MEMORANDUM

DATE: June 6, 2023

SUBJECT: Meetings Summary and Materials for USWAG, CCIG, and Environmental Groups

FROM: Michelle Lloyd, U.S. EPA, Office of Resource Conservation and Recovery

TO: EPA Docket No. EPA-HQ-OLEM-2020-0107

On May 31, 2023, the United States Environmental Protection Agency (EPA) provided members of the Utility Solid Waste Activities Group (USWAG) a briefing on EPA's recent Coal Combustion Residual (CCR) proposed rule on legacy CCR surface impoundments and CCR management units (88 FR 31982, May 18, 2023).

On May 31, 2023, EPA also provided members of the Baker Botts Cross Cutting Issues Group (CCIG) the same briefing on EPA's recent CCR proposed rule.

On June 5, 2023, EPA also provided members of environmental groups including Earthjustice, Southern Environmental Law Center, Sierra Club, Western Organization of Resource Councils, and other groups the same briefing on EPA's recent CCR proposed rule.

A slide deck presented to each of these groups is attached to this memorandum. EPA also answered questions from meeting participants on each of the three meetings on the proposed rule and recommended that the questions be included with their comments submitted to the docket during the comment period scheduled to close on July 17, 2023.

Attachment

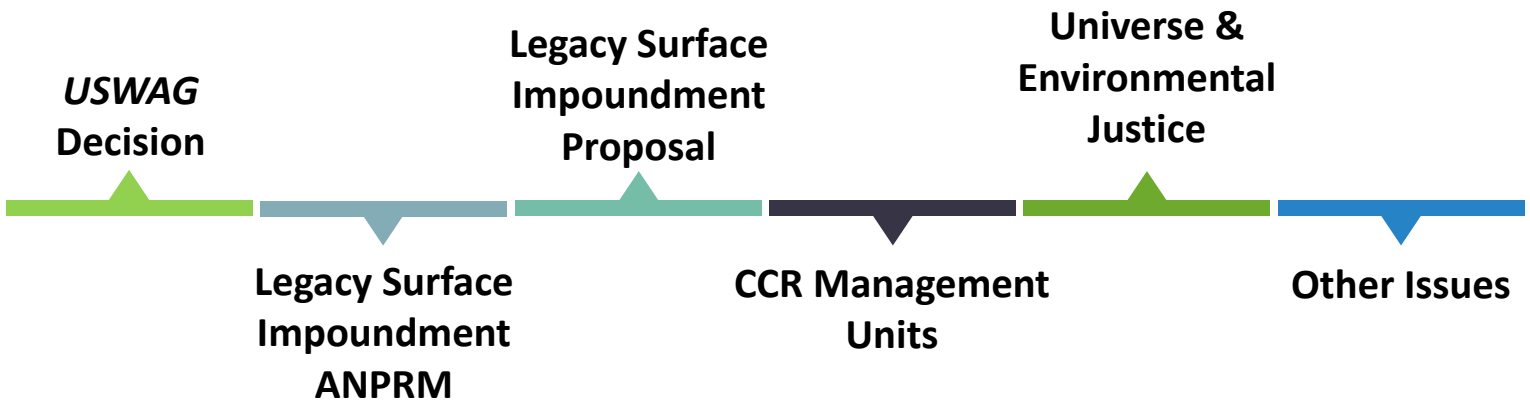
Legacy CCR Surface Impoundment and CCR Management Unit Proposed Rule

Training Slides

Overview

Purpose:

To explain the elements of the legacy CCR surface impoundment and CCR management unit proposed rule.



