rule's 2034 cessation of coal combustion subcategory, EEI recommended extending the NOPP deadline from December 31, 2025, to December 31, 2029, to provide more time to address load growth challenges. EEI also recommended extending the zero-discharge compliance dates of the 2024 rule. Finally, EEI recommended that the EPA extend the generally applicable 2020 rule deadlines for BA transport water and FGD wastewater to at least December 2027 to allow units to transfer out of the 2028 cessation of coal combustion subcategory and instead install technologies to meet the 2020 rule's requirements, and thereby continue to operate and produce power past 2025.

UWAG is a voluntary non-profit group comprised of individual energy companies and two national trade associations of energy companies: the National Rural Electric Cooperative Association (NRECA) and the American Public Power Association (APPA). NRECA represents nearly 900 local electric cooperatives across the U.S., serving 42 million people and covering 56 percent of the nation's land area. APPA is the national service organization that represents not-for-profit local, State, or other government-owned electric utilities. On February 21, 2025, UWAG sent the Agency a petition for rulemaking to reconsider and repeal the 2024 rule, as well as administratively stay the 2024 rule while it is in litigation (DCN: SE11944). The petition requests several reviews of the determinations underlying the 2024 rule, including the 2024 rule's determination that zero-discharge technology is available and economically achievable to treat FGD wastewater and CRL. The UWAG petition correspondingly advocates for postponement of all compliance dates in the 2024 rule.

In addition to these two petitions, on April 25, 2025, the EPA received a request from America's Power, a national trade association representing the U.S. steam electric power plants and its supply chain. The letter notes an estimated 29 coal-fired EGUs have committed to retire by 2028 and, in light of emerging challenges to grid reliability, urges the EPA to release these

units from their retirement commitments as quickly as possible (DCN: SE11903, SE11903A1).

America's Power also makes recommendations for revisions to the 2020 and 2024 rules.

While the EPA was aware of the general subjects raised in these petitions when finalizing the 2024 rule, as discussed below, load growth and power demands are much higher than predicted just one year ago, and reliability and resource adequacy concerns have only intensified. Forecasts not available at the time of the 2024 rule, and certainly not available for the 2020 rule, warrant additional consideration with respect to the various deadlines discussed in section VII of this preamble. These factors and new information have been evidenced and recognized through numerous reports from and actions by the Federal Energy Regulatory Commission (FERC), the North American Electric Reliability Corporation (NERC), grid operators, grid reliability experts, the power industry, utility groups, and regulatory agencies, as described in greater detail in section V of this preamble.

#### 4. NOPP Submission Extension Requests

Stakeholders, including grid operators, grid reliability experts, trade associations, and utilities, have raised concerns that a significant number of facilities need more time to understand how their operations fit within a changing landscape of local and regional demand that is untethered from rapidly approaching compliance timelines crafted under different demand assumptions used in the 2024 rule. This includes, among other decisions, whether to avail themselves of the compliance pathway for EGUs seeking to retire or convert to alternative fuel sources by December 31, 2034, by the current NOPP submission deadline of December 31, 2025.

Under these circumstances, the existing December 2025 NOPP submission deadline appears to conflict with the Administration's priorities of ensuring reliable and sustainable domestic sources of energy to meet demand, as outlined in the Executive Orders section below.

#### *F. Executive Order Summary*

Upon taking office, President Trump issued key executive orders to unleash America's affordable and reliable energy and natural resources, including to support the ongoing adoption and development of cutting-edge technologies. These executive orders took steps to encourage the increase of coal generation to expand domestic energy and avoid shutting down steam electric power plants, which could place the electricity grid at risk, to the extent permitted by law. In accordance with these orders, the EPA is reviewing the relevant issues and information referenced previously relating to the burden of existing compliance deadlines and other issues as part of this rulemaking.

Executive Order 14156, Declaring a National Energy Emergency, invokes emergency authorities to accelerate domestic fossil fuel production and infrastructure expansion, citing energy reliability, affordability, and national security concerns. 90 FR 8433 (January 29, 2025).

Executive Order 14154, Unleashing American Energy, directs Federal agencies to review and remove, as appropriate and to the extent permitted by law, regulatory roadblocks to energy development within the U.S., including by streamlining permitting processes and reconsidering previous mandates related to climate and renewable energy. 90 FR 8353 (January 29, 2025). It also directs agencies to review and revise, as appropriate and to the extent permitted by law, existing regulations to identify those that impose undue burdens on development or use of domestic energy resources. *Id.*

Executive Order 14261, Reinvigorating America's Beautiful Clean Coal Industry and Amending Executive Order 14241, affirms that clean coal resources will be critical to meeting the rise in electricity demand due to the resurgence of domestic manufacturing and the construction of artificial intelligence (AI) data processing centers, and encourages the utilization of coal to meet growing domestic energy demands while ensuring Federal policy does not discriminate against coal production or coal-fired electricity generation. 90 FR 15517 (April 8, 2025).

Executive Order 14179, Removing Barriers to American Leadership in Artificial Intelligence, seeks to ensure the rapid pace of U.S. adoption and development necessary to maintain American dominance and global leadership in AI. 90 FR 8741 (January 31, 2025).

## **V. New Information**

### *A. National Energy Crisis*

As described in section IV of this preamble, one factor the EPA considers when setting limitations based on BAT is NWQEI, which the statute notes include “energy requirements.” 33 U.S.C. 1314(b)(2)(B). Most notable with this industry is the impact of environmental regulations, including the steam electric ELGs, on the U.S. electricity grid. Since the promulgation of the 2024 rule, Federal agencies, States, grid operators, and grid reliability experts have identified an impending energy crisis resulting from increased load and the premature retirement of critical steam electric and other baseload power plants. The NERC has consistently warned of resource adequacy and reliability shortfalls that could occur if coal-fleet retirements occurred faster than the system could respond to by constructing replacement baseload power (DCN: SE11931). This is consistent with previous testimony that the EPA was aware of as of the 2024 rule.<sup>1</sup>

On October 16, 2024, the FERC held a Commissioner-led Reliability Technical Conference to discuss policy issues related to the reliability and security of the North American bulk power system (BPS). Commissioners and witnesses expressed serious concerns about the anticipated retirement of existing generating resources, the addition of significant volumes of variable energy resources, and rapid anticipated electric load growth (DCN: SE11933).

More recently, on June 4 and 5, 2025, the FERC held another Commissioner-led Technical Conference titled “Meeting the Challenge of Resource Adequacy in Regional

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<sup>1</sup> On May 4, 2023, bipartisan commissioners of FERC testified before the Senate Energy and Natural Resources Committee about the very real crisis facing the Nation’s grid. Commissioners warned of a “looming reliability crisis in our electricity markets,” “a very catastrophic situation in terms of reliability,” and “unprecedented challenges to the reliability of our nation’s electric system” (DCN: SE11932).

Transmission Organization and Independent System Operator Regions.” The technical conference addressed how resource retirements, load growth, and the changing resource mix have contributed to resource adequacy challenges across the nation. The NERC testified that “growth projections of electric demand have reached heights unseen in decades, disrupting resource adequacy plans across North America” (DCN: SE11950).

Other Federal agencies have also taken action to address the energy crisis. For example, the Department of Energy (DOE) has issued an emergency order to delay the closure of Consumers Energy’s 1,560-megawatt (MW) J.H. Campbell steam electric power plant in West Olive, Michigan, citing urgent reliability concerns for the Midcontinent Independent System Operator (MISO) grid, as the Midwest braces for peak summer electricity demand (DCN: SE11953). The three-unit steam electric 1,560 MW J.H. Campbell plant, built between 1962 and 1980, was slated to go “cold and dark” by June 2025 as part of Consumers Energy’s transition to renewables. Similarly, the DOE also recently issued an emergency order under section 202(c) of the Federal Power Act directing PJM Interconnection (PJM),<sup>2</sup> in coordination with Constellation Energy, to operate specified generation units at the Eddystone, Pennsylvania Generation Station past their planned retirement. The order follows recent statements from PJM warning that its system faces a “growing resource adequacy concern” due to load growth, the retirement of dispatchable resources, and other factors. (DCN: SE11922). In May 2025, the FERC also approved a reliability must-run contract between PJM and Talen Energy to keep the Brandon Shores two-unit, 1,280 MW coal-fired power plant in Anne Arundel County, Maryland, online past its anticipated retirement date to ensure reliability.<sup>3</sup>

Similar actions are occurring at the State level, causing utilities to rapidly change planning activities. In its 2022 integrated resource plan (IRP) final order, Southern Company

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<sup>2</sup> PJM Interconnection is the regional transmission organization that manages all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.

<sup>3</sup> For more information, see the certification statement available online at: <https://tln-environmental.s3.us-east-1.amazonaws.com/Brandon+Shores+ELG/Ft.+Smallwood+NPDES+ELG+Qualifying+Event+Certification+Statement+FEB-26-2025.pdf>. (DCN: SE11961).

subsidiary Georgia Power had slated Plant Bowen for retirement by 2027. More recently, Georgia Power announced plans to extend the life of several existing coal and natural gas-fired power plants into the late 2030s, including proposals to extend operations at the 3.2-gigawatt (GW) Plant Bowen—one of the world’s largest coal plants—beyond 2034, according to their 2023 IRP update (DCN SE 11947).

According to NERC, regions across the North American BPS are generally positioned to meet peak demand under *normal* summer conditions, although elevated risks of electricity supply shortfalls could persist under extreme heat events, surging demand, and resource variability. However, the increased worldwide demand has already amplified competition for materials and parts, contributing to the U.S. backlog for microchips, resistors, transformers, and other key components as discussed later in this section. The following recent situation exemplifies how these several factors are converging to create a national energy crisis.

