BEFORE THE
ENVIRONMENTAL QUALITY COUNCIL
STATE OF WYOMING

IN THE MATTER OF	)
REVISIONS TO CHAPTERS 1 AND 2	)
AND ELIMINATION OF CHAPTERS	)
9 AND 15 OF THE SOLID WASTE	)
RULES AND REGULATIONS	)

STATEMENT OF PRINCIPAL REASONS FOR ADOPTION
DRAFT
August 1, 2016

Introduction

The Environmental Quality Council, pursuant to the authority vested in it by Wyoming Statutes §35-11-112(a)(i), is adopting revisions to Chapters 1 and 2 and eliminating Chapters 9 and 15 of the Solid Waste Rules and Regulations. These changes to the Solid Waste Rules and Regulations are being proposed pursuant to Wyoming Statutes §35-11-503.

Purpose and Intent of Proposed Revisions

The principal reasons for these changes are:

1. To reduce the number and length of the rules and eliminate obsolete, unnecessary and duplicative rules pursuant to the Governor's April 9, 2013 memo directing agencies to streamline their rules. This includes eliminating statutory information that is duplicated in the rules.

2. To simplify and streamline permitting for municipal solid waste landfills by consolidating related standards into individual sections of the rules that had historically been addressed in more than one section.

3. To eliminate Chapters 9 and 15 of the Solid Waste Rules which have been superseded by newer rules and are no longer needed.

General Summary of Proposed Changes to Chapter 1

1. The acreage limits for low hazard/low volume, exempt transfer facilities, and exempt facilities storing waste for transfer to a recycling facility have been expanded to facilitate additional waste management activities.

2. The definitions for Type I and Type II landfills have been deleted so that all landfills are uniformly regulated.

3. The rules now differentiate between cathode ray tubes (CRTs) and other electronic waste to facilitate increased recycling of general electronic waste.

4. The rules have been changed to address new statutory standards for facility access by the Department for regulatory purposes.

5. The rules were revised to clarify the process to terminate operating and closure permits and return financial assurance funds to facility operators.

6. The location standard variance process has been improved and clarified.

Detailed Summary of Proposed Changes to Chapter 1:

1. Terms defined in Wyoming Environmental Quality Act or not needed have been removed from the rule, including:

   a. Classification
   b. Composite Liner
   c. Cost effective
   d. Hazardous Wastes
   e. Land Treatment Facility
   f. Land Farm Facility
   g. Leachate
   h. Lifetime
   i. Municipality
   j. Person
   k. Solid Waste
   l. Solid Waste Management Facility
   m. State or Federal Highway
   n. Type I and Type II Municipal Landfill

   A Type II municipal landfill is one that accepts less than 20 tons of waste per day, has no evidence of groundwater contamination, serves a community with no practicable waste management alternatives and is located in an area that receives less than 25 inches of precipitation annually. A Type I municipal landfill is one that does not meet all of these criteria. Historically, regulatory requirements were less stringent for Type II landfills. Type II landfills were not required to conduct their own liner evaluations, had less frequent routine cover requirements, had reduced monitoring requirements, and were not required to conduct statistical evaluations of their groundwater data.

   W.S. 35-11-526 and 35-11-527 were implemented by the legislature in 2011. These statutes treat all landfills alike by imposing performance based landfill design standards on all municipal solid waste landfills,

regardless of their Type. All of the landfills that will remain open will be Type I and will need to cover waste daily.

The Department has received comments that it is not equitable for the Department to conduct statistical evaluations for some operators and not others. As discussed below, the Department is proposing uniform groundwater monitoring requirements for all landfills because facility size is not indicative of the type of contaminants found in groundwater. Eliminating landfill Types will mean that all landfill operators will need to conduct their own groundwater statistical evaluations.

For these reasons, the regulatory distinction between landfills of different sizes is being eliminated.

2. Definitions of the following terms have been added or amended to address needs identified since the rules were initially written or that are needed to clarify new requirements such as MSWLF lifetime permits, annual reports, and performance based designs:

   a. Active life
   b. Active portion
   c. Clean fill (Moved this definition from the exemption section of the chapter.)
   d. Closure (Revised this definition to clarify the difference between the closure of a unit and the closure of a facility.)
   e. Constituents (Defined as the term is used for groundwater monitoring.)
   f. Construction/Demolition waste (Added “clean and treated” to the wood waste provision to be clear that construction/demolition waste may include both clean and treated wood.)
   g. Farming and ranching operation (Shortened this definition by referencing the definition of a confined animal feeding operation in the Water Quality Rules.)
   h. Low Hazard or Low Volume solid waste transfer, treatment, storage, and processing facility (Expanded from 5 to 10 acres the maximum facility size under this definition. Changed this definition to differentiate between cathode ray tubes, which may be considered hazardous waste under certain circumstances, and other electronic waste to facilitate recycling of electronic waste. Removed used oil and antifreeze text to shorten the definition.)
   i. Major Change (Reduced the number and type of items considered a major change to streamline the permit amendment process.)