Background: *USWAG* Decision

- On August 21, 2018, the U.S. Court of Appeals for the District of Columbia Circuit issued its opinion in the case of *Utility Solid Waste Activities Group, et al. v. EPA* (“*USWAG*”), which vacated and remanded the provision that exempted inactive impoundments at inactive facilities from the CCR regulations.
- Excerpts from the court’s *USWAG* opinion*:*
  - *“As with surface impoundments at active plants, groundwater contamination or catastrophic structural failure of a legacy pond threatens human health and the environment. But legacy ponds, which by their nature are older than most surface impoundments, are “generally unlined” and unmonitored, and so are shown to be more likely to leak than units at utilities still in operation.”*
  - *“legacy ponds present a unique confluence of risks: They pose the same substantial threats to human health and the environment as the riskiest Coal [Combustion] Residuals disposal methods, compounded by diminished preventative and remediation oversight due to the absence of an onsite owner and daily monitoring.”*
  - *“the Rule’s legacy ponds exemption is unreasoned, arbitrary, and capricious.”*

Legacy Surface Impoundment ANPRM

- As a first step to implement this part of the court decision, EPA sought comments and data on inactive surface impoundments at inactive facilities to assist in the development of future regulations for these CCR units.
- Published October 14, 2020 (85 FR 65015), and sought comment on:
  - EPA's regulatory authority
  - A potential definition of a legacy CCR surface impoundments
  - Information on the number of legacy units
  - Names and locations of former power plants that may have legacy units and when they closed, and
  - Regulatory approach and timeframes
- EPA received approximately 15,100 total comments with 25 substantive comments in response to the October 14, 2020 ANPRM.

Definitions (40 CFR 257.53)

- *Legacy CCR surface impoundment* means A CCR surface impoundment that no longer receives CCR but contained both CCR and liquids on or after October 19, 2015, and that is located at an inactive electric utility.
  - Preamble discussion on “contains CCR and liquids”, “closed” units, and dates.
  - Estimate 127 legacy CCR surface impoundments nationwide

- *Inactive utility (or inactive facility)* means a utility or facility that ceased producing electricity prior to October 19, 2015.

