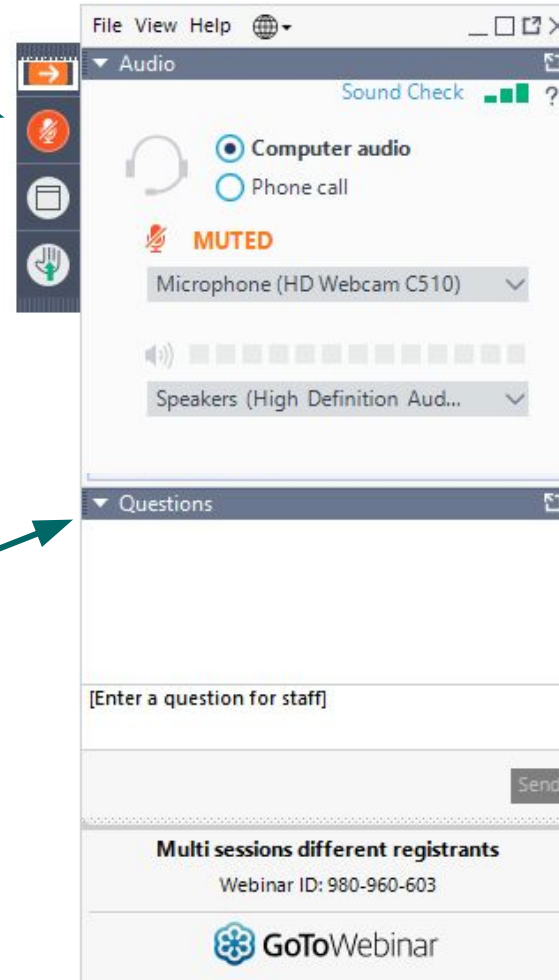


Overview of the Coal Combustion Residuals Rule

July 27, 2023



- Muted



- Use the Question Tool





WELCOME!

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- 1. Introductions**
- 2. Coal Combustion Residuals (CCR) Background**
- 3. EPA Regulation of CCR**
- 4. CCR in Arizona**
- 5. ADEQ Rulemaking**
- 6. Timeline for Rulemaking and Program Approval**
- 7. Resources for More Information**
- 8. Questions**



What are Coal Combustion Residuals (CCR)?

Coal ash, also referred to as **coal combustion residuals** or **CCR**, is produced primarily from the burning of coal in coal-fired power plants. Coal ash includes a number of by-products produced from burning coal, including:

- Fly ash
- Bottom ash
- Boiler slag
- Flue gas desulfurization material

Source: <https://www.epa.gov/coalash/coal-ash-basics>

What happens to CCR?

Coal ash is disposed of or used in different ways:



Disposal in a surface
impoundment

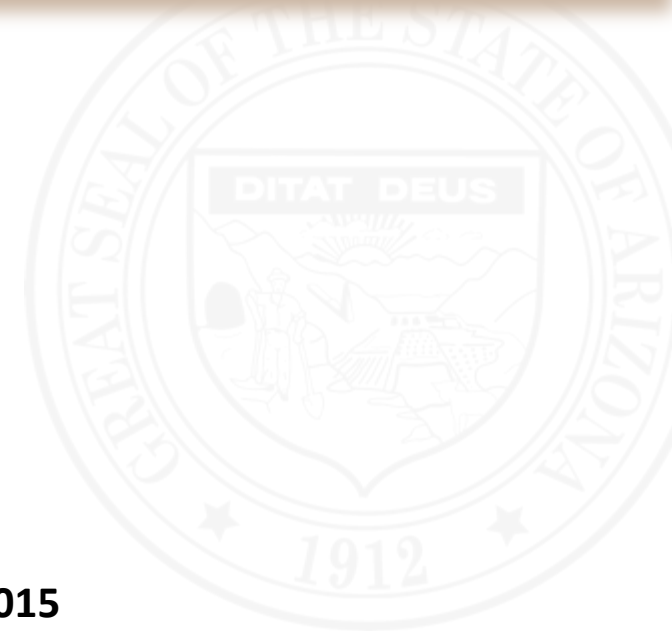
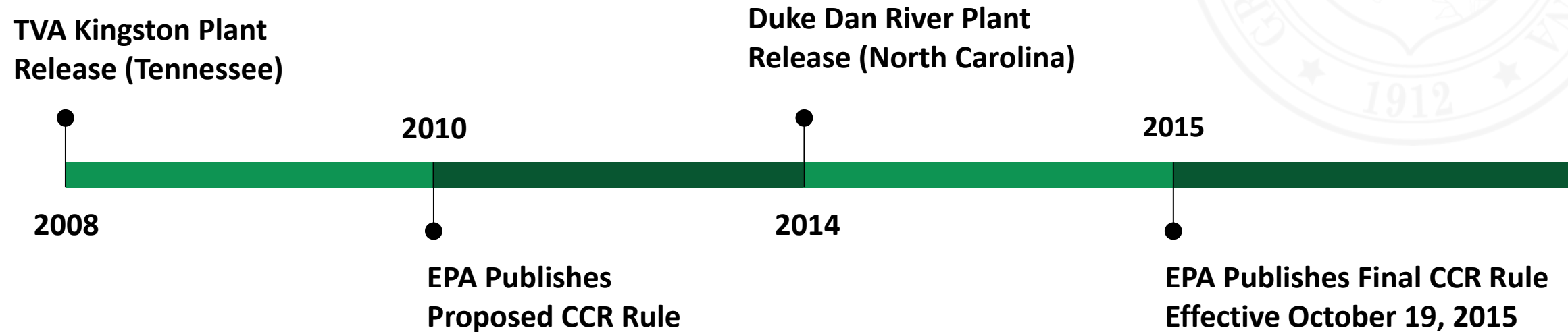


