UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

In the Matter of:	)	**Docket No. RCRA-05-2025-0015**
	)	
City of Springfield, Illinois	)	
Office of Public Utilities	)	
d/b/a City Water, Light and Power	)	
Springfield, Illinois	)	**Consent Agreement**
	)	**Under Section 3008(a) of the Resource**
	)	**Conservation and Recovery Act,**
Respondent.	)	**42 U.S.C. § 6928(a)**
	)	

Consent Agreement and Final Order

I. Preliminary Statement

1. This is an administrative action commenced and concluded under Section 3008(a) of the Solid Waste Disposal Act, as amended, also known as the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6928(a), and Sections 22.1(a)(4). 22.13(b), and 22.18(b)(2) and (3) of the Consolidated Rules of Practice Governing the Administrative Assessment of Civil Penalties and the Revocation/Termination or Suspension of Permits (Consolidated Rules) as codified at 40 C.F.R. Part 22.

2. The Complainant is the Director of the Enforcement and Compliance Assurance Division, United States Environmental Protection Agency (EPA), Region 5.

3. EPA provided notice of commencement of this action to the State of Illinois pursuant to Section 3008(a)(2) of RCRA, 42 U.S.C. § 6928(a)(2).

4. Respondent is City of Springfield, Illinois, Office of Public Utilities doing business as City Water, Light and Power Company (CWLP), a municipal electric and water utility. The City of Springfield, Illinois, is a municipal corporation.

5. Where the parties agree to settle one or more causes of action before the filing of a complaint, the administrative action may be commenced and concluded simultaneously by the issuance of a Consent Agreement and Final Order (CAFO), 40 C.F.R. § 22.13(b).

6. The parties agree that settling this action without the filing of a complaint or the adjudication of any issue of fact or law is in their interest and in the public interest.

7. Respondent consents to the terms of this CAFO.

II. Jurisdiction and Waiver of Right to Hearing

8. Jurisdiction for this action is conferred upon EPA by Sections 3006, 3008, and 4005(d)(4)(A)(i) of RCRA, 42 U.S.C. §§ 6926, 6928, and 6945(d)(4)(A)(i).

9. Respondent admits the jurisdictional allegations in this CAFO and neither admits nor denies the factual allegations in this CAFO.

10. Except as provided in paragraph 11, Respondent waives its right to request a hearing as provided at 40 C.F.R. § 22.15(c), any right to contest the allegations in this CAFO, and its right to appeal this CAFO. By signing this CAFO, Respondent waives any rights or defenses that Respondent has or may have for this matter to be resolved in federal court, including but not limited to any right to a jury trial, and waives any right to challenge the lawfulness of the Final Order accompanying the Consent Agreement.

11. Respondent retains any and all rights it may have to dispute the merits of any claims and to contest or otherwise challenge the allegations contained in this CAFO in any proceeding unrelated to the implementation of this CAFO. This CAFO may not be used as an admission of liability in any proceeding unrelated to the implementation of this CAFO.

III. Statutory and Regulatory Background

12. RCRA, enacted on October 21, 1976, and subsequently amended, establishes a framework for the regulation of the handling and management of non-hazardous and hazardous solid wastes. *See* 42 U.S.C. § 6901 *et seq*.

13. Under Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), the EPA Administrator may issue compliance orders requiring compliance with requirements that are subject to enforcement under Section 3008. The Administrator's authority under section 3008(a) of the Act has been delegated to the Enforcement and Compliance Assurance Division Director.

14. RCRA Subtitle D, as amended, establishes a framework for the regulation of the handling and management of solid wastes, including coal combustion residuals (CCR). In addition, Section 4005(d)(4)(A) of RCRA, 42 U.S.C. § 6945(d)(4)(A), specifies that the EPA Administrator may use the authorities set forth in Sections 3007 and 3008 of RCRA, 42 U.S.C. §§ 6927 and 6928, to enforce the prohibition on open dumping under Section 4005(a) of RCRA, 42 U.S.C. § 6945(a), with respect to CCR units.

15. Section 6945(d)(4) of RCRA authorizes enforcement of CCR requirements by EPA in nonparticipating states. A "nonparticipating State" means a State for which the Administrator has not approved a State permit program or other system of prior approval and conditions under RCRA Section 4005(d)(1)(B). 42 U.S.C. § 6945(d)(2)(A)(i) and 40 C.F.R. § 257.53. Respondent is located in the State of Illinois, which is a "nonparticipating state" within the meaning of 42 U.S.C. § 6945(d)(2)(A) because Illinois EPA's program to administer a CCR surface impoundment permitting program has not been approved by EPA.

16. In April 2015, EPA promulgated a comprehensive set of regulatory requirements for the management of CCR in landfills and surface impoundments. The CCR regulations are set

forth at 40 C.F.R. Part 257, Subpart D (Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments) ("CCR Rule"). The CCR Rule establishes requirements for location standards, groundwater monitoring and corrective action, closure, post closure care, technical operating standards, inspection, monitoring, recordkeeping, and reporting. The regulatory requirements established in the CCR Rule took effect on October 19, 2015. Amendments were adopted on July 2, 2015 (80 Fed. Reg. 37,991); July 30, 2018 (83 Fed. Reg. 36,451), August 28, 2020 (85 Fed. Reg. 53,561); November 12, 2020 (85 Fed. Reg. 72,539), and May 8, 2024 (89 Fed. Reg. 39,099).

IV. General Allegations

17. Respondent is a "person" within the meaning of Section 1004(15) of RCRA, 42 U.S.C. § 6903(15).

18. The Dallman facility ("Facility") is located at 3100 Stevenson Drive in Springfield, Illinois. It contains the Lakeside and Dallman surface impoundments ("Lakeside and Dallman units," "units," or "surface impoundments") and Unit 2, which is a landfill. Unit 2 was issued a permit to operate as a "sanitary landfill" on November 9, 1995, by the Illinois EPA under 35 Ill. Admin. Code Parts 811 through 815 in accordance with Illinois's Solid Waste Management Plan prepared pursuant to the Resource Conservation and Recovery Act. Unit 2 continues to and currently operates under this sanitary landfill permit. Similarly, the Lakeside and Dallman units are state-regulated, existing CCR surface impoundments under 35 Ill. Admin. Code Part 845. These units are or were used for treating, storing, or disposing of CCR wastes. Consequently, the Dallman facility is a "Facility" within the meaning of 40 C.F.R. § 257.53.

19. At all relevant times, Respondent was an "owner" and "operator" of the Dallman and Lakeside ash ponds and Unit 2 at the Facility within the meaning of those terms in 40 C.F.R. § 257.53.

20. CCR is defined at 40 C.F.R. § 257.53 as "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."

21. At all relevant times, Respondent did and continues to generate and dispose of CCR waste streams at the Facility.

22. A "CCR unit" is defined at 40 C.F.R. § 257.53 as "any CCR landfill, CCR surface impoundment, or lateral expansion of a CCR unit, or a combination of more than one of these units. This term includes both new and existing units, unless otherwise specified."

23. An "existing CCR landfill" is defined at 40 C.F.R. § 257.53 as "a CCR landfill that receives CCR both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015, and receives CCR on or after October 19, 2015."

24. Unit 2 received CCR wastes both before and after October 19, 2015, and consequently is an existing CCR landfill as defined in 40 C.F.R. § 257.53.

25. An "existing CCR surface impoundment" is defined at 40 C.F.R. § 257.53 as "a CCR surface impoundment that receives CCR wastes both before and after October 19, 2015, or for which construction commenced prior to October 19, 2015, and receives CCR on or after October 19, 2015."

26. The Lakeside and Dallman surface impoundments were constructed before October 15, 2015, and received CCR wastes before and after October 19, 2015. Consequently, they are existing CCR surface impoundments as defined in 40 C.F.R. § 257.53.

27. On April 22, 2022, EPA conducted an inspection of the Respondent's surface impoundments to make a preliminary determination of their structural stability and compliance with 40 C.F.R. § 257.73.

28. On May 2 and August 3, 2022, EPA sent to the Respondent requests for information ("RFI 1" and "RFI 2," respectively) pursuant to Section 3007 of RCRA, 42 U.S.C. § 6927.

29. On July 5 and August 30, 2022, Respondent sent to EPA replies to RFI 1 and 2.

30. On November 18, 2022, July 6, 2023, and October 4, 2023, EPA sent to the Respondent Notices of Potential Violations of the CCR Rules ("NOV 1," "NOV 2," and "NOV 3," respectively).

31. On December 22, 2022, EPA and Respondent initiated settlement discussions related to NOV 1. On January 13, 2023, Respondent submitted an interim response to NOV 1.

32. Since January 13, 2023, EPA and Respondent have conducted settlement discussions related to NOV 1, 2, and 3, which have included telephonic settlement conferences and the exchange of documents related to the alleged violations.

V. Alleged Violations

Count 1
Surface Impoundments - Groundwater Monitoring System 40 C.F.R. §§ 257.90 and .91.

33. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

34. The owner or operator of an existing CCR unit must have installed a groundwater monitoring system that is in compliance with 40 C.F.R. § 257.91 by October 17, 2017. *See* 40 C.F.R. § 257.90(b)(1).

35. The groundwater monitoring system must consist of a sufficient number of wells, installed at appropriate locations and depths, to yield groundwater samples from the uppermost aquifer that accurately represent the quality of background groundwater that has not been affected by leakage from a CCR unit and accurately represents the quality of groundwater passing the waste boundary of the CCR unit. The downgradient monitoring system must be installed at the waste boundary to ensure detection of groundwater contamination in the uppermost aquifer. All potential contaminant pathways must be monitored. *See* 40 C.F.R. § 257.91(a)(1) and (2).

36. The number, spacing, and depths of monitoring system wells must be determined based upon site-specific technical information that must include thorough characterization of aquifer thickness, groundwater flow rate, and groundwater flow direction, including seasonal and temporal fluctuations in groundwater flow. *See* 40 C.F.R. § 257.91(b)(1).

37. The downgradient monitoring wells must be capable of accurately detecting the quality of groundwater passing the waste boundary. *See* 40 C.F.R. § 257.91(b)(2).

38. At a minimum, the owner or operator must have one upgradient and three downgradient groundwater monitoring wells. *See* 40 C.F.R. § 257.91(c)(1).

39. The owner or operator is required to install additional monitoring wells as necessary to accurately represent the quality of background groundwater passing the waste boundary of the CCR unit. *See* 40 C.F.R. § 257.91(c)(2).

40. Prior to 2018, Respondent identified wells AP-1 through -5 and AW-3 as its monitoring wells for the purposes of compliance with 40 C.F.R. § 257.91. It identified wells AP-4 and AP-5 as the background wells and wells AP-1 through -3 and AW-3 as downgradient

wells. From the second quarter of 2015 until the first quarter of 2017, Respondent collected eight samples from this groundwater monitoring system.

41. Respondent added two additional wells, AP-6 and AP-7, at the end of 2020 in response to a statistically significant level (SSL) of arsenic that was detected.

42. From October 17, 2017, to approximately May 4, 2018, Respondent failed to comply with and was in violation of 40 C.F.R. §§ 257.90(b)(1) and .91(a)(2) because monitoring well AW-3 was not capable of accurately representing the quality of groundwater downgradient of the CCR units.

43. From October 17, 2017, to March 2024, Respondent failed to comply with and was in violation of 40 C.F.R. §§ 257.90(b)(1), .91(a)(2), and .91(b)(1) because it failed to consider site-specific technical information on the impact of Sugar Creek, Lake Springfield, and the clarification pond on the groundwater flow rate and direction and, consequently, the appropriate number, spacing, and depths of the groundwater monitoring wells within its groundwater monitoring system.

44. From October 17, 2017 to March 2024, Respondent failed to comply with and was in violation of 40 C.F.R. §§ 257.90(b)(1), 257.91(a)(2), and .91(c)(2) because it did not have a sufficient number or spacing of groundwater monitoring wells along the eastern boundary of the Dallman unit such that it could evaluate the impact and confirm the possible presence of a bedrock high near the Dallman unit.

Count 2
Surface Impoundments – Groundwater Sampling and Analysis Requirements 40 C.F.R. § 257.93

45. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

46. The owner or operator of an existing CCR unit was required to have, by October 17, 2017, a groundwater sampling and analysis program that includes the selection of the statistical procedures to be used for evaluating groundwater monitoring data as required by 40 C.F.R. § 257.93. *See* 40 C.F.R. § 257.90(b)(1)(ii).

47. The sampling and analysis procedures must be designed to ensure monitoring results that provide an accurate representation of groundwater quality at the background and downgradient wells. The sampling and analysis program must include procedures and techniques for sample collection, preservation, and shipment; analytical procedures; chain of custody control; quality assurance; and quality control. *See* 40 C.F.R. § 257.93(a).

48. The groundwater monitoring program must include sampling and analytical methods that are appropriate for groundwater sampling and that accurately measure hazardous constituents and other monitoring parameters in groundwater samples. *See* 40 C.F.R. § 257.93(b).

49. Respondent provided an undated document entitled *Groundwater Monitoring Program* in response to EPA's request for its written sampling and analysis program from 2015 to the present. This document contains Respondent's sampling and analysis plan for the CCR units at the Facility.

50. The *Groundwater Monitoring Program* does not contain information on sample collection, preservation, shipment, or chain of custody. There is no information on the analytical or quality control procedures that Respondent or its labs used to ensure accurate data.

51. The Groundwater Monitoring Program did not describe the statistical method for determining if an appendix IV constituent is statistically elevated above a groundwater protection standard (GWPS). It failed to include information on resampling (*e.g.*, 1-of-2, 1-of-

3). It did not discuss adjustments to the confidence level or other parameters that affect whether the prediction limit approach is "as effective as any other approach."

52. As a consequence of these deficiencies, from October 17, 2017, to March 2024, the Respondent failed to comply with and was in violation of 40 C.F.R. §§ 257.90(b)(1)(ii) and .93(a) because its sampling and analysis procedures were deficient as alleged in this Count.

53. The owner or operator of the CCR unit must select one of the statistical methods specified in 40 C.F.R. § 257.93(f)(1)-(5) to be used in evaluating groundwater monitoring data for each specified constituent. *See* 40 C.F.R. § 257.93(f).

54. The owner or operator must obtain a certification from a qualified professional engineer stating that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data. *See* 40 C.F.R. § 257.93(f)(6).

55. Any practical quantitation limit (PQL) that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility. *See* 40 C.F.R. § 257.93(g)(5).

56. Respondent used high PQLs for some of the constituents in their selected statistical method for calculating a background based GWPS. Some of the PQLs were higher than those routinely used by labs. Additionally, the PQLs used were sometimes at or in one case greater than the tabulated maximum concentration limits (MCL) (*e.g.*, PQL of 0.05 mg/L vs. MCL of 0.01 mg/L for arsenic).

57. Consequently, from October 17, 2017, to March 2024, Respondent failed to comply with and was in violation of 40 C.F.R. § 257.93(g)(5) because it did not use sampling results with a PQL that was the lowest concentration level that could be reliably achieved in its selected statistical method, nor did it account for data below the detection limit.

58. The owner or operator must establish background groundwater quality in the upgradient monitoring wells for each constituent in appendices III and IV. *See* 40 C.F.R. § 257.93(d).

59. The owner or operator must collect a sufficient number of samples that are consistent with the statistical procedures required in 40 C.F.R. § 257.93(f). *See* 40 C.F.R. § 257.93(e).

60. The owner or operator must determine if there is a statistically significant increase (SSI) above background values for each constituent. *See* 40 C.F.R. § 257.93(h).

61. The owner or operator is to use the background values determined from its groundwater monitoring program and one of the identified statistical procedures. *See* 40 C.F.R. § 257.93(h)(1).

62. The owner or operator of the CCR unit must establish a GWPS for each constituent in appendix IV. As part of determining the GWPS, the owner or operator is to determine background values for the appendix IV constituents. *See* 40 C.F.R. § 257.95(h)(3).

63. Together these rules require use of accurate background values and statistical methods that are based on approved methods and PQLs that are the lowest concentration levels that can be reliably achieved.

64. Respondent used PQLs higher than what is commonly achievable in labs.

65. Respondent used sampling results from 2012 to 2013 ("pre-rule data") for the majority of appendix III and IV constituents. These sampling events yielded background concentrations for certain constituents that are significantly higher than sampling results during the 2017 to 2021 regulatory period.

66. Consequently, from October 17, 2017, to March 2024, Respondent failed to comply with and was in violation of 40 C.F.R. §§ 257.93(d), (e), and (h) because—as alleged in this Count—it failed to establish background for its upgradient monitoring wells consistent with recognized statistical procedures and, consequently, was unable to accurately determine if there was an SSI over background.

67. In summary, from October 17, 2017, until March 2024, Respondent was in violation of 40 C.F.R. §§ 257.90(b)(1)(ii) and .93(a) because its sampling and analysis procedures were deficient; 40 C.F.R. §§ 257.93(d), (e), and (h) because it failed to establish background for its upgradient monitoring wells consistent with recognized statistical procedures, and 40 C.F.R. § 257.93(g)(5) because it did not use sampling results with a PQL that is the lowest concentration level that can be reliably achieved, nor did it account for data below the detection limit.

Count 3
Surface Impoundments - Assessment Monitoring Program and Assessment of Corrective Measures
40 C.F.R. §§ 257.95 and .96

68. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

69. If one or more constituents in appendix IV are detected at SSLs above the GWPS in any sampling event, the owner or operator must prepare a notification identifying the constituents in appendix IV that exceeded the GWPS. The owner or operator must also characterize the nature and extent of the release and any relevant site conditions that may affect

the remedy ultimately selected. The characterization must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit pursuant to 40 C.F.R. § 257.96. *See* 40 C.F.R. § 257.95(g).

70. Respondent detected arsenic at an SSL above the GWPS at monitoring well RW-3 in every sampling event from May 4, 2018, to at least January 31, 2023, except July of 2019. Respondent identified other appendix IV constituents above the GWPS at various wells at various times during this time period.