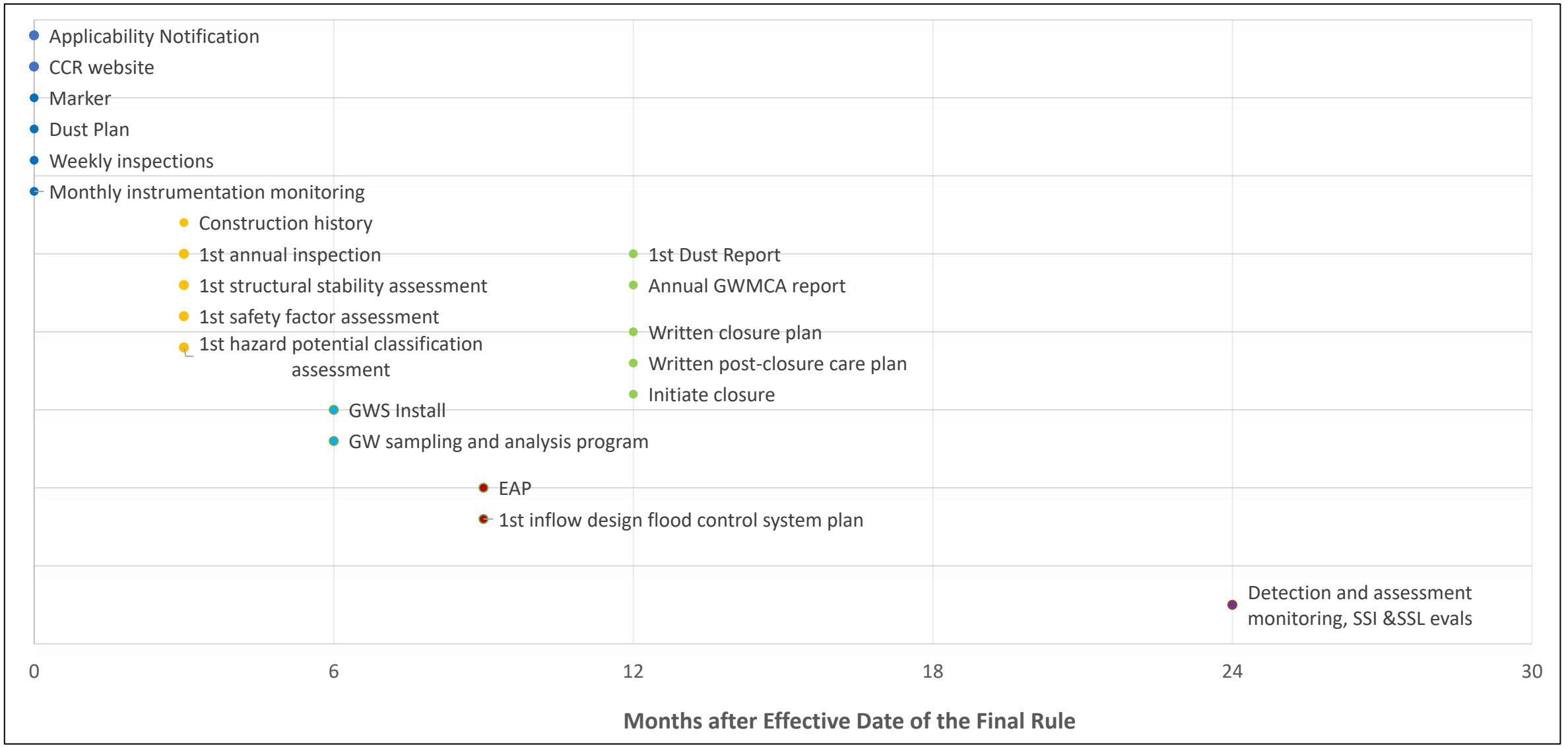
New Proposed Regulatory Requirements

- Applicability Documentation (§ 257.100(f)(1)(i))
  - All legacy CCR surface impoundments, including incised impoundments and impoundments that do not meet the height and storage volume cutoffs specified in § 257.73(b).
  - Report with information to identify the unit, delineate the unit boundaries, a figure of the facility and where the unit is located at the facility, the size of the unit, its proximity to surface water bodies, and the current site conditions.
  - The facility would then post this report on its website for public accessibility.
  - Due on effective date of final rule.
- Site security (§ 257.100(f)(3)(iii))
  - Performance standard would require the owner or operator to prevent the unknowing entry of people onto the legacy CCR surface impoundment and to minimize the potential for the unauthorized entry of people or livestock onto the impoundment.
  - Due on effective date of final rule.
- Certification of Closure by Removal (§ 257.100(f)(1)(ii))
  - Applies if a legacy CCR surface impoundment closed by removal before the effective date of the final rule in accordance with the performance standards in § 257.102(c).
  - Post documentation on CCR website.
  - Due on effective date of final rule.

Existing Regulatory Requirements

- EPA is proposing to require compliance with:
  - A majority of requirements under the existing CCR rule for CCR surface impoundments.
    - Inspections, structural stability, emergency action plan, history of construction, fugitive dust, groundwater monitoring, corrective action, closure, and recordkeeping
    - *Exclude* location restrictions and liner demonstration
  - Expedited compliance deadlines.
    - Effective Date of the Final Rule– CCR website and dust plan
    - 3 months post effective date – Structural stability assessments
    - 6 months post effective date – Groundwater sampling and analysis plan
    - 12 months post effective date – Groundwater monitoring report and initiation of closure

Legacy Surface Impoundment Compliance Deadlines



Groundwater Monitoring and Corrective Action

- EPA is proposing to require the existing groundwater monitoring criteria in §§ 257.90 through 257.95 and corrective action criteria in §§ 257.96 through 257.98.
- Detection Monitoring Program and Assessment Monitoring Program Combined
  - Expedites GWM and initiation of corrective measures.
  - Require sampling and analysis of constituents in Appendix III and IV of part 257 at the same time.

Closure

- All legacy CCR surface impoundments must initiate closure within 12 months after the effective date of the final rule.
  - Comply with either closure by removal or closure with waste in place performance standards. See § 257.102(c) and (d).
  - Comply with other closure requirements listed in § 257.100.
  - Complete post-closure care in § 257.104 if closing with waste in place.

