

AGENCY RECEIPT
NOTICE OF PROPOSED EXPEDITED RULEMAKING

SECRETARY OF STATE

2019 MAY -3 PM 12: 04

FILED

1. Agency Name: Arizona Department of Environmental Quality
2. The applicable Title, Chapter, Subchapter(s), Article(s), Part(s), and Section(s) involved in the rulemaking, listed in alphabetical and numerical order:

Title	18. Environmental Quality
Chapter:	9. Department of Environmental Quality – Water Pollution Control
Articles:	1. Aquifer Protection Permits – General Provisions

Sections:

Action:

R18-9-101

Amend

R18-9-103

Amend



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY



Misael Cabrera
Director

May 3, 2019

RECEIVED

The Honorable Russell Bowers
Speaker of the House
Arizona House of Representatives
Capitol Complex
1700 West Washington
Phoenix, AZ 85007-2890
Via hand delivery

MAY 03 2019

SPEAKER'S OFFICE

Re: Notice of Proposed Expedited Rulemaking pursuant to A.R.S. § 41-1027(A)(6) to exempt federally regulated coal combustion residual disposal units from Arizona's aquifer protection permit program

Dear Speaker Bowers:

Pursuant to A.R.S. § 41-1027(B), the Arizona Department of Environmental Quality (ADEQ) hereby provides notification of the agency's proposed expedited rulemaking modifying A.C.C. Title 18, Chapter 9, Article 1 to exempt federally regulated coal combustion residual (CCR) disposal units from Arizona's Aquifer Protection Permit program. ADEQ seeks to exempt a category of facilities, CCR disposal units, from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. *See* A.R.S. § 49-250. CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) and implementing regulations. *See generally* 42 U.S.C. § 6945 (2018); 40 C.F.R. Part 257, Subpart D.

This proposed expedited rulemaking meets the requirements in A.R.S. § 41-1027(A)(6) because it "[a]mends or repeals rules that are outdated, redundant or otherwise no longer necessary for the operation of state government."

Please direct any questions or concerns regarding this proposed expedited rulemaking to Heidi Welborn, Water Quality Division, 1110 W. Washington St., Phoenix, AZ 85007, 602-771-4815 or Welborn.Heidi@azdeq.gov.

Sincerely,

Misael Cabrera, P.E.
Director, Arizona Department of Environmental Quality

Enclosure



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

May 3, 2019

The Honorable Douglas A. Ducey
Governor
State of Arizona
Capitol Complex
1700 West Washington
Phoenix, AZ 85007-2890
Via hand delivery

Re: Notice of Proposed Expedited Rulemaking pursuant to A.R.S. § 41-1027(A)(6) to exempt federally regulated coal combustion residual disposal units from Arizona’s aquifer protection permit program

Dear Governor Ducey:

Pursuant to A.R.S. § 41-1027(B), the Arizona Department of Environmental Quality (ADEQ) hereby provides notification of the agency’s proposed expedited rulemaking modifying A.C.C. Title 18, Chapter 9, Article 1 to exempt federally regulated coal combustion residual (CCR) disposal units from Arizona’s Aquifer Protection Permit program. ADEQ seeks to exempt a category of facilities, CCR disposal units, from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. *See* A.R.S. § 49-250. CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) and implementing regulations. *See generally* 42 U.S.C. § 6945 (2018); 40 C.F.R. Part 257, Subpart D.

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Sincerely,

Misael Cabrera, P.E.
Director, Arizona Department of Environmental Quality

Enclosure

GOVERNORS OFFICE STR FILE
2019 MAY - 3 A 11: 31



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

May 3, 2019

RECEIVED

MAY 03 2019

OFFICE OF THE PRESIDENT

The Honorable Karen Fann
President of the Senate
Arizona State Senate
Capitol Complex
1700 West Washington
Phoenix, AZ 85007-2890
Via hand delivery

Re: Notice of Proposed Expedited Rulemaking pursuant to A.R.S. § 41-1027(A)(6) to exempt federally regulated coal combustion residual disposal units from Arizona's aquifer protection permit program

Dear President Fann:

Pursuant to A.R.S. § 41-1027(B), the Arizona Department of Environmental Quality (ADEQ) hereby provides notification of the agency's proposed expedited rulemaking modifying A.C.C. Title 18, Chapter 9, Article 1 to exempt federally regulated coal combustion residual (CCR) disposal units from Arizona's Aquifer Protection Permit program. ADEQ seeks to exempt a category of facilities, CCR disposal units, from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. *See* A.R.S. § 49-250. CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) and implementing regulations. *See generally* 42 U.S.C. § 6945 (2018); 40 C.F.R. Part 257, Subpart D.

This proposed expedited rulemaking meets the requirements in A.R.S. § 41-1027(A)(6) because it "[a]mends or repeals rules that are outdated, redundant or otherwise no longer necessary for the operation of state government."

Please direct any questions or concerns regarding this proposed expedited rulemaking to Heidi Welborn, Water Quality Division, 1110 W. Washington St., Phoenix, AZ 85007, 602-771-4815 or Welborn.Heidi@azdeq.gov.

Sincerely,

Misael Cabrera, P.E.
Director, Arizona Department of Environmental Quality

Enclosure

Here Received: 5/3/19
AZ.



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY



Misael Cabrera
Director

May 3, 2019

The Governor's Regulatory Review Council
State of Arizona
100 N. 15th Ave. #305
Phoenix, AZ 85007
Via hand delivery

Re: Notice of Proposed Expedited Rulemaking pursuant to A.R.S. § 41-1027(A)(6) to exempt federally regulated coal combustion residual disposal units from Arizona's aquifer protection permit program

Dear Council Members:

Pursuant to A.R.S. § 41-1027(B), the Arizona Department of Environmental Quality (ADEQ) hereby provides notification of the agency's proposed expedited rulemaking modifying A.C.C. Title 18, Chapter 9, Article 1 to exempt federally regulated coal combustion residual (CCR) disposal units from Arizona's Aquifer Protection Permit program. ADEQ seeks to exempt a category of facilities, CCR disposal units, from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. *See* A.R.S. § 49-250. CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) and implementing regulations. *See generally* 42 U.S.C. § 6945 (2018); 40 C.F.R. Part 257, Subpart D.

This proposed expedited rulemaking meets the requirements in A.R.S. § 41-1027(A)(6) because it "[a]mends or repeals rules that are outdated, redundant or otherwise no longer necessary for the operation of state government."

Please direct any questions or concerns regarding this proposed expedited rulemaking to Heidi Welborn, Water Quality Division, 1110 W. Washington St., Phoenix, AZ 85007, 602-771-4815 or Welborn.Heidi@azdeq.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Misael Cabrera".

Misael Cabrera, P.E.
Director, Arizona Department of Environmental Quality

Enclosure



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

May 3, 2019

Received 5/3/2019
MJC

The Administrative Rules Oversight Committee (AROC)
c/o Legislative Council
1700 W. Washington St., Ste. 100
Phoenix, AZ 85007
Via hand delivery

Re: Notice of Proposed Expedited Rulemaking pursuant to A.R.S. § 41-1027(A)(6) to exempt federally regulated coal combustion residual disposal units from Arizona’s aquifer protection permit program

Dear Committee Members:

Pursuant to A.R.S. § 41-1027(B), the Arizona Department of Environmental Quality (ADEQ) hereby provides notification of the agency’s proposed expedited rulemaking modifying A.C.C. Title 18, Chapter 9, Article 1 to exempt federally regulated coal combustion residual (CCR) disposal units from Arizona’s Aquifer Protection Permit program. ADEQ seeks to exempt a category of facilities, CCR disposal units, from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. *See* A.R.S. § 49-250. CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) and implementing regulations. *See generally* 42 U.S.C. § 6945 (2018); 40 C.F.R. Part 257, Subpart D.

This proposed expedited rulemaking meets the requirements in A.R.S. § 41-1027(A)(6) because it “[a]mends or repeals rules that are outdated, redundant or otherwise no longer necessary for the operation of state government.”

