



evoqua
WATER TECHNOLOGIES

ELG FINAL RULE
SEPT 2020



FRONTIER
WATER SYSTEMS



The Final Rule

Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category – 40 CFR Part 423 (ELGs)

Based on the 2017 reconsideration of the ELGs related to:

1. Flue Gas Desulphurization (FGD) Wastewater
2. Bottom Ash Transport Water



The following is intended to be an overview and not intended to be legal interpretation or site-specific regulatory guidance



FGD Limits

Best Available Technology Economically Achievable (BAT) & Pretreatment Standards for Existing Sources (PSES)

	2015 Daily Max	2015 Monthly Ave	2019 Daily Max	2019 Monthly Ave	2020 Daily Max	2020 Monthly Ave	2020 Long Term Ave
As (ppb)	11	8	18	9	18	8	4.98
Hg (ppt)	788	356	85	31	103	34	13.48
Se (ppb)	23	12	76	31	70	29	15.87
NO ₃ /NO ₂ – N (ppm)	17.0	4.3	4.6	3.2	4.0	3.0	2.14
ASAP – Beginning	Nov 1, 2018		Nov 1, 2020		One Year After Publication		
No later than	Dec 31, 2023		Dec 31, 2025		Dec 31, 2025		



FGD Limits

The Exceptions

1. Low Utilization
 - Was defined as <876,000 MWh/yr, *now* defined as <10% Capacity Utilization Rate (CUR)
 - EPA expects that 2/3rds of the Low Utilizations candidates negatively impacted
2. High Flow: >4MGD
3. Retirement by Dec 31, 2028
4. Voluntary Incentive Program (VIP) – Based on using Membrane Technologies



FGD Limits

Low Utilization / High Flow

	Daily Max	Monthly Ave
TSS (ppm)	100	30
As (ppb)	11	8
Hg (ppt)	788	356
ASAP – Beginning	NA	
No later than	Dec 31, 2025	

Requires certification using EIA submission data

VIP

	Daily Max	Monthly Ave
As (ppb)	5	NA
Hg (ppt)	23	10
Se (ppb)	10	NA
NO ₃ /NO ₂ – N (ppm)	2.0	1.2
Bromide (ppm)	0.2	1.2
TDS (ppm)	306	149
ASAP – Beginning	Nov 1, 2018	
No later than	Dec 31, 2028	



Summary

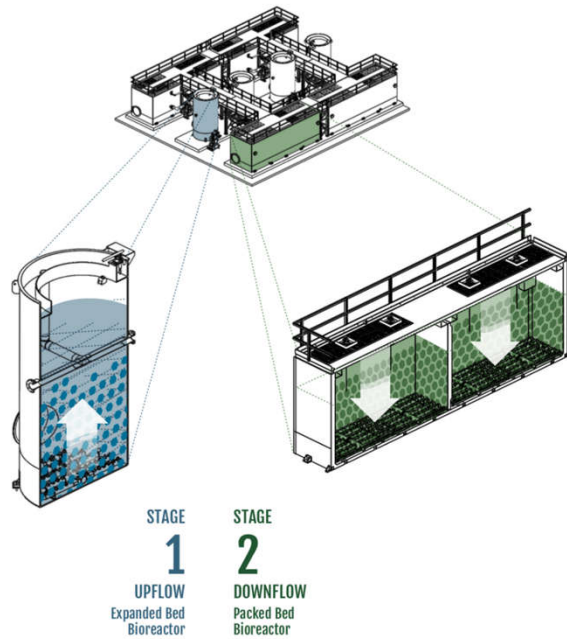
Wastestream	Subcategory	Technology Basis
FGD Wastewater	NA	Phys-Chem + Advanced Treatment
	High FGD Flow Station	Phys-Chem
	Low Utilization System	Phys-Chem
	2028 Retirement	Surface Impoundment ¹
	VIP	Membrane Filtration
BA Transport Water	NA	Dry Handling or High Rate Recycle System
	Low Utilization Boiler	Surface Impoundment + BMP Plan ²
	2028 Retirement	Surface Impoundment ²

1 – Assuming a lined surface impoundment

2- BAT limitations for any wastewater that is purged from high recycle rate system and then discharged, should be established by the NPDES permitting authority on a case-by-case basis using best professional judgment (BPJ)



BAT – Low Residence Time Reduction Bioreactor (LRTR)



Low Residence Time – 1 to 4 hours

High Residence Time – 10-16 hour

Questions?

Evoqua/Frontier is the premier solution provider for coal fired power producers faced with ELG compliance





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THANK YOU



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