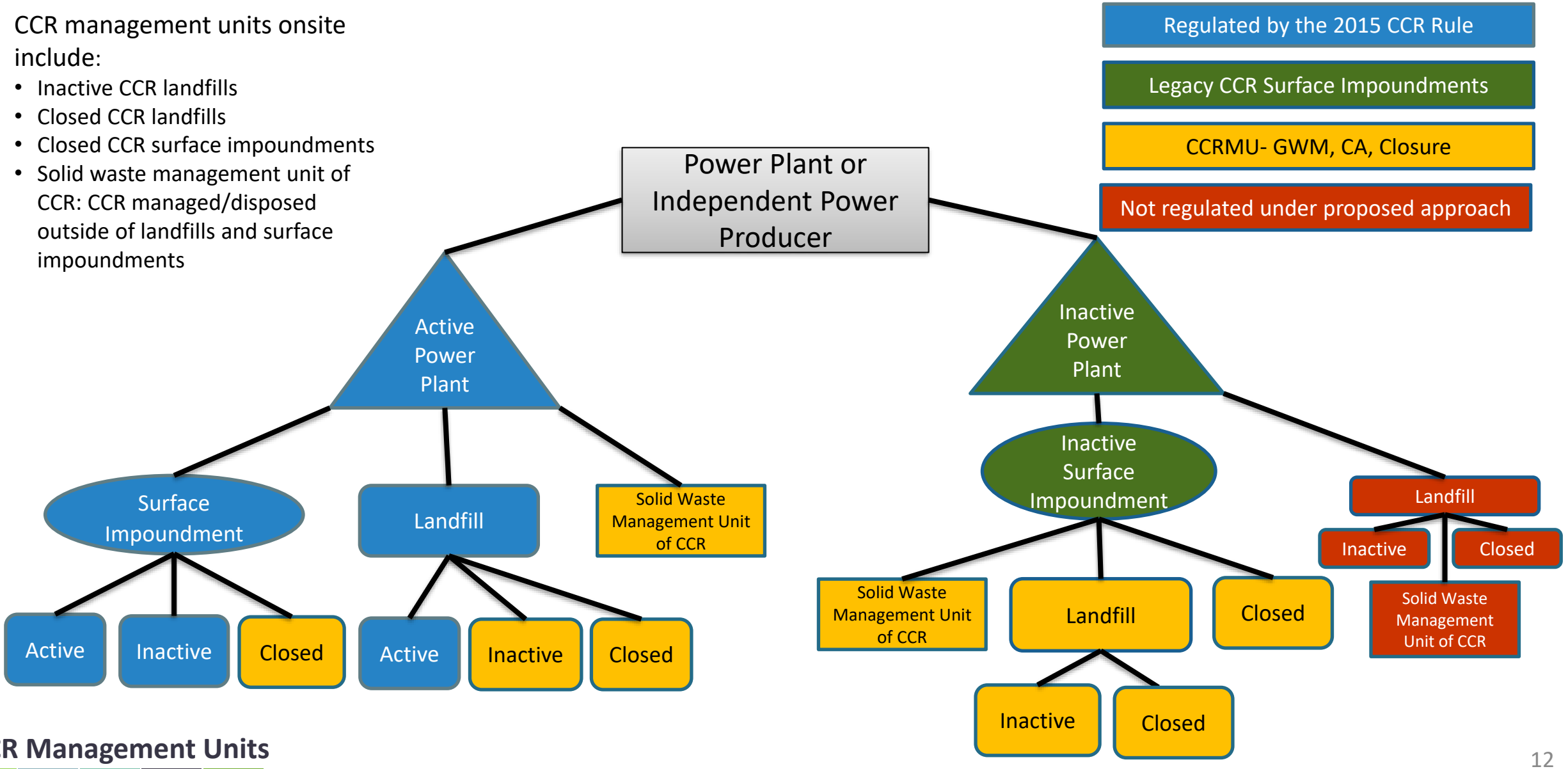
CCR Management Units (CCRMU) Proposal

- Issue: Many facilities, both active and inactive, have other non-regulated CCR management units onsite that are contaminating groundwater. EPA found these through reviewing:
  - Alternative source demonstrations
  - Site maps
  - Corrective measures assessments
- CCRMU pose risk
  - EPA analyzed different management/disposal practices- liner, waste with extreme pH, and waste below the water table.
  - Risks from historical units are similar to the currently regulated universe.
  - EPA estimates that these solid waste management practices could pose lifetime cancer risks from arsenic as high as 2×10^{-5} to 1×10^{-3} (i.e., 2 to 100 cases of cancer for every 100,000 individuals exposed), depending on the specific management practice.
- Damage Cases identified with statistically significant increase above Appendix III or statistically significant level above Appendix IV constituents from unregulated CCR management units nationwide.