In June 2025, a severe heat wave impacted the eastern U.S., significantly increasing energy demand beyond predictions. The National Weather Service issued extreme heat warnings of triple digit temperatures ranging from south of St. Louis to north of Boston. To put the strain on the grid in context, PJM stated that demand reached about 161,000 MWs on June 23, the highest level recorded since 2011. According to the FERC, PJM had only about 10 GW remaining to spare at the period of peak load. The FERC chairman Mark Christie noted that grid operators’ ability to just narrowly sustain power supplies through the extreme heat and humidity without blackouts reflects significant and growing resource adequacy challenges, stating at a June 26 briefing, “We’re simply not building generation fast enough, and we’re not keeping generation that we need to keep.”<sup>4</sup>

More broadly, this heat wave also resulted in a June 24 power outage that left more than 71,000 customers without electricity in Michigan, Pennsylvania, New York, and Massachusetts,

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<sup>4</sup> Howland, E. 2025. FERC’s Christie Calls for Dispatchable Resources After Grid Operators Come “Close to the Edge.” June 27. Available online at: <https://www.utilitydive.com/news/ferc-christie-dispatchable-resources-heat-wave-pjm-miso-iso-ne/751821/> (DCN: SE11949).

according to Poweroutage.us. The heat wave impacted other regions as well. On June 24, 2025, the DOE issued an emergency order to Duke Energy Carolina under Section 202(c) of the Federal Power Act to address potential grid shortfall issues in the Southeast.<sup>5</sup> We Energies in Wisconsin had planned closures of its Oak Creek Units 5 and 6 in 2024 and Units 7 and 8 in 2025, but it recently announced postponement of retiring Units 7 and 8, citing tightened energy supply requirements in the Midwest power market and the need to maintain reliable service during peak-demand periods, such as those experienced during the June heatwave.<sup>6</sup> In San Antonio, ERCOT deployed 400 MW of mobile generation units to help reduce the risk of energy shortages during heat waves.<sup>7</sup>

### *B. Regional Energy Reliability and Resource Adequacy Concerns*

The NERC mission is to ensure the reliability, resiliency, and security of the North American BPS. The BPS is made up of six regional entities<sup>8</sup> that provide the NERC with data, narratives, and assessments to independently evaluate long-term reliability, recognize trends, and identify emerging issues and potential risks for the upcoming 10-year period. The NERC develops a long-term reliability assessment (LTRA) annually based on known system changes as of July of the current year. The NERC is subject to oversight by the FERC.

Resource adequacy refers to the ability of an electricity system to meet the power demand of customers at all times, even during peak usage and potential outages. In the December 2024 LTRA, the NERC identified increasing resource adequacy challenges for the upcoming 10 years as demand growth surges and power generators announce retirement plans (DCN: SE11905).

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<sup>5</sup> U.S. DOE (Department of Energy). 2025. Secretary Wright Issues Emergency Order to Secure Southeast Power Grid Amid Heat Wave. June 24. Available online at: <https://www.energy.gov/articles/secretary-wright-issues-emergency-order-secure-southeast-power-grid-amid-heat-wave> (DCN: SE11962)

<sup>6</sup> We Energies. 2025. We Energies Announces Updated Timeline for Oak Creek Plant Retirements. June 25. Available online at: <https://news.we-energies.com/we-energies-announces-updated-timeline-for-oak-creek-plant-retirements/> (DCN: SE11963).

<sup>7</sup> Guo, K. 2025. ERCOT Approves \$54 Million Plan to Move CenterPoint's Mobile Generators to San Antonio. February 25. Available online at: <https://www.texastribune.org/2025/02/25/texas-power-grid-ercot-mobile-generators-centerpoint-energy-san-antoni/> (DCN: SE11964).

<sup>8</sup> The six regional entities (REs) overseen by NERC that monitor and enforce reliability standards for the BPS are: Midwest Reliability Organization (MRO), Northeast Power Coordinating Council (NPCC), ReliabilityFirst (RF), SERC Reliability Corporation (SERC), Texas Reliability Entity (Texas RE), and Western Electricity Coordinating Council (WECC).

The NERC also identified a substantial number of the replacement generation resources as weather dependent and, thus, more variable and less reliable than the resources they would replace. This includes ensuring sufficient generation capacity and reserves to maintain a stable power supply. The MISO recently affirmed the importance of these resources in its 2024 Reliability Imperative report, in which it identified significant challenges associated with new, weather-dependent resources that “do not provide the same critical reliability attributes as the conventional dispatchable coal and natural gas resources that are being retired” (DCN: SE11929).

Furthermore, the NERC categorized the MISO area as “High-Risk” and five other areas in the U.S. as “Elevated-Risk.” Areas categorized as High Risk fall below established resource adequacy criteria in the next five years, and they are identified by the NERC as likely to experience a shortfall in electricity supplies at the peak of an average summer or winter season. Extreme weather, producing wide-area heat waves or deep-freeze events, poses an even greater threat to reliability. Elevated-Risk areas meet resource adequacy criteria, but extreme weather conditions are likely to cause a shortfall in area reserves. The 2024 LTRA identified PJM as Elevated-Risk due to resource additions not keeping up with expected generator retirements and projected demand growth. Here, winter seasons replace summer as the higher risk periods due to generator performance and fuel supply issues. PJM’s 2023 study (DCN: SE11847) and 2024 study (DCN: SE11901) highlight several trends that increase reliability risks: the growth rate of electricity demand, retirements are at risk of outpacing the construction of new resources due to a combination of factors including siting and supply chain, and PJM’s interconnection queue is composed primarily of intermittent and limited-duration resources, which need multiple MWs to reliably replace 1 MW of thermal generation (*e.g.*, coal, natural gas, nuclear). Compared to 2023, the 2024 PJM report shows increased wholesale power costs of almost 5 percent and significant rises in capacity prices, such as 20 percent in New Jersey. The 2024 report also highlights PJM concern about load growth, particularly from data centers and electrification, as a significant

driver of increased demand and capacity needs, as well as the slow pace of new generation coming online to replace retiring resources.

IRPs are one way that stakeholders plan for the longer-term issues discussed in the NERC LTRA because IRPs show how a utility intends to meet future energy needs of its customers 10 to 20 years in the future. Most States require utilities to have IRPs with a 20-year horizon and commonly require a detailed plan for the first few years of the forecasted energy demand. An update is typically required every two or three years. As discussed in the 2024 rule, utilities plan and budget for plant closures as part of the normal IRP process. The interaction between these timelines and the ELG deadlines is addressed in section VI of this preamble.

In deregulated electricity markets, capacity auctions are used to send signals monetarily that would lead to similar planning as the IRP process. PJM capacity auctions are generally held three years in advance of the capacity delivery year and are designed to ensure sufficient generating capacity to meet electricity demand and grid reliability at lowest cost. PJM uses capacity market auctions to accept offers to provide power at lowest cost first, but recent delays in auctions due to regulatory issues and litigation have led to higher prices. This can be seen with the results of PJM's recent capacity auction for the 2026-2027 delivery year. On July 22, 2025, PJM announced that it had completed its auction and that the clearing price was the settlement cap of \$329.17/MW-day, a 22 percent increase over the previous year's clearing price, which was already an increase over the \$28.92/MW-day that cleared the auction two years ago. This clearance price achieved adequate capacity, including reserve margins, but cleared by only 139 MW, approximately the amount generated by a single small- to mid-sized EGU. This reflects the tightening margins between supply and demand in the PJM service area, demonstrating that in the short-term, the loss of even a single coal-fired EGU (which can often be several hundred MW capacity) could lead to resource adequacy issues.<sup>9</sup>

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<sup>9</sup> Further information about the recent PJM auction results are available online at: <https://www.pjm.com/markets-and-operations/rpm.aspx> and a summary of the auction is available online at: <https://insidelines.pjm.com/pjm-auction-procures-134311-mw-of-generation-resources-supply-responds-to-price-signal/>.

Additionally, the 2024 PJM report states, “The demand in each scenario reflects growth from end-use electrification, electric vehicles and data centers. Recent history of this anticipated growth has proven unprecedented and dynamic. Average growth estimates for PJM’s summer peak, for example, have increased by 375 percent between the 2022 and 2024 load forecasts, from 0.4 percent per year to 1.6 percent per year. This trend adds to the complexity of ensuring reliability through the energy transition.”<sup>10</sup> This report identifies a drastic increase in energy demand, significantly higher than was anticipated in formulating the 2024 rule.

Finally, another important aspect of the LTRA is the interconnection queue. The LTRA reports the interconnection queue has a backlog for the huge variety of replacement sources and storage projects seeking to connect to the grid, such as the ERCOT example above. In summary, the 2024 LTRA identified “critical reliability challenges facing the industry: satisfying escalating energy growth, managing generator retirements, and accelerating resource and transmission development.” (DCN: SE11905).

### *C. Data Center Expansion*

A data center is a building or group of buildings that holds computer systems and equipment to power every day digital services. These facilities provide space, power, cooling, and security for servers and network hardware. Data centers power almost everything online, from websites to banking and video streaming. Consumers and companies worldwide depend on services that run through data centers every hour. Many industries, such as healthcare, retail, manufacturing, and government, rely on data centers for secure storage and quick access to information. The demand for cloud computing, e-commerce, streaming, AI programming, and social media makes these sites more important each year. Data centers use a large amount of electricity, making reliable and affordable power one of the most important factors to U.S. economic development and national security.

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<sup>10</sup> PJM. 2024. Energy Transition in PJM: Flexibility for the Future. June 24. Available online at: <https://www.pjm.com/-/media/DotCom/library/reports-notice/special-reports/2024/20240624-energy-transition-in-pjm-flexibility-for-the-future.ashx>. (DCN: SE11901).

According to the DOE, from 2014 to 2016 the annual energy consumption of data centers in the U.S. remained stable at approximately 60 terawatt-hours (TWh) (DCN: SE11906). By 2018, this figure had increased to around 76 TWh, accounting for 1.9 percent of the country's total electricity consumption. Recent forecasts expect total power demand for data centers to be between 74 and 132 GW in 2028, corresponding to 6.7 and 12 percent of total U.S. electricity consumption. The adoption and growth of AI has been cited as a leading driver of surging data center demand in the U.S., with the technology requiring immense computing power. The National Renewable Energy Center's "Data Center Infrastructure for 2025" shows transmission network and new data center demand capacity coinciding geospatially with large cities, highlighting the challenges demand growth is already placing on the grid (DCN: SE11922). The EPA notes that consultants, investors, and ratings firms such as S&P and Moody's identify the U.S. technology sector as one that can initiate, develop, and complete projects relatively quickly, with new data centers operational in as little as two to three years. Meanwhile, the energy sector requires longer lead times to schedule and build infrastructure as a result of extensive planning requirements and significant capital investment. Natural gas and coal are forecast to meet over 40 percent of the electricity demand from data centers until at least 2030.<sup>11</sup>

Moreover, as described in the President's July 2025 strategy titled 'Winning the Arms Race: America's AI Action Plan' (DCN: SE11954), AI systems may pose novel national security risks in areas such as cyberattacks and the development of chemical, biological, radiological, nuclear, or explosive weapons. Ensuring America is at the forefront of AI development is vital for national defense and homeland security. The President issued Executive Order 14179, Removing Barriers to American Leadership in Artificial Intelligence, making it possible for America to retain global leadership in AI. 90 FR 8741 (January 31, 2025). Executive Order 14179 will ensure that AI adoption and development is progressing at the rapid pace necessary to

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<sup>11</sup> IEA (International Energy Agency). 2025. Energy Supply for AI. Available online at: <https://www.iea.org/reports/energy-and-ai/energy-supply-for-ai> (DCN: SE11967).

maintain American dominance, which would further expand the need for upgrades to the U.S. electrical grid to support data centers as identified in the AI Action Plan (DCN: SE11954).