I have directed this correspondence in the care of Legislative Council since AROC is currently a dormant committee. Please direct any questions or concerns regarding this proposed expedited rulemaking to Heidi Welborn, Water Quality Division, 1110 W. Washington St., Phoenix, AZ 85007, 602-771-4815 or Welborn.Heidi@azdeq.gov.

Sincerely,

Misael Cabrera, P.E.
Director, Arizona Department of Environmental Quality

Enclosure

**AGENCY CERTIFICATE
NOTICE OF PROPOSED EXPEDITED RULEMAKING**

2019 MAY -3 PM 12: 06

FILED

- 1. Agency Name: Arizona Department of Environmental Quality
- 2. Chapter heading: Department of Environmental Quality – Water Pollution Control
- 3. Code citation for the Chapter: 18 A.A.C. 9
- 4. The applicable Subchapter(s), Article(s), Part(s), and Section(s) involved in the rulemaking, listed in alphabetical and numerical order:

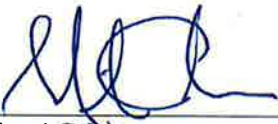
Chapter: 9. Department of Environmental Quality – Water Pollution Control

Articles: 1. Aquifer Protection Permits – General Provisions

<u>Sections:</u>	<u>Action:</u>
R18-9-101	Amend
R18-9-103	Amend

- 5. The rules contained in this package are true and correct as made.

- 6. Signature of Agency Chief Executive Officer:



 Misael Cabrera
 Director

5/2/2019

 Date

NOTICE OF PROPOSED EXPEDITED RULEMAKING

TITLE 18. ENVIRONMENTAL QUALITY

CHAPTER 9. DEPARTMENT OF ENVIRONMENTAL QUALITY

FILED

WATER POLLUTION CONTROL

PREAMBLE

- | <u>1. Article, Part, or Section Affected (as applicable)</u> | <u>Rulemaking Action</u> |
|--|--------------------------|
| R18-9-101 | Amend |
| R18-9-103 | Amend |
- 2. Citations to the agency's statutory rulemaking authority to include the authorizing statute (general) and the implementing statute (specific):**
- Authorizing and Implementing statute: A.R.S. § 49-250(A)
- 3. The agency's contact person who can answer questions about the rulemaking:**
- Name: Heidi M. Haggerty Welborn
Address: 1110 W. Washington St.
Phoenix, AZ 85007
Telephone: (602) 771-4815
E-mail: Welborn.Heidi@azdeq.gov
Website: <http://www.azdeq.gov/draft-and-proposed-rule-water-quality-division>
- 4. The agency's explanation why the proposed expedited rule should be made, amended, repealed, or renumbered under A.R.S. § 41-1027(A) and why expedited proceedings are justified under A.R.S. § 41-1001(16)(c):**
- Under A.R.S. § 41-1027, an agency may conduct expedited rulemaking if the rulemaking does not increase the cost of regulatory compliance, increase a fee, or reduce procedural rights of persons regulated, and the rulemaking meets one of the statutorily enumerated conditions, one of which being that the rulemaking “[a]mends or repeals rules that are outdated, redundant or otherwise no longer necessary for the operation of state government.” A.R.S. § 41-1027(A)(6). In accordance with A.R.S. § 49-250(A), Arizona Department of Environmental Quality (ADEQ) is exempting a category of facilities from aquifer protection permit program requirements because aquifer quality will be maintained and protected due to the existence of a federal regulation that provides the same or greater aquifer water quality protection as provided by A.R.S. Title 49, Chapter 2, Article 3. Because the federal rule (i.e., 40 C.F.R. Part 257, Subpart D) is as protective as the state law and

authority, the state's rules applicable to the class in question are redundant to the federal rule and are no longer necessary to effectuate the state's operational duty to "provide for the prevention and abatement of water...pollution" in accordance with A.R.S. Title 49, Chapter 2. A.R.S. § 49-104(A)(10).

5. The agency's justification and reason why a rule should be made, amended, repealed or renumbered, to include an explanation about the rulemaking:

General Explanation of this Rulemaking:

Pursuant to A.R.S. § 49-250(A), ADEQ seeks to exempt coal combustion residual (CCR) disposal units from the requirement(s) to comply with the Aquifer Protection Permit (APP) statutes and regulations until such time that ADEQ obtains primacy for the implementation of the federal CCR regulations. *See* 42 U.S.C. § 6945(d)(1). CCR units are federally regulated pursuant to the Resource Conservation Recovery Act (RCRA) through 40 C.F.R. Part 257, Subpart D. This interim exemption will avoid conflicts and duplicative regulation between the federal CCR regulations and the state APP regulations and statutes, while at the same time laying the foundation for a potential future state-assumed CCR regulatory program.

What is "CCR"?

The federal CCR regulation establishes the national minimum criteria for the disposal of coal combustion materials, including regulations governing: location restrictions for disposal, design and operating criteria for disposal units, groundwater monitoring, corrective action, closure requirements, post-closure care, and recordkeeping, notification, and internet publication requirements. The CCR regulation is a federal solid waste regulatory program under RCRA Subtitle D. Subtitle D of RCRA is intended to ensure that CCR units (along with other forms of non-hazardous solid waste disposal) pose "no reasonable probability of adverse effects on health or the environment." *See* 42 U.S.C. § 6944(a). The federal CCR regulations govern CCR disposal units (i.e., CCR surface impoundments and CCR landfills, along with later expansions of either, as defined by 40 CFR Subpart 257). CCR disposal units are used for the treatment, storage, or disposal of CCR, which can be wet or dry, and is generally composed of fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.

The federal CCR rule was promulgated as a self-implementing rule, which generally means that the regulations were not intended to be implemented through direct government oversight, and enforcement is largely left to be performed through citizen lawsuits. *See generally Final Rule: Hazardous and Solid Waste Management System; Disposal of CCR from Electric Utilities*, 80 Fed.

Reg. 21,302 (Apr. 17, 2015). The substance of the rule has been in flux over the years as litigation and rulemaking modifications have persisted. As such, the operation of the rule is a combination of the RCRA statutes (as amended by the WIIN Act, *see* 42 U.S.C. § 6945(d)), the currently codified version (40 C.F.R. part 257, subpart D), subsequent rulemaking (*See Direct Final Rule [CCR; Response to Partial Vacatur]*, 81 Fed. Reg. 51,802 (Aug. 5, 2016); *Final Rule [CCR Phase One, Part One]*, 83 Fed. Reg. 36,435 (Jul. 30, 2018)) and case law (*See generally Util. Solid Waste Activities Grp. v. EPA*, 901 F.3d 414 (D.C. Cir. 2018)).

CCR units in Arizona are currently subject to the self-implementing federal CCR regulations. Many federal CCR requirements already overlap with both ADEQ's air and aquifer protection authorities and with some of Arizona's Department of Water Resources' (ADWR) dam safety authorities. In fact, Arizona facilities regulated under the federal CCR regulations already comply with aquifer protection permits featuring conditions similar to requirements imposed by the federal CCR regulations.

Below is a list of facilities currently regulated under, both, the federal CCR regulations, 40 C.F.R. Part 257, Subpart D, and Arizona's APP program, A.A.C. Title 18, Chapter 9:

- Apache Generating Station (Arizona Electric Power Cooperative, Inc.),
- Cholla Power Plant (Arizona Public Service Company),
- Springerville Generating Station (Tucson Electric Power Company), and
- Coronado Generating Station (Salt River Project).

Conflicts between APP and CCR

There are numerous procedural APP requirements that conflict with the substantive requirements of EPA's federal CCR regulations. These conflicts generally arise from the overall structure of the two programs. APP is a permit program that provides for ADEQ involvement and approval of several key operational aspects of facilities that may affect Arizona aquifers (e.g., CCR landfills and surface impoundments operated by Arizona electric utilities). By contrast, EPA's federal CCR rules governing these facilities are entirely self-implementing, by which there is no government agency involvement in the same sorts of aquifer-impacting activities that would otherwise require approval under APP. As such, under the federal regulations, operators of CCR disposal units are expected to simply comply with federal standards, under strict timeframes for which there is zero flexibility, and take significant actions without any government oversight (e.g., as to facility closure and corrective action). Thus, to the extent the APP program otherwise requires ADEQ approval prior to such aquifer-impacting actions being implemented—and where such state government review and

approval cannot be completed within the strict timeframes dictated under federal regulations—adherence to the federal CCR regulations by Arizona electric utilities conflicts with state APP regulations and statutes.