j. Municipal solid waste landfill unit (Added “conditionally exempt” to the term “small quantity generator waste” because conditionally exempt small quantity generator waste may be disposed in a MSWLF, but small quantity generator waste may not.)

k. 100-year floodplain (Clarified that this means a geographic area.)

l. On-site decommissioning (Shortened this definition.)

m. Population (Defined as the term is used for statistical evaluations.)

n. Recycling facility (Added this definition to clarify the difference between facilities that accumulate materials for shipment to a recycling facility and facilities that actually recycle materials by using them to create a commercial product.)

o. Scrap tire (Revised this definition, based on 49 C.F.R. 570.9, for clarification and consistency.)

p. Solid waste petroleum storage tank (Shortened and clarified that this definition applies to both above ground and underground storage tanks.)

q. Used tire (Definition added to differentiate between used and scrap tires for determining compliance with regulatory scrap tire limits.)

3. Deleted unnecessary references to regulatory authority, applicability, the objective of the rules and the severability clause from Section 1.

4. Added “conditionally exempt small quantity waste generators to Section 1(e)(iv) to be consistent with 40 CFR 258.20(b).

5. Inspection requirements in Section 1(f) have been condensed and streamlined. Most inspections, other than those for municipal landfills with lifetime permits, will be at the discretion of the Administrator because an inspection is not warranted in every circumstance.

6. Former Section 1(j) was consolidated into the previous section on inspections. Text on conference and conciliation, permit denial, and noncompliance is not needed and was deleted.

7. Former Section 1(l), now (g), Exemptions has been condensed. Used oil requirements, which are already addressed in the Hazardous Waste Rules, were streamlined in Section 1(g)(ix). The exemption text for clean fill was shortened and the definition of clean fill moved into Section 1(b) with other definitions to make it easier to find.

8. In recognition that cathode ray tubes (CRTs) have become extremely difficult to recycle, CRTs have been separated from the procedures for managing the remainder of the electronic waste (e-waste) stream. CRTs, due to their lead content, are generally considered a hazardous waste. Managing CRTs separately from the rest of the e-waste will simplify e-waste management and promote

recycling of the remainder of the e-waste. This change was incorporated into the standards for exempt waste transfer facilities in Section 1(g)(x) and low hazard/low volume transfer stations in Section 1(b)(l)(C)(VIII) and (IX) and 1(b)(l)(E).

9. An exemption for household hazardous waste (HHW) collection days was added to Exemption Section 1(g)(xvi). HHW collection days have been fairly common around the state and permits have not been required. However, the rule needed to clarify that a permit is not needed if these are conducted no more than quarterly and waste is removed within 30 days.

10. Statutory exemptions were removed from Section 1(l)(xvi) and the rule was shortened by referencing the statute.

11. The definition of "time" is unnecessary and was removed from Section 1(m).

12. In Section 2(d)(i), Permit Issuance, text was added for Department access to inspect permitted facilities to address 2015, Senate Enrolled Act No. 61.

13. The construction notification and inspection standard in Section 2(d)(iii) was deleted because construction inspections are already addressed in Section 1(f).

14. Text throughout Chapter 1 was revised to include the submittal of electronic copies of permit applications in addition to the paper copies. The caveat "unless an alternative is approved by the Administrator" was added to be prepared if paper copies become unnecessary in the future.

15. The requirement for engineer certification of closure permits in 2(h)(ii) was moved to Section 4(d)(i)(A) with other closure permit termination standards.

16. W.S. 35-11-502(c) contains a variance process for solid waste facilities that is separate from the variance procedures in Article 6 of the Environmental Quality Act. The variance process for solid waste facilities in Section 2(i), (iv), and (v) was clarified by defining a review process with a time frame for Department reviews and a process for applicants to respond to deficiency notices. The public notice process in Section 2(vi) and (vii) was clarified so that it more closely follows the public participation process used to issue a solid waste permit.

17. Section 2(i)(iii) was edited to give the Director the authority to determine which changes to the facility may render the variance invalid. In the current rule, any change could render the variance invalid.

18. Duplicate text for permitting low hazard/low volume facilities in Section 2(j)(iv) was deleted and consolidated in Section 2(j)(iii).

19. Text describing the process for issuing a low hazard/low volume permit and setting a time for the Department to issue the permit was added to Section 2(j)(vi).