71. In May 2019, Respondent initiated actions to conduct an alternative source demonstration for the arsenic levels at RW-3. The Respondent installed monitoring wells AP-6 and -7 downgradient of RW-3 as part of the characterization. These wells, however, are insufficient to determine the nature and extent of groundwater contamination from arsenic and other appendix IV constituents. By the end of July 2019, Respondent discontinued further work on characterizing the nature and extent of the arsenic release at RW-3.

72. Respondent has not taken any steps to characterize the nature and extent of releases of the other appendix IV constituents at an SSL above the GWPS.

73. Respondent has not completed its investigation into the nature and extent of the release of arsenic at RW-3 and other appendix IV constituents. It has not defined the contaminant plume. It has not collected data on the nature and estimated quantity of arsenic and other appendix IV constituents that were released.

74. Since May 4, 2018, Respondent, as alleged in this Count, has failed to characterize the nature and extent of the releases of arsenic and other appendix IV constituents and otherwise comply with 40 C.F.R. § 257.95(g)(1)(i) through (iv) and, therefore, is in violation of these regulations.

75. The owner or operator is required to prepare a notification of appendix IV constituents that have exceeded the GWPS. *See* 40 C.F.R. § 257.95(g).

76. The owner or operator must place the notice on its federal CCR website within 60 days of detecting the SSL of an appendix IV constituent. *See* 40 C.F.R. §§ 257.105(h)(8), .107(d), and .107(h)(6).

77. During the February 28, 2020, sampling event, Respondent detected concentrations of beryllium, cobalt, lithium, and radium 226+ and radium 228+ above the reported MCL or GWPS. It has not provided notice of these events on its federal CCR website.

78. Since April 28, 2020, as alleged in this Count, the Respondent has failed to notify of releases of appendix IV constituents as required by 40 C.F.R. §§ 257.95(g) and .107(h)(6).

79. Upon finding an SSL, the owner or operator has 90 days to initiate an assessment of corrective measures (ACM) and an additional 90 days to complete the ACM. It is required to post the ACM to its federal CCR website within 30 days of when it is completed. *See* 40 C.F.R. §§ 257.105(h)(10), .107(d), and .107(h)(8).

80. As alleged in this Count, according to its statistical procedures at the time, Respondent detected arsenic, beryllium, cobalt, radium 226+ and radium 228+, and lithium above the GWPS.

81. On or about April 7, 2019, Respondent was required to complete and post an ACM to its federal CCR website addressing SSLs for arsenic. On or about June 29, 2020, Respondent was required to complete and post an ACM to its federal CCR website addressing SSLs for beryllium, cobalt, lithium, and radium 226+ and radium 228+. Respondent failed to complete and post to its federal CCR website an ACM for any of these constituents that were

detected above an SSL as required by 40 C.F.R. §§ 257.95(g), .96, .107(d), and .107(h)(8) and, therefore, is in violation of these regulations.

82. In summary, since May 4, 2018, Respondent has been in violation of 40 C.F.R. § 257.95(g)(1)(i) through (iv) and .107(h)(6) because it failed to notify and characterize the nature and extent of the releases of arsenic and other appendix IV constituents.

Count 4
Surface Impoundments - Selection of Remedy
40 C.F.R. § 257.97

83. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

84. The owner or operator must, as soon as feasible after completing an ACM, select a remedy that, at a minimum, meets the standards listed in 40 C.F.R. § 257.97(b). *See* 40 C.F.R. § 257.97(a).

85. Upon selection of a remedy, the owner or operator must prepare a final report describing the selected remedy and how it meets the standards specified in 40 C.F.R. § 257.97(b). *See* 40 C.F.R. § 257.97(a). The owner or operator must obtain a certification from a qualified professional engineer that the remedy selected meets the requirements of 40 C.F.R. § 257.97. The owner or operator must place the remedy selection report in its operating record and on the federal CCR website. *See* 40 C.F.R. §§ 257.105(h)(2), .107(d), and .107(h)(9).

86. The owner or operator must also prepare a semi-annual report describing the progress in selecting and designing the remedy. It must post the semiannual report to its federal CCR website as required by 40 C.F.R. § 257.107(h)(9).

87. Respondent was required to complete and post to its federal CCR website an ACM for the arsenic on approximately April 7, 2019, and for the other appendix IV constituents on approximately June 28, 2020. Consequently, as soon as feasible, after completion of the

ACMs (April 7, 2019, and June 28, 2020, respectively), Respondent should have selected a remedy and completed a remedy selection report and posted it to its federal CCR website.

88. Respondent has not posted on its federal CCR website a remedy selection report for arsenic or the other appendix IV constituents. Consequently, the Respondent has failed to complete a remedy selection report "as soon as feasible."

89. As alleged in this Count, Respondent has failed to select a remedy, complete and post a final remedy report, and complete and post semi-annual progress reports to its federal CCR website as required by 40 C.F.R. §§ 257.97(a) and (b), .107(d), and .107(h)(1) and (9) and, therefore, is in violation of these regulations.

Count 5
Surface Impoundments – Periodic Hazard Potential Classification and Emergency Action Plan
40 C.F.R. §§ 257.73(a)(2), (3), and .73(f)

90. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

91. The owner or operator of a CCR unit must have conducted an initial and periodic hazard potential classification assessment of its CCR units by no later than October 17, 2016, and no later than every five years thereafter on the anniversary date of the last assessment. *See* 40 C.F.R. §§ 257.73(a)(2), (f)(1), and (3). The owner or operator is required to post its initial and periodic hazard potential classification on its federal CCR website. *See* 40 C.F.R. § 257.107(f)(4).

92. The owner or operator must document the hazard potential classification of each CCR unit as either a high, significant, or low hazard potential CCR surface impoundment. A low hazard potential CCR surface impoundment is a diked surface impoundment where failure or mis-operation results in no probable loss of human life and low economic and/or environmental losses. Losses are principally limited to the surface impoundment owner's property. *See* 40

C.F.R. § 257.53. A significant hazard potential CCR surface impoundment is a diked surface impoundment where failure or mis-operation results in no probable loss of human life but can cause economic loss, environmental damage, disruption of lifeline facilities, or impact other concerns. *Id.*

93. If a CCR unit is determined to have a significant hazard potential then the owner or operator is required to have an Emergency Action Plan by April 17, 2017, which it must reevaluate every five years to ensure the information is accurate. The owner or operator must post the most recent Emergency Action Plan on its federal CCR website. *See* 40 C.F.R. §§ 257.73(a)(3)(i), (ii)(B) and .107(f)(5).

94. Respondent posted on its federal CCR website: *Initial Hazard Potential Classification Assessment Report for Coal Combustion Residuals Surface Impoundments*, October 2016. It was signed on October 14, 2016 (Hazard Classification Report, 2016). It posted an update entitled *Initial Hazard Potential Classification Assessment Report for Coal Combustion Residuals Surface Impoundments*, October 2021 (Hazard Classification Report, 2021). It was signed by an Illinois registered professional engineer on October 20, 2021. In both reports Respondent classified the Lakeside and Dallman units as low hazard potential units.

95. Respondent's assessment, however, does not comply with the definition of hazard potential classification specified in 40 C.F.R. § 257.53. These units should be classified as significant hazards because Lake Springfield is immediately adjacent to the Lakeside surface impoundment; Sugar Creek is less than 50 feet away from both impoundments; agricultural land and timber are located adjacent to Sugar Creek; and Sugar Creek is within the inundation limits of the surface impoundments. Failure or mis-operation of either the Lakeside or the Dallman

units can cause economic loss and environmental damage to Sugar Creek, Lake Springfield, and adjacent agricultural, timber, and aquatic resources.

96. Respondent posted an Emergency Action Plan on its federal website with a date of October 19, 2021. Upon information and belief, EPA alleges that this document was not added to its federal CCR website until on or about March 14, 2023.

97. In summary, as alleged in this Count, since October 17, 2016, Respondent has violated 40 C.F.R. §§ 257.73(a)(2), (f)(1), and (3) because it incorrectly classified its surface impoundments as low hazard units, and from April 17, 2017, until March 14, 2023, Respondent violated 40 C.F.R. §§ 257.73(a)(3)(i), (ii)(B), and .107(f)(5) because it did not post to its federal CCR website an Emergency Action Plan.

Count 6
Surface Impoundments – Periodic Structural Stability Assessment 40 C.F.R. § 257.73(d)(1) and (2) and (f)(1) and (3)

98. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

99. The owner or operator of a CCR unit must conduct initial and periodic structural stability assessments and document whether the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering practices for the maximum volume of CCR and CCR wastewater that can be impounded therein. *See* 40 C.F.R. § 257.73(d)(1).

100. The initial assessment was to be completed no earlier than April 17, 2013, and no later than October 17, 2016. *See* 40 C.F.R. §§ 257.73(f)(1). A periodic update is required within five years of the initial assessment, with the date of completion of the initial assessment as the date used for determining the deadline for the periodic update. *See* 40 C.F.R. § 257.73(f)(3).

101. The assessment must, at a minimum, document whether the CCR unit has been designed, constructed, operated, and maintained in accordance with 40 C.F.R. §§ 257.73(d)(1)(i) to (vii).

102. The periodic assessment must identify any structural stability deficiencies associated with the CCR unit in addition to recommending corrective measures. *See* 40 C.F.R. § 257.73(d)(2). If a deficiency or a release is identified during the periodic assessment, the owner or operator of the unit must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken. *Id.*

103. Respondent posted two documents on its federal CCR website: *Structural Stability Assessment for Coal Combustion Residuals Surface Impoundments* (October 2016) and *CWLP Updated Structural Stability Assessment* (October 2021) (collectively, "SSA Reports"). These documents were prepared and signed by an Illinois registered professional engineer on October 14, 2016, and October 20, 2021, respectively. These two SSA Reports are essentially identical.

104. On April 27, 2022, EPA conducted a site visit. The deficiencies identified in this Count were identified either from EPA's review of the SSA Reports or the site visit.

105. The SSA Reports did not include relevant site-specific information such as the presence of 10-foot-high stockpiles and overgrown vegetation observed during the site visit and during the annual inspections from 2011 to 2021.

106. The SSA Reports failed to demonstrate whether there is adequate foundation and abutment stability, as required by 40 C.F.R. § 257.73(d)(1)(i), because, among other reasons, they did not use boring data or site-specific strength data derived from subsurface exploration of

the surface impoundments and did not consider the fact that the ash ponds were constructed in a creek bed with silty clays and granular fill characterized as poorly graded silty to clayey soils.

107. The SSA Reports failed to demonstrate whether there is adequate slope protection to prevent surface erosion, wave action, and adverse effects of sudden drawdown, as required by 40 C.F.R. § 257.73(d)(1)(ii), because, among other reasons, they failed to demonstrate the adequacy of the inside slope of the embankment (i.e., vegetation or riprap) to prevent surface erosion, wave action, and adverse effects of sudden drawdown for the Dallman unit.

108. The SSA Reports failed to provide documentation to demonstrate whether the dikes were mechanically compacted to a density sufficient to withstand the range of loading conditions in the CCR unit, as required by 40 C.F.R. § 257.73(d)(1)(iii).

109. Vegetation control was identified as a "Priority 1 Recommendation" in the Coal Ash Impoundment Site Assessment Final Report (Kleinfelder 2011), where the inspector noted overgrown vegetation including trees. During the April 27, 2022, site inspection, the site was heavily overgrown with vegetation on the inside and outside of the dikes exceeding five feet in height.

110. The vegetation was more than six inches above the slope of the dike and therefore prevented observation of the condition of the dikes and was not discussed in the SSA Reports. Respondent did not identify or take any corrective measures. *See* 40 C.F.R. §§ 257.73(a)(4) and .73(d)(1)(iv).

111. The SSA Reports failed to analyze and demonstrate whether a single spillway or a combination of spillways at the Lakeside and Dallman unit were designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge event as required to comply with 40 C.F.R. § 257.73(d)(1)(v)(A).

112. The SSA Reports failed to demonstrate whether the combined capacity of all spillways was designed, constructed, operated, and maintained to adequately manage flow during and following the peak discharge event, as required by 40 C.F.R. § 257.73(d)(1)(v)(B), because, among other reasons, the SSA Reports fail to account for the 1,000-year flood event. For the Lakeside unit, the SSA Reports failed to provide a separate hydraulic analysis for the channel from the Lakeside unit to the clarification pond. For the Dallman unit, the SSA reports failed to provide evidence of adequate freeboard; failed to account for areas that run into the pond from off-site, including the top of the dikes, which appear to be pitched inward, allowing potential drainage from the adjacent landfill; and failed to account for stockpiled material that was piled above the elevation of the perimeter dikes.

113. The SSA Reports failed to document whether the hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit maintain structural integrity and are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris that may negatively affect the operation of the hydraulic structure, as required by 40 C.F.R. § 257.73(d)(1)(vi), because, among other reasons, the SSA Reports fail to document the adequacy of a pipe (Lakeside unit) and an outlet structure (Dallman unit) that are constructed through the berms. Additionally, during the April 27, 2022, site inspection, it was observed that the Dallman unit outlet structure had significant erosion on the downstream side with the outlet pipes cantilevered. One of the two outlet pipes was obstructed by a force main that is no longer in service. The Lakeside unit structure appeared to show signs of deterioration on the wooden stoplogs of the outlet structure.

114. The SSA Reports failed to document whether the downstream slopes would maintain their structural stability during low pool of Sugar Creek and Lake Springfield (adjacent

water bodies) or sudden drawdown of these water bodies, as required by 40 C.F.R. § 257.73(d)(1)(vii).

115. The SSA Report failed to recommend corrective measure remedies, implement them as soon as feasible, and document them in the SSA Reports, for any structural stability deficiencies or releases identified in the SSA Reports, as required by 40 C.F.R. § 257.73(d)(2). For the Lakeside unit, the SSA Reports failed to include a discussion of the periodic seepage identified between the original dike and the raised dike. For the Dallman unit, Respondent failed to address the periodic erosion ruts and gullies on the north and west outer berms, which are being immediately filled with soil and monitored; the signs of erosion at an unstabilized road leading from the top of the dike to the toe of the dike observed during EPA's site visit; and heavy vegetation significantly exceeding the requirements of the CCR Rule.

116. The SSA Reports failed to comply with the certification requirements of 40 C.F.R. § 257.73(d)(3) because they were improperly certified as in compliance with 40 C.F.R. § 257.81 (Run-on and run-off controls for CCR Landfills) in the 2016 SSA and certified as in compliance with 35 Ill. Admin. Code. § 845.450 in the 2021 SSA.

117. The SSA Reports failed to comply with 40 C.F.R. §§ 257.73(f)(1) and (2), which require that the initial assessment not be completed earlier than April 17, 2013, or later than October 17, 2016, because it was not based on relevant information during the required time period of April 17, 2013, to October 17, 2016 and failed to take into consideration then current information such as the approximately 10-foot-high stockpiles and the presence of excessively heavy and tall vegetation.

118. The SSA Reports failed to comply with 40 C.F.R. §§ 257.73(d)(1) and (f)(3), which require that a periodic assessment is conducted once every five years, because the

October 2021 SSA Report was not an updated assessment of the structural stability of the impoundments; it did not take into consideration conditions that appeared to have changed since the 2016 SSA report, such as the piles located within the impoundments and the excessively tall vegetation; and it was signed on October 20, 2021, six days after it was due on October 14, 2021.

119. As a consequence of the deficiencies alleged in this Count, Respondent failed to conduct and document an initial structural stability assessment by October 17, 2016, and failed to conduct and document the 2021 periodic structural stability assessment that complied with 40 C.F.R. §§ 257.73(d)(1)-(2), (f)(1), and (3) and, therefore, it was in violation of these regulations.

Count 7
Surface Impoundments - Periodic Safety Factor Assessment
40 C.F.R. § 257.73(e)(1), (2), (f)(1) and (3)

120. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

121. 40 C.F.R. § 257.73(e) requires the owner or operator to conduct an initial safety factor assessment by October 17, 2016, and to periodically update it every five years, no later than the anniversary date of the first assessment. *See* 40 C.F.R. §§ 257.73(f)(1) and (3). The owner or operator must document whether the calculated factors of safety for each CCR unit achieve the minimum safety factors required by 40 C.F.R. §§ 257.73(e)(1)(i) through (iv) for the critical cross section of the embankment.

122. The owner or operator is required to calculate the safety factors under long-term, maximum storage pool loading conditions; the maximum surcharge pool loading conditions; seismic conditions; and possible liquefaction of the dikes constructed of soils susceptible of liquefaction. The safety factor assessment is to be supported by appropriate engineering calculations. A qualified professional engineer must certify that it meets the requirements of 40

C.F.R. § 257.73(e). The initial assessment was to be completed no earlier than April 17, 2013, or later than October 17, 2016. *See* 40 C.F.R. §§ 257.73(f)(1) and (2).

123. The Respondent posted on its federal CCR website an *Initial Safety Factor Assessment for Coal Combustion Residuals* October 2016, (signed October 13, 2016) (the "2016 SFA") and the periodic update entitled *Initial Safety Factor Assessment*, October 2021 (signed on October 20, 2021) (the "2021 SFA"). Collectively, the 2016 and 2021 SFAs are the "SFA Reports."

124. The SFA Reports did not meet the requirements specified in 40 C.F.R. § 257.73(e)(1) because the SFA Reports contained deficiencies, data gaps, and failed to consider major changes to the units after they were constructed. Those deficiencies included but were not limited to problems with documentation of the selection and topography of the critical cross section; incomplete consideration of weak materials or materials susceptible of liquefaction; an incomplete consideration of the subsurface water levels upstream, within, and downstream of the units; failure to consider the load and destabilizing impact of the approximately 10-foot-high stockpiles in one of the units when modeling for the safety factor assessment; the designation of the critical cross section was not based on appropriate engineering considerations, such as length and steepness of the slope of the dikes; and the liquefaction potential and the consequences of a failure or release of ash into the environment. The SFA calculations were influenced by these errors or omissions. Consequently, the SFA calculations were not supported by appropriate documentation nor were they representative of appropriate engineering considerations or calculations. In addition, the 2021 SFA does not contain a certification that it is in compliance with 40 C.F.R. § 257.73(e)(2).