One such example is the disposal unit closure process. By statute, the APP program requires that ADEQ to approve all closure actions that must be implemented when a permitted facility (e.g., CCR landfills or surface impoundments) ceases operation. *See* A.R.S. § 49-252. Specifically for closure activities that do not involve clean closure—i.e., where CCR or other waste materials are left in place as disposed and covered by a cap—the APP statute and regulations require the facility operator to submit an application for a new APP permit or request a permit modification. *See* A.C.C. R18-9-A209(B)(4); A.R.S. § 49-252(E). ADEQ is then subject to a duty to require that such applications be submitted for approval. *Id.*

By contrast, the federal CCR regulations simply require the initiation and implementation of CCR disposal unit closure within thirty (30) days after the unit ceases operation. *See* 40 C.F.R. § 257.102(e)(1)(i). In addition, such cessation of operation is often required for reasons beyond the control of CCR unit operators. *E.g.* 40 C.F.R. § 257.101(b)(1) (*requiring CCR unit closure where a facility violates location restrictions, e.g., as to nearby aquifer locations*). While such closure activities must be implemented in accordance with a published plan, the federal CCR regulations contain no requirement that such plans be reviewed and approved by any government entity. Under federal law, CCR unit operators are simply expected to develop a plan and then implement it. *See* 40 C.F.R. § 257.102(b).

“As Protective As” Comparison Tables:

Under A.R.S. § 49-250(A), ADEQ has the statutory authority to exempt, by rule, specifically described classes or categories of facilities (i.e., CCR disposal units) from the aquifer protection permit requirements on a finding that either:

1. There is no reasonable probability of degradation of the aquifer, or
2. Aquifer water quality will be maintained and protected because discharges from the class of facility are regulated under other federal or state programs that provide the same or greater aquifer water quality protection as A.R.S. Title 18, Chapter 2, Article 3 (APP authority).

ADEQ has determined that the CCR federal regulations (40 C.F.R. Part 257, Subpart D) provide the same or greater aquifer water quality protection as provided by the APP statutes (A.R.S. Title 49, Chapter 2, Article 3) and rules (A.A.C. Title 18, Chapter 9). ADEQ’s determination is demonstrated in the tables below, which compare the federal CCR and state APP requirements in terms of the

following categorical components, respectively:

- Siting Criteria
- Structural Integrity for Surface Impoundments
- Hydraulic Capacity for Surface Impoundments
- Facility Liner Design
- Groundwater Monitoring
- Discharge Limitations
- Alert Levels for Ground Water Monitoring
- Aquifer Quality Limits and Aquifer Water Quality Standards for Groundwater Monitoring
- Corrective Action/Contingency Plan
- Closure/Temporary-Cessation/Post-Closure
- Financial Assurance
- Reporting Requirements
- Public Notice and Public Participation
- Inspections
- Enforcement
- Permit Suspension/ Revocation/ Denial/ Termination

Siting Criteria

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>A.R.S. § 49-243; A.A.C. R18-9-A202</p> <p>Requires the owner to supply a permit application with information that describes the facility including design documents, a technical demonstration that the best available demonstrated control technology (BADCT) is used at the facility, and a demonstration that the owner has the technical capability to operate the facility.</p> <p>If adverse siting conditions are present at the facility, such as shallow groundwater, seismic impact zone, etc., the owner must account for these conditions in the design, operation, maintenance, and closure/post-closure of the facility.</p>	<p>§§ 257.60 through 257.64</p> <p>Requires the base of a CCR surface impoundment or landfill to be constructed at least five feet above the uppermost aquifer or no hydraulic connection between the base of the CCR Unit and the uppermost aquifer.</p> <p>Unless the owner or operator of the CCR Unit meets specific alternate enumerated requirements with respect to each restriction below, the following location restrictions prohibit a facility from:</p> <p>(1) being located in wetlands;</p> <p>(2) being located closer than 200 feet from the outermost damage zone of fault that has had displacement in Holocene time (the last 11,700 years);</p> <p>(3) being located in a seismic impact zone; and</p> <p>(4) being located in an unstable area (unless the facility has been designed to mitigate instability).</p>	<p>Yes, as protective</p> <p>CCR is prescriptive in its location restrictions, where APP analyzes whether adverse siting conditions are present on a case by case basis. CCR location restrictions are as protective because they prohibit a facility from operating in an area with adverse siting conditions.</p>

Structural Integrity for Surface Impoundments

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
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Structural Integrity for Surface Impoundments

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
A.R.S. § 49-243; A.A.C. R18-9-A202 Requires the owner to demonstrate that the best available demonstrated control technology (BADCT) is used at the facility, including a demonstration that dams associated with surface impoundments are designed for static and seismic stability.	§§ 257.73 and 257.74 Prescribes specific structural integrity criteria for surface impoundments and requires periodic hazard potential classification assessments, an emergency action plan, periodic structural stability assessments, and periodic safety factor assessments.	Yes, as protective Federal CCR regulations require dam safety related assessments and plans beyond those required by APP authority. The federal CCR criteria also meet APP levels of protection of the aquifer, by protecting against dam failure of a surface impoundment.

Hydraulic Capacity for Surface Impoundments

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
A.R.S. § 49-243; A.A.C. R18-9-A202 Requires the owner to demonstrate that the best available demonstrated control technology (BADCT) is used at the facility, including an evaluation of the capacity of a surface impoundment to contain coal combustion residuals and rainfall.	§§ 257.53 and 257.82 Specifies hydrologic and hydraulic capacity design criteria for surface impoundments with the degree of protection based on the hazard potential classification of the surface impoundment. Hazard potential classification means the possible adverse incremental consequences that result from the release of water or stored contents due to failure of the diked CCR surface impoundment or mis-operation of the diked CCR surface impoundment or its appurtenances. The hazard potential determination (High, Significant, or Low) relates to whether there is the potential for loss of human life, economic loss, environmental loss, disruption of lifeline facilities, or other concerns.	Yes, as protective CCR requires more prescriptive surface impoundment design than APP. CCR requires the design to accommodate specific design storm events and methods to contain and control storm water. The CCR criteria also meet APP levels of protection.

Facility Liner Design

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
A.R.S. § 49-243; A.A.C. R18-9-A202 Requires the owner to demonstrate	§§ 257.70 through 257.72; 257.81 Design criteria for CCR surface impoundments generally require a	Yes, as protective CCR requires prescriptive discharge control designs for

Facility Liner Design

Importance to Environment: Ensures that facilities are designed and operated to limit discharge of pollutants to the aquifer and environment taking into account site specific conditions

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>that the best available demonstrated control technology (BADCT) is used at the facility including liner designs for landfills and surface impoundments and the run-on and run-off storm water management controls. Specific design storm events are not included in the APP rules.</p>	<p>composite liner system consisting of a geomembrane liner overlying two feet of compacted soil, while new CCR landfills must be constructed with a leachate collection system. The requirements for the lower liner, ordinarily consisting of two feet of soil, can be replaced by an alternative liner meeting specific permeability requirements.</p> <p>Run-on and run-off management controls for landfills must be designed for specified design storm events.</p>	<p>liners; APP authorizes alternative designs that consider site specific hydrogeologic conditions. The CCR criteria meet APP levels of protection of the aquifer.</p> <p>CCR prescriptive design storm events and methods to manage storm water on landfill surfaces also meet APP levels of protection.</p>