20. Section 4(d) was added to accommodate permit termination. When a facility closes, the operating permit needs to be terminated and a closure permit issued. When a post-closure period ends, closure permits need to be terminated. The rules had not previously defined how permits should be terminated.

21. Section 4(d)(iii) was added to clarify the requirement for the Department to return financial assurance upon termination of a permit.

22. Text was moved from Chapter 2 into Section 5(a)(i) to clarify that one-time or emergency waste management authorizations do not apply to the land disposal of municipal solid wastes or mixed wastes.

23. The time allowed for the Department to review a one-time waste management request in Section 5(a)(v) was extended from 20 to no more than 45 days to accommodate the complexity of some of these requests and the limited resources of the Department.

24. A provision was added in Section 5(b)(iv) to allow the Administrator to extend the one year term of a one-time authorization, for good cause.

General Summary of Proposed Changes to Chapter 2

1. Moved and consolidated permit application content requirements to the relevant section of the chapter.

2. Revised location standards to mirror those for new facilities in W.S. 35-11-502(c) and new units, existing units and lateral expansions in 40 CFR, Part 258, Subpart B.

3. Addressed new statutory standards in 2015, Senate Enrolled Act No. 61 for facility access.

4. Eliminated differing standards for Type I and Type II landfills and applied uniform standards to all landfills.

5. Increased the methane limit at facility boundaries from 25% of the lower explosive limit (LEL) to 100% of the LEL, which is consistent with 40 CFR, 258.23 standards.

6. Consolidated closure standards and closure application content requirements into a single section to facilitate stand-alone closure permits during the post-closure period.

7. Reduced the thickness of the infiltration barrier layer from 2 feet to 18 inches to bring final cover standards in line with 40 CFR, 258.60.

8. Unified groundwater monitoring requirements so that all municipal solid waste landfills are being monitored for the same constituents.

Detailed Summary of Proposed Changes to Chapter 2:

1. The text on applicability, the objective of the rule, and severability in Section 1(b), (c), and (d) is unnecessary and was deleted.

2. The one-time or emergency waste management text was moved from Section 1(f) to Chapter 1, Section 5.

3. To provide flexibility, especially in consideration of the requirements of the new Cease and Transfer Program, text was added in Section 2(a)(i)(A)(II) and (III) to give the Administrator the authority to extend deadlines for renewal and closure permit application submittals.

4. Section 2(b)(i) was added to describe the use of appendices in permit applications. Text was also added to reduce the volume of applications and streamline the application process by allowing applicants to reference information that has been previously provided to the Department.

5. Former Section 2(b)(iii) contained information on requirements such as location standards, geology, design and construction standards, operating procedures, monitoring, closure, maps, design drawings, recordkeeping, engineered containment system standards, etc. The vast majority of these standards were addressed again in later sections of the Chapter. The information in Section 2(b) has been moved and consolidated to the appropriate section of the text found later in the rule so that all location standard information is in one section, all design information in one section and so on. In all cases, text from Section 2(b) was moved to the new section verbatim. Any changes made to the text are shown in the new location.

6. Section 2(c) was shortened. Text here and elsewhere requiring information to demonstrate compliance with other Chapters of the Solid Waste Rules has been deleted and standards from other chapters of the Solid Waste Rules are now addressed individually in new Sections 13, 15, 16, and 17.

7. Renewal application text stricken from Section 2(c)(ii) was moved to new Section 3.

8. The closure permit application requirements in Section 2(d) have been moved to Section 12.

9. The financial assurance requirements in Section 2(f) have been moved to Section 13.

10. Text throughout Chapter 2 was revised to include the submittal of electronic copies of permit applications in addition to the paper copies. The caveat "unless an alternative is approved by the Administrator" was added to be prepared if paper copies become unnecessary in the future.

11. New Section 3 has been added to include all general facility information in a single section.

12. Commercial facility information has been moved from Section 3(j) to Section 17.

13. General information about intermediate reclamation conducted over the past permit term has been moved to Section 3(j) from former Section 2(c).

14. An access agreement requirement has been added in Section 3(k) to address 2015 Senate Enrolled Act No. 61.

15. Location standards are now all in Section 4. Location standards for new facilities that are in statute have been removed from Section 4(a) of the rule. The location standard for distances to surface waters in Section 2(a)(vi) has been deleted because surface water location standards are not included in 40 CFR Part 258 Subpart B rules or Wyoming Statutes. The location standards for floodplains, wetlands, and fault areas are not in statute, but they are in Subtitle D. However, Subtitle D location standards apply to new units and lateral expansions, not to the entire facility. The location standards for floodplains, wetlands, and fault areas have been moved to Section 4(b). The location standards for avalanche areas and hydrologic conditions are not in Wyoming statutes or Subtitle D and have been removed.