#### *D. Supply Chain Risks*

In addition to the documented increase in energy demand, another issue facing the power sector is challenges in obtaining equipment to maintain and upgrade steam electric power plants, including in some instances, components of the control technologies (e.g. microchips) that are beginning to experience increased global demand from other industries and, therefore, could be a rate-limiting factor for the installation of new wastewater treatment technologies necessary to comply with wastewater limits. The power industry is currently experiencing a significant turbine backlog, primarily for natural gas turbines, leading to a further reliance on existing steam electric power plants. A combination of factors, including increasing electricity demand, particularly from data centers, ongoing natural gas plant development using combustion turbines, and airline industry manufacturing has led to a substantial increase in orders for gas turbines. Three major original equipment manufacturers—GE Vernova, Siemens Energy, and Mitsubishi Power—have reported backlogs stretching into 2029 and beyond. The Electric Power Research Institute reports a five-year-plus wait for new turbine installations (DCN SE11930).

Additionally, critical grid components, like transformers, are also facing longer lead times, further impacting project timelines.<sup>12</sup> According to the U.S. Department of Commerce, the average U.S. electricity grid transformer is 38 years old, fast approaching the 40-year life expectancy of a transformer. The National Renewable Energy Laboratory notes utilities needing to add or replace transformers are currently facing high prices and long wait times due to supply chain shortages (DCN: SE11969). The National Infrastructure Advisory Council reports Hitachi has a waitlist of 2 to 4 years for transformers, and supply issues and uncertainty continue to affect development with lead times for transformers averaging 120 weeks and large transformer

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<sup>12</sup> Other critical grid components such as conduit, smart meters, switchgear, and high voltage circuit breakers are in short supply (DCN: SE11968).

lead times averaging 80-210 weeks, and at least one other U.S. company has a backlog of 5 years (DCN: SE11968). The list of U.S. infrastructure that depends on transformers includes new housing developments, a growing electric vehicle charging station market, and renewable energy projects. For instance, in Texas, companies planned to build 108 new gas-fired power plants and 17 expansions in the next few years to power AI and other heavy industries. In just one example, however, the developer Engie withdrew from two projects in Texas in February 2025 citing “equipment procurement constraints” (DCN SE:11951). With the high uncertainty surrounding resource adequacy over the next decade, the need to maintain baseload capacity from existing steam electric power plants will remain for the foreseeable future.

Demand for all major fuels and energy related technologies jumped in 2024 worldwide, and coal remains a crucial fuel source in addressing potential demand spikes in several countries besides the U.S., notably China, India, and Pakistan. A May 2025 International Energy Agency report stated that peak demand is slated to grow even faster than overall power demand, and potentially 80 percent faster in emerging markets and developing economies by 2035 (DCN: SE11915). These findings highlight that supply chain issues will likely continue to increase as the demand and the competition for components escalates across the world.

#### *E. Other Pressures on Retirement*

The EPA notes that there are additional legal pressures leading to generator retirements that are not within the considerations above and which are outside the EPA’s CWA authority. These include State or regional laws that may either provide incentives toward retiring steam electric power generation or specifically provide timelines for retirements. An example of the former is the Regional Greenhouse Gas Initiative, which 10 States have joined to cap and reduce carbon emissions. An example of the latter is that, in 2021, Illinois passed the Climate and

Equitable Jobs Act which, with certain exceptions, required the phase out of coal-fired power plants by 2030 and natural gas-fired power plants by 2045.<sup>13</sup>

Some steam electric power plants have also entered into settlements with States, the Federal Government, and/or local community groups to retire a plant or EGUs. For example, in 2015, American Electric Power (AEP) announced a settlement with the Sierra Club and other parties to cease coal-combustion at Cardinal Unit 1 by 2030.<sup>14</sup> More recently, in 2024, the EPA and two environmental groups entered into a settlement that results in the closure of the Merrimack Station.<sup>15</sup> These are just some examples of the settlements that continue to influence steam electric power plants' operations.

## **VI. Proposed Rule**

The EPA is proposing to extend seven deadlines in the 2024 rule, update the 2024 rule's transfer provisions to allow facilities to switch between compliance alternatives, and create authority for limited additional timing flexibility for both 2020 and 2024 rule deadlines based on site-specific factors. First, the EPA is proposing to extend the date for existing steam electric power plants to submit a NOPP for the permanent cessation of coal combustion by 2034 subcategory. In addition to this deadline extension, the EPA is proposing to expand the transfer flexibilities in 40 CFR 423.13(o) by including a new transfer provision for facilities wishing to switch between requirements for zero-discharge and requirements applicable to the permanent cessation of coal combustion by 2034 subcategory. Second, the EPA is proposing to extend the latest compliance dates for zero-discharge limitations applicable to discharges of FGD wastewater, BA transport water, and CRL. The third set of deadline extensions would apply to

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<sup>13</sup> Illinois Drives Electric. 2025. CEJA and Climate Action. Available online at: <https://ev.illinois.gov/illinois-commitment/ceja-and-climate-action.html> (DCN: SE11970).

<sup>14</sup> American Electric Power. 2015. AEP Ohio Files Settlement Agreement on Expanded PPA Agreement Provides Price Stability, Supports Economic Development, Adds Significant Environmental Commitments. December 14. Available online at: <https://www.aep.com/news/stories/view/1421/AEP-Ohio-Files-Settlement-Agreement-On-Expanded-PPA-smallAgreement-provides-price-stability-supports-economic-development-adds-significant-environmental-commitmentssmall/> (DCN: SE11971).

<sup>15</sup> The text of the settlement is available online at: <https://npr.brightspottedn.com/45/79/e642a320432d841506cfed80ee9b/final-agreement-signed-by-allparties-reschiller-merrimack-3-27-24.pdf> (DCN: SE11972).

standards for the same wastewaters from indirect dischargers. Specifically, the EPA is proposing a set of tiered standards for indirect dischargers that would allow for the flexibility to achieve zero discharge on the same timelines as direct dischargers. Fourth, the Agency is proposing to provide authority for additional site-specific extensions of paperwork submission dates and deadlines in the 2020 or 2024 rules when necessary to address unexpected circumstances. Finally, the EPA is soliciting comment on whether certain limited clarifying changes to the text of 40 CFR 423.18(a) or 40 CFR 423.19(i) are warranted.

#### *A. NOPP Submission Date Extension*

Stakeholders, including trade associations and utilities, have raised concerns that certain facilities need more time to decide whether to avail themselves of the compliance pathway for EGUs seeking to retire or convert to alternative fuel sources by December 31, 2034. Based on recent forecasts projecting a surge in energy demand and this Administration's prioritization of ensuring a reliable and sustainable domestic source of energy to meet those demands, the existing December 2025 deadline may unreasonably force facilities to decide to retire when they may still be needed to meet local or regional resource adequacy and grid reliability needs. Such premature retirements may result in unforeseen impacts on the ability of the U.S. to ensure that energy remains abundant, affordable, and reliable for Americans. Furthermore, the EPA is committed to ensuring these coal plants have the option to remain in operation to increase the Nation's energy supply, meet surging demand (*e.g.*, from data centers), support regional grid reliability, and grow domestic manufacturing, jobs, and wages.

Since promulgation of the 2024 rule, the EPA has continued to discuss electric reliability issues with the DOE, the NERC, and other stakeholders under the framework established in the *Joint Memorandum on Interagency Communication and Consultation on Electric Reliability* (EPA-DOE MOU) (DCN: SE11904). At a recent EPA-DOE MOU meeting, the NERC presented findings from its LTRA (DCN: SE11905). In the 2024 LTRA, the NERC finds that electric reliability will face unanticipated challenges in the coming decade due to "surging demand

growth” at the same time many generators are anticipating retiring, decisions being forced, in part, by the adoption of a regulatory regime that was informed by significantly lower demand forecasts. One key aspect identified in the 2024 LTRA is the surging demand growth needs of data centers. In its *2024 U.S. Data Center Energy Usage Report*, the DOE found that “U.S. data center energy use has continued to grow at an increasing rate...” (DCN: SE11906). The EPA has also received additional reports indicating that surging demand will introduce resource adequacy issues to a greater extent than the EPA anticipated during the 2024 rule proceedings (see Section V).

As previously explained, in the 2024 rule, the EPA established a subcategory for EGUs permanently ceasing coal combustion by December 31, 2034. For these EGUs, less stringent limitations and standards apply to discharges of pollutants. These less stringent limitations and standards are the same as the limitations and standards previously applicable under the 2020 rule. As there were no nationally applicable limitations and standards for CRL prior to 2024, the subcategory left in place the requirement for permitting authorities to develop case-by-case TBELs using their BPJ, and it established mercury and arsenic limitations based on chemical precipitation after the retirement of the plant. In order to participate in this subcategory, facilities must submit a NOPP to their permitting authority or control authority by December 31, 2025, and subsequently submit annual progress reports on the steps taken to achieve permanent cessation of coal combustion. The NOPP notifies the permitting authority or control authority of the plant’s intent to opt into the 2024 rule’s subcategory for sources that anticipate closure or repowering.

At the time of the 2024 rule, the EPA estimated there were “around 50” EGUs whose retirement dates had been announced between 2030 and 2034. While the flexibilities in the new permanent cessation of coal combustion subcategory were also applicable to retirements prior to 2030 (especially with regard to CRL), these post-2030 retirements would have been subject to the full suite of zero-discharge limitations but for the subcategory. Utilities and trade associations

have extensively communicated to the Agency that facilities need additional time to decide about ceasing coal combustion in light of surging electricity demand, especially in areas where data centers may be constructed in the near future.

To address these concerns, the EPA is proposing to extend the NOPP date in 40 CFR 423.19(h) from December 31, 2025, to December 31, 2031. The rationale for the subcategory for the permanent cessation of coal combustion by 2034 was set forth in the 2024 rule and is based on the statutory factors in CWA sections 301 and 304. The NOPP provides the mechanism for facilities to make use of that subcategory, and thus the date for the NOPP submission is authorized under CWA section 501(a), which allows the Administrator to prescribe such regulations as are necessary to carry out his functions, including establishment of ELGs, pursuant to sections 301 and 304 of the CWA. The proposed December 31, 2031 NOPP submission date is three years prior to the required permanent cessation of coal combustion and thus would allow for the most accurate three-year capacity auctions in deregulated regions (*e.g.*, PJM) or the typical two- to three-year IRP cycle to conclude prior to a plant opting into the subcategory with a NOPP. The EPA solicits comment on alternative deadlines for submitting the NOPP. For example, December 31, 2029, would be one full permit cycle before the 2034 permanent cessation of coal combustion date and would also align with some longer IRP timeframes (*e.g.*, Michigan requires IRPs every five years) (DCN: SE11945). Although the EPA does not expect this to be the case, the Agency also solicits comment on whether there are any significant reliance interests related to the existing deadline and, if so, how the Agency should take this into account when considering whether to take final action on the proposal.

Should commenters wish these provisions to go into effect via the companion direct final rule, commenters may refrain from responding to this solicitation or explicitly state that comments filed are to be applied solely with respect to this proposal and not the NOPP companion direct final rule.