Groundwater Monitoring

Importance to Environment: Ensures that facilities meet requirements to protect groundwater and the environment. If groundwater exceedances occur, monitoring systems detect the exceedance so that they can be mitigated.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>A.A.C. R18-9-A206</p> <p>APP has authority to prescribe groundwater monitoring methods, parameters, frequency, equipment, reporting intervals, and recordkeeping in permits as appropriate.</p> <p>APP approves the design of the monitoring well network, and establishes the monitoring requirements in permits including sampling protocols, sampling parameters, alert levels and aquifer quality limits. Exceedances of alert levels or aquifer quality limits trigger contingency and mitigation actions.</p> <p>Periodic self-monitoring reports are consistently required in permits.</p> <p>Monitoring requirements are site specific and consider the hydrogeology conditions at the site.</p>	<p>§§ 257.90 through 257.94</p> <p>Federal CCR regulations prescribe the groundwater monitoring system design, requires a minimum of: (1) eight rounds of sampling from each background and downgradient well prior to initiating regular phases of detection monitoring, (2) semiannual detection monitoring unless an alternate frequency has been established, statistical analysis to determine if there are statistically significant increases over background, (3) annual groundwater monitoring and corrective action reporting, monitoring system design, well design specifications, sampling protocols, analytical methods, groundwater contour maps, statistical methods, and detection monitoring program that could trigger assessment monitoring program. Federal CCR regulations require monitoring for specific constituents in Appendix III for the detection monitoring program and a comprehensive list of constituents for the assessment monitoring program</p>	<p>Yes, as protective</p> <p>CCR monitoring requirements are prescriptive and leave very little room for consideration of site specific conditions; APP considers site-specific hydrogeologic conditions in determining the number and placement of wells and the parameters to be monitored. CCR monitoring requirements meet or exceed the requirements typically included in APP permits for coal combustion residual facilities.</p>

Groundwater Monitoring

Importance to Environment: Ensures that facilities meet requirements to protect groundwater and the environment. If groundwater exceedances occur, monitoring systems detect the exceedance so that they can be mitigated.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?																						
	<p>(Appendix IV).</p> <p>Appendix III Detection Monitoring Constituents</p> <table border="1" data-bbox="609 499 1008 722"> <tr><td>Boron</td></tr> <tr><td>Calcium</td></tr> <tr><td>Chloride</td></tr> <tr><td>Fluoride</td></tr> <tr><td>Sulfate</td></tr> <tr><td>Total Dissolved Solids</td></tr> <tr><td>pH</td></tr> </table> <p>Appendix IV Assessment Monitoring Constituents</p> <table border="1" data-bbox="609 814 1008 1291"> <tr><td>Antimony</td></tr> <tr><td>Arsenic</td></tr> <tr><td>Barium</td></tr> <tr><td>Beryllium</td></tr> <tr><td>Cadmium</td></tr> <tr><td>Chromium</td></tr> <tr><td>Cobalt</td></tr> <tr><td>Fluoride</td></tr> <tr><td>Lead</td></tr> <tr><td>Lithium</td></tr> <tr><td>Mercury</td></tr> <tr><td>Molybdenum</td></tr> <tr><td>Selenium</td></tr> <tr><td>Thallium</td></tr> <tr><td>Radium 226 and 228 combined</td></tr> </table>	Boron	Calcium	Chloride	Fluoride	Sulfate	Total Dissolved Solids	pH	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium	Radium 226 and 228 combined	
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Discharge Limitations

Importance to Environment: Discharge limitations can be used to ensure that the treatment technologies being used meet the best available demonstrated control technology criteria. For example, a sewage treatment facility must treat the wastewater for nitrate prior to discharge to the environment.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?

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APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>A.R.S. § 49-243; A.A.C. R18-9-A205,</p> <p>If the APP includes limits on the type or quantity of pollutants placed within a surface impoundment or landfill, the limits are based on considerations such as the type of liners used in the facility, the operational practices used and the site specific hydrogeologic conditions. Disposal facilities rarely include treatment of the waste prior to disposal, therefore, discharge limits are usually only set for flow to the facility to assure adequate capacity, rather than limits on the concentration of pollutants.</p>	<p>No citation</p> <p>CCR rule does not have a comparable requirement or authorization to limit specific pollutants in coal combustion residuals from discharge to a facility. CCR requirements are specific to types of materials that have similar constituents or pollutants of concern. However, federal CCR regulations focus on protection of the aquifer by regulation of the ability of the CCR Unit to function so that there will not be a reasonable probability of adverse effects on health or the environment. In other words, rather than focus on the materials in the CCR units, the federal program focuses on containment of the CCR material in the CCR units.</p>	<p>Yes, as protective</p> <p>The pollutants in coal combustion residuals are a result of the pollutant concentrations in the coal and the air quality pollutant removal technology utilized. As more pollutants are removed from air emissions, their presence in the residuals increases. The purpose of discharging coal combustion residuals to surface impoundments and landfills is for appropriate disposal of the CCR material, and the CCR Program rule requirements are designed to ensure proper containment of the waste rather than reducing the concentration of pollutants in the CCR. This is why both the CCR and the APP regulations include design criteria that are protective of groundwater.</p> <p>ADEQ does not typically utilize the discretionary authority under APP to limit the type or quantity of pollutants placed within a surface impoundment or landfill by CCR facilities because the goal is containment of waste, not treatment of waste prior to containment. Therefore, APP does not routinely establish pollutant discharge limits for CCR facilities.</p>

Alert Levels for Groundwater Monitoring

Importance to Environment: Alert levels for pollutants in groundwater are established in permits to trigger contingency actions early, before regulatory limits are exceeded in the aquifer

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
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APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>A.A.C. R18-9-A205</p> <p>If the APP includes an alert level, the level will be based on a site-specific condition. The alert level may be based on a pollutant that indicates the potential appearance of another pollutant.</p> <p>Exceedance of an alert level triggers contingency actions, including increased monitoring frequency and investigation of the cause of the exceedance.</p>	<p>§ 257.94</p> <p>The CCR detection monitoring program requires semiannual sampling. Detection monitoring requires the facility to sample the seven constituents identified in 40 C.F.R. Part 257, Appendix III.</p>	<p>Yes, as protective</p> <p>The CCR rule’s approach is equally protective because Appendix III constituents move through the subsurface along with groundwater, and thus provide an early detection of whether contaminants are migrating from the facility. This concept is very similar to the APP requirements for setting and using alert levels in permits.</p>

Aquifer Quality Limits and Aquifer Water Quality Standards for Groundwater Monitoring

Importance to Environment: Aquifer quality limits are regulatory limits established in a permit, that if exceeded, constitute a violation of the permit and triggers mitigation actions.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?									
<p>A.A.C. R18-9-A205.C, A.R.S. § 49-223</p> <p>APP requires compliance with aquifer quality limits (AQLs), which are set equal to the aquifer water quality standards (AWQS) or, for non-attaining aquifers, the background concentration</p>	<p>§ 257.95 (as amended)</p> <p>If there is a statistically significant increase over background levels for any Appendix III constituent, the facility must then implement an assessment monitoring program, which requires monitoring of all pollutants regulated under the CCR rule (Appendix IV).</p> <p>Under assessment monitoring, the owner or operator must sample all wells for all Appendix IV constituents. The CCR groundwater protection standards are set at Maximum Contaminant Levels or MCLs, while parameters for cobalt, lead, lithium, and molybdenum (i.e., those constituents without an MCL) are set based upon EPA’s Risk Assessment Guidance for Superfund. See 83 Fed. Reg. 36,435, 36,444 (Aug. 29, 2018). For those parameters for which background concentrations are higher than the listed federal CCR groundwater protection standards, the groundwater protection standard is then set consistent with background concentrations.</p>	<p>Yes, as protective</p> <p>The table below is a comparison between AQLs imposed on a typical CCR unit under APP and groundwater protection standards imposed under the federal CCR regulation. The .015 mg/l groundwater protection standard for lead under the CCR rule is more stringent than the .05 mg/l AQL for lead under the APP standards. Likewise, the .01 groundwater protection standard for arsenic under the CCR rules is more stringent than the .05 AQL for arsenic under the APP standards.</p> <table border="1" data-bbox="971 1472 1386 1789"> <thead> <tr> <th>Pollutant</th> <th>Aquifer Quality Limit (APP Program) (mg/l)</th> <th>Groundwater Protection Standard (CCR Rule) (mg/l)</th> </tr> </thead> <tbody> <tr> <td>Lead</td> <td>.05</td> <td>.015</td> </tr> <tr> <td>Arsenic</td> <td>.05</td> <td>.01</td> </tr> </tbody> </table>	Pollutant	Aquifer Quality Limit (APP Program) (mg/l)	Groundwater Protection Standard (CCR Rule) (mg/l)	Lead	.05	.015	Arsenic	.05	.01
Pollutant	Aquifer Quality Limit (APP Program) (mg/l)	Groundwater Protection Standard (CCR Rule) (mg/l)									
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Corrective Action/Contingency Plan