16. The location standards for existing facilities in Section 4(b) have been revised to correspond to the Subtitle D location standards in 40 CFR Part 258, Subpart B that apply to new units, existing units, and lateral expansions. Airport safety standards have been moved to Section 4(b)(i) and rewritten to summarize Subpart B text. Floodplain standards have been moved to Section 4(b)(ii) and rewritten to summarize Subpart B text. Wetland standards have been moved to Section 4(b)(iii). Fault area standards have been moved to Section 4(b)(iv) and rewritten to summarize Subpart B text. The applicability text in former paragraph (i) of this section and the location standards for airports, floodplains, wetlands, and fault areas have been removed.

17. A new Section 5 has been added to include all information on regional geology in a single section. Text from former Section 2(b)(iii)(A)(VIII) was moved here and edited.

18. A new Section 6 has been added to include all information on site specific geology in a single section. Text from former Section 2(b)(iii)(A)(X) was moved here and edited.

19. Design and construction standards have been consolidated into a new Section 7, including text from former Section 2. Revisions include some minor consolidation and shortening of text. Standards for operation, formerly in the design and construction section have been moved into Section 8, Operating Standards. This includes standards for access restrictions, posting, firelanes, topsoil, and litter control.

20. Section 7(h), the standard for structural stability, was deleted because this is addressed in the location standards in Section 4.

21. Statutory performance based design standards in statute have been referenced in the rule in Section 7(f) and the statutory text deleted from the rule.

22. Section 7(g) has been revised to clarify that engineered containment systems include both caps and liners. The definition of composite liner in W.S. 35-11-103(d)(viii) includes design standards. The hydraulic conductivity standard was deleted here because it does not apply to infiltration layers for caps. The term "clay" has been replaced with "compacted soil" where applicable to better reflect 40 CFR Part 258.40(b) and appropriate geologic terminology. The Standard for clay barrier layers for caps in Section 7(g) has been moved to Section 12(c)(v) because it applies to final cover, but was not addressed in the existing closure section of the rule.

23. The text in Section 7(g)(iii) has been revised to accommodate the HDPE standard in W.S. 35-11-103(d)(viii) and the standard for membranes to be in direct contact with compacted soil layers in 40 CFR Part 258.40(b).

24. The leachate collection system text in Section 7(g)(v) was deleted because the performance standard for leachate is in statute. Text was changed in Section 7(g)(v) so that leak detection is not mandatory, because it is not mandatory in 40 CFR Subpart D, but it may be necessary in some cases.

25. Quality assurance standards were consolidated in Section 7(h) and Section 7(h)(i) was added to clarify the minimum requirements for construction quality assurance/quality control (QA/QC).

26. Section 7(h) paragraphs (ii), (iii), and (iv) were moved to Section 7 from former Section 2 with some minor editorial changes.

27. Section 7(h) paragraphs (v) and (vi) were added to ensure that key personnel are qualified and that construction has been properly completed before waste is disposed in new units.

28. Section 7(h) paragraph (vii) was moved to Section 18.

29. Section 7(l) was deleted because it is unnecessary and is not in EPA Subtitle D Part 258 rules.

30. Section 7(k) was moved here from Section 2 and edited to include all landfill gas, not just methane.

31. Operating standards have been consolidated in new Section 8.

32. The standard for equipment/backup equipment in Section 8(c) is unnecessary and has been deleted.

33. The effective dates in former Section 8(c)(ii) and (iii) are no longer relevant and have been deleted.

34. Section 8(d), liquid wastes, has been consolidated from 40 CFR Part 258.28 and edited to clarify that liquid waste may not be disposed in a landfill unit. Landfills may be permitted to receive liquid waste in treatment areas for solidification prior to disposal.

35. Several paragraphs in Section 8 were moved from other sections, consolidated and shortened. The requirement to compact waste in Section 8(q) is standard practice and is no longer needed.

36. Section 8(q) (new number) was revised so there are uniform routine cover requirements for all MSW landfills. Nearly all landfill operators already cover waste on a daily basis.

37. The term “infiltration” was removed from Section 8(q)(ii). This is not one of the purposes of routine cover.

38. Section 8(s) has been removed because this is addressed in Section 12.

39. Section 8(t) has been moved to Section 9 and edited there.

40. Section 8(w), leachate management, was added to accommodate lined landfills and prevent problems with uncontrolled releases of leachate from ponds, sumps and the sides of landfill units which have been experienced at Wyoming landfills. This is consistent with Subtitle D requirements to control runoff (40 CFR Part 258.26) and protect surface water (40 CRF Part 258.27).