CCR Management Units at Power Plants

CCR management units onsite include:

- Inactive CCR landfills
- Closed CCR landfills
- Closed CCR surface impoundments
- Solid waste management unit of CCR: CCR managed/disposed outside of landfills and surface impoundments



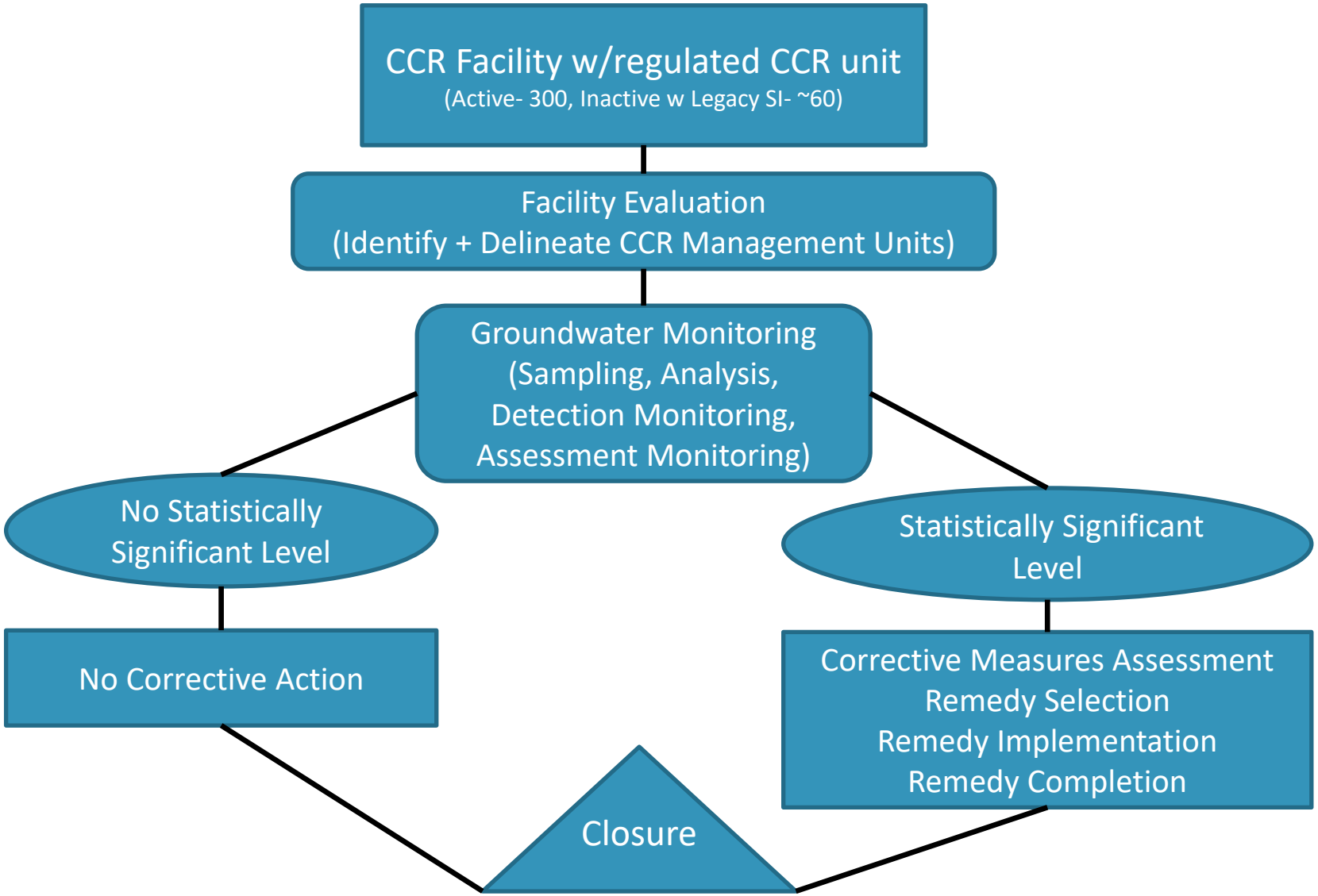
Proposed Definitions (40 CFR 257.53)