125. As a consequence of the violations alleged in this Count, Respondent failed to have an initial SFA by October 17, 2016, and a periodic update by October 17, 2021, that met the requirements of subsections 40 C.F.R. §§ 257.73(e)(1) and (2) or .73(f)(1) and (3) and, therefore, the Respondent was in violation of these regulations.

Count 8
Surface Impoundments - Criteria for Closure or Retrofit of CCR Units
40 C.F.R. § 257.102(b)(1), (b)(2)(i), and .102(d)

126. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

127. Respondent posted to its federal CCR website *Closure Plan for Coal Combustion Residuals Surface Impoundments,* October 2016, (2016 Closure Plan) and *Post-Closure Plan for Coal Combustion Residuals Surface Impoundments* (2016 Post-Closure Plan). Both plans were signed by an Illinois registered professional engineer on October 14, 2016, and contain a certification of compliance with 40 C.F.R. § 257.102.

128. The written closure plan must "describe the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices." *See* 40 C.F.R. § 257.102(b). It was required by October 17, 2016. *See* 40 C.F.R. § 257.102(b)(2)(i).

129. Recognized and generally accepted good engineering practices means engineering maintenance or operation activities based on established codes, widely accepted standards, published technical reports, or a practice widely recommended throughout the industry. Such practices generally detail approved ways to perform specific engineering, inspection, or mechanical integrity activities. *See* 40 C.F.R. § 257.53.

130. If wastes will be left in place at the time of closure, then the written closure plan must include the following:

a. A narrative description of how the CCR unit will be closed in accordance with 40 C.F.R. § 257.102. *See* 40 C.F.R. § 257.102(b)(1)(i);

b. A description of the final cover system, designed in accordance with 40 C.F.R. § 257.102(d), and the methods and procedures to be used to install the final cover. The closure plan must also discuss how the final cover system will achieve the performance standards specified in 40 C.F.R. § 257.102(d). *See* 40 C.F.R. § 257.102(b)(1)(iii);

c. An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit. *See* 40 C.F.R. § 257.102(b)(1)(iv);

d. An estimate of the largest area of the CCR unit ever requiring a final cover as required by 40 C.F.R. § 257.102(d) at any time during the CCR unit's active life. *See* 40 C.F.R. § 257.102(b)(1)(v);

e. A schedule for completing all activities necessary to satisfy the closure criteria in 40 C.F.R. § 257.102, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. *See* 40 C.F.R. § 257.102(b)(1)(vi).

131. 40 C.F.R. § 257.102(d)(1)(i) requires the owner or operator to ensure that the CCR unit is closed in a manner that ensures that it will control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters or to the atmosphere.

132. The 2016 Closure Plan states that CCR wastes will be left in both impoundments after closure. It proposes to install a cover over the units.

133. The 2016 Closure Plan fails to adequately describe how the closure will control, minimize, or eliminate, to the maximum extent feasible, the post-closure infiltration of liquids into the waste and releases of CCR to the ground or surface waters. *See* 40 C.F.R. § 257.102(d)(1)(i).

134. The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will preclude the probability of future impoundment of water,

sediment, or slurry. The 2016 Closure Plan does not adequately address precipitation through the cover or groundwater from impounding within the units. Consequently, the 2016 Closure Plan fails to comply with 40 C.F.R. § 257.102(d)(1)(ii).

135. The owner or operator of a CCR unit must ensure that at a minimum the CCR unit is closed in a manner that will include measures that provide for major slope stability to prevent sloughing or movement of the final cover system during the closure and post-closure care period. *See* 40 C.F.R. § 257.102(d)(1)(iii). The 2016 Closure Plan does not provide sufficient information to demonstrate that there will not be sloughing or movement of the final cover system or that there is adequate slope protection during the closure and post-closure care period as required by 40 C.F.R. § 257.102(d)(1)(iii).

136. The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will minimize the need for further maintenance of the CCR unit. *See* 40 C.F.R. § 257.102(d)(1)(iv). The 2016 Closure/Post-Closure Plans do not adequately address de-watering of the impoundments, the potential for continued movement of groundwater through the CCR or the potential for erosion, sloughing, or movement and, therefore, fail to demonstrate that the surface impoundments will be closed in a manner that minimizes the need for further maintenance of the CCR unit as required by 40 C.F.R. § 257.102(d)(1)(iv).

137. When performing closure, an owner or operator must ensure that it is to "be completed in the shortest amount of time consistent with recognized and generally accepted good engineering practices." *See* 40 C.F.R. § 257.102(d)(1)(v).

138. The Closure Plan must contain a schedule for completing all activities necessary to satisfy the closure criteria, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe

the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. *See* 40 C.F.R. § 257.102(b)(1)(vi).

139. The 2016 Closure Plan does not contain sufficient information to comply with 40 C.F.R. § 257.102(b)(1)(vi) and does not demonstrate that closure will be completed in the shortest amount of time as required by 40 C.F.R. § 257.102(d)(1)(v).

140. Before a final cover system is placed over a CCR surface impoundment, the owner or operator must ensure that free liquids are eliminated by removing liquid wastes or solidifying the remaining wastes and waste residues. *See* 40 C.F.R. § 257.102(d)(2)(i). The 2016 Closure Plan fails to provide sufficient information to determine how free liquids will be eliminated as required by 40 C.F.R. § 257.102(d)(2)(i) in part because it fails to adequately address the potential impact for continued saturation of CCR wastes with groundwater or the impact of the clarification pond on the Dallman Ash Pond.

141. Before a final cover system is placed over a unit, remaining wastes must be stabilized sufficient to support the final cover system. *See* 40 C.F.R. § 257.102(d)(2)(ii).

142. The 2016 Closure Plan does not provide sufficient information to demonstrate compliance with 40 C.F.R. § 257.102(d)(2)(ii).

143. If CCR waste is left in the CCR unit, then the owner or operator must meet the performance standards of 40 C.F.R. §§ 257.102(d)(1) and (3). Respondent provided insufficient information to demonstrate that the proposed cover will meet the performance standards of 40 C.F.R. § 257.102(d).

144. As alleged in this Count 8, from October 17, 2016, Respondent failed to have a Closure Plan that contained sufficient information to meet the requirements of 40 C.F.R. §§ 257.102(b)(1), (b)(2)(i), and (d) and, therefore, failed to comply with these regulations.

Count 9
Surface Impoundments – Post-Closure Plan
40 C.F.R. §§ 257.104(a)(2), (b)(1) and (3), (d)(1) and (2)(i)

145. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

146. If the owner or operator of CCR unit elects to close by leaving CCR wastes in the unit, then it must have a written post-closure plan. *See* 40 C.F.R. § 257.104(a)(2). The written post-closure plan must include a description of the monitoring and maintenance activities required in 40 C.F.R. § 257.104(b) and the frequency at which these activities will be performed. *See* 40 C.F.R. § 257.104(d)(1)(i).

147. The post-closure activities required by 40 C.F.R. § 257.104(b) include maintenance of the final cover system, maintaining the groundwater monitoring system, and monitoring the groundwater in accordance with the requirements of 40 C.F.R. §§ 257.90 through 257.98. *See* 40 C.F.R. § 257.104(b)(1) and (3).

148. The written post-closure plan was to be completed by October 17, 2016, and posted to Respondent's federal CCR website by November 17, 2016. *See* 40 C.F.R. §§ 257.104(d)(2)(i) and 257.107(i)(12).

149. The Respondent posted on its federal CCR website *Post-Closure Plan for Coal Combustion Residuals Surface Impoundments* (2016 Post-Closure Plan).

150. The 2016 Post-Closure Plan states that it will maintain the integrity of the monitoring well structures for the groundwater monitoring system approved by Illinois EPA and that it will monitor for 30 years. The 2016 Post-Closure Plan does not have sufficient

information to demonstrate that it meets the requirements of 40 C.F.R. §§ 257.104(b)(1) and (3), (d)(1), and (2)(i) and, therefore, is in violation of these regulations.

Count 10
Surface Impoundments - Operating Requirements
40 C.F.R. §§ 257.80, .82, and .83.

151. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

152. By October 19, 2015, the owner or operator of a CCR surface impoundment had to have a fugitive dust control plan with a signed certification by a qualified professional engineer. *See* 40 C.F.R. § 257.80(b). The fugitive dust control plan must include measures to control fugitive dust and an explanation of how the measures selected are applicable and appropriate for site conditions, 40 C.F.R. § 257.80(b)(2); procedures to emplace CCR as conditioned CCR, 40 C.F.R. § 257.80(b)(2); procedures to log citizen complaints received, 40 C.F.R. § 257.80(b)(3); and a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan, 40 C.F.R. § 257.80(b)(4).

153. Respondent placed on its federal CCR website *Fugitive Dust Control Plans*, dated May 28, 2015 (2015 FDCP) and January 5, 2023 (2023 FDCP). The 2015 FDCP failed to explain how its measures are applicable and appropriate; failed to include procedures for wetting CCR with water to a moisture content that will prevent wind disposal; failed to include procedures to log complaints and failed to include procedures for the Respondent to assess the effectiveness of the control plan. The 2023 FDCP corrected these deficiencies.

154. As alleged in this Count, from October 19, 2015, until January 5, 2023, Respondent failed to have a fugitive dust control plan that complied with the requirements of 40 C.F.R. § 257.80.

155. By October 17, 2016, the owner or operator of an existing surface impoundment had to have an inflow flood control plan that was signed by a qualified professional engineer. It

was required to update the plan within five years of the date of its initial plan. *See* 40 C.F.R.§ 257.82(c)(4).

156. The inflow design flood control system must adequately manage flow into and out of the unit resulting from a specified inflow design flood based on the hazard potential (*i.e.*, high, significant, or low hazard potential) of the surface impoundments. *See* 40 C.F.R. §§ 257.82(a)(1) and (2).

157. Respondent posted on its federal CCR website *Inflow Flood Control Plans*, dated October 2016 (2016 IFCP) and October 2021 (2021 IFCP). Both IFCP's are based on Respondent incorrectly designating its surface impoundments as low hazard potential instead of significant hazard potential.

158. The IFCPs incorrectly considered the flow of a 100-year flood instead of a 1,000-year flood. Consequently, the IFCPs incorrectly demonstrated the adequacy of the outlet structures based on the freeboard in the ponds being greater than the depth of 100-year flood instead of a 1,000-year flood.

159. The IFCPs do not include any engineering calculations for the peak flow.

160. For the Lakeside unit, the IFCPs did not discuss the hydraulic adequacy of the existing spillways to the design storm event required by the revised hazard classification for the impoundment. For the Dallman unit, the IFCPs did not discuss the hydraulic adequacy of the existing spillways to manage any process flows into the Dallman ash pond, in addition to the design storm event required by the revised hazard classification for the impoundment.

161. As alleged in the preceding paragraphs, since October 17, 2016, Respondent has failed to have an inflow flood control plan that complies with the requirements of 40 C.F.R. § 257.82.

162. The owner or operator of an existing surface impoundment that is subject to the periodic structural stability assessments is required to conduct an annual inspection by a qualified professional engineer to ensure that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards. *See* 40 C.F.R. § 257.83(b).

163. The owner or operator must complete the initial annual inspection by January 19, 2016, and subsequent annual inspections no later than the anniversary date of the initial annual inspection. *See* 40 C.F.R. §§ 257.83(b)(3) and (4).

164. If a deficiency or release is identified during an inspection, the owner or operator must remedy the deficiency or release as soon as feasible and prepare documentation detailing the corrective measures taken. *See* 40 C.F.R. § 257.83(b)(5).

165. The annual inspection is not required in the year that the quinquennial (five year) structural stability assessment is completed. *See* 40 C.F.R. § 257.83(b)(4)(ii). Annual reports subsequent to the quinquennial structural stability assessment are due on the anniversary of the quinquennial structural stability assessment. *Id.*

166. There was thick vegetation observed and reported in the Facility's annual inspection reports for 2016 until at least 2022. In some instances, the reports indicate that the inspector could not access certain areas of the berms because of the height of the vegetation. The annual reports do not document any action taken to correct the vegetation issues.

167. During EPA's inspection in April of 2022 the site was significantly overgrown with grass, brush, and trees in excess of five feet. Additionally for the Dallman unit, one of the spillway culverts was obstructed with a pipe that was not in operation.

168. Respondent failed to timely complete its 2019 and 2020 inspection reports. The inspection reports for 2019 and 2020 were not certified until January 29, 2019, and January 30, 2020, respectively.

169. As alleged in the preceding paragraphs, from January 14, 2019, until at least January 13, 2022, Respondent failed to remedy deficiencies related to maintenance of the impoundments and their structures in violation of 40 C.F.R. § 257.83(b)(5). Additionally, Respondent failed to timely complete the annual inspection reports for the years 2019 and 2020 as required by 40 C.F.R. §§ 257.83(b)(3) and (4).

Count 11
Landfill Unit 2 - Groundwater Monitoring System Violations of 40 C.F.R. § 257.90 and .91

170. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

171. The owner or operator was required to have in place by October 17, 2017, a groundwater monitoring system that consisted of a sufficient number of monitoring wells, installed at appropriate locations and depths, and capable of yielding groundwater samples in the uppermost aquifer. *See* 40 C.F.R. §§ 257.90(b)(1), .91(a)(1), and (b). The groundwater monitoring system must accurately represent the quality of background groundwater quality and groundwater passing the waste boundary.

172. The groundwater monitoring system, including the depth of the monitoring system, must be based on a thorough characterization of the saturated and unsaturated geologic units and the fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities, and effective porosities. *See* 40 C.F.R. § 257.91(b)(2).

173. There are six geologic units present at the landfill, including three principal permeable units (creek fill, shallow sand, and basal sand) and three lower-permeable units (upper and lower cohesive deposit and shale bedrock).

174. Three upgradient wells were screened in the basal sand (G110, R111, and G112), and no wells were screened in the shallow sand units. On the downgradient side, only one downgradient well was screened within the basal sand (AW-2), and none were screened in the shallow sand unit.

175. The monitoring well network lacks wells in the basal sand, shallow sand, or creek fill east of monitoring well G122 (along the north side of the Unit 2).

176. Consequently, as alleged in the preceding paragraphs, since October 17, 2017, Respondent has failed to comply with 40 C.F.R. §§ 257.90(b)(1), .91(a)(1) and (2), .91(b), and .91(c) because it did not have a groundwater monitoring system that is screened in the appropriate geologic strata and it has an insufficient number of wells to monitor the quality of groundwater passing the waste boundary of Unit 2.

Count 12
Landfill Unit 2 - Groundwater Sampling and Analysis Requirements.
Violations of 40 C.F.R. § 257.93

177. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

178. The owner or operator must have a sampling and analysis program that is based on:

a. eight sample results representative of background groundwater quality for each constituent in compliance with 40 C.F.R. § 257.94(b);

b. collection of an appropriate number of samples when conducting detection and assessment monitoring in line with 40 C.F.R. §§ 257.94(b) to (d) and 257.95(b) to (d);

c. use of the lowest achievable PQLs for constituents per 40 C.F.R. § 257.93(g)(5); and

d. ability to determine if there is an SSI per 40 C.F.R. § 257.93(h).

179. 40 C.F.R. § 257.93 establishes the sampling and analysis procedures to ensure accurate monitoring that is representative of groundwater quality at background and downgradient wells required by 40 C.F.R. § 257.91.

180. The owner or operator of the CCR unit must establish background groundwater quality in a hydraulically upgradient or background well(s) for each of the constituents required in the groundwater monitoring program that applies to the CCR unit as determined under 40 C.F.R. §§ 257.94(a) or 95(a).

181. The number of samples collected when conducting detection monitoring and assessment monitoring (for both downgradient and background wells) must be consistent with the statistical procedures chosen under 40 C.F.R. § 257.93(f) and the performance standards under 40 C.F.R. § 257.93(g). The sampling procedures shall be those specified under 40 C.F.R. §§ 257.94(b) through (d) for detection monitoring, 40 C.F.R. §§ 257 .95(b) through (d) for assessment monitoring, and 40 C.F.R. § 257.96(b) for corrective action. *See* 40 C.F.R. § 257.93(e).

182. According to 40 C.F.R. § 257.93(g), any statistical method chosen under 40 C.F.R. § 257.93(f) shall comply with the following performance standards, as appropriate, based on the statistical test method used:

a. If a tolerance interval or a prediction interval is used to evaluate groundwater monitoring data, the levels of confidence and, for tolerance intervals, the percentage of the population that the interval must contain, shall be such that this approach is at least as effective as any other approach in 40 C.F.R. § 257.93 for evaluating groundwater data. These parameters shall be determined after considering the number of samples in the background data base, the data distribution, and the range of the concentration values for each constituent of concern.

b. The statistical method must account for data below the limit of detection with one or more statistical procedures that shall be at least as effective as any other approach in 40 C.F.R. § 257.93 for evaluating groundwater data. Any PQL that is used in the statistical method shall be the lowest concentration level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions that are available to the facility.

183. The owner or operator of the CCR unit must determine whether there is an SSI over background values above the GWPS for each constituent required in the particular groundwater monitoring program that applies to the CCR unit, as determined under 40 C.F.R. §§ 257.94(a) or .95(a). *See* 40 C.F.R. § 257.93(h).

184. The owner or operator must measure "total recoverable metals" concentrations when measuring groundwater quality. Measurement of total recoverable metals captures both the particulate fraction and dissolved fraction of metals in natural waters. Groundwater samples shall not be field filtered prior to analysis. *See* 40 C.F.R. § 257.93(i).

185. Respondent collected only four samples from each of the background wells (G110, G111, G112) instead of the required minimum of eight samples from each well as required in 40 C.F.R. § 257.94(b). Additionally, Respondent did not sample for lithium, molybdenum, or combined radium-226 and -228.

