

November 27, 2017

**Via Email**

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Mr. Fatouhi,

I am writing on behalf of the Utility Solid Waste Activities Group (USWAG) regarding implementation of the groundwater monitoring program in the Environmental Protection Agency's coal combustion residuals (CCR) rule (40 CFR Part 257, Subpart D). Specifically, I am seeking confirmation regarding the timing of certain requirements that must be taken under the CCR rule's groundwater monitoring provisions. USWAG members, and the industry in general, are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

The CCR rule's groundwater monitoring program utilizes a phased approach, which provides for a graduated response over time to groundwater contamination as the evidence of such contamination increases. Owners and operators of CCR units were required to initiate the first phase of the groundwater program, detection monitoring (40 C.F.R. § 257.94), by October 17, 2017. Depending on the results of the groundwater sampling and analysis and statistical evaluation in detection monitoring, the next phase of the groundwater program, assessment monitoring, could be triggered as soon as January 15, 2018.<sup>1</sup> Because of the significant implications of assessment monitoring (*e.g.*, corrective action and/or forced closure

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<sup>1</sup> Under § 257.93(h)(2), owners/operators have 90 days from sampling and analysis to run the statistical evaluation in detection monitoring. Because § 257.90(b)(1)(iv) requires an owner/operator to begin evaluating the data by October 17, 2017, the rule contemplates that the statistical evaluation will be completed by January 15, 2018.

of unlined surface impoundments), it is critical that EPA provide confirmation on the timing of each groundwater monitoring phase so that owners and operators can appropriately implement the rule's requirements going forward.

USWAG seeks confirmation with regard to its interpretation of the timing for two specific requirements in the CCR rule's groundwater monitoring program: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. USWAG's interpretation of the timing for each of these specific requirements, and the basis for that interpretation, is provided below. In addition, to help illustrate USWAG's interpretation, I have attached a diagram and two charts, outlining the timeframes in the rule's groundwater monitoring program.

### **1. Alternate Source Demonstration in Detection Monitoring**

Under § 257.94(e)(1), if an owner/operator detects a statistically significant increase (SSI) above background levels for an appendix III constituent during detection monitoring, the owner/operator must within 90 days of detecting the SSI proceed to establish a groundwater assessment monitoring program meeting the requirements of § 257.95. However, § 257.94(e)(2) allows the owner/operator 90 days to demonstrate that the SSI was caused by a source other than the CCR unit or resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (referred to here as an "alternate source demonstration"). If, at the end of that 90-day timeframe, the owner/operator is not able to successfully make this demonstration, the rule requires the owner/operator to "initiate an assessment monitoring program as required under § 257.95."

Under § 257.95(b), an owner/operator must within 90 days of "triggering" an assessment monitoring program, sample and analyze the groundwater for all appendix IV constituents. USWAG interprets the term "triggering" as occurring either: (1) if an owner/operator elects not to make an alternate source demonstration under § 257.94(e)(2), on the date an SSI is detected in a round of sampling taken under § 257.94(b); or (2) if an owner/operator tries but is unable to successfully make an alternate source demonstration under § 257.94(e)(2), at the end of the 90-day period in § 257.94(e)(2). In other words, the 90-day time period for conducting an alternate source demonstration in § 257.94(e)(2) is separate from, and does not run concurrently with, the 90-day time frame in § 257.94(e)(1) or § 257.95(b).<sup>2</sup>

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<sup>2</sup> USWAG notes that this is in contrast to the 90-day time period for making an alternate source demonstration when an assessment of corrective measures is triggered in the assessment monitoring program (§ 257.95(g)(3)(ii)). EPA makes clear in the preamble to the rule, that—unlike the alternate

We would appreciate your confirmation that our understanding of the timing in § 257.94(e)(2) is correct.

## 2. Statistical Evaluation of Assessment Monitoring Data

Throughout the groundwater monitoring requirements, EPA distinguishes between the sampling and analysis of groundwater and the statistical evaluation of the data obtained through sampling and analysis. For example, under the detection monitoring program, the rule allows 90 days to complete the statistical evaluation after sampling and analysis is complete. See 40 C.F.R. § 257.93(h)(2). EPA explains in the preamble that it agreed with commenters that “90 days would be a reasonable amount of time to complete the statistical analysis to determine whether an exceedance had occurred.” 80 Fed. Reg. at 21403. See also 257.94(e)(2) (allowing the owner/operator to demonstrate that an SSI resulting from an error in *sampling, analysis, [or] statistical evaluation . . .*) (emphasis added).