Disposal in a landfill



Beneficial use

Timeline – EPA Regulation of CCR



EPA's CCR Rules - What is regulated?

EPA's CCR Rule (40 CFR 257 Subpart D) applies to active power generating facilities where CCR is stored, treated, or disposed, as of October 19, 2015:

- Existing and new Surface Impoundments (including Lateral Expansions)
- Existing and new Landfills (including Lateral Expansions)

Excluded from the current CCR Rule:

- Older CCR units that stopped taking CCR before the rule was in place
- Beneficial use of CCR (defined in the CCR Rule)

EPA's rule includes requirements for:

Location restrictions

Design

Operations

Groundwater monitoring

Closure and Post Closure

Reporting

EPA's rule is "self-implementing"

There is no EPA permitting program in place at this time.

CCR in Arizona

Arizona Electric Power Cooperative (AEPCO) – Apache Generating Station (near Wilcox)

- 1 surface impoundment and 1 multi-unit surface impoundment

APS – Cholla Power Plant (near Joseph City)

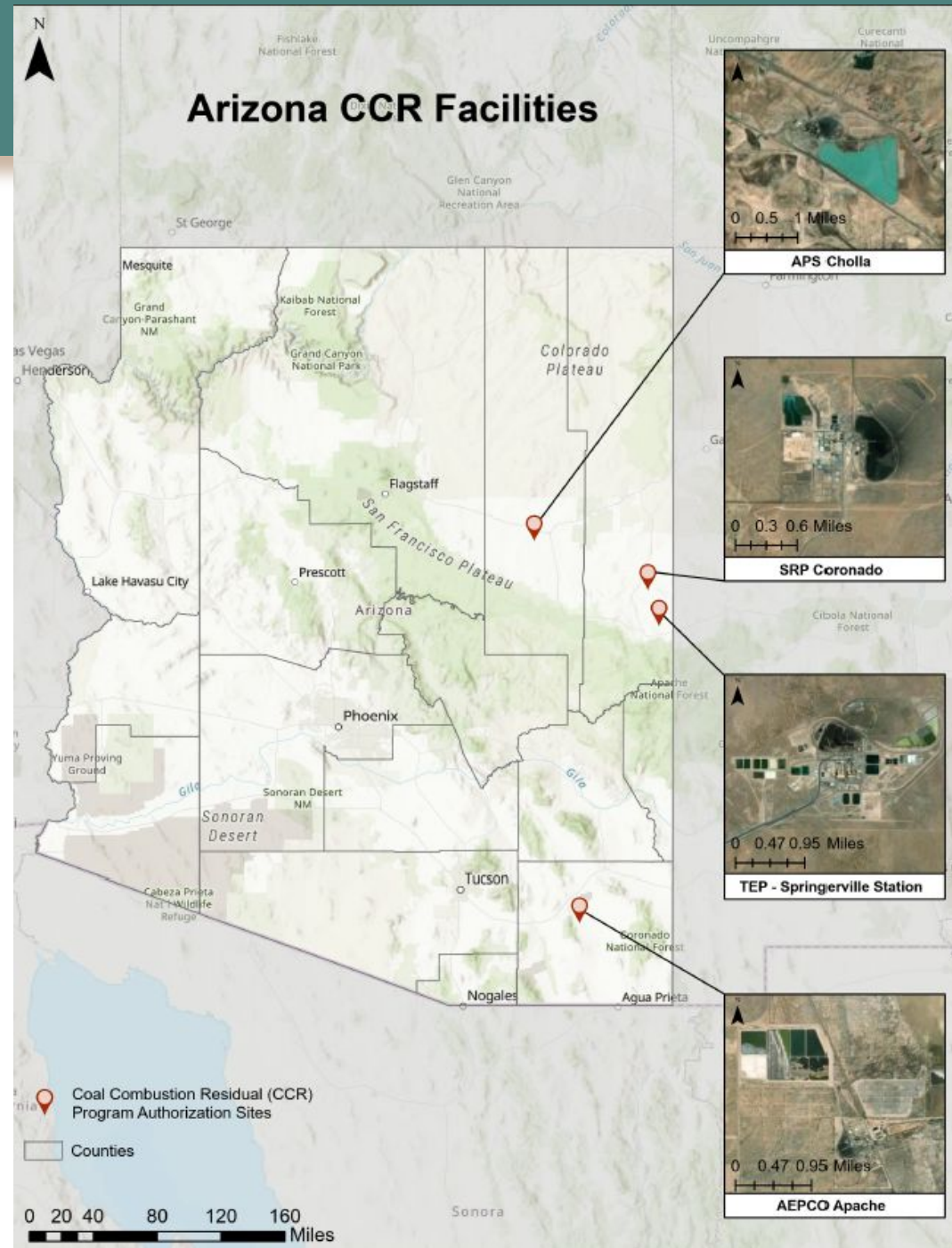
- 1 landfill
- 3 surface impoundments

SRP – Coronado Generating Station (near St. Johns)

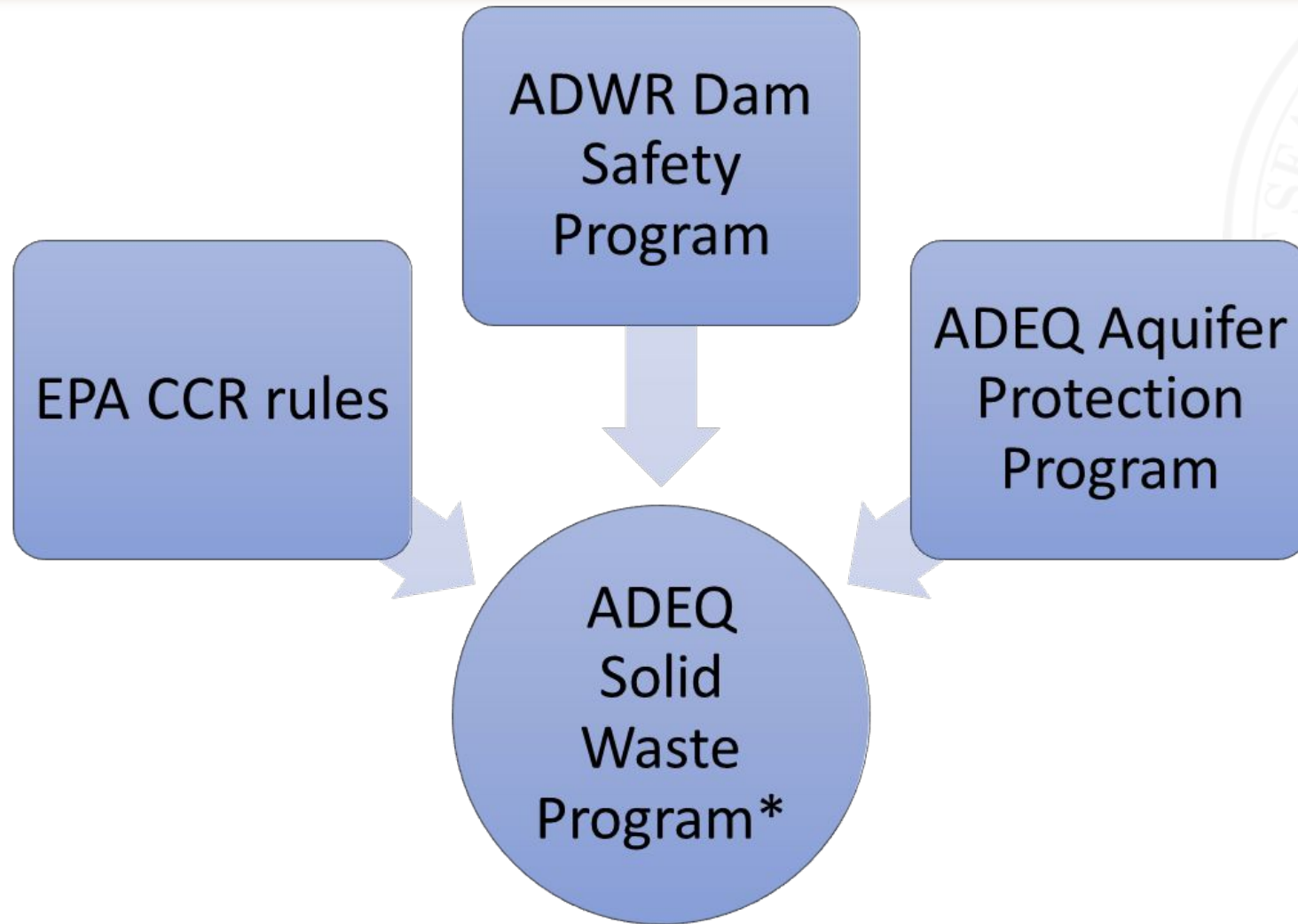
- 1 landfill
- 1 active and 1 inactive surface impoundment