186. Respondent did not measure all appendix III constituents on a semi-annual basis. Of the appendix III constituents sampled only pH, total dissolved solids (TDSs), and total boron are measured at a sufficient frequency to meet the federal CCR regulations. Calcium, chloride, fluoride, and sulfate are measured once a year at all wells downgradient of Unit 2, except for in 2019 when Respondent sampled for these constituents semiannually. Respondent failed to adequately sample for appendix III constituents within the detection monitoring program as described in 40 C.F.R. § 257.94(b).

187. Respondent's procedures did not adequately allow for determination of SSIs for each sampling event as required by 40 C.F.R. § 257.93(h)(1).

188. Respondent's sampling and analysis program does not identify what the actual upper prediction limits are based on and information on how data below the limit of detection is being evaluated.

189. Consequently, as alleged in this Count, since October 17, 2017, Respondent has failed to comply with and, therefore, is in violation of 40 C.F.R. §§ 257.93(d), (e), (g), (h), and (i) because it failed to establish background groundwater quality for each constituent, collect the required number of samples, follow sampling procedures for detection monitoring and assessment monitoring, failed to measure total recoverable metals, failed to use appropriate statistical methods, and failed to determine statistical significance for each required constituent.

Count 13
Landfill Unit 2 - Assessment Monitoring Program.
Violations of 40 C.F.R. § 257.95

190. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

191. 40 C.F.R. §§ 257.95(a) and (b) provide that assessment monitoring is triggered whenever an SSI over background levels has been detected for one or more appendix III constituents. Within 90 days of triggering an assessment monitoring program, and annually thereafter, the owner or operator must sample and analyze the groundwater for all appendix IV constituents. The number of samples collected and analyzed for each well during each sampling event must be consistent with 40 C.F.R. § 257.93(e) and must account for any unique characteristics of the site, provided that there must be at least one sample from each well. *See* 40 C.F.R. § 257.95(b).

192. 40 C.F.R. § 257.95(d) requires that within 90 days of obtaining the results from the initial and subsequent sampling events and on at least a semi-annual basis thereafter, the owner or operator must comply with 40 C.F.R. § 257.95(d)(1) by doing all the following:

a. resampling all wells that were installed pursuant to the requirements of 40 C.F.R. § 257.91;

b. conducting analyses for all appendix III constituents and for those appendix IV constituents detected in response to the sampling and analysis it performed pursuant to 40 C.F.R. § 257.95(b);

c. recording their concentrations in the facility operating record; and

d. taking at least one sample from each background and downgradient well.

193. The owner or operator must establish the GWPS for all constituents detected pursuant to 40 C.F.R. §§ 257.95(b) or (d). Each GWPS must be established in accordance with 40 C.F.R. § 257.95(h).

194. The owner or operator must include in its Annual Groundwater Monitoring and Corrective Action (GWMCA) Report required by 40 C.F.R. § 257.90(e), the recorded concentrations required by 40 C.F.R. § 257.95(d)(1), identification of the background concentrations established under 40 C.F.R. § 257.94(b), and identification of each GWPS established under 40 C.F.R. § 257.95(d)(2).

195. 40 C.F.R. § 257.95(h) requires the owner or operator to establish a GWPS for each appendix IV constituent detected in the groundwater. The GWPS shall be either the specific limits identified in 40 C.F.R. §§ 257.95(h)(1) and (2) or, for constituents for which the background concentrations are higher than the levels identified in 40 C.F.R. §§ 257.95(h)(1) or (h)(2), the background concentrations, provided they are calculated pursuant to the federal regulations.

196. 40 C.F.R. § 257.95(i) requires that the owner or operator of the CCR unit comply with the recordkeeping requirements specified in 40 C.F.R. § 257.105(h), the notification

requirements specified in 40 C.F.R. § 257.106(h), and the website posting requirements specified in 40 C.F.R. § 257.107(h).

197. Respondent was required to initiate detection monitoring by October 17, 2017. It did not have a fully compliant detection monitoring system program as required by the CCR regulations. It did have sufficient data for boron, TDS, and pH. During the 2nd and 4th quarters of 2017, Respondent had exceedances of boron over their calculated background, which was based on Respondent's one-to-one comparison for its statistical data analysis. These exceedances resulted in an SSI for each sampling event in 2017. As a result, Respondent should have initiated an assessment monitoring program no later than April 2018. It did not.

198. As part of its assessment monitoring program, Respondent was required to complete sampling and analysis of all appendix IV constituents at each well within the federally required GWMS. It has not.

199. Respondent sampled for the appendix IV constituents, excluding lithium, molybdenum, and combined radium -226 and -228, only in the second quarter of 2018 at select wells. Lithium, molybdenum, and combined radium -226 and -228 were sampled at AW-3/RW-3 only in the second quarter of 2018. These four appendix IV constituents were not sampled or analyzed at any other well in the system.

200. Respondent did not establish a GWPS as required by the federal CCR regulations. Respondent calculated its limits based on four quarters of sampling data from 1994 and 1995 rather than the required eight independent samples and failed to use recent sampling event data. Furthermore, Respondent failed to establish background as required by 40 C.F.R. § 257.95(h)(3).

201. In the absence of an appropriate background concentration, the GWPS are the concentrations presented in 40 C.F.R. §§ 257.95(h)(1) and (2).

202. Respondent failed to comply with 40 C.F.R. §§ 257.95(a) and (b) when it failed to initiate assessment monitoring in April 2018 when boron exceeded Respondent's calculated background at downgradient well G122 for each quarter of sampling in 2017. As a consequence, Respondent failed to do the following:

a. conduct annual monitoring for all appendix IV constituents and semi-annual sampling for all appendix III constituents and for the appendix IV constituents that are detected (40 C.F.R. §§ 257.95 (b) and (d)(1) to (3));

b. conduct semiannual sampling of all wells and conduct analyses for all parameters in appendices III and IV; and

c. Establish GWPS for all constituents detected in 40 C.F.R. §§ 257.95(b) or (d) and include the associated information in the annual GWMCA Reports.

203. Respondent failed to comply with 40 C.F.R. §§ 257.95(d)(1) to (3) and (h) when it did not complete a resample within 90 days of the initial assessment monitoring event, thus failing to meet the timeframes for establishing GWPS.

204. Respondent failed to comply with 40 C.F.R. § 257.95(h) by not establishing GWPS as required.

205. Respondent failed to comply with 40 C.F.R. §§ 257.90(e)(6)(iii) and (iv) by not reporting within the beginning of the 2018 GWMCA report appendices III and IV constituents at SSIs and SSLs and the monitoring wells associated with those SSIs and SSLs.

206. As alleged in this Count, from April 2018 to the present, Respondent failed to conduct an assessment monitoring program in compliance with 40 C.F.R. §§ 257.95(a), (b), (d)(1)-(3), (h), and (i) and, therefore, was in violation of these regulations.

Count 14
Landfill Unit 2 - Response to detection of SSLs of Appendix IV constituents.
Violations of 40 C.F.R. §§ 257.95(g), (g)(1) to (5), .96, and .97

207. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

208. If assessment monitoring results are at an SSL concentration exceeding the GWPS at a downgradient well for any appendix IV constituent, the owner or operator must, *inter alia*, do the following:

a. prepare a notification identifying the appendix IV constituents that have exceeded the GWPS ("SSL Notification") and place the notification in the facility's operating record within 30 days (40 C.F.R. § 257.95(g));

b. characterize the nature and extent of the release (40 C.F.R. § 257.95(g)(1));

c. complete and post an ACM (40 C.F.R. §§ 257.95(g)(3) and .96);

d. conduct a public meeting to discuss the results of the ACM at least 30 days before it selects a remedy (40 C.F.R. § 257.96(e)); and

e. select a remedy and complete and post a final remedy report (40 C.F.R. § 257.97(a)).

209. 40 C.F.R. § 257.95(g)(1) requires that the proper characterization of the nature and extent of the release must be sufficient to support a complete and accurate assessment of the corrective measures necessary to effectively clean up all releases from the CCR unit pursuant to 40 C.F.R. § 257.96. Characterization of the release, at a minimum, must include the following measures:

a. installing additional monitoring wells necessary to define the contaminant plume(s) (40 C.F.R. § 257.95(g)(1)(i));

b. collecting data on the nature and estimated quantity of material released, including specific information on appendix IV constituents and the levels at which they are present in the material released (40 C.F.R. § 257.95(g)(1)(ii));

c. installing at least one additional monitoring well at the facility boundary in the direction of contaminant migration and sampling this well in accordance with 40 C.F.R. § 257.95(d)(1) (40 C.F.R. § 257.95(g)(1)(iii)); and

d. sampling all wells in accordance with 40 C.F.R. § 257.95(d)(1) to characterize the nature and extent of the release (40 C.F.R. § 257.95(g)(1)(iv).

210. Within 90 days of detecting an SSL concentration of an appendix IV constituent, the owner or operator must initiate an ACM and provide notice of the initiation of an ACM. It must complete the ACM within an additional 90 days. It must complete the ACM in accordance with the requirements of 40 C.F.R. § 257.96.

211. Respondent's downgradient monitoring system first detected SSLs above the GWPS in 2019, and those exceedances continued at least to the second quarter of 2022. The following is a summary of those SSLs.

Date	Well	Constituent	GWPS/MCL (mg/L)	Concentration (mg/L)
2019 - 2nd	AW-2	Arsenic	.01	0.0284
2019 - 4th	AW-2	Arsenic	.01	0.0286
	AW-2	Lead	0.015	0.282
2020 - 2nd	AW-2	Arsenic	.01	0.0274
	AW-2	Lead	.015	0.158
2021 – 2nd	AW-2	Arsenic	.01	0.0202
	AW-1	Lead	.015	0.164
2022 – 2nd	AW-2	Arsenic	.01	0.0226
	G121	Arsenic	.01	.0163

212. As a result of these exceedances, Respondent was required to do the following:

a. prepare an SSL notification identifying the appendix IV constituents that have exceeded the GWPS and place the notification in the facility's operating record within 30 days (40 C.F.R. § 257.95(g));

b. characterize the nature, rate, and extent of the release (40 C.F.R. § 257.95(g)(1));

c. complete and post an ACM (40 C.F.R. §§ 257.95(g)(3) and .96);

d. conduct a public meeting to discuss the results of the ACM at least 30 days before it selects a remedy (40 C.F.R. § 257.96(e)); and

e. select a remedy and complete and post a final remedy report (40 C.F.R. § 257.97(a)).

213. Respondent has not done any of the required actions identified in this Count.

Consequently from 2019 to the present, Respondent has failed to comply with 40 C.F.R. §§ 257.95(g), (g)(1) to (5), .96, and .97 and, therefore, is in violation of these regulations.

Count 15
Landfill Unit 2 – Annual Groundwater Monitoring and Corrective Action Report Violations of 40 C.F.R. § 257.90(e)

214. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

215. Respondent was required to prepare an annual GWMCA Report by January 31, 2018, and annually thereafter, and to post it on its federal CCR website. *See* 40 C.F.R. § 257.90(e) and (f).

216. The Respondent was required to include the following information in its annual GWMCA Report:

a. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, including the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

b. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

c. In addition to all the monitoring data obtained under 40 C.F.R. §§ 257.90 through 257.98, a summary, including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

d. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at an SSI over background levels); and

e. Other information required to be included in the annual report as specified in 40 C.F.R. §§ 257.90 through 257.98.

217. Respondent must include in the annual GWMCA Report a section at the beginning providing an overview of the status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all the following:

a. At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in 40 C.F.R. § 257.94 or the assessment monitoring program in 40 C.F.R. § 257.95;

b. At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in 40 C.F.R. § 257.94 or the assessment monitoring program in 40 C.F.R. § 257.95;

c. If it was determined that there was a statistically significant increase over background for one or more constituents listed in appendix III to the CCR Rules pursuant to 40 C.F.R. § 257.94(e):[1]

   i. Identify those constituents listed in appendix III to the CCR Rules and the names of the monitoring wells associated with such an increase; and

   ii. Provide the date when the assessment monitoring program was initiated for the CCR unit.

d. If it was determined that there was a statistically significant level above the groundwater protection standard for one or more constituents listed in appendix IV to Part 257 pursuant to 40 C.F.R. § 257.95(g) include all of the following:

   i. Identify those constituents listed in appendix IV to Part 257 and the names of the monitoring wells associated with such an increase;

   ii. Provide the date when the assessment of corrective measures was initiated for the CCR unit;

   iii. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit; and

   iv. Provide the date when the assessment of corrective measures was completed for the CCR unit.

e. Whether a remedy was selected pursuant to 40 C.F.R. § 257.97 during the current annual reporting period, and if so, the date of remedy selection; and

f. Whether remedial activities were initiated or are ongoing pursuant to 40 C.F.R. § 257.98 during the current annual reporting period.

[1] The annual GWMCA Report is not required to discuss items in 40 C.F.R. §§ 257.90(e)(6)(iii)(A) and (6)(iv) until after September 28, 2020.

218. Except for the year ending December 31, 2018, Respondent has not posted on its federal CCR website an annual GWMCA Report for any year. The report for the year ending December 31, 2018, does not contain the information required by the CCR rules. Consequently, from January 2019 to the present, Respondent failed to comply with 40 C.F.R. §§ 257.90(e)(1), (3) through (5), (6)(i) through (vi), and (f) and, therefore, is in violation of these regulations.

Count 16
Landfill Unit 2 - Inadequate Notices and Inadequate federal CCR website.
Violations of 40 C.F.R. §§ 257.105 and .107

219. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

220. By October 17, 2017, Respondent was required to have a qualified professional engineer certify that its groundwater monitoring system was designed and constructed to meet the requirements of 40 C.F.R. § 257.91. If the groundwater monitoring system included the minimum number of monitoring wells specified in 40 C.F.R. § 257.91(c)(1), then the certification must have documented the basis supporting this determination. This certification was required to be posted to its federal CCR within 30 days of October 17, 2017. *See* 40 C.F.R. §§ 257.90(b)(1)(i), .91(f), .105(h)(3), .107(d), and .107(h)(2). Respondent's federal CCR website contains an incorrect certification because it certifies to compliance with 35 Ill. Admin. Code Part 811 instead of 40 C.F.R. § 257.91.

221. By October 17, 2017, Respondent was required to have a certification from a qualified professional engineer stating that it selected a statistical method in compliance with 40 C.F.R. § 257.93 that is appropriate for evaluating the groundwater monitoring data for the CCR management area. The certification must include a narrative description of the statistical method selected to evaluate the groundwater monitoring data. This certification was required to be posted to its federal CCR website within 30 days of October 17, 2017. 40 C.F.R. §§

257.90(1)(ii), .93(f)(6), .105(h)(4), .107(d), and .107(h)(3). Respondent's federal CCR website does contain a certification that is sufficient to meet the requirements of these rules.

222. By January 31, 2018, and each year annually thereafter, Respondent was required to have an annual GWMCA Report as required by 40 C.F.R. § 257.90(e). This report is required to be posted on its federal CCR website within 30 days of January 31 of each year. *See* 40 C.F.R. §§ 257.90(e), .105(h)(1), .107(d), and .107(h)(1). Respondent's federal CCR website does not contain these reports for the years 2019 and afterwards.

223. Respondent was required to establish an assessment monitoring program within 90 days of detecting an SSI over background of any one or more of the appendix III constituents. Using Respondent's then-applicable statistical procedures, Respondent was required to prepare a notification that an assessment monitoring program was established. This notification was required to be posted to its federal CCR website within 30 days of initiating an assessment monitoring program (April 2018). *See* 40 C.F.R. §§ 257.94(e)(3), .105(h)(5), and .107(h)(4). Respondent's federal CCR website does not contain this notification.

224. Respondent was required to prepare a notification that one or more constituents in appendix IV were detected at SSLs above the GWPS in any sampling event. The notification must have included information identifying the constituents in appendix IV to Part 257 that have exceeded the GWPS. By July 2019, Respondent was required to prepare a notification that one or more appendix IV constituents were found to be at SSLs. This notification was required to be posted to its federal CCR website within 30 days of detecting the SSL (August 2019). 40 C.F.R. §§ 257.95(g), .105(h)(8), .107(d), and .107(h)(6). Respondent's federal CCR website does not contain this notification.

225. Respondent was required to initiate an ACM in October 2019. Consequently, it was required to prepare a notification stating that an ACM had been initiated. This notification was required to be posted to its federal CCR website within 30 days (November 2019). *See* 40 C.F.R. §§ 257.95(g)(5),.105(h)(9), and .107 (h)(9). Respondent's federal CCR website does not contain this notification.

226. Respondent was required to complete an ACM by January 2020. It was required to post the ACM to its federal CCR website within 30 days of completion of the ACM (February 2020). *See* 40 C.F.R. § § 257.96(d), .105(h)(10), .107(d), and .107(h)(8). Respondent's federal CCR website does not contain an ACM.

227. Respondent was required to develop a semiannual report describing its progress in selecting and designing the remedy and to also develop a selection of remedy report as required by 40 C.F.R. § 257.97(a). Based on the results of the ACM conducted under 40 C.F.R. § 257.96, Respondent was required to, as soon as feasible, select a remedy and, upon selection of the remedy, prepare a final report describing the selected remedy and how it meets the standards specified in 40 C.F.R. § 257.97(b). Respondent was required to obtain a certification from a qualified professional engineer that the remedy selected meets the requirements of 40 C.F.R. § 257.97. Respondent was required to complete the ACM by January 2020, select a remedy as soon as feasible after this date, and thereafter complete a remedy report. Respondent was also required to develop its first semiannual report with subsequent semiannual reports required since then. *See* 40 C.F.R. §§ 257.97(a), .105(h)(12), .107(d), and .107(h)(9). Respondent's federal CCR website does not contain the semi-annual reports or the final remedy report.