*B. NOPP companion direct final rule*

Contemporaneously with this notice of proposed rulemaking, the EPA is publishing a direct final rule to extend the NOPP submission date because the Agency views this specific change as a noncontroversial action in which notice-and-comment proceedings are unnecessary. The EPA anticipates no adverse comment because the rule merely extends the date (from December 31, 2025, to December 31, 2031) for existing steam electric power plants to submit a NOPP in the 2024 rule's subcategory for EGUs permanently ceasing coal combustion by December 31, 2034. The direct final rule does not otherwise amend the 2024 rule codified at 40 CFR part 423 in any way or change the substantive requirements applicable to regulated entities. If adverse comments are received, however, the EPA will consider them as part of the proposal to extend the NOPP date in this rulemaking. The EPA will not institute a second comment period on the NOPP extension issue. Any parties interested in commenting must do so at this time. For further information about commenting on this proposed rule, see the **ADDRESSES** section of this document.

If the EPA receives no adverse comment on the direct final rule, it will not take further action on this proposed rule to the extent it addresses the NOPP submission date. If the EPA receives adverse comment on the companion direct final rule, it will publish a timely withdrawal in the *Federal Register* informing the public that the direct final rule will not take effect. The EPA would then address any public comments received in any subsequent final rule based on this proposed rule.

### *C. New Transfer Provision*

The EPA is proposing to establish a set of new transfer provisions in 40 CFR 423.13(o) to enhance flexibility to choose among compliance alternatives. As described in the 2020 rule, even where facilities have provided a NOPP and publicly announced retirement or repowering plans, actually ceasing coal combustion may “require local or state regulatory approval prior to reducing its utilization or planning to retire....” 85 FR at 64709. Such procedural steps continue to exist, and in light of energy demand concerns and commitments, may not be ultimately

fulfilled. Thus, a plant fully intending to retire steam electric power generation under a previous announcement could be subject to unanticipated demand growth or other circumstances that lead a regulatory authority to reject the retirement decision. In such cases, it is reasonable and consistent with the statutory and regulatory framework to permit a plant to transfer back into a compliance pathway that applies the generally applicable zero-discharge limitations. Similarly, it is possible that a plant intending to remain in operation may not clear a capacity auction or may be required by a State regulatory body to retire. In such cases, it would contradict the intent of the subcategory to treat these facilities differently from those that were carrying out planned retirements. Thus, the EPA is proposing to create a new transfer provision in 40 CFR 423.13(o)(1)(3) to allow transfers in either direction up until the 2034 deadline for the permanent cessation of coal combustion, to ensure that facilities facing unexpected changes in operations are not unfairly penalized as compared to the rest of the industrial sector. While 40 CFR 423.19(l) already requires notice to the permitting authority to initiate a transfer, the EPA solicits comment on whether such transfers warrant any unique informational supplements beyond what is already required. The EPA also solicits comment on whether transfers in either direction should have alternative cutoff dates to ensure a plant can remain in compliance. Finally, although the EPA does not expect this to be the case, the Agency solicits comment on whether there are any significant reliance interests related to the existing deadline and, if so, how the Agency should take them into account when deciding whether to take final action on the proposal.

#### *D. Extended BAT Applicability Timing for Zero-Discharge Limitations*

The 2024 rule's zero-discharge limitations must be met as soon as possible, but "no later than" December 31, 2029. 89 FR at 40256. As part of its rationale for establishing this latest date, the EPA stated that this date created "a level playing field" for facilities regardless of where they were in their five-year permit cycle. *Id.* For the reasons discussed below, the EPA is proposing to extend the "no later than" dates for zero-discharge limitations to December 31, 2034 (*i.e.*, one additional permit cycle).

The EPA finds that postponing the “no later than” dates is warranted for three primary reasons, supported by the statutory factors of availability, cost, NWQEI (including energy requirements), and such other factors as the Administrator deems appropriate. In particular, first, the December 31, 2029, date for meeting the limitations may not be achievable for all facilities under the current circumstances due to availability of the control technologies or their component parts. Second, delaying the “no later than” date allows facilities that recently invested in technologies to meet the 2020 rule a longer period to amortize the costs of those technologies, which could improve their ability to undertake additional investments towards compliance with the 2024 rule with less impact on customer rates. Finally, postponing the “no later than” date until December 31, 2034, better effectuates the ability of facilities to transfer out of the permanent cessation of coal combustion by 2034 pathway and continue to generate electricity using coal resources as necessitated by local or regional resource adequacy and reliability needs and to mitigate an impending national energy emergency, as discussed previously.

With respect to the first basis for the postponement, the 2024 rule became effective on July 8, 2024, at which time some utilities began engineering, pilot testing, requests for proposal, and other concrete steps towards complying with the 2024 rule. However, continued steps towards implementation have been delayed for a variety of reasons. Ongoing uncertainty in global supply chains has resulted in disruptions in the flow of goods and products, increasing the cost and difficulty of procurement of technologies needed to meet BAT requirements. Geopolitical competition for AI and other technologies of the future has also influenced rising demand-driven delays for fulfillment of specific components, like semiconductor chips and other electrical components, which create challenges for facilities to timely meet the 2024 rule where these components are also used in the wastewater treatment system. These global market changes would be “other factors” the Administrator proposes are appropriate to consider for their effect on plants being able, as a practical matter, to procure relevant technologies on a nationwide basis on the timelines required under the 2024 rule. After considering these changes, it is likely that,

for at least some facilities, the BAT technologies are no longer “available” on the timeframes provided in the 2024 rule, and therefore expecting compliance by 2029 may no longer be reasonable. *See Am. Frozen Food Inst.*, 539 F.2d at 132 (endorsing the view that, although the best available standard does not mean that the technology must be in actual routine use somewhere, it does mean that the technology “must be available at a cost and at a time which the Administrator determines to be reasonable”) (citation omitted); *see also CPC Int’l, Inc. v. Train*, 515 F.2d 1032, 1048 (8th Cir. 1975) (same).. The EPA solicits comment on information about specific instances where supply chain uncertainty has resulted in such delays.

With respect to the second basis for the postponement, the 2020 and 2024 rules discussed how facilities incur greater capital costs when amortized over fewer and fewer years. Specifically, the Agency found a greater cost on a MW basis for facilities in the low utilization EGU subcategory in the 2020 rule, compared to facilities that did not have low-utilization EGUs. That record demonstrated that annualized capital costs approximately double when amortization shrinks from the typical 20-year period to eight years. 84 FR 64640. In some cases, under the 2024 rule, facilities completing installation of a biological treatment system by the end of 2025 would be required to turn around and install zero-discharge systems by 2029. While the CWA does contemplate technological advancement, the Act also requires the EPA to consider the “cost” of achieving effluent reduction, as well as “other factors as the Administrator deems appropriate.” 33 U.S.C. 1314(b)(2)(B). In the 2024 rule, the EPA’s analysis showed that these cumulative costs were economically achievable within the previously projected electricity market supply and demand; however, these supply and demand assumptions have proven inaccurate, as discussed previously. Back-to-back amortization of costs incurred by some of the larger plants to meet the 2020 and 2024 rules could mean steep rises in costs to utilities. This cost is often passed on, leading to similarly steep rises in residential electricity prices, a relevant “other factor,” at a time where there are significant concerns related to the grid demand and reliability. These prices have already seen unprecedented growth due to rising demand,

particularly where data centers are located. For example, in New Jersey, prices rose by about 20 percent in 2025 (DCN: SE11952).<sup>16</sup> Costs to industry that were previously found to be economically achievable may no longer be, and providing facilities more time to amortize the costs of the previous 2020 rule helps reduce short-term price pressures on American families and domestic manufacturers.

Finally, with respect to the third basis for the postponement, as discussed in the prior subsection, the EPA is proposing to establish a transfer provision for facilities to opt out of the permanent cessation of coal combustion subcategory and instead be subject to the generally applicable limitations. By extending the “no later than” dates to 2034, this proposed rule would allow facilities the maximum flexibility to respond to changing local and regional energy demand – thereby ensuring the energy requirements of the nation are met – without risking noncompliance.

While in some cases generator retirements have already been announced, planned for, and (in a subset of such cases) already approved by State and regional utility commissions or grid operators, these conditions are quickly changing, with utilities revising retirement dates to meet recent increases in demand detailed previously in this preamble. Even in instances where a new power source is available to fill this increase in demand, these sources must be connected to the grid. These new connections require transformers, inverters, AC/DC couplers, voltage regulators, frequency monitoring, cabling, resistors for fault protection, and other components just to get the power to a substation. In some cases, the components required to tie in the new energy source are backordered and simply are not available. Therefore, it is essential to keep existing steam-electric plants that are connected to the grid in operation until such time as new energy sources can be tied in. The Agency proposes to find that, given these uncertainties and the corresponding public interest in affordable, reliable energy, allowing the longest possible

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<sup>16</sup> <https://penncapital-star.com/energy-environment/pjm-capacity-price-hits-cap-as-clean-energy-projects-remain-stalled/>. (DCN: SE11973).

timeframe for coal-fired EGUs to transfer between compliance alternatives and still install technologies to meet requirements by their deadline is the best solution to ensure grid reliability and resource adequacy.<sup>17</sup> These are non-water quality environmental impacts (including energy requirements) or other factors the Administrator proposes are appropriate to consider in accordance with 33 U.S.C. 1314(b)(2)(B), and they provide additional support for extending the latest zero-discharge limitations deadlines, and specifically for extending those deadlines to 2034.

In contrast to the “no later than” dates, the EPA is not proposing to postpone the earliest compliance dates associated with the 2024 rule. Instead, by postponing the latest compliance dates, the Agency intends to allow State permitting authorities more flexibility in determining the “as soon as possible” date under 40 CFR 423.11(t). The Agency is requesting comment in this proposal to help determine the scope of any subsequent reconsideration to give utilities, industry, and State permitting authorities additional certainty.

The EPA solicits comment on the proposed “no later than” dates of December 31, 2034. The EPA solicits comment on alternative dates and their justifications (*e.g.*, in previous rules the EPA has used one five-year permit cycle). The EPA also solicits comment on whether all three compliance dates warrant the same extension. In the 2024 rule record, the EPA explained how facilities will often co-treat different wastestreams or may send BA transport water to the FGD absorber as make-up water. The EPA solicits comment on whether such considerations support extending all compliance dates equally or whether more or less time might be warranted for particular wastestreams. Finally, while the Agency is not aware of circumstances in which any entity has detrimentally relied on the parts of the 2024 rule that the Agency is considering revising, the Agency solicits comment on any legitimate reliance interests that may be implicated by this proposed action, which the Agency should consider in the rulemaking process.

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<sup>17</sup> The EPA also notes that during this transition, facilities would continue to meet the 2020 limitations which achieve significantly more pollutant removals than the TSS standards in the 1980s regulations.