41. Section 8(y) recordkeeping requirements have been consolidated in Section 10.

42. Section 9, Monitoring Standards, has been revised because all landfills are monitoring groundwater.

43. Section 9(b)(i)(A) has been shortened and the HELP model removed because it is not a Subtitle D requirement and it is not a contaminant fate and transport model. The term "facility" in this section and other applicable parts of Chapter 2 has been changed to "facility or unit" to be consistent with 40 CFR Part 258 Subpart D and statutory performance based design terminology. Using the term "facility or unit" makes it clear that monitoring requirements can be tailored to the facility or to the type of waste disposed in individual units.

44. Section 9(b)(i)(A)(II) and (II) have been removed because the compliance dates are no longer relevant and Type I and II landfills will be treated alike.

45. Section 9(b)(i)(B)(I) was edited to be consistent with performance based design standards and 40 CFR Part 258 Subpart D.

46. Text on placing the monitoring system design in the operating record in Section 9(b)(i)(B)(III) was deleted because this information must be included in permit applications which are already part of the operating record.

47. The requirement to monitor water temperature, specific conductance, and pH were moved to Section 9(b)(i)(C)(II) from (former) Section 6(b)(ii)(D).

48. The term "hazardous" was removed from Section 9(b)(i)(C)(VI) because not all constituents of concern are technically defined as hazardous.

49. "Unless the Administrator approves alternate statistical procedures" was added to Section 9(b)(i)(C)(VII)(5.) to reflect text in 40 CFR Part 258.53(h)(5). Text was added to this section to clarify EPA recommendations for data reported below the practical quantification limit (PQL) and to clarify that a statistical evaluation is not needed when all concentrations for a constituent are reported below the PQL. Flexibility for alternative statistical procedures when concentrations are reported below the PQL incorporates the optional procedures in Chapter 15 of the EPA's March 2009 "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance" The use of concentrations reported below the PQL is recommended in Chapter 6, Section 6.3.4 of the EPA's March 2009 "Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities – Unified Guidance"

50. Baseline constituents were moved from (former) Section 6(b)(ii), where they were the minimum monitoring constituents for Type II landfills, to Appendix C. The list of indicator parameters has been reduced from twenty-nine (29) in Section 6(b)(ii) to seventeen (17) constituents primarily because many are duplicated on

the Appendix A or B sampling lists. Nine (9) of the Appendix C constituents have a maximum contaminant level (MCL) or class of use limit in the Wyoming Water Quality Rules and Regulations. An assessment of corrective measures and corrective action may be required by the Administrator if concentrations of these constituents exceed MCLs or class of use limits. The remaining eight (8) Appendix C constituents will be used to characterize and compare groundwater quality and provide data to help determine whether observed differences in water quality are due to a release from a landfill or are due to natural variability in groundwater quality. Elevated concentrations of these eight (8) constituents will no longer trigger assessment monitoring or corrective action.

51. In Section 9(b)(i)(D)(I), the term "facility" was replaced by the term "facility or unit" to be consistent with statutory performance based design terminology and accommodate individual unit monitoring requirements, such as units where only construction/demolition waste is disposed. The term "facility" has been replaced by the term "facility or unit" elsewhere in Section 9 for the same reasons.

52. Section 9(b)(i)(D)(I)(2.) was edited to be consistent with 40 CFR Part 258.54(a)(2) and the use of the term "indicator parameters".

53. Section 9(b)(i)(D)(III) was edited to be consistent with statutory performance based design terminology found in W.S. 35-11-527.

54. Section 9(b)(i)(D)(III)(1.), Section 9(b)(i)(D)(IV)(1.), Section 9(b)(i)(D)(V), Section 9(b)(i)(D)(VII), Section 9(b)(i)(D)(VII)(5.), and Section 9(b)(i)(D)(VIII) were all edited to clarify that the Administrator must be notified in writing.

55. Section 9(b)(i)(D)(III)(2.) was edited to clarify that a demonstration must be provided in writing and to consistently use the term "increase over background".

56. The term "for Appendix B constituents" was added to the title of Section 9(b)(i)(E) to clarify that this assessment monitoring applies to Appendix B constituents.

57. The term "for an Appendix A constituent" was added to Section 9(b)(i)(E)(I) to clarify that the assessment monitoring in this section will only be triggered if the concentration of an Appendix A constituent statistically exceeds a background concentration.

58. The term "for the first time" was added to Section 9(b)(i)(E)(II) to clarify that this requirement applies to constituents detected for the first time.

59. The terms "additional" and "for the first time" were added to Section 9(b)(i)(E)(IV)(3.) to clarify the constituents for which background concentrations must be established.