228. As alleged in this Count, on various dates since October 17, 2017, Respondent failed to comply with 40 C.F.R. §§ 257.105(h)(1), (3)-(5), (8)-(10), (12), .107(h)(1)-(4), (6), (8), and (9) and, therefore, was in violation of these regulations.

Count 17
Landfill Unit 2 – Criteria for Closure or Retrofit of CCR Units.
Violation of C.F.R. § 257.102(b)(1)

229. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

230. The owner or operator of a CCR unit must prepare a written closure plan that describes the steps necessary to close the CCR unit at any point during the active life of the CCR unit consistent with recognized and generally accepted good engineering practices. If CCR wastes will be left in the unit, then the written closure plan must include, at a minimum, the following information:

a. A narrative description of how the CCR unit will be closed in accordance with 40 C.F.R. § 257.102.

b. A description of the final cover system, designed in accordance with 40 C.F.R. § 257.102(d), and the methods and procedures to be used to install the final cover.

c. The closure plan must also discuss how the final cover system will achieve the performance standards specified in 40 C.F.R. § 257.102(d).

d. An estimate of the maximum inventory of CCR ever on-site over the active life of the CCR unit.

e. An estimate of the largest area of the CCR unit ever requiring a final cover as required by 40 C.F.R. § 257.102(d) at any time during the CCR unit's active life.

f. A schedule for completing all activities necessary to satisfy the closure criteria in 40 C.F.R. § 257.102, including an estimate of the year in which all closure activities for the CCR unit will be completed. The schedule should provide sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, or installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure. *See* 40 C.F.R. § 257.102(b).

231. Respondent posted on its federal CCR website *Closure/Post-closure Plan for CCR Unit 2 Landfill,* October 2016 (2016 Closure Plan or Closure Plan). The Closure Plan consists of three documents:

a. Appendix A: Closure, Post Closure Plan for Unit 2 Landfill Attachment 23 of the Application for Significant Modification to Permit (Andrews 1995a), dated September 1994 (1994 Closure Plan or Appendix A);

b. Appendix B: Unit 2 Landfill Permit 1995-243-LFM, Modification No. 12, Log No. 2016- 298 dated September 28, 2016 (2016 Permit Modification or Appendix B); and

c. Appendix C: Addendum to Closure, Post-Closure Plan, and Cost Estimates (Andrews 2016b).

232. The 2016 Closure Plan has no narrative describing how Unit 2 will be closed or how the cover will be designed to meet the requirements of 40 C.F.R. § 257.102(d).

233. Respondent's 2016 Closure Plan fails to provide sufficient information to demonstrate that Unit 2 will be closed in a manner that will control, minimize, or eliminate, to the maximum extent feasible, post-closure infiltration of liquids or impoundment of waters into the unit or the release of CCR or leachate to the ground water and, consequently, that it meets the requirements of 40 C.F.R. § 257.102(d)(1)(i).

234. An owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will preclude the probability of future impoundment of water, sediment, or slurry. *See* 40 C.F.R. § 257.102(d)(1)(ii). The 2016 Closure Plan fails to demonstrate that, at a minimum, Unit 2 will be closed in a manner that will preclude the probability of future impoundment of water, sediment, or slurry as required by 40 C.F.R. § 257.102(d)(1)(ii).

235. The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will include measures that provide for major slope stability to

prevent the sloughing or movement of the final cover system during the closure and post-closure care period. *See* 40 C.F.R. § 257.102(d)(1)(iii).

236. The 2016 Closure Plan fails to ensure that, at a minimum, Unit 2 will be closed in a manner that will include measures that provide for major slope stability to prevent the sloughing or movement of the final cover system during the closure and post-closure care period as required by 40 C.F.R. § 257.102(d)(1)(iii).

237. If a CCR unit is closed by leaving CCR in place, the owner or operator must install a final cover system that is designed to minimize infiltration and erosion and meets the design criteria of 40 C.F.R. § 257.102(d)(3)(i)(A)-(D). The 2016 Closure Plan does not contain cap design information. Consequently, the 2016 Closure Plan fails to demonstrate compliance with 40 C.F.R. § 257.102(d)(3)(i)(A)-(D).

238. The owner or operator of a CCR unit must ensure that, at a minimum, the CCR unit is closed in a manner that will minimize the need for further maintenance of the CCR unit as required by 40 C.F.R. § 257.102(d)(1)(iv). The 2016 Closure Plan fails to adequately address the post-closure monitoring for the cover, the leachate, stormwater, and groundwater monitoring systems as required by 40 C.F.R. § 257.102(d)(1)(iv).

239. On September 30, 2024, the Respondent posted and provided EPA with a revised Closure and Post-Closure Plan for Unit 2 pursuant to the Compliance Plan portion of this CAFO. EPA will review those plans pursuant to this CAFO.

240. As alleged in this Count, from at least October 17, 2016, through September 30, 2024, Respondent failed to have a closure plan that met the requirements of 40 C.F.R. §§ 257.102(b) and (d) and therefore Respondent violated these regulations.

Count 18
Landfill Unit 2 –Post-Closure Plan
Violation of 40 C.F.R. § 257.104(d)(1)

241. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

242. 40 C.F.R. § 257.104(d)(1) requires the owner or operator to have a written post-closure plan that, at a minimum includes, the following:

a. A description of the monitoring and maintenance activities required in 40 C.F.R. § 257.104(b) for the CCR unit, and the frequency at which these activities will be performed;

b. The name, address, telephone number, and email address of the person or office to contact about the facility during the post-closure care period; and

c. A description of the planned uses of the property during the post-closure period. Post- closure use of the property shall not disturb the integrity of the final cover, liner(s), or any other component of the containment system, or the function of the monitoring systems unless necessary to comply with the requirements in this subpart.

243. Following closure of a CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover. *See* 40 C.F.R. § 257.104(b)(1).

244. The 2016 Post Closure plan fails to demonstrate that the Respondent will maintain the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover as required by 40 C.F.R. § 257.104(b)(1).

245. Following closure of the CCR unit, the owner or operator must conduct post-closure care for the CCR unit, which must consist of maintaining the groundwater monitoring

system and monitoring the groundwater in accordance with the requirements of 40 C.F.R. §§ 257.90 through .98. *See* 40 C.F.R. § 257.104(b)(3).

246. 40 C.F.R. §§ 257.104(c)(1) and (2) state that the owner or operator must conduct post-closure ground water monitoring for a minimum of 30 years. However, if the unit is operating under assessment monitoring, the groundwater monitoring is required to be extended until the unit returns to detection monitoring.

247. There is no discussion in the 2016 Post-Closure Plan describing the post-closure ground water monitoring system or its maintenance requirements.

248. On September 30, 2024, the Respondent posted and provided EPA with a revised Closure and Post-Closure Plan for Unit 2 pursuant to the Compliance Plan portion of this CAFO. EPA will review those plans pursuant to this CAFO.

249. As alleged in this Count, from at least October 17, 2016, to September 2024, Respondent failed to have a post-closure plan that met the requirements of 40 C.F.R. §§ 257.104(b) and (d)(1), and therefore, Respondent was in violation of these requirements.

Count 19
Landfill Unit 2 - Location Restriction.
Violations of 40 C.F.R. §§ 257.60 to 257.64

250. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

251. 40 C.F.R. § 257.64(a) requires the owner or operator to demonstrate that recognized and generally accepted good engineering practices have been incorporated into the design of the CCR unit to ensure that the integrity of the structural components of the CCR unit will not be disrupted. 40 C.F.R. § 257.64(c) provides that the owner or operator of an existing CCR landfill must obtain a certification by a qualified professional engineer or approval from the Participating State Director or EPA demonstrating that it has met the requirements of 40

C.F.R. § 257.64(a). This demonstration must be placed on the owner's or operator's website pursuant to 40 C.F.R. § 257.107(e).

252. Respondent did not have on its federal CCR website the demonstration required by 40 C.F.R. § 257.64(a) from October 17, 2018, until March 2024.

253. As alleged in this Count from October 17, 2018, until March 2024, Respondent failed to demonstrate compliance with 40 C.F.R. §§ 257.64(a) and (c).

Count 20
Run-on and Run-off Controls for CCR Landfills Violations of 40 C.F.R. § 257.81

254. Complainant incorporates paragraphs 1-32 as if fully set forth herein.

255. 40 C.F.R. §§ 257.81(c)(4) and .107(g) require the owner or operator of an existing CCR landfill to prepare periodic run-on and run-off control system plans every five years. The date of completing the initial plan is the basis for establishing the deadline to complete the first subsequent plan.

256. Respondent completed its initial run-on and run-off control plan and posted the plan to its federal CCR website on or about October 13, 2016. The periodic run-on and run-off plan was required to be completed on October 13, 2021. The periodic run-on and run-off plan was also required to be posted on Respondent's federal CCR website according to 40 C.F.R. § 257.107(g). A document entitled *Run-on and Run-off Control System Plan for FGDS Development Unit 2 Landfill* was posted to the Respondent's federal CCR website with a date of February 2024. Therefore, Respondent failed to timely complete its periodic run-on and run-off control system plan in violation of 40 C.F.R. § 257.81(c)(4).

257. As alleged in this Count, from at least October 13, 2021, to February, 2024, Respondent failed to comply with 40 C.F.R. §§ 257.81(c)(4) and .107(g) because it did not post the required periodic update of its run-on and run-off control plan on time.

VI. COMPLIANCE PLAN

258. Pursuant to Sections 3008(a) and 4005(d)(4)(A)(i) of RCRA, 42 U.S.C. §§ 6928(a) and 6945(d)(4)(A)(i), Respondent agrees to and is hereby ordered to perform the actions specified in this Section, in the manner and by the dates specified herein. Respondent must perform the work undertaken pursuant to this CAFO in compliance with the federal CCR regulations, RCRA, other applicable federal and state laws, and their implementing regulations, and consistent with all relevant EPA guidance documents. Unless otherwise specified, the Respondent will comply with the work and dates contained in this section.

259. Respondent consents and agrees to comply with all applicable requirements in 40 C.F.R. Part 257, Subpart D and this CAFO.

1. SURFACE IMPOUNDMENTS

A. Federal groundwater monitoring detection monitoring network.

260. Within 30 days of the effective date of this CAFO, Respondent shall incorporate AP-1 through 8, AP-10, AP-14, RW-3, AW-1, and G-120 into its federal groundwater monitoring network for the surface impoundments and will analyze for appendix III constituents semi-annually and appendix IV constituents at least annually. Additionally, Respondent will semiannually analyze for all appendix IV constituents above an SSL concentration as a result of work required by paragraphs below. All data collected during a year and relating to these wells shall be included in the annual GWMCA Report required by the federal CCR regulations beginning with the calendar year of the effective date of this CAFO.

261. Within 45 days of the effective date of this CAFO Respondent shall:

a. Amend all appropriate documents related to the scope of its federal groundwater monitoring network (*e.g.*, Groundwater Monitoring Program) and provide EPA with a listing of the documents it amended. If required by

the federal CCR Rules, it will post the revised document(s) to its federal CCR website.

b. Provide EPA with a certification, as required by 40 C.F.R. § 257.91(f), that the groundwater monitoring system identified in this section VI.1.A meets the requirements of 40 C.F.R. § 257.91.

B. Flow path analysis and additional required monitoring wells.

262. Within 150 days of the effective date of this CAFO, Respondent shall fully characterize the groundwater flow paths from the surface impoundments. At a minimum, this will include installation of monitoring wells at the following locations for flow path characterization purposes:

a. In the shallow sand unit, which could be paired with Well AP-6;

b. On the far side of Sugar Creek across from AP-8;

c. Between wells AP-14 and AP-4; and

d. Along the north/northeast corner of Unit 2.

263. Within 240 days of the effective date of this CAFO, Respondent shall submit to EPA a Flow Path Report that includes all applicable data used to determine groundwater flow paths for the surface impoundments and Unit 2. This shall include static groundwater elevations at all wells at the facility, pool elevation for Lake Springfield, the clarification pond, and Sugar Creek and potentiometric maps. Any additional data collected through modeling data, boring logs, transducer data, and hydrogeologic cross-sections shall also be included. The Flow Path Report shall identify additional monitoring wells that are needed to ensure either a proper detection and assessment monitoring program or to fully characterize the nature and extent of any releases of appendix IV constituents. It will also include a schedule for installing the additional wells within 90 days of completion of the Flow Path Report, if necessary.

264. Respondent shall annually evaluate the Flow Path Report to determine if the groundwater flow paths have changed or if additional monitoring wells are necessary for the purpose of detecting and assessing releases of appendix III and IV constituents. Respondent shall report any changes in the groundwater flow paths in its annual GWMCA Reports.

C. Recalculated Background.

265. Within 30 days of the effective date of this CAFO, Respondent shall collect from monitoring wells AP-4 and AP-5 eight groundwater samples for the purpose of establishing background concentrations of arsenic. Respondent shall analyze the samples and calculate background concentrations for arsenic consistent with 40 C.F.R. 257, Subpart D.

266. Within 30 days of the effective date of this CAFO, Respondent shall recalculate background concentrations for all appendix III and IV constituents for background wells AP-4 and AP-5.

267. Within 30 days of the effective date of this CAFO, Respondent shall provide to EPA a report identifying the recalculated background concentration and the GWPS for all appendix III and IV constituents (GWPS Report). The GWPA Report must include a table comparing the recalculated background concentrations/GWPS to the downgradient concentrations of all appendix III and IV constituents detected in the monitoring wells that comprise the federal groundwater monitoring network for the period of time January 1, 2022, until December 31, 2024. For each monitoring well, the table shall present the background/GWPS, the monitoring well(s), the downgradient appendix III and IV constituent concentrations, the statistical parameters used, the sampling date(s), and whether there was an SSI or an SSL. The GWPS Report must include all data, including but not limited to, sampling well logs and sample analytical reports.

D. Revised Notice of SSIs and SSLs.

268. Within 60 days of the effective date of this CAFO, Respondent shall post on its federal CCR website a single notice that identifies the SSIs and SSLs identified pursuant to paragraphs 264 through 267 above. Respondent's notice will include an identification of the GWPS, the monitoring wells, dates of sampling, and the detected concentrations related to the SSIs and SSLs. Respondent shall also provide notice of initiation of an investigation into the nature and extent of contamination and an ACM for the identified SSLs of appendix IV constituents or, if there was an alternative source demonstration (ASD), Respondent shall include the information required by 40 C.F.R. §257.95(g)(3)(ii) on its federal CCR website.

269. Respondent shall, moving forward, post a separate notice of SSLs whenever a sampling event identifies a constituent above an SSL. The notice shall include the same information as identified in paragraph 268 above.

E. Nature, Rate and Extent of SSL Releases of Appendix IV Constituents and Assessment of Corrective Measures (ACM).

270. Within 90 days after the effective date of this CAFO, Respondent will complete an alternative source demonstration or a characterization of the nature and extent of the releases and an ACM for each constituent identified at an SSL concentration in the GWPS Report required within 60 days of this CAFO by paragraph 268 above. Within 120 days after the effective date of this CAFO, Respondent will submit to EPA for review and approval an ASD or a report of its nature, rate, and extent evaluation (Nature and Extent Report) and its ACM which meets the requirements of 40 C.F.R. § 257.95(g)(3) and .96. The Nature and Extent Report must meet the requirements of 40 C.F.R. § 257.95(g) and shall include all data collected. The ACM shall address each of the requirements of 40 C.F.R. §§ 257.95(g)(3), .96, and Attachment 1. The Respondent shall submit an ACM for arsenic at RW-3 and cobalt at AP-2 in accordance with the

time frames and requirements of this section. Respondent may continue to independently investigate the source of these previously identified SSL constituents and may submit that data for EPA's consideration consistent with the requirements of this CAFO and the CCR regulations. Respondent has posted to the federal CCR website an ASD dated October 28, 2024, for arsenic at AP-7. This ASD is subject to the requirements of this section.

F. Final Remedy Report

271. Within 90 days of EPA's approval of the Nature and Extent Report and ACM required by paragraph 270, Respondent will complete and submit to EPA a remedy selection report ("Final Remedy Report") and initiate the public participation required by 40 C.F.R. §§257.96(e) and 97. The Final Remedy Report shall address the requirements of the federal CCR Rules and Attachment 1 and shall be a separate document from the Closure Plan. Respondent shall post to its federal CCR website the Final Remedy Report, a copy of any written comments, the public hearing transcript, or video recording and any response to comments that it generates.

272. Within 180 days of the effective date of this CAFO and semi-annually thereafter, Respondent shall complete the semi-annual progress report required by 40 C.F.R. 257.97(a) until such time that the Respondent has completed the selection and design of the remedy required by this CAFO.

G. Revised Sampling and Analysis Procedures.

273. Within 60 days of the effective date of this CAFO, Respondent shall submit to EPA a revised Sampling and Analysis Plan addressing the following:

a. Confirm the plan to lower the pumping rate if drawdowns greater than 0.3 feet occur instead of allowing the well to be purged to the bottom of the screen and allowed to recover.

b. Establish that for the purposes of sample turbidity, well purging stabilization criteria are less than 10 nephelometric turbidity units (NTUs), adding that if less than 10 NTUs cannot be achieved then a secondary, backup criteria be set at less than 10% change between the final three.

c. Revise the practice of measuring total well depth prior to purging/sampling with measuring well depth after sampling if total depth must be measured.

d. Respondent shall implement the revised Sampling and Analysis Plan for groundwater sampling events.

H. Surface Impoundments – Structural Stability, Safety Factor Assessment, Run-on/Run-off Control Plan, Inflow Design Control Plans, Hazard Potential Classification Plan.

274. Within 180 days of the effective date of this CAFO, Respondent shall submit to EPA for review and approval its final Hazard Potential Classification, Safety Factor Assessment, Structural Stability Assessment, Unstable Areas Assessment, Inflow Design and Flood Control Plan, and Run-on/Run-off plans for the surface impoundments that incorporates the relevant data submitted with its June 28, 2024, "Geotechnical Investigation Report – Unstable Areas Demonstration, Safety Factor and Liquefaction Analysis for CCR Surface Impoundments" and meets the requirements of the applicable federal CCR regulations and Attachment 2, as applicable.