### *E. Tiered PSES*

While the majority of steam electric power plants directly discharge the three wastestreams for which the EPA established zero-discharge limitations in the 2024 rule, there are still one or more indirect dischargers of each of these wastewaters. The EPA finds that many of the considerations discussed in this preamble that warrant longer applicability timing for zero-discharge requirements on direct dischargers also may hold true for indirect dischargers. Thus, the EPA is proposing a new tiered standard for indirect dischargers that would conform with the Act and allow an indirect discharging plant to choose to be subject to direct discharge limits with the same timeframes available to existing direct dischargers.

Section 307(b)(1) of the CWA requires that pretreatment standards “shall specify a time for compliance not to exceed three years from the date of promulgation.” 33 U.S.C. 1317(b)(1). This three-year period is similar to the three years stated in section 301(b)(2)(C), (D), and (F), which apply to BAT limitations. 33 U.S.C. 1311(b)(2)(C), (D), and (F). Section 301(b)(2)(C) states that “there shall be achieved . . . compliance with [BAT] effluent limitations . . . as expeditiously as practicable but in no case later than three years after the date such limitations are promulgated . . . and in no case later than March 31, 1989.”<sup>18</sup> 33 U.S.C. 1311(b)(2)(C). The EPA reads those provisions as requiring that the EPA’s original BAT limitations be met no later than three years after the date that effluent limitations guidelines are promulgated, with a back-end deadline of March 31, 1989. Furthermore, the Act is silent as to any required timeframe for compliance with revised effluent limitations after March 31, 1989. *See Clean Water Action v. EPA*, 936 F.3d 308, 316-17 (5th Cir. 2019) (“EPA’s reading of the text accords the language its natural meaning: the initial BAT effluent limitations were to be complied with as expeditiously as practicable, but in no case later than three years after promulgation, with a final compliance date of March 31, 1989 – whichever came first. This reading is supported by section 1311(d),

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<sup>18</sup> CWA section 301(b)(2)(D) and section 301 (F) contain similar language. 33 U.S.C. 1311(b)(2)(D) and (F).

which requires the EPA periodically to review BAT limitations, including after 1989, but contains no such compliance deadline.”) (citation omitted).

Given that BAT limitations and PSES are intended to be analogous, as previously described, it would make sense that the three-year requirement in CWA section 307 also applies only to the EPA’s initial pretreatment standards for an industry. This is supported both by CWA section 307(b)(1)’s language stating that the three-year time for compliance applies to pretreatment standards “under this subsection,” as well as by section 307(b)(2), which includes language stating that the Administrator shall “from time to time” revise its pretreatment standards and *does not* include language directing compliance with revised standards under that subsection by any particular date. Nonetheless, even assuming that the three-year requirement applies to revisions of those standards, the EPA’s proposed pretreatment standards would meet that requirement because they represent a phased-in standard beginning three years from promulgation that reflects when more stringent technologies are available, achievable, and have acceptable NWQEI, as required by the Act.

In the first tier of the standard, indirect dischargers would be required, by **[INSERT DATE THREE YEARS FROM PUBLICATION IN THE FEDERAL REGISTER]**, to meet pre-2024 standards for FGD wastewater, BA transport water, and CRL. These standards (which are based, respectively, on biological treatment plus chemical precipitation, high recycle rate systems, and the permitting authority’s BPJ) are available and achievable, as supported by the record in the EPA’s prior rules. In the second tier of the standard, facilities opting to file a permit application with their permitting authority to directly discharge these wastewaters, and upon certifying that they would complete the conversion to direct discharge, would then be allowed to continue indirectly discharging until the compliance date determined by the permitting authority, but no later than December 31, 2034. In the second tier of the standard for facilities that do not opt to become direct dischargers, the tiered standard would change to zero-discharge by **[INSERT DATE THREE YEARS AND ONE DAY FROM PUBLICATION IN THE**

**FEDERAL REGISTER]**. In either case, this pretreatment standard is one standard that tightens over time, and so it conforms to the requirement of the Act that pretreatment standards specify a time for compliance not to exceed 3 years from the date of promulgation. The EPA expects that this approach will provide equity across a range of permitted facilities regardless of their discharge circumstance – *i.e.*, direct or indirect.

The EPA solicits comment on the proposed tiered standards and underlying rationale. The EPA solicits comment on alternative approaches for extending standards (*e.g.*, merely setting the second tier to the latest dates in 2034) or achieving parity between direct and indirect dischargers and their justifications. The EPA also solicits comment on whether all three compliance dates warrant the same extension. In the 2024 rule record, the EPA explained how facilities will often co-treat different wastestreams or may send BA transport water to the FGD absorber as make-up water. The EPA solicits comment on whether such considerations support extending all compliance dates equally or whether more or less time might be warranted for particular wastestreams. Finally, while the Agency is not aware of circumstances in which any entity has detrimentally relied on the parts of the 2024 rule that the Agency is considering revising, the Agency solicits comment on any legitimate reliance interests that may be implicated by this proposed action, which the Agency should consider in the rulemaking process.

*F. Alternative Applicability Timing and Notice of Planned Participation Submission Timing Flexibility*

The EPA is proposing a site-specific timeline flexibility to be incorporated in the permit conditions set forth in 40 CFR 423.18(d). Several of the challenges described in the prior sections that support aspects of this proposed rule may result in a plant, or even a single EGU at a plant, pivoting too quickly or too late into an alternative compliance pathway to ensure compliance with the applicable requirements. The EPA is proposing that such a flexibility is warranted based on the statutory factors of “availability” (timing of when a technology is available at a specific plant) and “NWQEI” (including energy requirements) (*i.e.*, sudden

changes in resource adequacy needs for a particular service area). *See* 33 U.S.C. 1311(b)(2)(A), 1314(b)(2)(B).

While the EPA is aware that several utilities have already pushed back plans to retire coal units by 2028 in order to support regional resource adequacy, trade associations and regional transmission organizations have discussed further scenarios with the EPA that could lead to impractical timeframes for the installation of technologies needed to meet applicable limits. In one case, a utility may have announced that one or more EGUs at a plant would retire by 2028 (making it eligible for the 2020 rule's subcategory for the permanent cessation of coal combustion by 2028), while the remainder would continue generation. If the IRP process or capacity auctions indicate that future needs may not be met, these EGUs may need to back out of previous retirement decisions. However, the plant may have combined wastewaters, such as combined FGD wastewaters from a joint FGD unit that treats flue gas from the entire plant. In the case that the plant was properly developing a treatment system that could treat wastewater from the EGUs it had intended to continue operating, the continued operation of one or more additional EGU(s) could lead to more wastewater than the system can treat. In such circumstances, the plant would be forced to choose between noncompliance or retiring an EGU needed for local resource adequacy. The EPA agrees that a plant in such a situation should be given the time to build out treatment systems and comply with the 2020 rule.

In another scenario, a plant that had submitted a NOPP for permanent cessation of coal combustion by 2028 may learn through the IRP process or capacity auctions that its continued operation is necessary to support local resource adequacy. Such facilities can still use the transfer flexibilities in 40 CFR 423.13(o) to transfer to the VIP limitations for FGD wastewater and the generally applicable limitations for BA transport water by December 31, 2025. However, if a plant had not taken significant steps to design, bid, and procure these technologies prior to the transfer deadline, it would not be practicable for the plant to in do so by the deadlines in the 2020 rule, particularly where the generally applicable BA transport water limitations have the same

deadline as the transfer itself. In such circumstances, a plant could be forced into deciding whether to risk noncompliance or retire a plant needed for local resource adequacy. Furthermore, requirements to first notify or gain approval of a state public utility commission might make formally submitting a transfer notice by December 31, 2025, impracticable.<sup>19</sup> As with the previous example, the EPA agrees that, in such circumstances, the plant should be given time to both get approvals needed to submit a transfer notice and build out treatment systems to comply with the 2020 rule.

Finally, stakeholders have expressed concerns with supply chains. Furthermore, the rapid growth of data centers, in some cases, takes materials and components that might otherwise have been used in an ELG compliance technology. Thus, it is possible that facilities may have to wait on parts that are available on the market, but not on the timelines originally believed or agreed to in a contract. In such cases, it is reasonable and consistent with the statutory and regulatory scheme that a plant should have sufficient time to construct its compliance technologies and should not be penalized for factors outside of its control.

After considering the above scenarios, the EPA is proposing a requirement for permitting authorities to extend the NOPP submission dates or applicability timing for any compliance date in the 2020 or 2024 rules (including the VIP limitations for FGD wastewater) due to these or any other unexpected and uncontrollable circumstances.<sup>20</sup> Such a flexibility would be included as a new permit condition via 40 CFR 423.18(d). As proposed, this would allow an alternative applicability date and, where appropriate, associated schedule of milestones, to be included in a permit, notwithstanding the existing applicability timing in the regulatory text. The EPA solicits comment on this proposed permit condition, including on whether there should be a minimum or maximum duration for the alternative applicability date permitting authorities can use, as well as

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<sup>19</sup> Some utilities may also be required to conduct environmental reviews of such decisions under state or Federal law, further delaying the date by which a notice to transfer could be filed.

<sup>20</sup> For the purposes of the above, these issues are unexpected to the extent that documentation shows the previously established projections for demand growth, market prices, or equipment/component procurement timing are no longer reflective of actual circumstances.

what that minimum or maximum should be (*e.g.*, an additional year, an additional permit cycle of five years, etc.). The EPA also solicits comment on the circumstances that qualify for an alternative applicability date under this timing flexibility, including any alternative circumstances that should be explicitly listed in the regulation. Further, the EPA solicits comment on whether and how this provision should be modified or integrated with other potential alternatives to the extensions and transfer provisions being proposed, or on which the Agency has solicited comment in this notice of proposed rulemaking. Finally, while the Agency is not aware of circumstances in which any entity has a significant reliance interest in the parts of the 2024 rule that the Agency is considering revising, the Agency solicits comment on whether there are any significant reliance interests that may be implicated by this proposed timing flexibility and, if so, how the Agency should take this into account when considering whether to take final action on the proposal.

The EPA is also proposing that a plant wishing to make use of this proposed provision must submit an initial request letter and regular progress reports to their permitting authority. The initial request letter must include the circumstance under which it is requesting alternative applicability timing. The letter must also include detailed engineering dependency charts that would allow the permitting authority to establish an alternative applicability date and, where appropriate, associated schedule of milestones in the permit, as well as determine the frequency of regular progress reports. For instance, if a plant needed only an extra six months to install relevant technologies, then monthly progress reports might be warranted; however, if the same plant needed an extra six years to install relevant technologies, then annual or bi-annual progress reports might be sufficient.<sup>21</sup> Furthermore, the engineering dependency charts should identify contingencies, especially for uncertain or critical path steps, so that any associated schedule can be sufficiently flexible to avoid the potential for permit modifications upon a predictable delay.