60. Section 9(b)(i)(F) was added to clarify separate actions that need to be taken if the concentration of an Appendix C constituent is elevated above background concentrations. If a statistically significant increase over background is detected only for one of the nine (9) indicator parameters with a maximum contaminant limit (MCL) or a class of use limit, assessment monitoring for Appendix B constituents will no longer be required. The Department will classify groundwater to establish class of use based groundwater protection standards as required by Chapter 8 of the Water Quality Rules and Regulations. If an MCL or class of use based limit is exceeded, the operator may be required to determine the nature and extent of contamination and conduct an assessment of corrective measures. If background is exceeded only for one or more of the eight (8) indicator parameters with no MCL or class of use based limit, the landfill operator will not be required to assess the nature and extent of the release or conduct an assessment of corrective measures.

61. Section 9(b)(ii) [former Section 6(b)(ii)] has been deleted and all landfills will be treated alike, monitoring for the same constituents and conducting statistical evaluations of the groundwater monitoring data.

Since the Solid Waste Rules were promulgated in 1994, municipal waste landfills had different monitoring requirements based upon daily disposal rates and whether or not there was any evidence of groundwater contamination. Monitoring data collected since 1994 demonstrates that the volume of waste received per day does not necessarily correlate to the type of constituents detected in groundwater. Regardless of daily disposal rates, the municipal waste being disposed is largely the same and poses the same threats to groundwater. In addition, the EPA's minimum monitoring in 40 CFR Part 258, Appendix I (Chapter 2, Appendix A in the Wyoming Solid Waste Rules and Regulations) does not include some of the constituents with class of use based limits in Wyoming Water Quality Rules. For these reasons, the Department believes that groundwater at all municipal solid waste landfills should be monitored for the same constituents and should include the constituents in Appendix C.

A Type II landfill is one that receives less than 20 tons of waste per day and has no evidence of groundwater contamination. Type II landfills generally serve smaller communities. Currently a Type II landfill operator could be required to analyze for 29 baseline (indicator) constituents and 62 of the Part 258 Appendix A constituents. Type I landfills must analyze for the Appendix A constituents and have been monitoring for the indicator parameters.

The EPA's minimum list of monitoring constituents (Wyoming's Appendix A list) also does not include many of the constituents that have been detected in downgradient wells at Wyoming landfills and that have class of use based limits in the Wyoming Water Quality Rules and Regulations. The proposed monitoring requirements include the EPA's minimum Appendix A list (40 CFR Part 258 Appendix I) and seventeen (17) of the twenty-nine (29) baseline constituents

required for Type II landfills in the current rule. Nine (9) of the seventeen (17) constituents on the Appendix C list have a maximum contaminant level (MCL) and/or a class of use based limit in the Wyoming Water Quality Rules and Regulations. The Appendix C constituents will be used to ensure that MCLs and class of use based limits in the Water Quality Rules are not exceeded, to help differentiate between natural variability and a landfill release, to provide consistently detectable constituents where trends can provide an early indication of a release, and to support a "preponderance of evidence" approach when determining whether or not a landfill has impacted groundwater.

Since the Legislature implemented the landfill monitoring program in 2006, all landfill operators have been required to monitor for the same baseline and Appendix A constituents so that determinations of a release are consistent.

The current rule triggers assessment monitoring if any of the indicator parameters are detected at a concentration statistically elevated above background concentrations. This assessment monitoring requires analysis for 159 additional Appendix B constituents, including semi-volatile organics, pesticides and herbicides. The Department agrees with commenters that this higher level of analysis (Appendix B) is not necessary when concentrations of only the indicator parameters are elevated in downgradient wells. Therefore, the proposed rule change will not trigger Appendix B assessment monitoring if an Appendix C constituent alone is statistically elevated above background concentrations. Unless the operator demonstrates that the differences are due to something other than the landfill, the Department will classify groundwater. If a maximum contamination level (MCL) or class of use based limit is exceeded for an Appendix C constituent, the operator may be required to characterize the nature and extent of the release, conduct an assessment of corrective measures, and institute corrective actions approved by the Administrator.

In 2004, the Governor's Citizens Advisory Group on Solid Waste recommended that all landfills be treated alike. Most landfill operators (Type I landfills) are required to conduct their own statistical evaluations of groundwater data, but some (Type II landfills) are not. The Department agrees that landfill operators should be treated equitably. In addition to the issue of fairness, due to new programs and limited staff, the Department does not have the resources to continue conducting statistical evaluations for landfill operators. In the proposed rule, all landfill operators will be required to conduct their own statistical evaluations.

There are currently five (5) Type II landfills where contamination is suspected, but not confirmed. There is one (1) Type II landfill where more data is needed before a determination can be made. Under the current rule, the operators of these facilities will be required to begin conducting their own statistical evaluations of groundwater data if contamination is confirmed. Under the proposed rule, the

operators of these facilities will need to conduct their own statistical evaluations of groundwater data whether or not groundwater contamination is detected.