Tucson Electric Power (TEP)– Springerville Generating Station (near Springerville)

- 1 landfill



How are these facilities regulated?

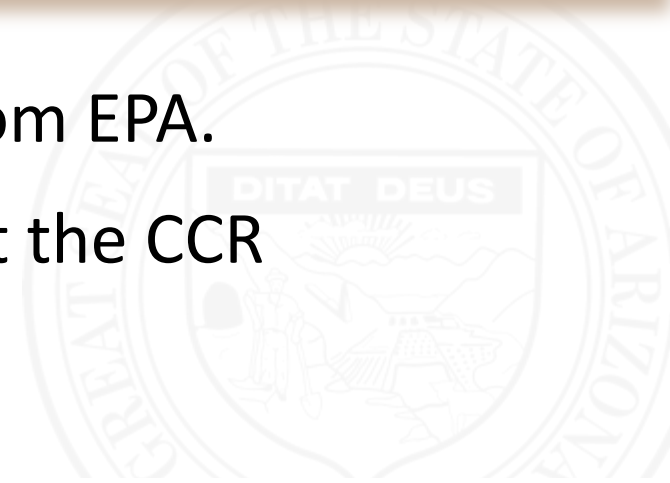


*EPA retains regulatory oversight even after ADEQ's program is approved

How Does ADEQ Fit In?

ADEQ intends to seek CCR permit program approval from EPA.

ADEQ has local knowledge and resources to implement the CCR program.



April 2022: HB2411 modified Arizona's solid waste law to allow ADEQ to develop CCR rules