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<sup>21</sup> Note that nothing in this requirement prevents a permitting authority from requesting additional information or information at additional times, consistent with applicable law.

Finally, the letter must be accompanied by any missing NOPPs or progress reports. While the EPA is intending this flexibility to be used only when necessary, the Agency is proposing it in a way that allows the maximum flexibility in terms of time and need. Facilities and permitting authorities should continue to plan for compliance through normal pathways to the extent possible. The EPA solicits comment on the appropriate level of paperwork required or any additional information that should be included.

*G. Clarifications to Sections 423.18(a) or 423.19(i)*

In the 2020 rule, the EPA discussed how changed circumstances in a plant's operations could affect compliance with the ELG. This discussion distinguished voluntary versus involuntary changes in operations. As examples of involuntary changes, the EPA noted that electric utilities are regulated by a variety of agencies that can legally require continued generation at a plant (*e.g.*, section 202(c) of the Federal Power Act). For these types of reliability-related issues, the EPA established permit conditions that would ensure non-interference with resource adequacy and reliability when such orders were issued.<sup>22</sup> After this provision was established, stakeholders raised questions as to the applicability of the section to energy emergency alerts (EEAs). In response to these stakeholder concerns, when finalizing the 2024 rule, the EPA reinforced its commitment to not interfering with the provision of reliable power by amending 40 CFR 423.18(a) to expressly include EEAs as a valid trigger for the protections therein.

Since the 2024 rule, stakeholders have questioned whether 40 CFR 423.18(a) can be read to include other types of actions not explicitly listed. Specifically, four scenarios were raised for which stakeholders wish further clarification from the EPA. These include the following:

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<sup>22</sup> In contrast, the EPA noted that a plant voluntarily changing operations needed to “carefully plan its implementation.” 85 FR 64650, 64709 (October 13, 2020).

- Whether 40 CFR 423.18(a)(2) is interpreted to include the FERC’s acceptance of a reliability must-run agreement as being a reliability must-run agreement issued by a Public Utility Commission as contemplated within this subsection;
- Whether 40 CFR 423.18(a)(3) is interpreted to include the following as a qualifying event: where an EGU(s) has certified it would cease combustion of coal, and an appropriate Balancing Authority projects, pursuant to its authority, that doing so would cause a resource adequacy shortfall for an upcoming delivery year;
- Whether 40 CFR 423.19(i)(1)(ii) is interpreted to include the 30-day submission applicability to any findings made pursuant to 40 CFR 423.18(a)(3); and
- Whether 40 CFR 423.19(i)(3) is interpreted such that the termination of need statement submission is also triggered 30 days from when the source is no longer subject to extended production (which is increased production) resulting from the qualifying event.

With respect to the first issue, the EPA intended for any reliability must-run agreement or similar order to be covered. The EPA believes that, between 40 CFR 423.18(a)(2) and 423.18(a)(3), there is sufficient flexibility that either or both provisions could apply to such orders depending on the entity making or receiving the filing. Nevertheless, the EPA solicits comment on whether the removal of the term “public utility commission” is warranted, or whether the term should be replaced by a list of potential agencies that could file or accept such an order.

With respect to the second issue, the EPA received a similar question from the Tennessee Valley Authority (TVA) at the time of the 2023 proposal. There, the EPA pointed out that the TVA was certified by the NERC as the reliability coordinator for itself and several other utilities. Therefore, the record supported that the TVA had the authority to issue operating instructions and emergency operating instructions with which any utilities (including itself) must comply, making the TVA a competent electricity regulator. Since 40 CFR 423.18 refers broadly to “a competent electricity regulator (*e.g.*, an independent system operator),” the EPA concluded that

this broad definition allowed for load balancing authorities to be included and thus made no textual changes. However, since the issue is in front of the EPA, the Agency again solicits comment on whether removing the examples or adding a more comprehensive list of regulators is warranted.

With respect to the third issue, the EPA notes that 40 CFR 423.19(i)(2)(ii) refers back to (i)(2)(i), which in turn refers back to any qualifying event in 40 CFR 423.18(a). Since the reference does not limit qualifying events to any subparagraph in 40 CFR 423.18(a), the EPA agrees that any event under (a)(3) would trigger the reporting and recordkeeping requirement. The EPA solicits comment on whether additional clarity in the regulatory text is necessary. The EPA recommends that, where a plant subject to this requirement has missed the deadline, it make any appropriate submission as soon as possible.

With respect to the final issue, the EPA again agrees that extended production is increased production. The EPA solicits comment on whether the text of this section should explicitly list extended production or any other scenario that may not be as obvious an “increase” and, if so, examples of settings where there might be confusion.

For these, and any other clarification to 40 CFR 423.18(a), the EPA solicits comment on whether explicit changes to the regulatory text of 40 CFR 423.18(a) are warranted in light of the text, purpose, and history of these provisions. Specifically, the EPA solicits comment on whether the existing regulatory text is already sufficiently broad to cover the scenarios of concern raised by stakeholders. Finally, although the EPA does not expect this to be the case, the Agency also solicits comment on whether there are any significant reliance interests related to the existing text of 40 CFR 423.18 and, if so, how the Agency should take this into account when considering whether to take final action on the proposal.

#### *H. Economic Achievability*

In the 2024 rule, the EPA estimated that the cost to industry of zero discharge of FGD wastewater would be \$179 million per year, the cost to industry of zero discharge of BA

transport water would be \$19 million per year, and the cost to industry of zero discharge of CRL would be \$225 million per year in annualized costs at a three percent discount rate. Combined, this led to a total cost estimate of \$423 million per year at a three percent discount rate. The EPA determined that these costs were economically achievable. Under the timing flexibilities and transfer provisions proposed above, individual facilities could see the timing of costs delayed by anywhere from zero to six years (five plus an additional year that the permitting authority may deem them in compliance), based on site-specific circumstances and the permitting authority's discretion. Thus, assuming facilities, on average, would have their compliance extended in that range, and discounting by zero to six years (*i.e.*, an average of three years) at a 3 percent discount rate, the EPA estimates that this rule would save utilities approximately \$30 million per year. At a 7 percent discount rate, the EPA estimates savings of \$79 million. The EPA proposes that, with these cost savings, the rule would continue to be economically achievable for this proposed action. To the extent that the EPA heard from utilities asserting costs are higher than those estimated in the 2024 rule, the Agency is soliciting comment on costs in the following data request section.

### *I. Severability*

The purpose of this section is to clarify the Agency's intent with respect to the severability of provisions of any final rule based on this proposed rule. In the event of a stay or invalidation of part of any final rule based on this proposed rule, the Agency's intent is to preserve the remaining portions of the rule to the fullest extent possible. The EPA notes the following existing regulatory text at 40 CFR 423.10(b) that would not be altered by this proposed rule: "The provisions of this part are separate and severable from one another. If any provision is stayed or determined to be invalid, the remaining provisions shall continue in effect." Moreover, to dispel any doubt regarding the EPA's intent and to inform how any final regulation would operate if severed, the Agency proposes to find that it would adopt each portion of this proposed rule independent of the other portions. As explained below, the Agency carefully crafted this

proposed rule so that each provision or element of the rule can operate independently. Moreover, the Agency has organized the proposed rule so that if any provision or element of a final rule based on this proposal is determined by judicial review or operation of law to be invalid, that partial invalidation would not render the remainder of the rule invalid.

This proposed rule would extend certain compliance dates associated with zero-discharge limitations and standards for discharges of pollutants found in three steam electric wastestreams. The proposed rule would provide extended dates for limitations and standards associated with each wastestream in separate sections that do not rely on one another. Although the proposed decision to extend deadlines applicable to each wastestream rests on overlapping facts, the proposal to extend the compliance dates for limitations for each wastestream was made independently of the proposed decisions to extend the other compliance dates.

This proposed rule would also provide flexibility for steam electric facilities to opt into different compliance pathways that exist in the rule, for example, due to changed circumstances. This proposed flexibility to transfer to a different compliance pathway is unrelated to other provisions in the proposed rule, and EPA's proposed decision to allow for such transfers is unrelated to other aspects of the proposal.

Finally, this proposed rule would create authority for alternative applicability dates for limitations promulgated in the 2020 or 2024 rules, based on site-specific factors. This proposed authority is independent from other changes being proposed, and the EPA's proposed decision to provide for such authority is unrelated to other aspects of the proposal. For example, in the event of a stay or invalidation of any extended compliance dates for the zero-discharge limitations or standards, the EPA anticipates that there is continued authority for alternative applicability dates, as discussed in this paragraph, and such authority could continue to be implemented.

These examples are illustrative, rather than exhaustive, and the EPA intends for each portion of the proposed rule to be independent and severable. Furthermore, if application of any portion of a final rule based on this proposal to a particular circumstance is determined to be

invalid, the Agency intends that the rule remain applicable to all other circumstances. The Agency solicits comment on these proposed severability findings.

## **VII. Data Request**

Subsequent to this rulemaking effort, the EPA intends to undertake a further reconsideration of certain aspects of the existing regulations. EPA has heard from some segments of the mining industry that existing subcategories providing compliance pathways for EGUs seeking to retire or convert to alternative fuel sources establish an inadequately supported “offramp” to the continued utilization of domestic coal resources for energy production in the U.S. EPA solicits comment on repealing those subcategories that would require the permanent cessation of coal combustion by 2028 and 2034, respectively.

Additionally, the EPA is seeking to define the scope of this subsequent rulemaking to potentially revise the underlying technology bases for certain limitations and standards in the 2024 rule. In its March 12, 2025, press release, the EPA stated that it would be reconsidering the 2024 rule’s TBELs, including those for CRL (DCN: SE11918). Environmental groups, electric utilities, and States challenged the unmanaged CRL provisions in litigation over the 2024 rule. In further discussions between the EPA and electric utilities, industry has also consistently reiterated its position that the final limitations for unmanaged CRL are inappropriate. Thus, the EPA intends to reconsider the mercury and arsenic limitations for this wastestream and will evaluate all potential technology options, including zero discharge, as part of that reconsideration. The EPA solicits comment on any pilot or full-scale treatment data for unmanaged CRL. The EPA also solicits comment on any engineering cost estimates, bids, vendor quotes, or other cost information regarding treatment of unmanaged CRL.

The Agency has also continued to hear from segments of the electric utility industry that the zero-discharge technologies used to establish BAT limitations for FGD wastewater and CRL (other than unmanaged CRL) in the 2024 rule are not available to all facilities, are not economically achievable, and are a primary cause of many announced steam electric power plant

retirements. Utilities and trade associations have also pointed out that the availability of zero-discharge technologies can be dependent on plant-specific characteristics that are unrelated to the technology itself (e.g., the plant is located in a geographic area with a hot, arid climate that allows for increased evaporation to meet zero-discharge limits, or the plant uses a particular type of fuel). For example, a June 18, 2025 letter to the Agency from UWAG describes that, based on its analysis, most of the plants the Agency previously identified as meeting zero-discharge for FGD wastewater have unique characteristics not actually related to the technologies that allow them to achieve zero discharge. UWAG's letter further identifies specific challenges its members have encountered when attempting to install and operate zero-discharge technologies. The EPA solicits comment on all relevant data and information relating to these statements. Specifically, the EPA is soliciting information on availability, economic achievability, and resource adequacy and reliability impacts as further described below.