Importance to Environment: Ensures that if there is an exceedance of a groundwater standard or operational standard, the problem will be assessed and appropriate mitigation requirements implemented

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>A.A.C. R18-9-A204</p> <p>Requires contingency or correction actions in response to exceedances of groundwater limits (ALs or AQLs) or other permit conditions (DLs), or if there is an imminent and substantial endangerment to the public health or the environment. Exceedances may require verification sampling, ADEQ notification, additional monitoring and inspection, evaluation of facility integrity, investigation of impacts, and evaluation and implementation of corrective measures.</p> <p>The owner must maintain a contingency plan that includes responses to ALs, AQLs, DLs and an emergency response plan for imminent and substantial endangerment to public health or environment.</p>	<p>§§ 257.96 through 257.98</p> <p>Requires assessment of potential corrective measures upon detection of a release from a CCR unit or the identification of CCR constituents in groundwater statistically in excess of groundwater protection standards established under the federal CCR rule. In general, corrective measures must be designed to prevent further releases and to remediate the affected areas to the maximum extent feasible. The documented assessment of corrective measures for a given CCR facility, which are subject to public input requirements, must evaluate remedy implementation issues, including analysis of cross-media impacts and any controls necessary to address residual contamination, the time necessary to implement the remedy, and any institutional requirements among other considerations.</p> <p>Requires an owner to select a remedy that, at a minimum, achieves certain performance criteria, including without limitation a remedy that is protective of human health and the environment, attains groundwater protection standards, controls and/or reduces the source, eliminates to maximum extent feasible further releases, and removes as much contaminated material that was released from the CCR unit from the environment as feasible taking into account certain factors enumerated in the federal rule. In selecting a remedy that meets the mandatory performance criteria, the following factors, among others, must be considered and balanced: the long- and short-term effectiveness and protectiveness of the remedy along with the degree of certainty that the remedy will prove successful and the</p>	<p>Yes, as protective</p> <p>CCR corrective action requirements are prescriptive and meet or exceed the contingency and corrective action requirements typically included in APP permits for coal combustion residual facilities. APP authority in the rule and statute allows ADEQ to require the corrective action remedy selection, implementation and completion of activities that are prescriptive under CCR.</p>

Corrective Action/Contingency Plan

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APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
	<p>ease or difficulty of implementing a potential remedy. A schedule for implementing and completing the remedy must be established.</p> <p>Requires an owner, within 90 days after remedy selection, to initiate remedial activities, implement a corrective action groundwater monitoring program, implement corrective action remedy and take interim measures necessary to reduce the contaminants leaching from the CCR unit.</p> <p>A remedy shall be considered complete when the groundwater protection standards have been achieved for a period of three consecutive years and all actions required to complete the remedy have been satisfied.</p>	

Closure/Temporary Cessation/Post-Closure

Importance to Environment: Ensures that the closure and post-closure activities are appropriate to provide protection of groundwater and the environment and eliminate further discharge from the facility

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>R18-9-A209</p> <p>Requires a closure plan to control the discharge of pollutants from the facility to the aquifer. The plan must include the method used, if any, to treat any material remaining at the facility, and the methods used to control discharge, such as a cover system, for materials to remain at the facility.</p>	<p>§§ 257.101 through 257.104 (as interpreted pursuant <i>Util. Solid Waste Activities Grp. v. EPA</i>)</p> <p>Requires a closure plan that includes the design of a final cover system to control, minimize, or eliminate (to the maximum extent feasible), both post-closure infiltration of liquids into disposed waste materials and releases of CCR, leachate, or contaminated runoff to the ground or surface waters or to the atmosphere. Prescriptive performance criteria for the final cover system. Closure through removal of CCR material is also an alternative.</p> <p>Establishes a list of mandatory triggering conditions (such as not satisfying liner criteria, violation of a location standard, or unsafe containment conditions) that require the retrofit or closure of an existing unlined surface impoundment or landfill.</p> <p>Establishes requirements that must be met to close,</p>	<p>Yes, as protective</p> <p>CCR closure requirements are prescriptive and meet or exceed the closure requirements typically included in APP permits for coal combustion residual facilities. APP authority in the rule and statute allows ADEQ to require the closure plan, and implementation and completion activities for closure that are prescriptive under</p>

Closure/Temporary Cessation/Post-Closure

Importance to Environment: Ensures that the closure and post-closure activities are appropriate to provide protection of groundwater and the environment and eliminate further discharge from the facility

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
	<p>including without limitation final cover design, schedule, engineer certification of closure, deed restrictions, and public notifications.</p> <p>Allows for continued operation of a CCR facility that would normally close due to one of the triggering conditions if the owner certifies the unit must continue operation due to absence of alternative disposal capacity. The extension of closure deadlines is only available for so long as the alternative disposal capacity is not available, and only for a maximum of five years from the initial certification.</p> <p>Requires post-closure care to maintain integrity and effectiveness of final cover, leachate collection system, and groundwater monitoring, for a 30-year period.</p> <p>A remedy shall be considered complete when the groundwater protection standards have been achieved and all actions required to complete the remedy have been satisfied.</p>	CCR.

Financial Assurance

Importance to Environment: Ensures that electric utilities are capable of meeting the financial obligations to close and assure proper post-closure care for their facilities in a manner that meets environmental requirements.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>R18-9-A203 APP requires a demonstration of financial capability to construct, operate, close and ensure proper post-closure care and requires that the owner establish one of 8 financial mechanisms to cover costs of closure and post-closure care.</p>	<p>The CCR regulations do not include a financial assurance demonstration.</p>	<p>While there is not a parallel requirement under federal CCR regulations as there is under APP to prove financial assurance for unit or facility closure, in practice, it is extremely unlikely that the class of regulated facilities at issue here will be unable to financially execute their environmental requirements under the federal CCR regulations, including as to facility closure.</p> <p>Owners that qualify as public service corporations under Arizona Corporation Commission (ACC) rules are subject to standards equivalent to or more stringent than the APP’s financial assurance requirements. The public service corporation rules require regulated entities to estimate costs, including both environmental compliance and CCR unit decommissioning costs (as part of the associated generating unit), develop a plan to manage those activities and associated uncertainties, update that plan once every two years, and provide a mechanism to ensure that those costs are met by the rates ordered by the ACC.</p> <p>Salt River Project (SRP) is not a public service corporation subject to</p>

Financial Assurance

Importance to Environment: Ensures that electric utilities are capable of meeting the financial obligations to close and assure proper post-closure care for their facilities in a manner that meets environmental requirements.

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
		<p>ACC but is a self-governed Agricultural Improvement and Power District with public-customer elected Board pursuant to A.R.S. Title 48, Chapter 17 (A.R.S. § 48-2301 <i>et seq.</i>). The Board has approved a Master Bond Resolution, which obligates SRP to charge rates sufficient to meet its obligations, including decommissioning obligations (e.g. definition of “operating expenses” and Sec. 7.11 of Master Bond Resolution). There are other options to raise funds. For example, if SRP’s revenue is insufficient to discharge its reported obligations, the County Board of Supervisors shall levy a land-proportional tax “sufficient to raise the amount reported” in the District Board’s annual estimate. A.R.S. § 48-2414(A)</p> <p>The processes described above provide the same or greater degree of cost estimation, cost updating, and financial provision as does the APP requirements, and therefore, also provides the same or better protection of aquifer water quality. Accordingly, financial assurance for this class of facility is provided by other applicable state programs and related assurances.</p>

Reporting Requirements

Importance to Environment: Ensures that monitoring and facility inspection results are available for review to allow for compliance determinations

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>R18-9-A207</p> <p>Requires reporting of routine groundwater monitoring data to ADEQ on a periodic basis.</p> <p>Requires owner to provide ADEQ notification of a permit violation (AQL or DL exceedance) within 5-days of becoming aware of violation and a written report of violation within 30-days. Owner must notify ADEQ with 5 days of a bankruptcy or entry of order or judgement.</p>	<p>§§ 257.105 through 257.107</p> <p>Requires owners to self-report a wide range of demonstrations and reports to the facility's operating record and comply with the internet posting requirements.</p> <p>Requires owner to notify ADEQ upon placement of documentation in the facility operating record for several different requirements including design criteria, inspection results, and groundwater corrective action.</p> <p>Requires notifications and public disclosure in response to exceedances as described in Notification and Internet Site Requirements, which reference operative sections of the CCR regulation.</p>	<p>Yes, as protective in practice.</p> <p>Internet posting requirements allow ADEQ and the public the opportunity to review significant facility records concerning CCR facility construction, inspections, closure planning, and groundwater quality, among others outlined in the Notification and Internet Requirements of the federal regulation. Notification requirements provide ADEQ updates on the status of compliance with CCR design and operation requirements which are closely related to APP requirements as described in the sections above.</p>

Reporting Requirements*Importance to Environment: Ensures that monitoring and facility inspection results are available for review to allow for compliance determinations*

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?