- *CCR management unit* means any area of land on which any non-containerized accumulations of CCR are received, placed, or otherwise managed, that is not a CCR unit.
  - Includes inactive landfills, closed landfills, closed surface impoundments, abandoned piles, structural fill sites, CCR placed below currently regulated CCR units, evaporation ponds, or secondary or tertiary finishing ponds that have not been properly cleaned up, and haul roads made of CCR if the use does not meet the definition of beneficial use.
  - Not considered CCRMU: closed or inactive process water ponds, cooling water ponds, wastewater treatment ponds, and storm water holding ponds or aeration ponds
- CCR management units are not covered under the definition of *CCR unit*.

Proposed Definitions (40 CFR 257.53) cont.

- *Inactive CCR landfill* means an area of land or an excavation that contains CCR but that no longer receives CCR on or after the effective date of this final rule and that is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine or a cave. For purposes of this subpart, this term also includes sand and gravel pits that received CCR, and abandoned CCR piles.
- *Operator* includes those person(s) or parties responsible for disposal or otherwise actively engaged in solid waste management of CCR. It also includes those responsible for directing or overseeing groundwater monitoring, closure, or post-closure activities at a CCR unit or CCRMU.
- Adding "or CCR management unit" to several definitions- Owner, Active life or in operation, Active portion, Closed, CCR landfill or landfill, Qualified person, Qualified professional engineer, State Director, and Waste boundary

CCR Management Units Regulatory Process



Facility Evaluation and Report in 40 CFR 257.75

- Purpose: to confirm whether any CCRMU exist on-site, and, if so, to delineate the lateral and vertical extent of the unit(s)
- EPA is proposing a two-step process for a facility evaluation:
  a. A thorough review of available records in combination with a physical facility inspection and any necessary field work, such as soil sampling, to fill any data gaps from the information obtained from the review of available records. EPA expects the facility to identify:
     1) Any areas where the facility can affirmatively conclude based on the available information that one or more CCRMU are present; and
     2) Any areas where the available information indicates that CCR may have been either routinely and systematically placed on the ground, or where facility activities otherwise could have resulted in measurable accumulations of CCR on the ground (i.e., areas where the available information indicates that one or more CCRMU may be present).
  b. Generate a Facility Evaluation Report to document the findings of the facility evaluation. The report must be placed in the facility's operating record no later than 3 months after the effective date of the final rule.

Facility Evaluation (cont)

- Examples of records to review:
  - Documents developed to comply with part 257 such as inspection reports; history of construction reports; fugitive dust control plans; annual groundwater monitoring and corrective action reports; ASDs; ACM reports or other corrective action reports; and closure plans and reports.
  - Reports to comply with non-CCR programs (TSCA, OSHA, NPDES, CAA, CWA)
  - Historical and contemporary monitoring and reporting data
  - Facility operating logs and maps
  - Site imagery including available historical aerial photographs, site photographs, topographic maps, and/or engineering or construction drawings, including drawings for physical facility improvement projects, such as surface water control, water and power infrastructure and utilities, roads, berms, ponds and/or other physical features at the facility
- Interviews with former facility personnel and available state and local officials familiar with the facility to the extent those persons are available and have knowledge about the facility operations.
- Where necessary, the physical inspection would include field investigation activities, such as conducting exploratory soil borings, geophysical assessments, or any other similar physical investigation confirmation activities to establish the location and boundaries of identified CCRMU, and to affirmatively rule out other areas of potential CCR placement at the facility that were identified during the information review.
- EPA expects that the facility would be able to identify the date, locations, durations, and volumes or estimated quantities of CCR placement.