*Pilot Study and Bench Test Information (Technological Availability).* The EPA has learned that facilities have continued to successfully pilot test zero-discharge technologies on FGD wastewater and CRL since the 2024 rule. While the EPA cannot know for certain how many of these pilot tests have been conducted, based on conversations with utilities and vendors, the EPA estimates that there may be a dozen or more successful pilots with thermal and/or crystallization technologies and perhaps twice as many successful new pilot studies on membrane filtration technologies. The EPA solicits comment on new pilot study or bench test data, particularly where these technologies failed to perform in the manner described in the 2024 rule record. Where contractors, consultants, or vendors have provided reports, the EPA is soliciting comment that provide these reports in full (rather than select excerpts) to allow the Agency the ability to understand the underlying volumes, influent and effluent characteristics, run times, maintenance, and challenges experienced with the relevant systems in proper context. The EPA is also explicitly requesting any such data on potential VIP technologies for FGD

wastewater where the elimination of expensive pretreatment steps would yield similar pollutant removals but nevertheless be unable to meet the VIP limitations established in the 2020 rule.

*Cost Projection Information (Economic Achievability).* The EPA has learned that many facilities have asked for, and received, formal engineering cost estimates or quotes for zero-discharge systems from engineering, procurement, and construction firms, consultants, and/or vendors. In some cases, facilities have also received firm bids in response to requests for proposal or, alternatively, have received cost-escalation figures for previous quotes or bids. The EPA solicits this information in full and unredacted. Full access to this information is important to assess the design specifications, the precise line-items that are included in the cost projections, the expected manner of operation, etc. As the EPA has described in previous iterations of this rule, estimates of costs without reasonably detailed underlying assumptions cannot be assessed by the EPA with the level of rigor necessary to support an ELG. The EPA must have a reasonable understanding of the underlying assumptions for the costs to be able to properly evaluate them. Furthermore, the EPA is aware that some facilities have done analyses of internal processes or operational changes at their plants that would be made as part of achieving zero discharge. The EPA solicits comment providing this information.

*Newly Installed Systems (Technological Availability and Economic Achievability).* The EPA is aware that facilities have continued to contract for, fabricate, and install zero-discharge systems in furtherance of State requirements and/or the Steam Electric ELGs. The EPA solicits comment on final cost information for these systems, as well as the specifications that the systems were designed for. The EPA also solicits comment on any performance data associated with systems that may be in operation.

*Resource Adequacy and Reliability Information.* As previously raised in this preamble, the EPA is aware that data centers, population growth, manufacturing, and other changes have increased, and are expected to continue increasing, demand for electricity. The EPA solicits comment on specific examples of where demand has spiked disproportionately in local or

regional electricity markets. The EPA also solicits comment on facilities which would not be retiring but for the Steam Electric ELGs, including financials for the impacted facilities that project costs and revenues both with and without the rule. The EPA solicits comment on any other short- and medium-term resource adequacy or reliability-related impacts that would result under the ELGs and any recommendations for how to avoid adverse impacts to resource adequacy and reliability.

The EPA is aware some plants planning on cessation of coal combustion may choose to delay cessation of coal combustion or may be pushed to delay planned closures or repowering. At this time, the EPA is unable to quantify the costs of the proposed measures. However, as discussed above, amortization of investments in upgrades and wastewater treatment equipment spread out over additional years or pushed out further results in lower annual costs and thus may improve long-term affordability. It is the EPA's expectation that the proposed changes in this Notice would reduce industry compliance costs. The EPA may, if new and relevant data are received, quantify the costs of any final rule using the same models and methodologies used in the 2020 and 2024 rules.

### **VIII. Statutory and Executive Order Reviews**

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

*A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review*

This proposed action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. From a 2024 rule baseline, the EPA estimated that the proposed action would result in annualized cost savings of \$30 million to \$87 million and forgone benefits of \$46 million to \$110 million at a three percent discount rate. At a 7 percent discount rate, the estimated annualized cost savings are \$79 million to \$215 million and forgone benefits are \$99 million to \$240 million.

## *B. Executive Order 14192: Unleashing Prosperity Through Deregulation*

This action is considered an Executive Order 14192 deregulatory action. If finalized, this proposed rule would reduce regulatory burdens by providing additional time for the regulated community associated with their decision making.

## *C. Paperwork Reduction Act (PRA)*

The information collection activities in this proposed rule have been submitted for approval to the OMB under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 7814.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

The EPA is proposing several new reporting and recordkeeping requirements or changes as part of the proposed rule. First, to implement the final rule's expanded transfer flexibilities, under CWA sections 304(i) and 308, this proposed rule includes expanded reporting and recordkeeping requirements in 40 CFR 423.19(l). Second, to implement the proposed rule's new tiered PSES for facilities that wish to receive applicability dates as a direct discharger from a permitting authority the rule includes a new reporting and recordkeeping requirement in 40 CFR 423.19(p). Finally, to implement the proposed rule's new flexibility for alternative applicability dates, the rule includes two new reporting and recordkeeping requirements in 40 CFR 423.19(q). Specifically, the proposed rule includes requirements for an initial request letter and regular progress reports. The EPA also notes that with these additional reporting and recordkeeping requirements, the proposed rule also expands the filings required to be posted to each plant's public-facing website.

Respondents/affected entities: steam electric facilities

Respondent's obligation to respond: Mandatory (40 CFR 423.19)

Estimated number of respondents: 60

Frequency of response: Annually

Total estimated burden: 2,880 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$308,400 (per year), includes \$0 annualized capital or operations & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. The EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs using the interface at [www.reginfo.gov/public/do/PRAMain](http://www.reginfo.gov/public/do/PRAMain). Find this particular information collection by selecting "Currently under Review - Open for Public Comments" or by using the search function. OMB must receive comments no later than **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

#### *D. Regulatory Flexibility Act (RFA)*

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the agency is certifying that this rule will not have a significant economic impact on a substantial number of small entities because the rule relieves regulatory burden on the small entities subject to the rule. This action consists of a compliance date extension for the steam electric industry, including small entities, which will allow for greater flexibility for compliance. We have therefore concluded that this action will relieve regulatory burden for all directly regulated small entities. Additionally, the EPA previously certified that the 2024 rule, which had a higher cost burden than is anticipated for this action, will not have a significant economic impact on a substantial number of small entities under the RFA (89 FR 40198).

As small entities were estimated to incur an estimated 19 percent of the annualized compliance costs for meeting bottom ash, FGD, and managed CRL limits in the 2024 rule analysis, the EPA expect that they may see a corresponding share of the estimated cost savings from the compliance date extension (i.e., total savings of \$6 million to \$16 million at a three percent discount and \$15 million to \$40 million at a seven percent discount rate).

*E. Unfunded Mandates Reform Act (UMRA)*

This proposed action does not contain an unfunded mandate as described in UMRA, 2 U.S.C. 1531-1538, and does not significantly or uniquely affect small governments. The proposed action imposes no enforceable duty on any State, local or Tribal governments or the private sector.

*F. Executive Order 13132: Federalism*

This proposed action does not have federalism implications. It will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

*G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments*

This proposed action would not have tribal implications as specified in Executive Order 13175. It does not have substantial direct effects on Tribal governments, on the relationship between the Federal Government and the Indian Tribes, or the distribution of power and responsibilities between the Federal Government and Indian Tribes as specified in Executive Order 13175. The EPA's analyses show that no plant subject to the final ELGs is owned by Tribal governments. Thus, Executive Order 13175 does not apply to this action.

*H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks*

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-

202 of the Executive Order. Therefore, this proposed action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk. Since this proposed action does not concern human health, the EPA's Policy on Children's Health also does not apply.

*I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*

This proposed action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. The proposed compliance date extensions would allow EGUs to continue operations with additional time for decision-making and will not adversely impact supply, distribution, or use.

*J. National Technology Transfer and Advancement Act (NTTAA)*

This rulemaking does not involve technical standards.

**List of Subjects in 40 CFR Part 423**

Environmental protection, Electric power generation, Power facilities, Waste treatment and disposal, Water pollution control.

**Lee Zeldin,**

*Administrator.*

For the reasons stated in the preamble, the Environmental Protection Agency proposes to amend 40 CFR part 423 as follows:

**PART 423— STEAM ELECTRIC POWER GENERATING POINT SOURCE**

**CATEGORY**

1. The authority citation for part 423 continues to read as follows:

**Authority:** 33 U.S.C. 1251 *et seq.*; 1311; 1314(b), (c), (e), (g), and (i)(A) and (B); 1316; 1317; 1318 and 1361.

2. Amend § 423.13 by:

- a. Revising paragraphs (g)(4)(i)(A), (k)(4)(i), and (l)(1)(i)(A); and
- b. Adding paragraph (o)(1)(iii).

The revisions and additions read as follows:

**§ 423.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable (BAT).**

\* \* \* \* \*

(g) \* \* \*

(4) \* \* \*

(i) \* \* \*

(A) Dischargers must meet the effluent limitations for FGD wastewater in this paragraph (g)(4)(i) by a date determined by the permitting authority that is as soon as possible beginning July 8, 2024, but no later than December 31, 2034. These effluent limitations apply to the discharge of FGD wastewater generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph (g)(4)(i).

\* \* \* \* \*

(k) \* \* \*

(4) \* \* \*

(i) Except for those discharges to which paragraphs (k)(4)(ii) through (iv) of this section applies, or when the bottom ash transport water is used in the FGD scrubber, there shall be no discharge of pollutants in bottom ash transport water. Dischargers must meet the discharge limitation in this paragraph (k)(4)(i) by a date determined by the permitting authority that is as soon as possible beginning July 8, 2024, but no later than December 31, 2034. The limitation in this paragraph (k)(4)(i) applies to the discharge of bottom ash transport water generated on and after the date determined by the permitting authority for meeting the discharge limitation, as specified in this paragraph (k)(4)(i).

\* \* \* \* \*

(l) \* \* \*

(1) \* \* \*

(i) \* \* \*

(A) Dischargers must meet the effluent limitations for combustion residual leachate in this paragraph (l)(1)(i) by a date determined by the permitting authority that is as soon as possible beginning July 8, 2024, but no later than December 31, 2034. The effluent limitations in this paragraph (l)(1)(i) apply to the discharge of combustion residual leachate generated on and after the date determined by the permitting authority for meeting the effluent limitations, as specified in this paragraph (l)(1)(i).