Public Notice and Public Participation*Importance to Environment: Public notice and participation ensures that the public is aware of actions of industrial facilities and that there is appropriate oversight, ensures the public to have a voice as to whether actions taken by facilities and agencies are appropriate to protect the aquifer*

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. part 257)	CCR “as protective as” APP?
<p>R18-9-108: ADEQ (not owner) provides outside Entities (Counties, Fed/State/Local agencies, citizens) notification of key steps in the permitting process (applications, preliminary & final decisions, closure plans, significant amendments, revocations, clean closure approvals). Also provision for website posting.</p> <p>R18-9-109: ADEQ publishes Notices of Preliminary Decisions regarding issuance or denial of significant amendment to a permit or final determination. Provides for a written public comment period, and written response from ADEQ. Provides for public hearing if determined necessary.</p>	<p>§§ 257.105 through 257.107</p> <p>Requires owners maintain extensive operating record, retain most items 5 years from document date, retain website 5 years from posting date, retain certain items until unit closure completed, and provides short timeframes for notifications and web posting depending on event.</p> <p>A public meeting is required prior to selection of a corrective action remedy.</p>	<p>Yes, as protective</p> <p>Information on facility design, operation and monitoring is readily available on the facilities’ websites. Similar information would be provided by ADEQ under the APP process as part of the public notice requirements, therefore CCR provides equivalent public information.</p>

Inspections*Importance to Environment: Ensures that facilities are accountable for their actions and will put measures in place to correct deficiencies*

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. Part 257)	CCR “as protective as” APP?
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Inspections

Importance to Environment: Ensures that facilities are accountable for their actions and will put measures in place to correct deficiencies

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. Part 257)	CCR “as protective as” APP?
<p>R18-9-110 Provides for ADEQ personnel to conduct an inspection of a permitted facility per ARS 41-1009 (Inspections & audits, applicability; exceptions).</p>	<p>§§ 257.83, 257.84</p> <p>Operators of CCR surface impoundments must complete weekly inspections for potential structural weakness and at all outlets of hydraulic structures that pass underneath the base of the surface impoundment or through the dike of the CCR unit for abnormal discoloration, flow or discharge of debris and monthly inspections of all CCR unit instrumentation.</p> <p>Requires annual and quinquennial (occurring every five years) inspections by a qualified professional engineer (QPE) to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards.</p> <p>For surface impoundments, the QPE must also provide a structural stability assessment.</p> <p>For landfills, the QPE must also identify any structural weakness or conditions that disrupt the operation or safety of the CCR unit.</p> <p>Requires website posting of the results of the inspections, conclusions, and appropriate next steps (e.g. additional monitoring and/or corrective action)</p> <p>The U.S. EPA is also authorized to access facilities used to manage CCR and conduct inspections to ensure compliance with federal CCR regulations. See 42 U.S.C. §§ 6945(d)(4)(A), 6927(a). Any records secured or generated by U.S. EPA in the course of such inspections must be made available to the public. See <i>id.</i></p>	<p>Yes, as protective</p> <p>The weekly inspections by CCR operators assures proper maintenance and operation of the facilities.</p> <p>The qualified professional engineer inspections provide oversight of facility design and operational integrity on a regular basis to assure adherence to CCR requirements which are similar to APP requirements (e.g. liner system design, impoundment operation and stability). In addition, similar to APP authority for ADEQ to conduct inspections, the U.S. EPA is empowered under RCRA to inspect facilities that manage CCR and to publicly disclose the results of such inspections. Moreover, ADEQ would continue to maintain the Department’s general inspection authority for situations where the Director determines, upon a reasonable basis belief, that a given facility may be in “violation of any environmental law or regulation.” See A.R.S. § 49-104(B)(8).</p>

Enforcement

Importance to Environment: Ensures that facilities are accountable for their actions and will put measures in place to correct deficiencies

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. Part 257)	CCR “as protective as” APP?
Provides for state enforcement only under A.R.S. Title 49, Chapter 2, Article 4: Enforcement, for a person who owns or operates a facility contrary to Articles 1, 2, or 3 of AAC Title 18, Chapter 9.	CCR facilities are regulated under RCRA Subtitle D (42 U.S.C. §§ 6941-6949a). Excepting recent modifications under the WIIN Act, enforcement under subtitle D for self-implementing rules is left to citizens to initiate lawsuits to enforce a violation of a requirement under RCRA or any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment. <i>See</i> 42 U.S.C. §§ 6972–73) (providing authorization to commence an action with respect to the above-referenced circumstances, which would apply to a CCR unit regulated under RCRA Subpart D). In addition, the U.S. EPA is authorized to bring administrative and judicial enforcement actions under RCRA to enforce the federal CCR regulations. <i>See id.</i> §§ 6945(d)(4)(A), 6928 (providing U.S. EPA with federal enforcement authority specifically with respect to CCR, pursuant to legislation passed in 2016).	Yes, as protective APP program does not provide for a direct citizen enforcement mechanism, while CCR does. In the absence of state oversight, there is still an oversight mechanism built into the federal CCR regulations, including via U.S. EPA enforcement authorities under RCRA, specifically directed at CCR. Further, EPA’s self-implementing rules are promulgated to enable public inspection of data and decisions. <i>See, e.g.,</i> 40 C.F.R. § 257.107 (internet posting requirements). Such public disclosure enables citizen enforcement under 42 U.S.C. §§ 6972–73.

Permit Suspension/Revocation/Denial/Termination

Importance to Environment: Allows the Director to prohibit discharge to a facility that doesn’t meet the requirements of the APP program for protection of groundwater and the environment

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. Part 257)	CCR “as protective as” APP?
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Permit Suspension/Revocation/Denial/Termination

Importance to Environment: Allows the Director to prohibit discharge to a facility that doesn't meet the requirements of the APP program for protection of groundwater and the environment

APP (A.R.S.; A.A.C.)	CCR (40 C.F.R. Part 257)	CCR "as protective as" APP?
R18-9-A213 The Director may take actions upon determination that an owner failed to comply with APP requirements or misrepresented information in an APP application, a facility is causing a violation of groundwater limits or is causing/will cause an imminent and substantial endangerment to public health or the environment, or an owner failed to maintain financial capability.	257.101(b) The CCR requirements are self-implementing; therefore, there isn't a permitting program. If a facility does not meet certain requirements, the rule requires closure of the facility. For example, existing CCR surface impoundments failing to meet location standards must close. In addition, CCR surface impoundments that are not lined in accordance with the federal CCR rule requirements must similarly close. Moreover, if CCR facilities are not in compliance with federal CCR regulations, the facility is considered an "open dump" and is subject to enforcement actions and citizen lawsuits. <i>See</i> 42 U.S.C. § 6945(d).	Yes, as protective The CCR rule is written to be self-implementing and there are no exemptions from the rule.

6. A reference to any study relevant to the rule that the agency reviewed and proposes either to rely on or not to rely on in its evaluation of or justification for the rule, where the public may obtain or review each study, all data underlying each study, and any analysis of each study and other supporting material:

Not applicable.