I. Surface Impoundments – Closure and Post-Closure Plan

275. Within 180 days of the effective date of this CAFO, Respondent shall submit to EPA for review and approval revised closure and post-closure plans for the surface impoundments that meet the requirements of 40 C.F.R. §§ 257.102 and .104 and Attachment 3 and the work required by this CAFO related to closure of the surface impoundments and the ACM. Respondent may request an extension if the proposed closure plan calls for leaving CCR wastes in place, closure-in-place is an integral component of Respondent's ACM, and EPA is in the process of reviewing Respondent's ACM as required by paragraph 270.

J. Operational Changes.

276. On October 13, 2023, Respondent informed EPA that it ceased the placement of CCR wastes and non-CCR wastes into the Dallman and Lakeside Ash Ponds. Respondent shall complete closure of the Dallman and Lakeside Ash Ponds and implement post-closure care in accordance with the requirements and schedules contained in 40 C.F.R. 257, Part D and the work required by this CAFO.

K. Interim Measures.

277. Within 90 days of EPA's review and approval of the Nature and Extent Report and ACM required by paragraph 270 above, Respondent will provide to EPA for review and approval an assessment of the necessity of taking interim measures (Interim Measures Assessment) consistent with 40 C.F.R. § 257.98(a)(3). Respondent's Interim Measures Assessment shall examine those measures that are necessary to ensure that contaminated groundwater is not posing an unacceptable risk of harm to human or ecological receptors, including but not limited to Sugar Creek, adjacent properties, and groundwater supply wells, until such time as Respondent completes closure of the Dallman and Lakeside Ash Ponds and attains the GWPS. The Interim Measures Assessment shall include a schedule for implementing such measures. Respondent will implement interim measures as approved by EPA and required by 40 C.F.R. §257.98(a)(3).

2. LANDFILL UNIT 2[2]

A. Federal groundwater detection monitoring network.

[2] References to Unit 2 for the purposes of this CAFO are to only the active portion of Unit 2, which is commonly referred to as Phase I – Cell 3. *See* May 7, 2024. letter from ArentFox Schiff to EPA, Exhibit B. This portion of Unit 2 has a liner and leachate collection system and as of May 7, 2024, had an estimated remaining volume of 134,655 cubic yards with an estimated annual disposal rate of 420 cu/yds until the year 2045. *Id.*

278. EPA has reviewed Respondent's June 2024 Groundwater Monitoring Program. Within 30 days of the effective date of this CAFO, Respondent shall include R101 as its upgradient monitoring well and AW-2, PO7D, G121, and G122 as the downgradient wells for its federal groundwater monitoring network for Unit 2. Respondent must further analyze these wells for appendix III constituents semi-annually and appendix IV constituents at least annually. Additionally, Respondent must semi-annually analyze for all appendix IV constituents above SSL concentrations as a result of work required by paragraphs 281-283 below.

279. Within 60 days of the effective date of this CAFO, Respondent shall:

a. Amend all appropriate documents related to the scope of its federal groundwater monitoring network (*e.g.*, its Groundwater Monitoring Program), provide EPA with a listing of the documents it amended, and post to its federal CCR website revised documents or notices as required by the federal CCR Rules.

b. Provide EPA with a certification, as required by 40 C.F.R. 257.91(f), that the groundwater monitoring system identified in this paragraph meets the requirements of 40 C.F.R. 257.91.

B. Flow path analysis and additional monitoring wells.

280. The Respondent will include a Flow Path Report for Unit 2 as part of the Flow Path Report required for the surface impoundments in paragraph 263.

281. Respondent shall annually evaluate the Flow Path Report to determine if the groundwater flow paths have changed or if additional monitoring wells are necessary for the purpose of detecting and assessing releases of appendix III and IV constituents. Respondent shall report any changes in the groundwater flow paths in its annual GWMCA Reports.

C. Initial and First Confirmatory Sampling Event.

282. Within 120 days of the effective date of the CAFO, Respondent will complete sample collection for the required eight samples of all appendix III and IV constituents at R101

for the purpose of establishing background concentrations of these constituents for Unit 2. It will also complete the first round of assessment monitoring for all appendix III and IV constituents at its federal groundwater monitoring wells identified in paragraph 278.

283. Within 150 days of the effective date of the CAFO, Respondent shall submit to EPA an Updated Sampling Report, which must include the results of the sampling conducted in 2023 and 2024 and the background sampling required by paragraph 278. It will include in the Updated Sampling Report an updated table, which includes the recalculated background concentrations and the GWPS compared to the sampling required by paragraphs 278.

284. Within 150 days of the effective date of this CAFO, Respondent shall collect confirmatory samples of all appendix III and IV constituents for the monitoring wells required by paragraph 278. Within 180 days of the effective date of this CAFO, Respondent will submit to EPA a report of the results of its confirmatory sampling (Confirmatory Sampling Report), which will include a summary table of the SSLs and all associated data. Respondent will conduct assessment monitoring for any appendix IV constituent detected in both sampling events at, or above, an SSL concentration in accordance with the requirements of the 40 C.F.R. 257, Subpart D. For each SSI and SSL of any appendix IV constituent after completion of the confirmatory sampling, Respondent shall post on its federal CCR website notice(s) consistent with 40 C.F.R. 257, Subpart D identifying all SSIs/SSLs for each constituent, sampling date, and associated well location.

D. Nature, Rate, and Extent of SSL Releases of Appendix IV Constituents and Assessment of Corrective Measures for Unit 2.

285. Within 90 days of Respondent's submission of the Confirmatory Sampling Report required by paragraph 284, Respondent will submit to EPA for review and approval either an ASD or a Nature and Extent Report and ACM. The Nature and Extent Report shall

include a characterization of the nature and extent of the releases, must meet the requirements of 40 C.F.R. §257.95(g), and shall include all data collected from this work. The ACM shall address each of the requirements of 40 C.F.R. §257.96 and .97.

E. Final Remedy Report.

286. Within 90 days of EPA's approval of an ASD or Nature and Extent Report and ACM required by paragraph 285, Respondent shall complete and submit to EPA the Final Remedy Report required by the federal CCR regulations and initiate public participation required by 40 C.F.R. §257.97. Respondent shall post to its federal CCR website the Final Remedy Report, a copy of any written comments, and hearing transcript or video recording and any response to comments that it generates.

F. Revised Sampling and Analysis Procedures.

287. Within 30 days of the effective date of this CAFO, Respondent shall submit to EPA a revised Sampling and Analysis Plan addressing the deficiencies in paragraph 273 for Unit 2 sampling.

G. Annual Groundwater Monitoring and Corrective Action Documents.

288. By January 31, 2025, and annually thereafter, Respondent shall post to its federal CCR website its annual GWMCA Report for 2024 as required by the federal CCR Rules. The annual GWMCA Report will include all data required by the federal CCR Rules. In addition to what is required by the federal CCR Rules, the annual GWMCA Report for 2024 and all subsequent years will include the concurrent pool elevations from the Dallman Ash Ponds, the clarification pond, the lime ponds, and Lake Springfield when collecting groundwater samples from the monitoring wells identified in paragraph 278. Respondent shall display the pool elevations on potentiometric surface maps and incorporate pool elevation information into

contour maps, where appropriate. Respondent will include this information in the annual GWMCA Report for Unit 2.

H. Unit 2 – Closure and Post-Closure Plan

289. On September 30, 2024, the Respondent submitted to EPA for review and approval a Closure and Post-Closure Plan for Unit 2. EPA will review and approve of these documents in accordance with 40 C.F.R. §§ 257.102 and .104 and Attachment 4.

I. Run-on/off Control Plan.

290. 180 days from the effective date of CAFO, Respondent shall submit to EPA for review and approval a Run-on and Run-off Control System Plan consistent with 40 C.F.R. § 257.81(c)(4) and Attachment 2.

3. POSTING TO FEDERAL CCR WEBSITE

A. Surface Impoundments and Landfill Unit.

291. Respondent shall post all documents and required supporting data to demonstrate compliance with 40 C.F.R. 257, Subpart D on its federal CCR website. If relevant documentation or data is referenced for compliance, Respondent shall ensure such documentation is appended to the associated federal CCR report or has a clear website link.

VII. CAFO PROGRESS REPORTS

292. Beginning the second calendar month after the effective date of this CAFO, the Respondent shall submit monthly progress reports to EPA. Each monthly progress report shall be submitted no later than the 10th Day of the next calendar month and shall include detailed updates on the status and performance of all activities required to be undertaken pursuant to this CAFO in the prior month. It will include information on any delays and steps taken to mitigate delays and projected work during the next calendar month. Upon the submission of

the Final Remedy Report required under Paragraph 270 the Respondent shall submit quarterly reports until the termination of this CAFO. The quarterly reporting shall include the specified items from this section for the reporting period. If requested by the Respondent and agreed upon by EPA, the Respondent may forgo this requirement.

VIII. ACCESS TO INFORMATION

293. Notwithstanding any provision of this CAFO, EPA retains all its information gathering and inspection authorities and rights, including enforcement actions related thereto, under RCRA and any other applicable statutes or regulations.

294. Upon the written request of EPA's Project Officer, Respondent shall promptly make any information related to compliance with this CAFO available in the format requested by EPA and within the time period requested.

IX. RECORD RETENTION

295. **Record Retention** - Until 5 years after EPA issues the Acknowledgment of Termination (as described in paragraph 355), Respondent shall preserve and retain all non-identical copies of Records (including Records in electronic form) now in its possession or control or that come into its possession or control, which relate in any manner to this CAFO. Respondent must also retain, and instruct its successors, contractors, and agents to preserve, for the same time period specified above, all non-identical copies of the last draft or final version of any Records (including Records in electronic form) now in its possession or control or that come into its possession or control that relate in any manner to performance of the work required by this CAFO. Additionally, Respondent (and its successors, contractors, and agents) must retain copies of all data generated during the performance of the work required by this CAFO and not

contained in the previously identified Records. Each of the above record retention requirements shall apply regardless of any corporate retention policy to the contrary.

296. The Acknowledgment of Termination identified in Paragraph 355 will address actions to be taken at the conclusion of this record retention period.

X. REPORTING AND DOCUMENT CERTIFICATION

297. **General Requirements for Deliverables**. Respondent shall submit all deliverables in electronic form. All other deliverables shall be submitted to EPA in the electronic form EPA's Project Officer specifies. Andrea Dierich is EPA's Project Officer. All documents submitted pursuant to this CAFO shall be sent to:

Andrea Dierich,
EPA Project Officer
US EPA, Region 5
Dierich.andrea@epa.gov

Documents to be submitted to Respondent's Project Officer shall be sent to:

PJ Becker
Environmental Health and Safety Manager
3100 Stevenson Drive
Springfield, IL 62712
PJ.Becker@CWLP.com

298. All notifications, plans, reports, and other documents that are required pursuant to this CAFO to be submitted or provided to EPA or to Respondent may be signed electronically, so long as Respondent uses a "particular electronic signature device" that complies with the requirements of 40 C.F.R. § 3.4(d). All such documents shall be submitted as requested by the EPA contact identified above.

299. **Technical Specifications**. Sampling and monitoring data should be submitted in standard Electronic Data Deliverable (EDD) format. Other delivery methods may be allowed

upon EPA approval. Spatial data, including spatially referenced data and geospatial data, should be submitted either (1) in ESRI File Geodatabase format; and as unprojected geographic coordinates in decimal degree format using North American Datum 1983 (NAD83) or (2) World Geodetic System 1984 (WGS84) as the datum. If applicable, submissions should include the collection method(s). Projected coordinates may optionally be included but must be documented. Metadata should accompany any spatial data, and such metadata should comply with the Federal Geographic Data Committee (FGDC) Content Standard for Digital Geospatial Metadata and its EPA profile, the EPA Geospatial Metadata Technical Specification. An add-on metadata editor for ESRI software, the EPA Metadata Editor (EME), complies with these FGDC and EPA metadata requirements. Each file must include an attribute name for each unit or subunit submitted. Consult EPA's geospatial policies and standards on attribute identification and naming. Spatial data Respondent submits does not, and is not intended to, define the Facility boundaries.

300. Respondent's responsible officials must sign all deliverables that are submitted pursuant to this CAFO, and the deliverables must contain the following statement:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Title: _____

Date: _____

XI. AGENCY APPROVALS/MODIFICATIONS

301. **EPA Approvals – Initial Submissions.** After review of any deliverable that is required to be submitted for EPA approval under this CAFO, EPA will (i) approve the submission, in whole or in part; (ii) approve the submission upon specified conditions or requested modifications; (iii) disapprove the submission, in whole or in part; (iv) disapprove the submission with comments, conditions, or modifications; or (v) any combination of the foregoing. EPA may also meet with Respondent to discuss comments and necessary revisions prior to taking action on a deliverable.

302. EPA also may modify the initial submission to cure deficiencies in the submission if (i) EPA determines that disapproving the submission and awaiting a resubmission would cause disruption to the work required by this CAFO; or (ii) previous submission(s) have been disapproved due to material defects and the deficiencies in the initial submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

303. **Resubmission.** Subject to the Dispute Resolution process found in Section XV (Dispute Resolution), Respondent shall revise any submittal in accordance with the EPA's written comments. Respondent shall submit to the EPA any revised submittals in accordance with the due date specified by the EPA. Revised submittals are subject to this Section XI (Agency Approvals/Modifications). If Respondent does not provide a revised submittal by the due date, Respondent shall be in violation of this CAFO as of the due date. If the revised submittal is received timely, but is later disapproved by the EPA, Respondent shall be in violation of this CAFO from the date Respondent receives the EPA's written disapproval.

304. **Implementation.** Upon receipt of the EPA's written notification of approval, approval with conditions, or modification, Respondent shall commence work and implement

any approved, approved with conditions, or modifications in accordance with the schedule and provisions contained within the EPA's notification. Any EPA-approved, approved with conditions, or modified submittal, report, work plan, specification, or schedule shall be deemed incorporated into this CAFO. Prior to this written approval, approval with conditions, or modification, no submittal, work plan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute an official approval nor shall any oral approval or oral assurance of approval be considered binding.

XII. ADDITIONAL WORK

305. EPA may determine, or Respondent may propose, that certain tasks in addition to or in lieu of the tasks described in this CAFO are necessary to ensure compliance with the closure and groundwater corrective action performance standards in 40 C.F.R. Part 257, Subpart D or the work required by this CAFO. Any such determination or proposal will specify, in writing, the basis for the determination or proposal. No determination or proposal delays performance of any work required by this CAFO, and such a determination or proposal is not effective until it is final.

306. Within 14 days or according to an agreed upon alternate schedule, Respondent and EPA may meet or confer to discuss any additional task. Respondent shall submit for EPA approval a work plan for any additional work. Such work plan shall be submitted within 10 days of Respondent's receipt of the EPA's determination that additional work is necessary, with its determination of the need for additional work or according to an alternative schedule established by the EPA. Subject to the Dispute Resolution procedures of this CAFO, upon approval of a work plan, Respondent shall implement the work plan for the additional work in accordance

with the schedule and provisions contained therein. The work plan for any additional work shall be incorporated by reference into this CAFO once it is approved by EPA signed by both Parties.

XIII. MODIFICATIONS

307. This CAFO may be modified only by mutual agreement of the Parties. Except as provided below, any agreed modifications shall be in writing, signed by all Parties, shall be effective on the date of signature by EPA, and shall be incorporated into this CAFO.

308. EPA's Project Officer may modify any work plan, schedule, or scope of work in writing or by oral direction. EPA will promptly memorialize any oral modification, but such a modification's effective date is the date of EPA's Project Officer's oral direction.

309. If Respondent seeks permission to deviate from the requirements of any approved work plan, schedule, or scope of work, Respondent shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from EPA's Project Manager.

310. No informal advice, guidance, suggestion, or comment by EPA's Project Manager or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing Respondent submits shall relieve Respondent of its obligation to obtain any formal approval this CAFO requires or to comply with all this CAFO's requirements, unless it is modified in writing pursuant to this Section.

XIV. DELAY IN PERFORMANCE/STIPULATED PENALTIES

311. Respondent shall be liable to EPA for stipulated penalties in the amounts set forth in this Section for failure to comply with the requirements of this CAFO as specified below, unless excused under Section XVI (*Force Majeure*). "Comply," as used in the previous sentence, includes Respondent's compliance with all applicable requirements of this CAFO

within the deadlines established under this CAFO. If (i) an initially submitted or resubmitted deliverable contains a material defect, and the conditions are met for modifying the deliverable, or (ii) a resubmitted deliverable contains a material defect; then the material defect constitutes a lack of compliance for purposes of this Paragraph.

312. **Stipulated Penalty Amounts.** The following stipulated penalties shall accrue per violation per day for failure to timely or adequately comply with any of the work required by the Compliance Plan:

Period of Noncompliance	Penalty Per Violation Per Day
1st through 14th day	$ 500.00
15th through 30th day	$ 750.00
31st day and beyond	$ 1,000.00

313. All penalties shall begin to accrue on the day after the complete performance or a deliverable is due or the day a violation occurs and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. Penalties shall continue to accrue during any dispute resolution period and shall be paid within 15 days after the agreement or the receipt of EPA's decision or order. However, stipulated penalties shall not accrue (i) with respect to a deficient submission under Section XI entitled Agency Approvals/Modifications, during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency, or (ii) with respect to a decision under Section XV entitled Dispute Resolution, during the period, if any, beginning the 21st day after the Negotiation Period begins until the date that EPA issues a final decision regarding such

dispute. Nothing in this CAFO shall prevent the simultaneous accrual of separate penalties for separate violations of this CAFO.

314. Following EPA's determination that Respondent has failed to comply with a requirement of this CAFO, EPA may provide written notification of such noncompliance to Respondent. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue regardless of whether EPA has notified Respondent of a violation.