2023: ADEQ conducts CCR rulemaking process

July 2024: ADEQ applies to EPA for CCR Permit Program Approval

2024+: ADEQ begins permitting CCR facilities



Guiding Principles for Arizona's CCR Program

As stringent as EPA
through
incorporating EPA's
rules by reference

Can be stricter on
dam safety to align
with ADWR

Can be stricter on
water quality to
align with Arizona
standards

Financial
Assurance

10-year Permit
Terms

Public
Participation

EPA approval

Proposed CCR Rule Structure

TITLE 18. ENVIRONMENTAL QUALITY
CHAPTER 13. DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID WASTE MANAGEMENT

ARTICLE 10. COAL COMBUSTION RESIDUALS

R18-13-1000	Incorporation by Reference	R18-13-1010	Permit Application Requirements for CCR Facilities
R18-13-1001	General Provisions	R18-13-1011	Permit Contents
R18-13-1002	Location Restrictions	R18-13-1012	Compliance Schedules
R18-13-1003	Design Criteria	R18-13-1013	CCR Permit Issuance or Denial
R18-13-1003.01	Additional Design Criteria for Arizona CCR Surface Impoundments	R18-13-1014	CCR Permit Transfer
R18-13-1004	Operating Criteria	R18-13-1015	CCR Permit Termination
R18-13-1005	Groundwater Monitoring and Corrective Action	R18-13-1016	CCR Permit Renewals
R18-13-1006	Closure and Post-Closure Care	R18-13-1017	Modification of a CCR Facility Permit
R18-13-1007	Recordkeeping, Notification, and Posting of Information to the Internet	R18-13-1018	Public Notice Requirements for CCR Permit Actions
R18-13-1008	40 CFR 257, Appendices III and IV	R18-13-1019	Compliance, ADEQ Inspections, Violations and Enforcement
R18-13-1009	Reserved	R18-13-1020	Financial Assurance Requirements
		R18-13-1021	Fees
		R18-13-1023	<i>Licensing Timeframes for CCR Facility Permits</i>

ARTICLE 17. FINANCIAL ASSURANCE

- R18-13-1701. Definitions
- R18-13-1702. Reserved
- R18-13-1703. Financial Demonstrations for CCR Facilities
- R18-13-1704. Financial Assurance Mechanisms



R18-13-1005. Groundwater Monitoring and Corrective Action

A. 40 CFR 257.90 through 40 CFR 257.98, revised as of December 14, 2020 (and no future editions) is incorporated by reference, modified by the following subsections, and on file with ADEQ, with the exception of 40 CFR 257.90(g), “Suspension of groundwater monitoring requirements”.

• • • • •

C. 40 CFR 257.94(e)(2) is amended as follows:

CCR Rule Example: R18-13-1005(C)

“(2) The owner or operator may demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. [An owner or operator that is investigating whether to submit an alternative source demonstration under this section, shall notify the Director in writing within 7 days of that decision.] The owner or operator shall complete the written demonstration within 90 days of [determining that there is] a statistically significant increase over background levels to include obtaining a certification from a qualified professional engineer verifying the accuracy of the information in the report, and [submit the demonstration and certification to the Director for approval.] If the owner or operator completes a successful demonstration, as supported by a certification from a qualified professional engineer, within the 90-day period, the owner or operator may continue with a detection monitoring program, [unless such demonstration is subsequently disapproved by the Director. In any event, the Director shall issue an approval or a disapproval of each alternative source demonstration provided under this section.] If a successful demonstration was not completed within the 90-day period [or if the Director disapproves the demonstration,] the owner or operator shall initiate an assessment monitoring program as required under § 257.95. The owner or operator also shall include the demonstration in the annual groundwater monitoring and corrective action report required by § 257.90(e), in addition to the certification by a qualified professional engineer [and Director approval.]”

Rule Example: R18-13-1003. Design Criteria

A. 40 CFR 257.70 through 40 CFR 257.74, revised as of December 14, 2020 (and no future editions) are incorporated by reference, modified by the following subsections, and on file with ADEQ.

.....

F. 40 CFR 257.73(e)(1)(ii) is amended to read: “The calculated static factor of safety under the maximum surcharge pool loading condition must equal or exceed [1.50.]” (A.A.C. R12-15-1216, Table 5).

What Comes Next?

**Final Rule and Governor's
Regulatory Review Council
Approval**
March 2024

**Submit Program to
EPA for approval**
July 2024

2nd Stakeholder Meeting
August/September 2023

**Notice of Proposed
Rulemaking**
estimated October 2023



Stakeholder Meeting
July 27, 2023



EPA CCR web page <https://www.epa.gov/coalash>

ADEQ rulemaking web page <http://www.azdeq.gov/CCR-Rulemaking>

Arizona Utilities web pages:

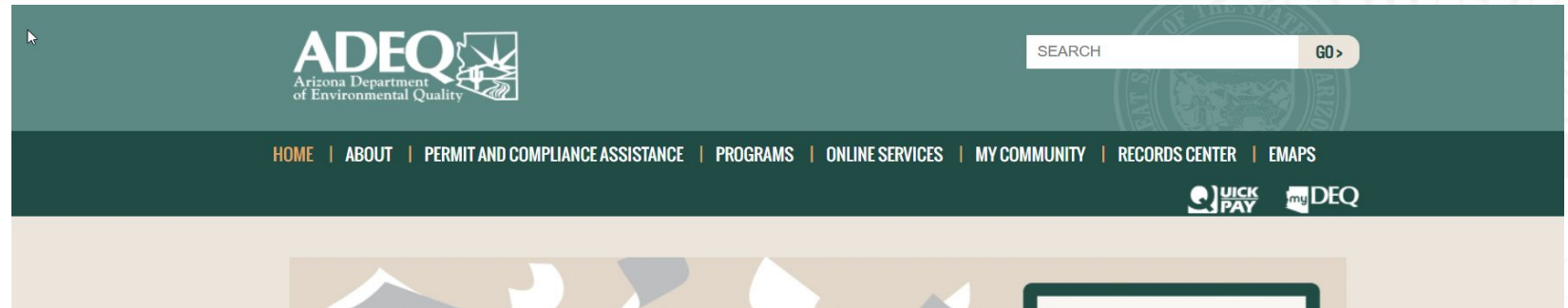
- Arizona Electric Power Cooperative <https://ccr.azgt.coop/>
- Arizona Public Service <https://www.aps.com/en/Utility/Regulatory-and-Legal/Environmental-Compliance>
- Salt River Project <https://ccr.srpnet.com/>
- Tucson Electric Power <https://www.tep.com/ccr/>

ADEQ email: wasterulemaking@azdeq.gov

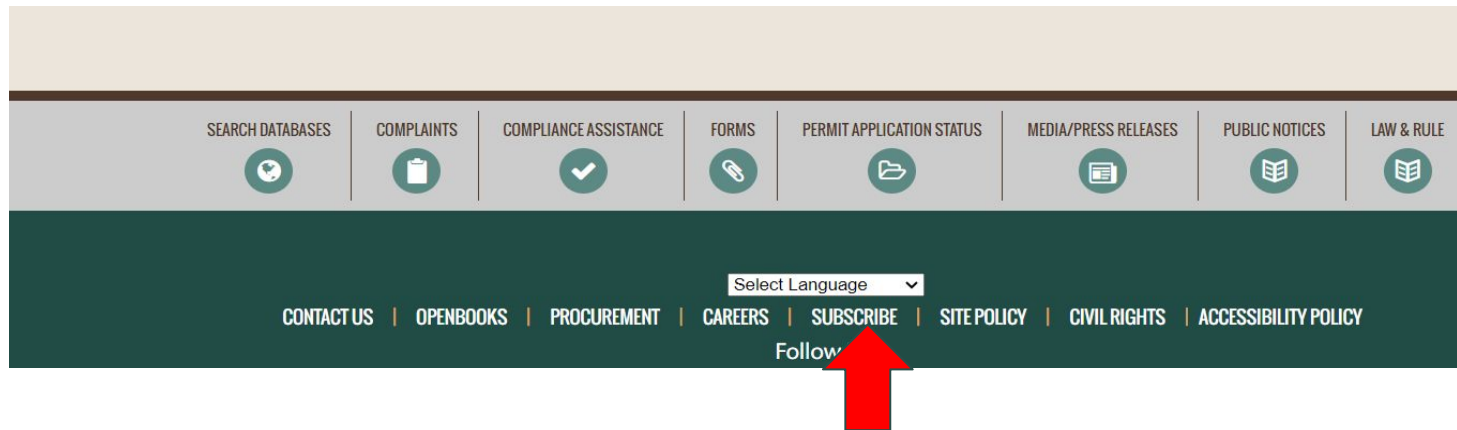


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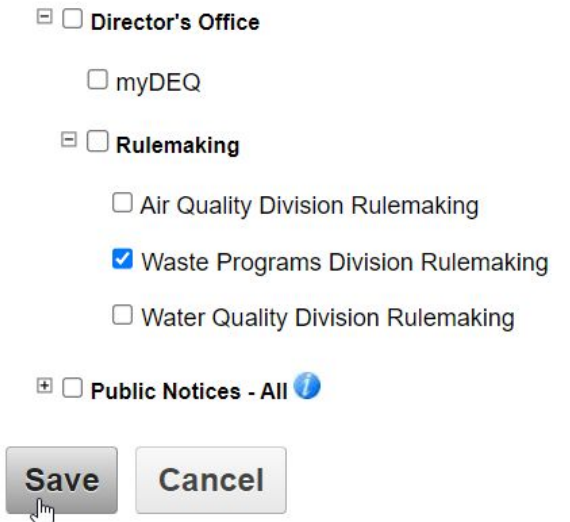


2. Scroll down and click "SUBSCRIBE"



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4. Scroll down and click: Waste Programs Division Rulemaking and save your preferences





Comments or Questions?

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