Facility Evaluation Report (40 CFR 257.75(e))

- EPA is proposing that the Facility Evaluation Report must contain the following:

1) Name and address of the person(s) owning and operating the facility, unit name for any CCR unit and CCRMU at the facility; state ID number
2) Location of any CCRMU on the most recent USGS map or a topographic map
3) A statement of the purpose(s) for which each CCRMU at the facility is or was being used;
4) A description of the physical and engineering properties of the foundation and abutment materials on which each CCRMU is constructed;
5) A discussion of any known spills or releases of CCR from each CCRMU and whether or not the spills or releases were reported to state or federal agencies;
6) Any record or knowledge of structural instability of each CCRMU;
7) Any record or knowledge of groundwater contamination associated or potentially associated with each CCRMU;
8) Size of each CCRMU, including the general lateral and vertical dimensions and an estimate of the volume of waste contained within the unit;
9) Dates when each CCRMU first received CCR and when each CCRMU ceased receiving CCR;
10) Specification of all CCR wastes that have been managed in each CCRMU at the facility;
11) A narrative description, including any applicable engineering drawings or reports of any closure activities that have occurred;
12) A narrative that documents the nature and extent of field oversight activities and data reviewed as part of the facility evaluation process, and that lists all data and information that was reviewed indicating the absence or presence of CCRMU at the facility; and
13) Any supporting information used to identify and assess CCRMU at the facility, including but not limited to any construction diagrams, engineering drawings, permit documents, wastestream flow diagrams, aerial photographs, satellite images, historical facility maps, any field or analytical data, groundwater monitoring data or reports, inspection reports, documentation of interviews with current or former facility workers, and other documents or sources of information used to identify and assess CCRMU at the facility.

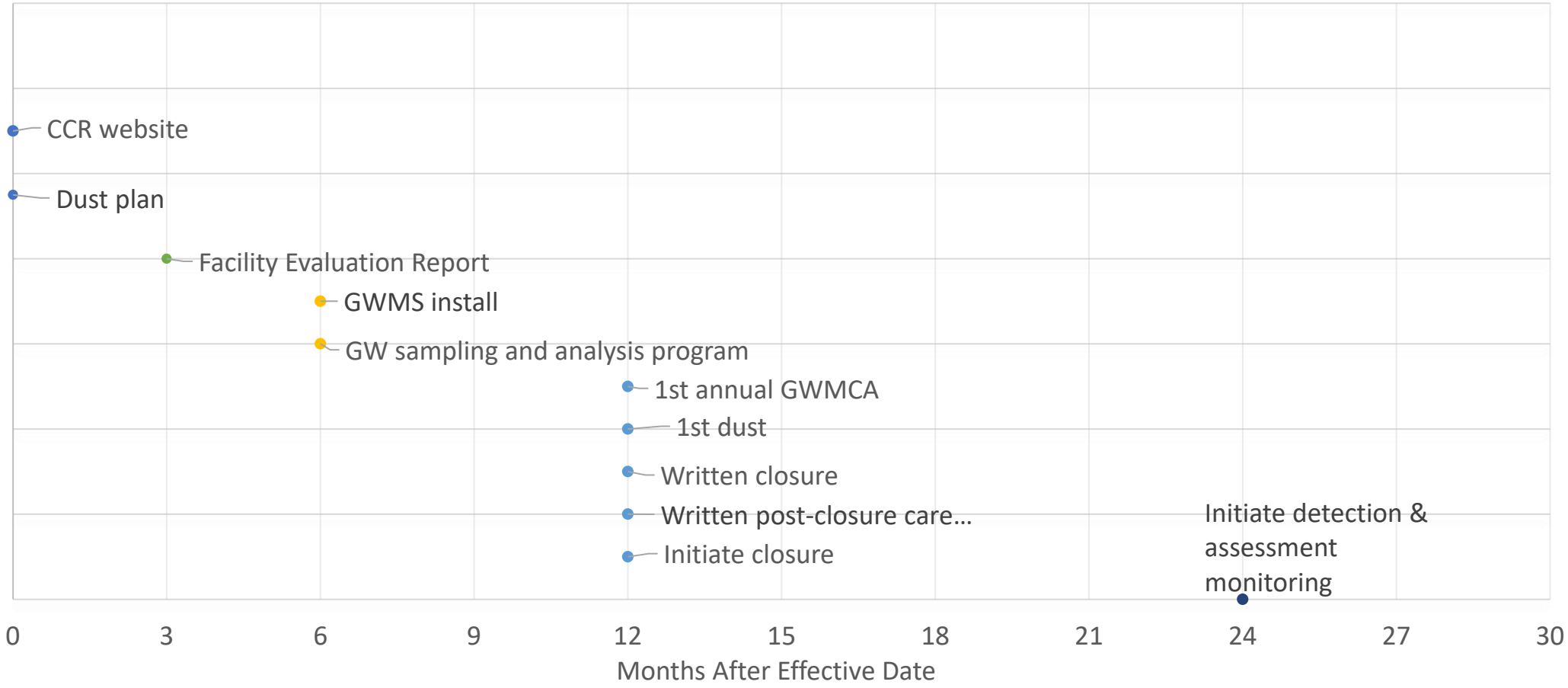
Existing Regulatory Requirements for CCRMU