In consideration of the cost for conducting statistical evaluations, the proposed rule change includes provisions in Section 9(b)(i)(C)(VIII)(2.), Section 9(b)(i)(E)(V), and Section 9(b)(i)(F)(II) giving the Administrator the ability to reduce the frequency of statistical evaluations if warranted by site specific conditions.

62. References to Type I and Type II landfills have been removed from (renumbered) Section 9(b)(ii).

63. The text "gas in facility structures and" was removed from Section 9(c)(i) because this standard is addressed in Section 7. The limits for methane have been changed to be consistent with 40 CFR Part 258.23 which requires that the lower explosive limit (LEL) not be exceeded at the facility boundary (rather than 25% of the LEL) and that methane shall not exceed 25% of the LEL in facility structures. The previous limit of 25% of the LEL at the facility boundary was more stringent than Subtitle D.

64. Section 9(c)(iv) was edited to reflect the fact that the Department does not currently have written recommendations for the abandonment of methane boreholes.

65. Section 9(c)(v) was revised to specify the standard and not the equipment because several kinds of equipment could be used to meet the monitoring requirement.

66. Section 9(g) reporting of methane, air, soil core, and vadose zone monitoring data has been moved to Section 11 "Reporting." Groundwater monitoring data reporting standards are addressed previously in Section 9(b)(ii). The Type I and II landfill requirements in Section 9(g) have been deleted.

67. Recordkeeping standards have been moved to Section 10. The standards have been edited to clarify three year and long term recordkeeping consistent with Chapter 1 of the Solid Waste Rules. The text in Section 10 was shortened and records believed to be unnecessary have been deleted. The requirement to maintain copies of written correspondence with the Department was added to ensure that the operating record is complete and accurate.

68. Annual reporting requirements for MSWLFs with lifetime permits have been moved to Section 11 from Section 5(bb) and this section has been shortened by referencing the statute rather than including the statutory text in the rule.

69. Section 11(b) was edited to clarify that landfill gas reporting in this section is not necessary after a landfill is closed.

70. Section 11(d) was added to accommodate unanticipated reporting needs. This is consistent with W.S. 35-11-523(a)(ii) requirements for landfills with lifetime permits.

71. Closure and post-closure standards are now in Section 12. The objectives of the proposed changes to this section are to clarify and consolidate the information needed for closure and post-closure into a stand-alone document that is free from information that was only needed during the operating period and to create a document that can be more easily revised during the post-closure period. Much of the information that needs to be in the closure permit application can be copied from the previous operating permit or information previously submitted to the Department can be referenced in the application.

72. Section 12 was revised to require operators to submit notification and certification of individual disposal unit closure following closure of each unit. This is important because landfills now have 25 year permit terms and it is necessary to demonstrate proper closure of individual units throughout the operating life of the facility. The text in this section was also edited to clarify the different measures that must be taken upon closure of individual disposal units and upon closure of the entire landfill.

73. Text was added to Section 12(b)(i), based on 40 CFR Part 258.30(j) to allow operators to remove notation from the property deed if all waste is removed from the site. This is important because at least one landfill is planning to close by excavating all waste and transferring it to another landfill.

74. Section 12(c)(ii) was shortened by referencing the general information in Sections 3(a) through 3(e).

75. The geological information needed in the closure permit is referenced in paragraphs (c)(iii) and (c)(iv) of Section 12.

76. Design and construction standards for closure in Section 12 have been condensed and consolidated in Section 12(c)(v). Text was moved here from (former) Section 2(b)(iii)(XII)(5.) and (6.). Inspection requirements from this section were moved to paragraph (v)(G).

77. Previous final cover standards based on closure dates in Section 12(d)(i) and (ii) are obsolete and were deleted.

78. The infiltration barrier layer standards in Section 12(d) were deleted and replaced in paragraph (v)(C) by text from 40 CFR Part 258.60(a)(1) through (a)(3) and 258.60(b)(1) through (b)(2).

79. The revegetation requirement in Section 12(c)(v)(B) was shortened and edited to address reclamation of disturbed areas, not final cover over waste which is addressed elsewhere.

80. The alternate design provision from (former) Section 12(d)(ii) was moved to paragraph (C)(IV) and edited to mirror 40 CFR Part 258.60(b)(1).

81. Section 12(v)(D) was edited to clarify that boundary corners need to be surveyed at facility closure rather than unit closure.

82. The deed notice requirements were moved from Section 12(g) to Section 12(b)(i).

83. Section 12(v)(E) was edited to clarify that access to the facility must be controlled until the facility has been closed.