In assessment monitoring, however, the rule does not specify a specific timeframe for completing the statistical evaluation of the data. Instead, under § 257.95(b), the owner/operator must *sample and analyze* the groundwater for all appendix IV constituents within 90 days of triggering an assessment monitoring program; and under § 257.95(d)(1), within 90 days of obtaining the results under § 257.95(b), the owner/operator must *resample and analyze* the groundwater for all appendix III constituents and those appendix IV constituents detected in § 257.95(b). The rule then jumps ahead, requiring the owner/operator to initiate an assessment of corrective measures within 90 days of detecting an appendix IV constituent at a statistically significant level above the groundwater protection standard (§ 257.95(g)(3)). Again, however, the rule does not specify a deadline for conducting the statistical evaluation for determining whether there is an exceedance of the groundwater protection standard.

USWAG believes that, at a minimum, owners/operators have 90 days to conduct the statistical evaluation following completion of the sampling and analysis in § 257.95(d)(1). This timeframe would be consistent with the 90-day time period provided for detection monitoring in § 257.93(h)(2), and with EPA’s explanation and reasoning in the preamble.

We would appreciate your confirmation that this interpretation of the timing for assessment monitoring is correct.

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source demonstration timing in detection monitoring—the time period in § 257.95(g)(3)(ii) runs concurrently with the 90-day time period in § 257.96(a) for initiating an assessment of corrective measures. 80 Fed. Reg. 21302, 21406 (Apr. 17, 2015).

David Fatouhi  
U.S. Environmental Protection Agency  
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Thank you in advance for your prompt attention to this matter. If you have any questions regarding the issues raised in this letter, please contact me at [jim.roewer@uswag.org](mailto:jim.roewer@uswag.org) or **Ex. 6**