315. All penalties accruing under this Section shall be due and payable to EPA within 30 days after Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the Dispute Resolution provisions within the 30-day period.

316. If Respondent fails to pay stipulated penalties when due, Respondent shall pay interest on the unpaid stipulated penalties as follows: Interest shall begin to accrue on any unpaid stipulated penalty balance beginning on the 31st day after Respondent's receipt of EPA's demand. Interest shall accrue at the Current Value of Funds Rate the Secretary of the Treasury has established. Pursuant to 31 U.S.C. § 3717, an additional penalty of 6% per annum on any unpaid principal shall be assessed for any stipulated penalty payment that is overdue for 90 or more days. In addition, a handling fee of $15 per month shall be assessed beginning on the 31st day after Respondent's receipt of EPA's demand.

317. All payments to EPA under this Section shall indicate that the payment is for stipulated penalties and shall be paid to "Treasurer, United States" by Automated Clearinghouse (ACH) to

U.S. Environmental Protection
Fines and Penalties
Cincinnati Finance Center
PO Box 979077

St. Louis, Missouri 63197-9000

318. Payments shall include a reference to the name of the Facility, Respondent's name and address, the EPA docket, and the site identification number of this action. A copy of the transmittal request shall be sent simultaneously to the EPA Project Officer and to the EPA Cincinnati Finance Office by email at cinwd_acctsreceivable@epa.gov or by mail to:

EPA Cincinnati Finance Office
26 W. Martin Luther King Drive
Cincinnati, Ohio 45268

319. The payment of penalties and interest, if any, shall not alter in any way Respondent's obligation to complete the performance of work required under this CAFO.

320. Nothing in this CAFO shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this CAFO or of the statutes and regulations upon which it is based, including but not limited to 42 U.S.C. § 6928(h)(2); however, EPA shall not seek civil penalties pursuant to 42 U.S.C. § 6928(h)(2) for any violation for which a stipulated penalty is provided in this CAFO, except in the case of a willful violation of this CAFO.

321. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this CAFO.

XV. DISPUTE RESOLUTION

322. The Parties shall use their best efforts to informally and in good faith resolve all disputes or differences of opinion. The Parties agree the procedures contained in this Section are the sole procedures for resolving disputes arising under this CAFO.

323. **Informal Dispute Resolution.** If Respondent objects to any EPA action taken pursuant to this CAFO, it shall notify EPA's Project Manager in writing of its objection(s) within 14 days after such action. EPA and Respondent shall have 21 days from EPA's receipt of Respondent's written objection(s) to resolve the dispute through informal negotiations (the "Negotiation Period"). The Negotiation Period may be modified by EPA. Any agreement the Parties reach pursuant to this Section shall be in writing and signed by a delegated representative from each Party. If necessary, any modification to this CAFO shall be done in accordance with the procedures set forth in the Section XIII (Modification) of this CAFO.

324. **Formal Dispute Resolution.** If the Parties are unable to reach an agreement within the Negotiation Period, Respondent may submit a statement of position to EPA's Project Officer within 21 days after the end of the Negotiation Period, including, but not limited to, the specific points of the dispute, the position Respondent claims should be adopted as consistent with the requirements of this CAFO, the basis for Respondent's position, any factual data, analysis, or opinion supporting that position and any supporting documentation relied upon by Respondent.. EPA may, within 14 days thereafter, submit a statement of position. Following receipt of both statements of position, the Director of the Enforcement and Compliance Assurance Division, EPA Region 5, will issue a final written decision resolving the dispute, which must set forth the basis for the EPA's decision. Respondent agrees such decision shall not be appealed further and it shall be incorporated into and become an enforceable element of this CAFO.

325. During the pendency of the dispute resolution process, unless there has been a written modification by the EPA of a compliance date, or excusable delay as defined in Section XVI (*Force Majeure*), the existence of a dispute as defined in this Section and the EPA's

consideration of matters placed into dispute shall not excuse, toll, or suspend any compliance obligation or deadline required by this CAFO that is not directly in dispute. Except as provided in herein, stipulated penalties with respect to the disputed matter shall continue to accrue but payment shall be stayed pending resolution of the dispute. Notwithstanding the stay of payment, stipulated penalties shall accrue from the first day of noncompliance with any applicable provision of the CAFO. In the event that Respondent does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section XIV entitled Delay in Performance/Stipulated Penalties. If Respondent prevails on the disputed issue, no penalties shall be payable.

XVI. FORCE MAJEURE

326. "*Force majeure*," for purposes of this CAFO, is any event arising from causes not reasonably foreseen beyond the control of Respondent, or any person or entity controlled by Respondent, including by not limited to Respondent's contractors, that delays or prevents the performance of any obligation under this CAFO despite Respondent's best efforts to fulfill the obligation. The requirement that Respondent exercise "best efforts to fulfill such obligation" includes using best efforts to anticipate any potential *force majeure* and best efforts to address the effects of any potential *force majeure* (a) as it is occurring, and (b) following the potential *force majeure*, such that the delay and any adverse effects of the delay are minimized to the greatest extent possible. "*Force majeure*" does not include financial inability to complete the work required by this CAFO.

327. If any event occurs or has occurred that may delay the performance of any obligation under this CAFO, whether or not caused by a *force majeure* event, Respondent shall notify EPA Project Manager orally or, in his or her absence, the Complainant, within seven days

of when Respondent first knew that the event might cause a delay. Within seven days thereafter, Respondent shall provide a written explanation to EPA of the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; Respondent's rationale for attributing such delay to a *force majeure*; and a statement as to whether, in the opinion of Respondent, such event may cause or contribute to an endangerment to public health or welfare, or the environment. Respondent shall include with any notice available documentation supporting its claim that the delay was attributable to a *force majeure*. Respondent shall be deemed to know of any circumstance of which Respondent, any entity Respondent controls, or Respondent's contractors knew or should have known. Failure to comply with the above requirements regarding an event shall preclude Respondent from asserting any claim of *force majeure* regarding that event unless such failure is waived by the EPA at its discretion. Respondent shall be deemed to have notice of any circumstances of which its contractors had or should have had notice. If the EPA determines that the delay or anticipated delay is attributable to a *force majeure* event, the time for performance of such obligation under this CAFO that is affected by the *force majeure* event will be extended by the EPA for such time as the EPA determines is necessary to complete such obligation. An extension of the time for performance of such obligation affected by the *force majeure* event shall not, of itself, extend the time for performance of any other obligation, unless Respondent can demonstrate that more than one obligation was affected by the *force majeure* event.

328. If EPA agrees that the delay or anticipated delay is attributable to a *force majeure*, EPA will notify Respondent in writing of the length of the extension, if any, for performance of

the obligations the *force majeure* affects. If EPA does not agree that a *force majeure* caused or will cause the delay or anticipated delay, EPA will notify Respondent in writing of its decision.

329. If Respondent elects to invoke the Dispute Resolution procedures regarding EPA's decision, Respondent shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Respondent shall have the burden of demonstrating by a preponderance of the evidence that a *force majeure* has caused or will cause the delay or anticipated delay, that the duration of the delay or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay, and that Respondent complied with the requirements of this Section. If Respondent carries this burden, the Respondent shall be deemed not to have violated the affected obligation(s) of this CAFO identified to EPA.

330. Respondent may seek relief under this Section if EPA's review and approval is required and EPA's action or inaction prevents Respondent from meeting one or more deadlines. EPA's failure to timely complete a review required by this CAFO is not a violation of the CAFO.

XVII. RESERVATION OF RIGHTS

331. Notwithstanding any other provisions of this CAFO, EPA retains all of its authority to take, direct, or order any and all actions necessary to protect human health or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants, or contaminants, hazardous or solid waste, or constituents of such wastes, on, at, or from the Facility, including but not limited to the right to bring enforcement actions under RCRA, CERCLA, and any other applicable statutes or regulations.

332. EPA reserves all its statutory and regulatory powers, authorities, rights, and remedies, both legal and equitable, that may pertain to Respondent's failure to comply with any of the requirements of this CAFO.

333. This CAFO shall not be construed as a covenant not to sue, release, waiver, or limitation of any rights, remedies, powers, claims, and/or authorities, civil or criminal, which EPA has under RCRA, CERCLA, or any other statutory, regulatory, or common law authority of the United States.

334. This CAFO is not intended to be, nor shall it be construed to be, a permit. Respondent acknowledges and agrees that EPA's approval of the work and/or any work plan does not constitute a warranty or representation that the work and/or work plan will achieve the performance standards for closure and corrective action. Respondent's compliance with this CAFO shall not relieve Respondent of its obligations to comply with RCRA or any other applicable local, state, or federal laws or regulations.

335. Respondent agrees not to contest this CAFO, or any EPA action or decision taken pursuant to this CAFO, including without limitation, decisions of the Regional Administrator, Director of EPA's Enforcement and Compliance Assurance Division or any authorized representative of EPA prior to EPA's initiation of a judicial action to enforce this CAFO, including an action for penalties or an action to compel Respondent's compliance with this CAFO. In any action EPA may bring for violation of this CAFO, Respondent shall bear the burden of proving that EPA's actions were arbitrary and capricious and not in accordance with law.

XVIII. OTHER CLAIMS

336. By issuing this CAFO, EPA assumes no liability for injuries or damages to persons or property resulting from any acts, errors, or omissions of Respondent. EPA will not be deemed a party to any contract, agreement, or other arrangement Respondent or its officers, directors, employees, agents, successors, assigns, heirs, trustees, receivers, contractors, or consultants may enter in carrying out actions pursuant to this CAFO.

337. Each Party will bear its own litigation costs.

338. In any subsequent administrative or judicial proceeding EPA initiates for injunctive or other appropriate relief relating to the Facility, Respondent shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, *res judicata*, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims the United States raises in the subsequent proceeding were or should have been raised in the present matter.

339. The Parties consent to service of this CAFO by e-mail at the following valid e-mail addresses: Richard J. Clarizio, clarizio.richard@epa.gov (for Complainant), and Deborah.williams@cwlp.com (for Respondent). Respondent understands that the CAFO will become publicly available upon filing.

340. Notwithstanding 40 C.F.R. § 22.31(a), this CAFO does not resolve any civil or criminal claims for the violations alleged in this CAFO, including claims for civil penalties pursuant to Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), as adjusted by 40 C.F.R. Part 19. In accordance with Section 3008(a) of RCRA, 42 U.S.C. § 6928(a), issuance of this CAFO does not preclude EPA from assessing penalties, obtaining injunctive relief, or taking any other action authorized under RCRA, or other applicable federal laws or regulation. This CAFO does not affect the obligation of Respondent to comply with all federal, state, and local statutes, regulations, and permits.

341. This CAFO does not affect the right of EPA or the United States to pursue appropriate injunctive or other equitable relief or criminal sanctions for any violations of law.

342. This CAFO does not affect Respondent's responsibility to comply with RCRA and other applicable federal, state, local laws or permits.

343. Failure to implement or complete the requirements of this CAFO may subject Respondent to penalties under Section 3008(c) of RCRA, 42 U.S.C. § 6928(c) in addition to stipulated penalties contained in this CAFO.

344. Respondent agrees not to contest this CAFO, or any EPA action or decision taken pursuant to this CAFO, prior to EPA's initiation of a judicial action to enforce this CAFO. Respondent shall bear the burden of proving that EPA's actions were arbitrary and capricious and not in accordance with law.

345. Notwithstanding any other provisions of this CAFO, EPA retains all its authority to take, direct, or order any and all actions necessary to protect human health or the environment.

346. This CAFO is a "final order for purposes of 40 C.F.R. § 22.31," EPA's RCRA Civil Penalty Policy, and EPA's Hazardous Waste Civil Enforcement Response Policy (December 2003).

347. The terms of this CAFO bind Respondent, its successors, and assigns.

348. Each person signing this CAFO certifies that he or she has the authority to sign for the party whom he or she represents and to bind that party to its terms, except that this CAFO is not binding unless signed by the Mayor of Springfield on behalf of Respondent as a division of the City of Springfield.

349. Each party agrees to bear its own costs and attorney's fees in this action.

350. This CAFO and Attachments 1 through 4 constitute the entire agreement between the parties. Attachments 1 through 4 are incorporated by reference into this CAFO.

XIX. INDEMNIFICATION

351. Respondent shall indemnify, save, and hold harmless the United States, its officials, agents, contractors, subcontractors, employees, and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts, errors, or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on Respondent's behalf or under their control, in carrying out actions pursuant to this CAFO. In addition, Respondent agrees to pay the United States all costs the United States incurs, including but not limited to attorneys' fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors, and any persons acting on their behalf or under their control, in carrying out activities pursuant to this CAFO. The United States shall not be held out as a party to any contract Respondent enters or which is entered on Respondent's behalf in carrying out activities pursuant to this CAFO. Neither Respondent nor any such contractor shall be considered an agent of the United States.

352. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

353. Respondent agrees not to assert any claims or causes of action against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between

Respondent and any person for performance of work on or relating to the Facility, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any, and all, claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Facility, including, but not limited to, claims on account of construction delays.

XX. EFFECTIVE DATE AND TERMINATION

354. The Effective Date of this CAFO is the date that the signed Final Order is filed with the Regional Hearing Clerk.

355. This CAFO shall be deemed satisfied upon Respondent's and EPA's execution of an "Acknowledgment of Termination and Agreement to Record Preservation and Reservation of Rights" ("Acknowledgment of Termination"). EPA will prepare the Acknowledgment of Termination for Respondent's signature. The Acknowledgment of Termination will specify that Respondent has demonstrated to the satisfaction of EPA that this CAFO, including any additional activities EPA determines are required pursuant to this CAFO, have been satisfactorily completed. Respondent's execution of the Acknowledgement of Termination will affirm Respondent's continuing obligation to preserve all records as required in Section IX (Record Retention) and to agree and acknowledge EPA's Reservation of Rights as required in Section XVII.

XXI. SURVIVABILITY/PERMIT INTEGRATION

356. Except as otherwise expressly provided in this Section, this CAFO shall survive the issuance or denial of any RCRA permit for the Facility, and this CAFO shall continue in full force and effect after either the issuance or denial of such permit. Accordingly, Respondent shall

continue to be liable for the performance of obligations under this CAFO notwithstanding the issuance or denial of such permit. If the Facility is issued a RCRA permit by EPA or a State authorized to implement an equivalent CCR program and that permit expressly incorporates all or any part of the work required by this CAFO and approved by EPA, Respondent may request a modification or termination of this CAFO or the applicable portion of this CAFO and shall, with EPA approval, be relieved of liability under this CAFO for those specific obligations. Respondent is not relieved of any obligation until it receives a written correspondence from EPA approving of all or part of the Respondent's request.

XXII. INTEGRATION/ATTACHMENTS

357. This CAFO and its Attachments constitute the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this CAFO. The Parties acknowledge that there are no representations, agreements, or understandings relating to the settlement other than those expressly contained in this CAFO. The following Attachments are incorporated into this CAFO:

Attachment 1 - Surface Impoundments: Assessment of Corrective Measures and Final Remedy Report.

Attachment 2 – Surface Impoundments and Landfill Unit 2: Design and Operation Criteria.

Attachment 3 – Surface Impoundments: Closure and Post-Closure Requirements.

Attachment 4 – Landfill Unit 2: Closure and Post-Closure Requirements.

In the Matter of: City of Springfield
Docket No. RCRA-05-2025-0015

1/8/2025
Date

Misty Bushcher
Mayor, City of Springfield, Illinois

United States Environmental Protection Agency, Complainant

MICHAEL HARRIS
Digitally signed by MICHAEL HARRIS
Date: 2025.01.13 09:18:53 -06'00'

Michael D. Harris
Division Director
Enforcement and Compliance Assurance Division

In the Matter of: City of Springfield
Docket No. RCRA-05-2025-0015

Final Order

This Consent Agreement and Final Order, as agreed to by the parties, shall become effective immediately upon filing with the Regional Hearing Clerk. This Final Order concludes this proceeding pursuant to 40 C.F.R. §§ 22.18 and 22.31. IT IS SO ORDERED.

ANN COYLE Digitally signed by ANN COYLE Date: 2025.01.14 10:45:20 -06'00'

Ann L. Coyle
Regional Judicial Officer
United States Environmental Protection Agency
Region 5

Consent Agreement and Final Order
Attachment 1
Surface Impoundments
Assessment of Corrective Measures and Final Remedy Report

The Assessment of Corrective Measures must include the following:

1. Information on the CCR unit dimensions, the volume of waste, its spatial location in relation to groundwater before and after closure, and the site hydrogeology, including the uppermost aquifer thickness, the groundwater flow direction and velocity, and the geologic units.

2. A characterization of the nature and extent of the releases of all appendix IV constituents detected at a statistically significant level above the groundwater protection standards based on the federal groundwater monitoring network identified in the Compliance Plan section of the Consent Agreement and Final Order (CAFO). This must also include an evaluation of whether contaminants are migrating past Sugar Creek.

3. An evaluation of whether the "abandoned creek" beneath the Dallman Ash Pond and the landfill to the east of the ash pond acts as a preferential pathway for contaminants.

4. Groundwater elevation data and information regarding groundwater elevation relative to the base elevation of the CCR units.

5. If CCR is expected to be in contact with groundwater after closure, an analysis, with supporting documentation, of how contaminant transport from the unit will be controlled.

6. An analysis, with adequate documentation, related to the feasibility, without regard to cost, of waste consolidation, removal of CCR for beneficial use, permeable reactive barriers, phytoremediation, and pump and treat.

7. Data collected on the nature and estimated quantity of material released including specific information on the constituents listed in Appendix IV of 40 C.F.R. Part 257, Subpart D and the levels at which they are present in the material released.