84. The text in Section 12(i) through (l) was combined and consolidated in Section 12(v)(F).

85. The inspection requirement from Section 12(c)(v)(A) was moved to Section 12(v)(G).

86. The special waste and transfer, treatment and storage requirements in Sections 12(m) and (n) were moved to Sections 12 (c)(xiii) and (xii) respectively.

87. Paragraphs (vi) through (x) were added to Section 12(c) to clarify the information needed in a closure permit application.

88. Information in Section 12(c)(xiii) was moved here from (former) Section 2 and edited here for clarification.

89. Section 12(o) was deleted because this standard is addressed in Section 12(b).

90. The post-closure period text in Sections 12(e)(i) through (vi) is outdated and has been deleted and replaced with new Sections 12(e)(i) and (ii).

91. Financial assurance standards have been moved to Section 13.

92. Corrective action standards have been moved to Section 14.

93. “Appendix B” was deleted from Section 14(b)(ii)(C) because constituents not listed in Appendix B may also need to be addressed.

94. Section 14(b)(iii)(F) was added to include this standard from 40 CFR Part 258 Section 258.57(c)(3)(iii).

95. Section 14(b)(iv) was edited because operators propose and the Administrator approves schedules.

96. Section 14(b)(iv)(B) and (F)(III) were edited to reflect standards in 40 CFR Part 258.57(d)(2) and (d)(6)(iii) respectively.

97. The Appendix B text was deleted from Section 14(b)(iv) because remediation may be needed for constituents not listed in Appendix B.

98. The provision for a schedule to be approved by the Administrator was moved to Section 14(c)(i) from (former) Section 6(b)(i)(A)(V).

99. Section 14(c)(iii)(C) was edited to reflect removal or decontamination of equipment, units, or structures based on standards in 40 CFR Section 258.58(c)(3).

100. Section 14(d)(i) was edited to be consistent with statutory performance based design standards in W.S. 35-11-527.

101. Section 14(d)(ii) was edited by removing "Appendix B" because remediation may not be limited to constituents on the Appendix B list.

102. Sections 14(d)(ii)(C), (d)(iv)(A) and (d)(iv)(C) were edited to incorporate standards in 40 CFR Sections 258.58(e), 258.58(f), and 258.58(g) respectively.

103. Standards in Sections 15-17 were moved here from (former) Section 2(b)(iv).

104. Supporting documentation standards were moved to Section 18 from (former) Section 2 with minor edits to improve flexibility. The requirement to include construction quality assurance/quality control plans is consistent with current practice and has been added for clarification in Section 18(a)(vii)(K).

105. The constituents in Appendix C are seventeen (17) of the twenty-nine (29) minimum baseline monitoring constituents historically required for Type II landfills. These constituents have been sampled at Type I landfills in addition to the Appendix A constituent list. This monitoring list has been moved to Appendix C from Section 6(b)(ii)(D)(I). The list of constituents in Appendix C has been reduced because some of the constituents are already on the Appendix A or B monitoring lists. Nine (9) of the Appendix C constituents have a maximum contamination level (MCL) and/or class of use limit in the Wyoming Water Quality Rules and Regulations. Operators will be required to determine if these nine (9) Appendix C constituents exceed an MCL or class of use based limit and may be required to assess the extent of a release of these constituents and take corrective action. The remaining eight (8) constituents will not trigger assessment monitoring or corrective action, but will be used to characterize and compare groundwater quality, to provide data to help determine whether observed

differences in water quality are due to a release from a landfill or are due to natural variability in groundwater quality, and to support a "preponderance of evidence" approach when determining whether or not a landfill has impacted groundwater.

Deletion of Chapter 9:

1. Chapter 9, Suspension of Permits for New Commercial Solid Waste Management Facilities, suspended permits for new Commercial Facilities until the Environmental Quality Council promulgates rules and regulations providing for resumption of permitting by the Director. The Council promulgated Chapter 10, Recycling and Processing requirements for Commercial Solid Waste Management Facilities, on November 28, 1990. Therefore, Chapter 9 is no longer needed.

Deletion of Chapter 15:

1. Chapter 15, Solid Waste Management Rules and Regulations, were promulgated December 1, 1975 and have been subsequently superseded by current Solid Waste Rules and Regulations. Chapter 15 is no longer needed.

The Council finds that these regulations are reasonable and necessary to accomplish the policy and purpose of the Act as stated in W.S. §35-11-102, and they have been promulgated in accord with the rulemaking provisions of the Wyoming Administrative Procedures Act.

EXECUTED THIS _____ DAY OF _____, 2016

FOR THE ENVIRONMENTAL QUALITY COUNCIL

_____

Chairperson