7. A showing of good cause why the rulemaking is necessary to promote a statewide interest if the rulemaking will diminish a previous grant of authority of a political subdivision of this state:

Not applicable. The proposed amendments do not diminish a previous grant of authority of a political subdivision of this state. However, as previously explained, it will limit the authority of the state itself.

8. The agency is exempt from the requirements under A.R.S. § 41-1055(G) to prepare and file an economic, small business, and consumer impact statement under A.R.S. § 41-1055(D)(2).

9. The agency's contact person who can answer questions about the above statement regarding the preliminary summary of the economic, small business and consumer

impact of the proposed expedited rule:

Name: Heidi M. Haggerty Welborn
Address: 1110 W. Washington St.
Phoenix, AZ 85007
Telephone: (602) 771-4815
E-mail: Welborn.Heidi@azdeq.gov
Website: <http://www.azdeq.gov/draft-and-proposed-rule-water-quality-division>

10. The time, place, and nature of the proceedings to make, amend, repeal, or renumber the rule, or if no proceeding is scheduled, where, when, and how persons may request an oral proceeding on the proposed rule:

ADEQ has scheduled an oral proceeding to receive oral comments on the rules, in accordance with A.R.S. § 41-1023; the time, place, and location of the hearing are listed below:

Date of Hearing: June 14, 2019
Time: 9:30 am
Location: Arizona Department of Environmental Quality
1110 W. Washington, Room 3175
Phoenix, AZ 85007
Nature: In-person oral proceeding on the proposed rules, with opportunity to submit formal comments on the record

ADEQ will take reasonable measures to provide access to department services to individuals with limited ability to speak, write or understand English and/or to those with disabilities. Requests for language interpretation, ASL interpretation, CART captioning services or disability accommodations must be made at least 48 hours in advance by contacting Ian Bingham, Title VI Nondiscrimination Coordinator at 602-771-4322 or Bingham.Ian@azdeq.gov. Teleprinter services are available by calling 7-1-1 at least 48 hours in advance to make necessary arrangements.

Emailed or hard-copy written comments related to this rulemaking may be submitted at any time during the public comment period to:

Name: Heidi M. Haggerty Welborn
Address: 1110 W. Washington St.
Phoenix, AZ 85007
E-mail: Welborn.Heidi@azdeq.gov

Close of Comment Period: **5:00 p.m. on Date of Hearing** as listed above

11. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules.

There are no additional matters prescribed by statute applicable specifically to ADEQ or this specific rulemaking.

- a. **Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used (A.R.S. §§ 41-1052(D)(10) & -1037(A); A.A.C. R1-1-801(C)(5)(j)):** *

Not applicable. This rulemaking exempts certain facilities from permitting.

- b. **Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law (A.R.S. § 41-1052(D)(9)):**

As discussed above, for the very reason that federal law applies (RCRA and 40 C.F.R. part 257, subpart D), certain classes of facilities are being exempted from state law. Therefore, this rulemaking is not more stringent than federal law.

- c. **Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states (A.A.C. R1-1-801(C)(5)(j)):**

No such analysis was submitted.

12. A list of any incorporated by reference material as specified in A.R.S. § 41-1028 and its location in the rules:

None.

13. The full text of the rules follows:

TITLE 18. ENVIRONMENTAL QUALITY
CHAPTER 9. DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER POLLUTION CONTROL

ARTICLE 1. AQUIFER PROTECTION PERMITS – GENERAL PROVISIONS

Section

R18-9-101. Definitions

R18-9-103. Class Exemptions

R18-9-101. Definitions

In addition to the definitions established in A.R.S. § 49-201, the following terms apply to Articles 1, 2, 3, and 4 of this Chapter:

1. “Aggregate” means a clean graded hard rock, volcanic rock, or gravel of uniform size, between 3/4 inch and 2 1/2 inches in diameter, offering 30 percent or more void space, washed or prepared to be free of fine materials that will impair absorption surface performance, and has a hardness value of three or greater on the Moh’s Scale of Hardness (can scratch a copper penny).
2. “Alert level” means a value or criterion established in an individual permit that serves as an early warning indicating a potential violation of a permit condition related to BADCT or the discharge of a pollutant to groundwater.
3. “AQL” means an aquifer quality limit and is a permit limitation set for aquifer water quality measured at the point of compliance that either represents an Aquifer Water Quality Standard or, if an Aquifer Water Quality Standard for a pollutant is exceeded in an aquifer at the time of permit issuance, represents the ambient water quality for that pollutant.
4. “Aquifer Protection Permit” means an individual permit or a general permit issued under A.R.S. §§ 49-203, 49-241 through 49-252, and Articles 1, 2, and 3 of this Chapter.
5. “Aquifer Water Quality Standard” means a standard established under A.R.S. §§ 49-221 and 49-223.
6. “AZPDES” means the Arizona Pollutant Discharge Elimination System, which is the state program for issuing, modifying, revoking, reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment and biosolids requirements under A.R.S. Title 49, Chapter 2, Article 3.1 and 18 A.A.C. 9, Articles 9 and 10.
7. “BADCT” means the best available demonstrated control technology, process, operating method, or other alternative to achieve the greatest degree of discharge reduction determined for a facility by the Director under A.R.S. § 49-243.
8. “Bedroom” means, for the purpose of determining design flow for an on-site wastewater treatment facility for a dwelling, any room that has:
 - a. A floor space of at least 70 square feet in area, excluding closets;
 - b. A ceiling height of at least 7 feet;
 - c. Electrical service and ventilation;
 - d. A closet or an area where a closet could be constructed;
 - e. At least one window capable of being opened and used for emergency egress; and

- f. A method of entry and exit to the room that allows the room to be considered distinct from other rooms in the dwelling and to afford a level of privacy customarily expected for such a room.
9. “Book net worth” means the net difference between total assets and total liabilities.
10. “Chamber technology” means a method for dispersing treated wastewater into soil from an on-site wastewater treatment facility by one or more manufactured leaching chambers with an open bottom and louvered, load-bearing sidewalls that substitute for an aggregate-filled trench described in R18-9-E302.
10. “CCR” means coal combustion residuals which include fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.
11. “CCR landfill” means an area of land or an excavation that receives CCR and which is not a municipal solid waste landfill, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. A CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of beneficial use of CCR.
12. “CCR surface impoundment” means a natural topographic depression, man-made excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.
13. “CCR unit” means any CCR landfill which receives CCR, any CCR surface impoundment designed to hold an accumulation of CCR and liquids, and the unit treats, stores or disposes of CCR. CCR unit includes a lateral expansion of a CCR unit, or a combination of more than one of these units that receives CCR.
- ~~11.~~14. “CMOM Plan” means a Capacity, Management, Operations, and Maintenance Plan, which is a written plan that describes the activities a permittee will engage in and actions a permittee will take to ensure that the capacity of the sewage collection system, when unobstructed, is sufficient to convey the peak wet weather flow through each reach of sewer, and provides for the management, operation, and maintenance of the permittee’s sewage collection system.
- ~~12.~~15. “Design capacity” means the volume of a containment feature at a discharging facility that accommodates all permitted flows and meets all Aquifer Protection Permit conditions, including allowances for appropriate peaking and safety factors to ensure sustained, reliable operation.
- ~~13.~~16. “Design flow” means the daily flow rate a facility is designed to accommodate on a sustained basis while satisfying all Aquifer Protection Permit discharge limitations and treatment and

operational requirements. The design flow either incorporates or is used with appropriate peaking and safety factors to ensure sustained, reliable operation.