8. If natural attenuation or groundwater polishing is considered, it must be supported by a technical analysis demonstrating that attenuation is occurring. It must also include a discussion of the monitoring that will be conducted in connection with the attenuation/groundwater polishing. At a minimum, the technical analysis should include the following:

    a. Whether the specific constituents released and present in soil or groundwater can be effectively remediated by natural attenuation processes (i.e., immobilization);

    b. Which attenuation processes are occurring to immobilize those constituents at the site;

    c. Whether site conditions support the identified attenuation mechanism

(immobilization) for each released constituent;

d. Whether the source of contamination has been, or can be, adequately controlled;

e. Whether there is capacity to attenuate the entire release; and

f. Whether the estimated timeframe for remediation is reasonable compared to timeframes required for other more active methods.

9. An evaluation of whether flood events present an ecological risk to Sugar Creek.

The Final Remedy Report must include the following information if closure, without removal of the CCR wastes (*i.e.*, closure in-place), is evaluated as part of the Final Remedy Report:

1. A discussion of whether the clarification pond will be drained as part of the final remedy and, if not, its impact on the potential release of CCR constituents from the surface impoundments.

2. A description of how the cap is designed to withstand a 1,000-year storm event.

3. If groundwater is expected to intersect the base of the unit after closure, the Final Remedy Report must discuss measures to control, minimize, or eliminate, to the maximum extent feasible, groundwater infiltration.

4. Sufficient information to document the structural stability of the dike berms and underlying soils of the surface impoundment.

5. A closure schedule describing the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies, the dewatering and stabilization phases of CCR surface impoundment closure, installation of the final cover system, and the estimated timeframes to complete each step or phase of CCR unit closure.

6. Details on the pumping structures used to dewater the unit and information on how CWLP will determine that free liquids have been removed from the impoundments. If pumping is part of preconstruction dewatering and not a continuous hydraulic control measure, provide information on whether regional groundwater will saturate CCR after closure is complete.

7. Information demonstrating that the CCR left in place will be stable over the long term, including any geotechnical calculations or parameters used to demonstrate sufficient stabilization.

8. Slope stability assessments should consider any soil loading from the addition of fill to provide a foundation layer for the cover system and the addition of any soil used in the cover system.

9. Evaluation of the potential settlement of CCR and soils associated with the final cover placement demonstrating that placement of additional fill and the cover system will not result in slopes less than 2 percent after settlement occurs.

10. Plan view drawings demonstrating that the cover system will cover the full extent of the area where CCR has been stored within the unit.

11. Information demonstrating that the proposed drainage layer can effectively transmit liquid.

12. Information demonstrating that the perimeter drainage ditches provide adequate hydraulic capacity to drain the cover, including sufficient capacity to drain a 1,000-year storm event.

13. Construction specifications detailing products to be used and means and methods of their installation and testing, including field testing and inspections.

14. Any groundwater modeling used to support the decision to close with waste left in place must include inputs that accurately represent whether the CCR (the source) resides within the uppermost aquifer. If CCR is anticipated to be in communication with groundwater after completion of closure (*i.e.*, post-closure), the model must:

    a. Simulate a scenario where CCR waste is in contact with the uppermost aquifer, and

    b. Characterize existing and predicted flow conditions in the uppermost aquifer.

Consent Agreement and Final Order
Attachment 2
Surface Impoundments and Landfill Unit 2
Design and Operation Criteria

I. Surface Impoundments

Respondent's revised Periodic Hazard Potential Classification Assessment, Structural Stability Assessment, Safety Factor Assessment, and Inflow Design and Flood Control Plan for the surface impoundments will incorporate all relevant supporting documentation, including, but not limited to, the relevant data contained within its June 28, 2024, "Geotechnical Investigation Report – Unstable Areas Demonstration, Safety Factor and Liquefaction Analysis for CCR Surface Impoundments" and the following:

1. The Periodic Hazard Potential Classification Assessment shall be revised in accordance with 40 C.F.R. §§ 257.73(a)(2)(i) to reflect that the surface impoundments are significant hazard units. It shall include a certification that complies with 40 C.F.R. §§ 257.73(a)(2)(ii).

2. The Periodic Structural Stability Assessment shall be revised in accordance with 40 C.F.R.§ 257.73(d) and address the following:

    a. It shall evaluate the foundations of the Lakeside and Dallman units utilizing borings and shall

        i. Evaluate the potential for soft or potentially liquefiable materials under the embankments to cause potential structural stability issues, and

        ii. Confirm that the areas where the dike system coincides with the historic meandering Sugar Creek do not contain soft sediments that could lead to a structural stability issue.

    b. Evaluate the adequacy of the wave protection around the perimeter of the impoundments and provide supporting documentation for the evaluation.

    c. Use compaction data or borings to verify that the dikes have been constructed using mechanical compaction techniques to a sufficient density to withstand the range of loading conditions the units may potentially experience.

    d. Provide for dike mowing practices at the Lakeside and Dallman Ash Ponds to maintain vegetation at a reasonable height (typically less than 6 to 12 inches) and allow for the visual inspection of the slopes on a regular basis (*i.e.*, daily, monthly, and annual inspections).

    e. For the presently existing spillway structures, Respondent shall conduct a camera inspection to determine the structural integrity of the structures and that

they are able to manage the peak discharge generated by the 1,000-year storm event. The inspection shall be conducted such that the Respondent can attest that the spillway structures are free of significant deterioration, deformation, distortion, bedding deficiencies, sedimentation, and debris that may negatively affect the operation of the hydraulic structure. If the inspection demonstrates issues related to the spillway structural integrity, the Respondent shall fix those issues and submit documentation of the fixes. The Respondent shall include a schedule for future inspections of these structures.

f. Discuss and document the repairs made to address periodic seepage and erosion ruts and gullies on the north and west outer berms of the surface impoundments.

g. Discuss the adequacy of the dikes to resist the rapid drawdown of adjacent water bodies.

h. Include a certification that complies with 40 C.F.R. § 257.73(d)(3).

3. The Periodic Safety Factor Assessment shall be revised in accordance with 40 C.F.R. § 257.73(e) and address the following:

   a. Evaluate the stability of the impoundments based on existing conditions including the following:

      i. Utilize data collected from subsurface investigations conducted contemporaneously and within a timeframe that represents existing conditions;

      ii. Provide borings of the dike system to characterize the soils, assess the in-situ strength, and determine water levels within the dike system using piezometers;

      iii. Target potential weak areas of the dike system such as areas where the former meandering Sugar Creek coincides with the dike system;

      iv. Collect undisturbed soil samples for all cohesive soil layers and conduct laboratory testing to determine drained and undrained strength parameters;

      v. Model existing conditions utilizing recent topography including the stockpiles of material placed adjacent to the dike system that may destabilize the slope; and

      vi. Include a liquefaction analysis to determine if layers within the dike system have the potential for liquefaction. For such layers identified as having the potential to liquefy, conduct further

analysis to assess and determine soil layer susceptibility to liquefaction.

b. Provide data collected from vibrating wire piezometers. Provide the result of the Seep/W analysis and compare this with the piezometer data.

    i. For the Seep/W analysis, all the Ky'/Kx' ratios were set to 1. Provide an explanation of why "1" was chosen.

    ii. Resolve differences between the vibrating wire piezometers and Seep/W analysis and utilize the resultant water levels in stability analyses.

c. Provide consistent values in the report text for the undrained parameters and for CPT data of the following layers: Gray Silty Clay, Brown Silty Clay, Silty Clay Fill, and Silty Clay layers.

    i. Modeled Cross Section D-D' is not consistent with borings, see CPT-4L, where undrained shear strengths of less than 400 psf were found. Correct discrepancy or provide an explanation as to why the inconsistency is present.

    ii. Utilize current state of the practice procedures to determine the undrained strength of soft clay. This would require utilizing the stress history of the soil and determining the undrained strength based on the over consolidation ratio profile (Mayne, 2007).

    iii. Provide a description or explanation in the report narrative on how Vane Shear Test (VST) tests were utilized in the analysis.

    iv. Address the strength of the clays and the relation to disturbance as determined by the testing completed.

d. Include strength parameters utilized in the Long-Term analyses for both the Lakeside Ash Pond and the Dallman Ash Pond and explain how they are justified based on the soil laboratory test results. Summarize testing results for each layer and provide justification for the strengths utilized in the analyses based on the data collected including SPT, CPT, Shear Vane, and Laboratory Tests and the methodology used to define representative but adequately conservative strength parameters for each layer (*i.e.*, utilizing the lowest value of the lab tests or evaluating a statistical confidence interval if sufficient data exists for each layer).

e. Analyze and evaluate both circular and block-type failure surface geometries and a wide range of sizes in the analyses to identify the critical failure surface geometry. Block failure may control where planar layers of low strength material exist.

f. Perform a seismic displacement analysis to evaluate if deformations would be tolerable for an earthen dike if the factor of safety for the Seismic Case is near 1 or less than 1 after the correction to the undrained strengths is made and a block failure analysis is performed.

g. Complete an assessment of whether there is adequate slope protection to protect against adverse effects of a sudden drawdown of nearby and adjacent water bodies as required by 40 C.F.R. § 257.73(d)(1)(ii).

h. For seismic analyses, evaluate the potential seismic acceleration of the dikes themselves instead of the Maximum Horizontal Acceleration of Rock utilizing a methodology such as the procedure outlined by Makdisi and Seed (Makdisi, F. I., and Seed, H. B. 1978). Simplified procedures for estimating dam and embankment earthquake induced deformations. Journal of the Geotechnical Engineering Division-ASCE, 104, 849-867.1978) or other methods.

i. Include a certification that complies with 40 C.F.R. § 257.73(d)(3).

4. The Inflow Design Flood Control System Plan shall be revised in accordance with 40 C.F.R. § 257.82(c) and address the following:

a. Evaluate the site for the 1,000-year storm event in accordance with 40 C.F.R. 257.82(a)(3)(ii). Utilize current topography and current stage storage relationships for the ponded areas of the impoundment.

b. Provide a description with the hydraulic analysis that includes a description of what each component of the model represents.

i. Explain the source of the hydraulic outlet structure ratings.

ii. Provide the hydraulic structure rating for the Lakeside Ash Pond discharge structure and the discharge structure from the third lime pond.

iii. Describe topography used for stage-storage for current conditions at each impoundment.

c. Discuss if structure ratings include overflowing the embankment during the 1,000-year storm event as part of that structure capacity for the Dallman Ash Pond, Lakeside Ash Pond, and the clarification pond.

d. Calculate peak elevation in comparison to the maximum elevation of the ponds' ability to impound water during storm events.

e. Include a certification that complies with 40 C.F.R. § 257.82(c)(5).

II. Unit 2

Respondent revised Run-on/Run-off System Control Plan for Unit 2 will comply with 40 C.F.R. § 257.81(c) and the following:

1. Include a discussion on how storm water is being diverted from ditches flowing from Unit 2 to the clarification pond instead of the Dallman Ash Pond.

2. Include a discussion on how pumps will be designed and operated to manage the designed storm event.

3. Re-evaluate the 1994 calculations and update the model conditions to ensure the conditions modeled are a current representation of site geometry and weather conditions.

4. Explain the discrepancy of the ditch flow direction information presented in Sheet B1-11 that was provided in the February 19, 2024, response to USEPA's Proposed Injunctive Relief, which does not appear to agree with the analysis sketch provided in Sheet 1 of 7 of the Run-on/Run-off System Control Plan, where water appears to flow to the southeast corner of the site. B1-11 shows an outlet in the northwest and southwest corners of the landfill and no structure in the southeast corner.

5. Include a certification that complies with 40 C.F.R. § 257.81(c)(5).

Consent Agreement and Final Order
Attachment 3
Surface Impoundments
Closure and Post-Closure Requirements

If the surface impoundments closure and post-closure plans allows for leaving CCR in place, then it must include a description of how the final cover system will meet the performance standards specified in 40 C.F.R. § 257.102, the post-closure requirements in 40 C.F.R. § 257.104, and the following:

I. Closure Plan

1. A narrative describing how the unit will be closed or how the cover will be designed to meet the requirements of 40 C.F.R. § 257.102(b) and (d).

2. A description of and supporting documentation of how, if at all, Lake Springfield, Lakeside Ash Pond, and the clarification pond directly downgradient of the Dallman Ash Pond may effect groundwater elevation after a final cover system is in place.

3. All construction drawings must include detailed information regarding the construction of the final cover system.

4. An assessment of how liquids could migrate into the unit after a final cover system has been installed. This should include an examination of both the horizontal and lateral migration of water into the unit after the final cover system is installed.

5. A design sufficient to withstand a 1,000-year flood event.

6. A discussion of the permeability of the final cover system and how it will retard infiltration of precipitation into the unit and, if groundwater is anticipated to be in contact with CCR after the cover is in place, the plan shall identify and discuss engineering measures to control, minimize, or eliminate groundwater migration into the unit and the release of contaminated ground or surface waters from the unit.

7. Information demonstrating that there will not be sloughing or movement of the final cover system.

8. A closure schedule that describes the sequential steps that will be taken to close the unit, including identification of major milestones, including, but not limited to, the dewatering and stabilization phases. The schedule must include the estimated start date and timeframes to complete each step or phase.

9. A description of all methods for removing free liquids, including pumping structures, trenches, and other methods, along with a description of how CWLP will determine that free liquids have been removed prior to installing the final cover system and after placement of the final cover system.

10. A description of how the wastes and materials remaining in the units will be stabilized, including any geotechnical calculations or parameters used to demonstrate stabilization is sufficient to support the final cover system.

11. Supporting calculations and information that the final cover system will be designed and constructed consistent with recognized and generally accepted good engineering practices. For example, the plan should include, when appropriate:

    a. Cover material loads and stability calculations;

    b. Geotechnical information demonstrating that the final cover system will not reduce slope stability;

    c. Information regarding the potential settlement of CCR wastes and soils associated with the final cover placement to show that the cover slopes are not expected to be less than 2 percent after settlement;

    d. Drawings and cross sections showing the vertical and horizontal extent of CCR to demonstrate that the cap will cover the full extent of the CCR;

    e. Drawings and cross sections showing the extent of the protective soil layer necessary to support vegetation;

    f. Calculations demonstrating that the geocomposite drainage layer can effectively transmit liquid off the geomembrane;

    g. Calculations demonstrating that the perimeter drainage ditches can provide adequate capacity to drain the cover and maintain slope stability during storm events, including a 1,000-year storm event;

    h. Calculations supporting the size of any culverts used to support drainage;

    i. Construction specifications detailing products to be used and means and methods of their installation; and

    j. Provide for a Construction Quality Assurance Plan documenting the inspection, sampling, and testing activities to be performed, including field testing of permeability of all geomembrane layers, which should include

        i. Trial seams tested for peel strength and shear strength via ASTM International (ASTM) D 6392;

        ii. Non-destructive field seam continuity testing via ASTM D 5641, *Standard Practice for Geomembrane Seam Evaluation by Vacuum Chamber*, or ASTM D

5820, *Standard Practice for Pressurized Air Channel Evaluation of Dual-Seamed Geomembranes*;

iii. An organized, grid-based visual survey for geomembrane penetrations;

iv. Manufacturer requirements as needed to meet the manufacturer's warranty; and

v. A log to document where each test occurred.

II. Post-Closure Plan

1. Include the wells identified as part of the Surface Impoundment GWMS from the CAFO.

2. The post-closure monitoring necessary to meet the federal groundwater monitoring requirements and the CAFO.

3. Extending the assessment and corrective measures monitoring period until such time as the GWPS are met or work towards meeting GWPS.

4. Restrictions or institutional controls necessary to maintain the final cover and use of the property (*i.e.*, open space) and the integrity of the ground water monitoring system.

5. The post-closure maintenance of the leachate management system, including information on the components of the cover system that need to be inspected or maintained.

Consent Agreement and Final Order
Attachment 4
Landfill Unit 2
Closure and Post-Closure Requirements

The Landfill Closure and Post-Closure Plan will address the requirements of 40 C.F.R. §§ 257.102 and 104 and the following:

I. Closure Plan

1. A narrative describing how the unit will be closed or how the cover will be designed to meet the requirements of 40 C.F.R. § 257.102(b) and (d).

2. A schedule that provides sufficient information to describe the sequential steps that will be taken to close the CCR unit, including identification of major milestones such as coordinating with and obtaining necessary approvals and permits from other agencies or installation of the final cover system and the estimated timeframes to complete each step or phase of CCR unit closure.

3. An analysis of the potential impact of groundwater on the integrity of the liner and the potential for migration of contaminated leachate from the unit and steps that will be taken to address such migration.

4. The direction, location, and proper handling of discharges from the leachate collection system.

5. A discussion of the potential impoundment of water and leachate due to the placement of the liner; the discontinuance of the use the Dallman surface impoundment for leachate collection; and the operation and maintenance of the leachate management system.

6. The impact of run-on or run-off of surface waters and associated drainage devices for the entire full extent of the covered area.

7. Recently generated information on the slope of the unit and the run-on and run-off of a potential 1,000-year storm event.

8. A discussion on the potential for sloughing and movement of the final cover with technical support examining slope failure and seismic stability analysis that accounts for the final waste elevations, cap subgrade soils, and the final cap materials.

9. Updated geotechnical information on slope failure and seismic stability analysis that accounts for the final waste elevations, cap subgrade soils, and the final cap materials.

10. Discussion on how the cap will minimize, control, or eliminate, to the maximum extent possible, the post-closure infiltration of liquids or the release of leachate or CCR or the impoundment of waters.

Post-Closure Pan

1. Restrictions or institutional controls necessary to maintain the final cover and use of the property (*i.e.*, open space) and the integrity of the ground water monitoring system.

2. The post-closure maintenance of the leachate management system, including information on the components of the cover system that need to be inspected or maintained.

3. Inspection and maintenance tasks related to the cover system and the groundwater, performed at least semi-annually, with maintenance tasks performed as early as possible after an issue is identified.

4. Inspection tasks should consider the chemistry, volume, and frequency of leachate collected and pumped. Chemistry should include all Appendix III and IV constituents.

5. The post-closure monitoring necessary to meet the federal groundwater monitoring requirements and the CAFO.