- Fugitive Dust – EPA is taking comment on requiring fugitive dust controls for CCRMU
- Groundwater Monitoring and Corrective Action
  - The existing groundwater monitoring criteria in §§ 257.90 through 257.95 and corrective action criteria in §§ 257.96 through 257.98
  - Detection Monitoring Program and Assessment Monitoring Program Combined
    - Expedites GWM and initiation of corrective measures
    - Require sampling and analysis of constituents in Appendix III and IV of part 257 at the same time
- Closure
  - All CCR management units must initiate closure within 12 months after the effective date of the final rule
    - Comply with either closure by removal or closure with waste in place performance standards. See § 257.102(c) and (d)
  - Complete a closure plan and other closure requirements specified in § 257.101-257.104
  - Complete post-closure care in § 257.104 if closing with waste in place
  - Limited closure time extensions based on the size of the unit and site conditions
- Recordkeeping, notification, and CCR website posting

Closure Performance Standards

- Given the locations of many CCRMU (located in floodplains, or wetlands, or near large surface water bodies), EPA is concerned that the base of these units may intersect with the groundwater beneath the unit.
- Where the base of a surface impoundment intersects with groundwater, the facility will typically need to include engineering measures specifically to address any continued infiltration of groundwater into the impoundment in order to close with waste in place consistent with § 257.102(d).
- EPA is proposing that the general performance standard and final cover system requirements in § 257.102(d)(1) and (3) apply to all CCR management units
  - "free liquids must be eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues." 40 CFR 257.102(d)(2)(i)
  - "control, minimize or eliminate, to the maximum extent feasible," both post-closure infiltration of liquids into the waste and releases of CCR or leachate out of the unit to the ground or surface waters, and to "preclude the probability of future impoundment of water, sediment, or slurry." 40 CFR 257.102(d)(1)(i), (ii).
- EPA is proposing to revise the drainage and stabilization performance standards § 257.102(d)(2) so that it applies to all CCR units and CCRMU, including CCR landfills where CCR remains saturated.

Compliance Deadlines for CCRMU



Universe and Environmental Justice

- Affected Universe:
  - Approximately 127 Potential Legacy CCR surface impoundments at 59 facilities
    - Ohio (16 units)
    - Pennsylvania (13 units)
    - West Virginia (12 units)
  - Approximately 134 Potential CCR management units at 82 facilities
    - Indiana (16 units)
    - Michigan (14 units)
    - Illinois (12 units)
- Environmental Justice
  - Number of facilities with at least one census tract with above 80th percentile in percent minority or low-income status residents within one mile
    - 22 facilities with legacy surface impoundments
    - 20 facilities with CCR management units

Technical Corrections

- EPA is proposing to make several technical corrections to the CCR regulations. These are
  1. to clarify the definitions of “feasible” and “technically feasible”;
  2. to correct the CFR reference in the definition of wetlands at § 257.61(a);
  3. to correct a reference in the groundwater monitoring scope section;
  4. to standardize the references to CCR websites throughout the CCR regulations; and
  5. taking comment on extending the period for document retention and posting.

Key Rulemaking Dates

- June 28: In-Person Public hearing in Chicago
- July 12: Virtual public hearing
- July 17: Public comment period ends