- ~~14.17.~~ “Direct reuse site” means an area where reclaimed water is applied or impounded.
- ~~15.18.~~ “Disposal works” means the system for disposing treated wastewater generated by the treatment works of a sewage treatment facility or on-site wastewater treatment facility, by surface or subsurface methods. Disposal works do not include systems for activities regulated under 18 A.A.C. 9, Article 7.
- ~~16.19.~~ “Drywell” means a well which is a bored, drilled or driven shaft or hole whose depth is greater than its width and is designed and constructed specifically for the disposal of storm water. Drywells do not include class 1, class 2, class 3 or class 4 injection wells as defined by the Federal Underground Injection Control Program (P.L. 93-523, part C), as amended. A.R.S. § 49-331(3)
- ~~17.20.~~ “Dwelling” means any building, structure, or improvement intended for residential use or related activity, including a house, an apartment unit, a condominium unit, a townhouse, or a mobile or manufactured home that has been constructed or will be constructed on real property.
- ~~18.21.~~ “Final permit determination” means a written notification to the applicant of the Director’s final decision whether to issue or deny an Individual Aquifer Protection Permit.
- ~~19.22.~~ “Groundwater Quality Protection Permit” means a permit issued by the Arizona Department of Health Services or the Department before September 27, 1989 that regulates the discharge of pollutants that may affect groundwater.
- ~~20.23.~~ “Homeowner’s association” means a nonprofit corporation or unincorporated association of owners created pursuant to a declaration to own and operate portions of a planned community and which has the power under the declaration to assess association members to pay the costs and expenses incurred in the performance of the association’s obligations under the declaration.
- ~~21.24.~~ “Injection well” means a well that receives a discharge through pressure injection or gravity flow.
- ~~22.25.~~ “Intermediate stockpile” means in-process material not intended for long-term storage that is in transit from one process to another at a mining site. Intermediate stockpile does not include metallic ore concentrate stockpiles or feedstocks not originating at the mining site.
- ~~23.26.~~ “Land treatment facility” means an operation designed to treat and improve the quality of waste, wastewater, or both, by placement wholly or in part on the land surface to perform part or all of the treatment. A land treatment facility includes a facility that performs biosolids drying, processing, or composting, but not land application performed in compliance with 18 A.A.C. 9, Article 10.

- ~~24.27.~~ “Mining site” means a site assigned one or more of the following primary Standard Industrial Classification Codes: 10, 12, 14, 32, and 33, and includes noncontiguous properties owned or operated by the same person and connected by a right-of-way controlled by that person to which the public is not allowed access.
- ~~25.28.~~ “Nitrogen Management Area” means an area designated by the Director for which the Director prescribes measures on an area-wide basis to control sources of nitrogen, including cumulative discharges from on-site wastewater treatment facilities, that threaten to cause or have caused an exceedance of the Aquifer Water Quality Standard for nitrate.
- ~~26.29.~~ “Notice of Disposal” means a document submitted to the Arizona Department of Health Services or the Department before September 27, 1989, giving notification of a pollutant discharge that may affect groundwater.
- ~~27.30.~~ “On-site wastewater treatment facility” means a conventional septic tank system or alternative system installed at a site to treat and dispose of wastewater, predominantly of human origin, generated at that site. An on-site wastewater treatment facility does not include a pre-fabricated, manufactured treatment works that typically uses an activated sludge unit process and has a design flow of 3000 gallons per day or more.
- ~~28.31.~~ “Operational life” means the designed or planned period during which a facility remains operational while being subject to permit conditions, including closure requirements. Operational life does not include post-closure activities.
- ~~29.32.~~ “Person” means an individual, employee, officer, managing body, trust, firm, joint stock company, consortium, public or private corporation, including a government corporation, partnership, association or state, a political subdivision of this state, a commission, the United States government or any federal facility, interstate body or other entity. A.R.S. § 49-201(26). For the purposes of permitting a sewage treatment facility under Article 2 of this Chapter, person does not include a homeowner’s association.
- ~~30.33.~~ “Pilot project” means a short-term, limited-scale test designed to gain information regarding site conditions, project feasibility, or application of a new technology.
- ~~31.34.~~ “Process solution” means a pregnant leach solution, barren solution, raffinate, or other solution uniquely associated with the mining or metals recovery process.
- ~~32.35.~~ “Residential soil remediation level” means the applicable predetermined standard established in 18 A.A.C. 7, Article 2, Appendix A.
- ~~33.36.~~ “Seasonal high water table” means the free surface representing the highest point of groundwater rise within an aquifer due to seasonal water table changes over the course of a year.

- ~~34.37.~~ “Setback” means a minimum horizontal distance maintained between a feature of a discharging facility and a potential point of impact.
- ~~35.38.~~ “Sewage” means untreated wastes from toilets, baths, sinks, lavatories, laundries, other plumbing fixtures, and waste pumped from septic tanks in places of human habitation, employment, or recreation. Sewage does not include gray water as defined in R18-9-701(4), if the gray water is reused according to 18 A.A.C. 9, Article 7.
- ~~36.39.~~ “Sewage collection system” means a system of pipelines, conduits, manholes, pumping stations, force mains, and all other structures, devices, and appurtenances that collect, contain, and convey sewage from its sources to the entry of a sewage treatment facility or on-site wastewater treatment facility serving sources other than a single-family dwelling.
- ~~37.40.~~ “Sewage treatment facility” means a plant or system for sewage treatment and disposal, except for an on-site wastewater treatment facility, that consists of treatment works, disposal works and appurtenant pipelines, conduits, pumping stations, and related subsystems and devices. A sewage treatment facility does not include components of the sewage collection system or the reclaimed water distribution system.
- ~~38.41.~~ “Surface impoundment” means a pit, pond, or lagoon with a surface dimension equal to or greater than its depth, and used for the storage, holding, settling, treatment, or discharge of liquid pollutants or pollutants containing free liquids.
- ~~39.42.~~ “Tracer” means a substance, such as a dye or other chemical, used to change the characteristic of water or some other fluid to detect movement.
- ~~40.43.~~ “Tracer study” means a test conducted using a tracer to measure the flow velocity, hydraulic conductivity, flow direction, hydrodynamic dispersion, partitioning coefficient, or other property of a hydrologic system.
- ~~41.44.~~ “Treatment works” means a plant, device, unit process, or other works, regardless of ownership, used for treating, stabilizing, or holding municipal or domestic sewage in a sewage treatment facility or on-site wastewater treatment facility.
- ~~42.45.~~ “Typical sewage” means sewage conveyed to an on-site wastewater treatment facility in which the total suspended solids (TSS) content does not exceed 430 mg/l, the five-day biochemical oxygen demand (BOD₅) does not exceed 380 mg/l, the total nitrogen does not exceed 53 mg/l, and the content of oil and grease does not exceed 75 mg/l.
- ~~43.46.~~ “*Underground storage facility*” means a constructed underground storage facility or a managed underground storage facility. A.R.S. § 45-802.01(21).
- ~~44.47.~~ “Waters of the United States” means:

- a. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;
- b. All interstate waters, including interstate wetlands;
- c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any waters:
 - i. That are or could be used by interstate or foreign travelers for recreational or other purposes;
 - ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - iii. That are used or could be used for industrial purposes by industries in interstate commerce;
- d. All impoundments of waters defined as waters of the United States under this definition;
- e. Tributaries of waters identified in subsections (a) through (d);
- f. The territorial sea; and
- g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in subsections (a) through (f).

R18-9-103. Class Exemptions

Class exemptions. In addition to the classes or categories of facilities listed in A.R.S. § 49-250(B), the following classes or categories of facilities are exempt from the Aquifer Protection Permit requirements in Articles 1, 2, and 3 of this Chapter:

1. Facilities that treat, store, or dispose of hazardous waste and have been issued a permit or have interim status, under the Resource Conservation and Recovery Act (P.L. 94-580; 90 Stat. 2796; 42 U.S.C. 6901 et seq., as amended), or have been issued a permit according to the hazardous waste management rules adopted under 18 A.A.C. 8, Article 2;
2. Underground storage tanks that contain a regulated substance as defined in A.R.S. § 49-1001;
3. Facilities for the disposal of solid waste, as defined in A.R.S. § 49-701.01, that are located in unincorporated areas and receive solid waste from four or fewer households;
4. Land application of biosolids in compliance with 18 A.A.C. 9, Articles 9 and 10; and

5. CCR Units that were in existence as of January 1, 2019, and which are governed by 40 C.F.R. Part 257, Subpart D. This exemption for CCR Units shall only extend until such time as both of the following are met, as applicable to a given CCR Unit:
 - a. Regulations are approved by the U.S. Environmental Protection Agency, in accordance with 42 U.S.C. § 6945(d)(1), for the issuance of permits governing CCR Units, and
 - b. The Director issues a permit to a given CCR Unit, which incorporates terms at least as protective as 40 C.F.R. Part 257, Subpart D.