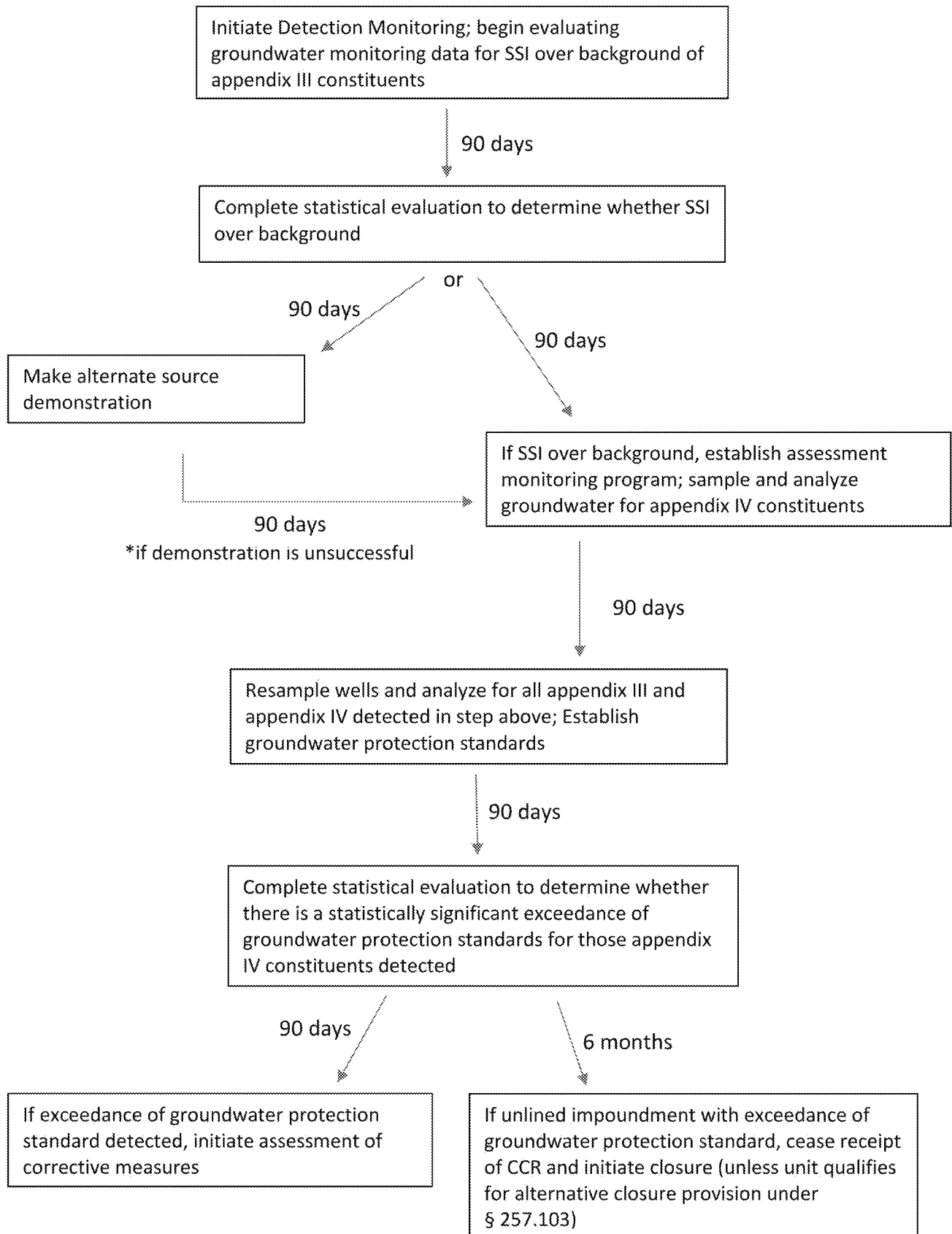
Sincerely,

A handwritten signature in black ink, appearing to read 'J. Roewer', with a long horizontal flourish extending to the right.

James Roewer  
USWAG Executive Director

cc: Byron Brown  
Barnes Johnson

## Groundwater Monitoring Flow Chart



Timeline for Facilities That Elect to Make an Alternate Source Demonstration Under § 257.94(e)(2)			
Triggering Event	Action Required due to Triggering Event	Time Frame to Complete Action*	Regulatory Citation
Deadline for groundwater monitoring program	Install groundwater monitoring system, develop program, initiate detection monitoring and begin evaluating for statistically significant increase (SSI) over background.	October 17, 2017	§ 257.90(b) § 257.94(b)
Initiation of groundwater monitoring program	Complete statistical evaluation to determine if there is an SSI over background for Appendix III constituents.	90 days (January 15, 2018)	§ 257.93(h)(2)
SSI in detection monitoring	Demonstrate SSI was result of error or other source ("alternate source demonstration").	90 days (April 15, 2018)	§ 257.94(e)(2)
Failure to demonstrate SSI was result of error or other source under § 257.94(e)(2)	Establish assessment monitoring program; sample and analyze groundwater for appendix IV constituents.	90 days (July 14, 2018)	§ 257.95(b)
Results obtained from samples taken under § 257.95(b)	Resample all wells and conduct analyses for all Appendix III constituents and those Appendix IV constituents detected in the step above.	90 days (October 12, 2018)	§ 257.95(d)(1)
Results obtained from samples taken under § 257.95(d)(1)	Complete statistical evaluation to determine whether there is an exceedance of groundwater protection standards for appendix IV constituents detected.	90 days (January 10, 2019)	Unspecified; assume 90 days
Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Initiate assessment of corrective measures or demonstrate that exceedance of GPS was error or caused by other source.	90 days (April 10, 2019)	§ 257.95(g)(3)
For unlined CCR impoundments, an Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Cease receipt of CCR and initiate closure of impoundment (unless the unit qualifies for the rule's alternative closure provision under § 257.103).	6 months (July 10, 2019)	§ 257.95(g)(5); § 257.101(a)(1)

\*Specific dates provided assume that there is an SSI over background in the first round of detection monitoring and an exceedance of a groundwater protection standard in the first round of assessment monitoring.

Timeline for Facilities That DO NOT Elect to Make an Alternate Source Demonstration Under § 257.94(e)(2)			
Triggering Event	Action Required due to Triggering Event	Time Frame to Complete Action*	Regulatory Citation
Deadline for groundwater monitoring program	Install groundwater monitoring system, develop program, initiate detection monitoring and begin evaluating for statistically significant increase (SSI) over background.	October 17, 2017	§ 257.90(b) § 257.94(b)
Initiation of groundwater monitoring program	Complete statistical evaluation to determine if there is SSI over background for Appendix III constituents.	90 days (January 15, 2018)	§ 257.93(h)(2)
SSI in detection monitoring	Establish assessment monitoring program; sample and analyze groundwater for appendix IV constituents.	90 days (April 15, 2018)	§ 257.95(b)
Results obtained from samples taken under § 257.95(b)	Resample all wells and conduct analyses for all Appendix III constituents and those Appendix IV constituents detected in the step above.	90 days (July 14, 2018)	§ 257.95(d)(1)
Results obtained from samples taken under § 257.95(d)(1)	Complete statistical evaluation to determine if there is an exceedance of groundwater protection standards for appendix IV constituents detected.	90 days (October 12, 2018)	Unspecified; assume 90 days
Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Initiate assessment of corrective measures or demonstrate that exceedance of GPS was error or caused by other source.	90 days (January 10, 2019)	§ 257.95(g)(3)
For unlined CCR impoundments, an Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Cease receipt of CCR and initiate closure of impoundment (unless unit qualifies for the rule's alternative closure provision under § 257.103).	6 months (April 12, 2019)	§ 257.95(g)(5); § 257.101(a)(1)

\*Specific dates provided assume that there is an SSI over background in the first round of detection monitoring and an exceedance of a groundwater protection standard in the first round of assessment monitoring.