\* \* \* \* \*

(o) \* \* \*

(1) \* \* \*

(iii) On or before December 31, 2034, a facility may convert:

(A) From the generally applicable zero discharge limitations under paragraphs (g)(4)(i), (k)(4)(i), or (l)(1)(i) of this section to limitations for electric generating units permanently ceasing coal combustion under paragraphs (g)(4)(iii), (k)(4)(iii), or (l)(2)(i) of this section; or

(B) From limitations for electric generating units permanently ceasing coal combustion under

paragraphs (g)(4)(iii), (k)(4)(iii), or (l)(2)(i) of this section to the generally applicable zero discharge limitations under paragraphs (g)(4)(i), (k)(4)(i), or (l)(1)(i) of this section.

3. Amend § 423.16 by revising paragraphs (e)(3), (g)(3), and (j)(1) to read as follows:

**§ 423.16 Pretreatment standards for existing sources (PSES).**

\* \* \* \* \*

(e) \* \* \*

(3) *2024 PSES*. Except as provided for in paragraph (e)(4) of this section, for any electric generating unit with a total nameplate generating capacity of more than 50 megawatts and that is not an oil-fired unit:

(i) Dischargers must meet the standards in paragraph (e)(1) of this section by **[DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**. The standards in paragraph (e)(1) of this section apply to the discharge of FGD wastewater generated on and after **[DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**.

(ii) By the dates in paragraph (e)(3)(ii)(A) or (B) of this section there shall be no discharge of pollutants in FGD wastewater:

(A) **[DATE 3 YEARS PLUS ONE DAY AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**; or

(B) Where a certification statement has been submitted pursuant to § 423.19(p), December 31, 2034.

\* \* \* \* \*

(g) \* \* \*

(3) *2024 PSES*. Except as provided for in paragraph (g)(4) of this section, for any electric generating unit with a total nameplate generating capacity of more than 50 megawatts and that is not an oil-fired unit:

(i) Dischargers must meet the standards in paragraph (g)(1) of this section by **[DATE 3 YEARS**

**AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].** The standards in paragraph (g)(1) of this section apply to the discharge of bottom ash transport water generated on and after **[DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER].**

(ii) By the dates in paragraph (g)(3)(ii)(A) or (B) of this section, there shall be no discharge of pollutants in bottom ash transport water:

**(A) [DATE 3 YEARS PLUS ONE DAY AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER];** or

**(B)** Where a certification statement has been submitted pursuant to § 423.19(p), December 31, 2034.

\* \* \* \* \*

(j) \* \* \*

(1) *2024 PSES.* Until and including the dates specified in paragraphs (j)(1)(i) and(ii), or paragraph (j)(2) of this section, the EPA is declining to establish PSES for combustion residual leachate and is reserving such standards to be established by the control authority on a case-by-case.

(i) Except for those discharges to which paragraph (j)(1)(ii) of this section applies, by the dates in paragraph (j)(1)(i)(A) or (B) of this section, there shall be no discharge of pollutants in combustion residual leachate:

**(A) [DATE 3 YEARS PLUS ONE DAY AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER];** or

**(B)** Where a certification statement has been submitted pursuant to section 423.19(p), December 31, 2034.

(ii) After the retirement of all units at a facility, the quantity of pollutants in CRL shall not exceed the quantity determined by multiplying the flow of CRL permeate times the concentrations listed in the table 7 to § 423.13(g)(3)(i) or the flow of CRL distillate times the

concentrations listed in the table in § 423.15(b)(13).

4. Amend § 423.18 by adding paragraph (d) to read as follows:

**§ 423.18 Permit conditions.**

\* \* \* \* \*

(d)(1) Notwithstanding the dates associated with any limitations in § 423.13(g), (k), or (l), a permitting authority shall establish, in a facility's permit, an alternative applicability date and, where appropriate, an associated schedule of milestones, for achieving the required limitations when the facility meets one of the circumstances in paragraph (3), provided that the facility submits an initial request letter pursuant to section 423.19(q) and the permitting authority finds that request factually supported in the letter and attachments provided.

(2) Notwithstanding the dates associated with any notice of planned participation required to be submitted under sections 423.19(g), (j), or (l), a permitting authority may accept a late notice of planned participation provided that the facility meets one of the circumstances in paragraph

(d)(3) of this section, submits an initial request letter pursuant to § 423.19(q), and the permitting authority finds that request factually supported in the letter and attachments provided. Transfers pursuant to §423.13(o)(1)(ii) but receiving alternative § 423.19(l) submission dates in this paragraph (d)(2) shall be deemed timely. In no case may a late notice of planned participation be accepted pursuant to this paragraph (d)(2) after December 31, 2028.

(3) Circumstances which a permitting authority shall find warrant an alternative applicability date or later notice of planned participation submission date based on factual support under paragraphs (d)(1) or (2) of this section include:

(i) Where a facility needs an alternative applicability date upon making a permissible transfer between limitations prior to the deadlines in § 423.13(o) due to:

(A) An unexpected change in regional capacity market prices; or

(B) An unexpected change in local demand which materially exceeds projections made in the most recent iterations of integrated resource plans or other planning documents;

(ii) Where a facility has one or more electric generating units using a wastewater treatment system treating combined wastewater (e.g., wastewater from a single flue gas desulfurization system servicing different units) and needs an alternative applicability date after making a decision to back out of a commitment to permanently cease coal combustion at one or more different electric generating units at the same plant due to:

(A) An unexpected change in regional capacity market prices; or

(B) An unexpected change in local demand which materially exceeds projections made in the most recent iterations of integrated resource plans or other planning documents;

(iii) Where a facility needs an alternative applicability date because it faces an unexpected supply chain issue that delays a necessary component (not merely a preferred component where there are reasonable substitutes) at a key stage of fabrication or installation such that the timeline for reaching steady-state treatment is delayed; or

(iv) Where a facility faces any other circumstance that requires additional time and is wholly outside both the facility's control and the facility's ability to plan for.

(4) A facility availing itself of this paragraph may consider the alternative applicability dates or alternative notice of planned participation submission dates when evaluating compliance for purposes of § 423.13(o)(2).

5. Amend § 423.19 by:

a. Revising paragraphs (c)(1), (h)(1), (l) introductory paragraph, and (l)(1); and

b. Adding paragraphs (p) and (q).

The revisions and additions read as follows:

**§ 423.19 Reporting and recordkeeping requirements.**

\* \* \* \* \*

(c) \* \* \*

(1) Except as provided in paragraph (c)(2) of this section, each facility subject to one or more of the reporting requirements in paragraphs (d) through (q) of this section must maintain a publicly

accessible internet site (ELG website) containing the information specified in paragraphs (d) through (q) of this section, if applicable. This website shall be titled “ELG Rule Compliance Data and Information.” The facility must ensure that all information required to be posted is immediately available to anyone visiting the site, without requiring any prerequisite, such as registration or a requirement to submit a document request. All required information must be clearly identifiable and must be able to be immediately downloaded by anyone accessing the site in a format that enables additional analysis (e.g., comma-separated values text file format). When the facility initially creates, or later changes, the web address (i.e., Uniform Resource Locator (URL)) at any point, they must notify the EPA via the “contact us” form on EPA's Effluent Guidelines website and the permitting authority or control authority within 14 days of creating the website or making the change. The facility's ELG website must also have a “contact us” form or a specific email address posted on the website for the public to use to submit questions and issues relating to the availability of information on the website.

\* \* \* \* \*

(h) \* \* \*

(1) *Notice of Planned Participation.* For sources seeking to qualify as an electric generating unit that will achieve permanent cessation of coal combustion by December 31, 2034, under this part, a Notice of Planned Participation shall be made to the permitting authority, or to the control authority in the case of an indirect discharger, no later than December 31, 2031.

\* \* \* \* \*

(1) ***Requirements for facilities seeking protections under this part –***

(1) *Notice of Planned Participation.* For sources which intend to make changes that would qualify them for a different set of requirements under § 423.13(o), a Notice of Planned Participation shall be made to the permitting authority, or to the control authority in the case of an indirect discharger, no later than the dates stated in § 423.13(o)(1).

\* \* \* \* \*

*(p) Requirements for facilities subject to zero discharge pretreatment standards for existing sources by 2034.* For sources seeking to be subject to the second tier of the tiered standards in § 423.16(e)(3)(ii)(B), (g)(3)(ii)(B), or (j)(2)(i)(B), a certification statement shall be submitted to the control authority by **[DATE 3 YEARS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]** stating that the facility has submitted a permit application, permit renewal application, or permit modification request to its permitting authority seeking an as soon as possible date for achieving the corresponding generally applicable zero discharge limitations in § 423.13(g)(4)(i), (k)(4)(i), or (l)(1)(i), subject to the considerations in § 423.11(t). Furthermore, the certification statement will include an affirmative statement that the facility will also cease its indirect discharge by the as soon as possible date determined in this permitting action.

*(q) Requirements for facilities seeking an alternative applicability date under this part.*

(1) *Initial request letter.* A facility may submit a letter to its permitting authority requesting that it receive an alternative applicability date pursuant to §423.18(d).

(2) *Contents and Timing.* The initial request letter must detail the significant unexpected circumstance in § 423.18(d)(2) and a compelling narrative that explains why these unexpected circumstances warrant an alternative applicability date by the permitting authority in light of the facility's plans and execution of those plans. The letter must also contain a proposed schedule of compliance to be incorporated into the permit, supported by detailed engineering dependency chart that clearly shows the milestones leading to compliance as soon as possible given the unexpected circumstances described in the letter, including contingencies for critical path steps. In the case of a missed notice of planned participation, annual progress report, or other reporting or recordkeeping requirement that should have been submitted prior to **[DATE 60 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**, the letter must also attach such reporting requirements. Such submissions shall be deemed timely by the permitting authority. The facility shall submit an initial request letter within 60 days of the

significant unexpected circumstance detailed in the letter or by **[DATE 60 DAYS AFTER PUBLICATION OF THE FINAL RULE IN THE FEDERAL REGISTER]**, whichever is later.

(3) *Progress Reports.* A facility that submits an initial request letter pursuant to paragraph (q)(1) of this section must submit regular progress reports with its permitting authority at a frequency determined in paragraph (q)(4) of this section.

(4) *Contents and Timing.* Progress reports must include a description of tasks and sub-tasks completed towards each of the milestones listed in the initial request letter, any changes to the expected dates of milestones, and any contingencies from the initial request letter which have been effectuated. The permitting authority shall establish the timing of regular progress reports based on the following considerations:

- (i) The estimated duration of the alternative applicability timing;
- (ii) The timeframes of various milestones, tasks, and sub-tasks;
- (iii) The number and magnitude of contingencies; and
- (iv) Any other appropriate and relevant factor.

(5) *Request letter.* A facility may submit a single initial request letter under this paragraph (q)(5) to provide factual support for circumstances specified in § 423.18(d)(3) that would support of one or more requests for alternative dates in § 423.18(d)(1) or (2).