

Wyoming Department of Environmental Quality
Solid and Hazardous Waste Division
Response to Comments

December 23, 2013

The Wyoming Department of Environmental Quality (Department) is pleased to present the following response to comments document for comments received for the proposed changes to Chapter 1 and the development of Chapter 17 of the Wyoming Solid Waste Rules and Regulations (Rules). The Department has made significant efforts to provide ample opportunity for the regulated community and members of the public to comment on the development of these rules. It is the Department's position that these efforts have resulted in a better rule package that will help to facilitate the implementation of the Cease and Transfer and Landfill Remediation programs.

Below please find comments received on the Department's proposed changes to Chapters 1 and 17 of the Rules and the Department's responses to each comment. These comments were received prior to the Waste and Water Advisory Board meeting held on December 5, 2013.

Chapter 1 **General Provisions**

Section 1(e) Definitions

Comment 1 - Kathy Lenz, City of Sundance: Dead animals pose a serious problem for operators that chose to close their municipal landfills. Managing dead animals at a transfer station is usually not an option because wastes are not typically transferred to a landfill for disposal on a daily basis. Composting is an option, but requires additional solid waste and water quality permitting. Composting also requires a relatively large area, and compost media can be costly to obtain. There are relatively few sawmills in the state that are generating sawdust, which requires operators to purchase and transport compost media long distances. Additionally, most small landfills in Wyoming do not generate adequate quantities of clean wood to chip or grind and make compost media, which is also an additional cost.

As currently written, the Wyoming solid waste rules include dead animals in the definition of municipal solid waste, and exclude dead animals from the definition of construction demolition waste. This distinction appears does not appear to be in RCRA Subtitle D, Part 257, so there appears to be some flexibility to consider alternatives. Dead animals, particularly large dead animals, are not typically considered municipal solid waste by public and private collection companies, and it is impractical to manage them in dumpsters or collection trucks. Likewise, there are a number of wastes (e.g., tires, furniture), that are included in Department guidance as acceptable for disposal as construction and demolition waste, but clearly are not construction materials. Although construction and demolition wastes are often referred to as "inert", we are assuming that the Department would still require monitoring of unlined construction and demolition waste landfills if groundwater is present.

The primary constituents of concern identified in the Department's report to the Legislature regarding leaking landfills are volatile organic compounds and metals, neither of which is associated with the disposal of dead animals. Even if there is data to suggest that disposal of dead animals poses a serious threat to groundwater, regulation of dead animal disposal under Chapter 4 of the solid waste rules still provides an option for groundwater monitoring.

Many communities that are closing their municipal landfills and transferring municipal waste are considering the continued operation of an unlined construction and demolition landfill. We believe that disposal of dead animals at construction and demolition landfills would provide a cost effective and environmentally responsible option for many Wyoming communities.

Response 1: The Department's position is that dead animals are not inert and may pose a significant threat to human health and the environment. Threats from dead animals include bacterium, viruses, or other microorganisms that can cause disease (including chronic wasting disease, bovine spongiform encephalopathy, foot and mouth disease, and anthrax). Carcasses may contain chemical or toxic agents. Dead animals may cause odors and attract disease vectors such as rodents and flies. Dead animals may also result in elevated levels of nitrate in groundwater.

For these reasons, regulatory controls are needed to protect human health and the environment and ensure that proper equipment, materials, and management practices are used. It would not be appropriate to dispose of dead animals in a landfill designed for the disposal of inert construction/demolition waste.

The following comments are specific to some of the comments above.

- The commenter noted that groundwater monitoring is required at C/D landfills. However, groundwater monitoring does not prevent contamination; it can only identify contamination after it has occurred. Groundwater monitoring is required at C/D landfills because the inert C/D waste intended for disposal is often contaminated with other substances. While volatile organics and metals are some of the more common contaminants found in groundwater at municipal waste landfills, nitrate is also a common contaminant. Dead animal disposal may result in nitrate contamination.
- Large animal management is a concern. There may be other alternatives to management at municipal waste transfer facilities. Large animals, such as cattle and horses, are often generated at farms and ranches and may be disposed on the farm or ranch without a solid waste permit. Renderers may also pick up large animals directly from the site of death.
- It is necessary to find a source of carbon for the compost process. Operators of animal composting facilities have found local carbon alternatives, such as straw, grass clippings, and leaves, when wood chips and saw dust aren't readily available.

The Department is happy to work with facility operators to identify alternatives for dead animal management. However, we believe that current regulatory controls should be maintained to ensure adequate protection of human health and the environment.

Comment 2 - Phillip Griffin, Campbell County Department of Public Works: The WDEQ definition of Municipal Solid Waste (MSW) includes " ... solid waste resulting from or incidental to ... dead animals ... " In accordance with ceasing disposal of MSW for the purpose of the Cease and Transfer Program, would the WDEQ require closure of a dead animal pit to receive funding? We recommend that the rules are clear that dedicated dead animal disposal areas are still permitted as a restricted use at landfills that may have closed under the cease and transfer rule.

Response 2: Dead animals are considered municipal solid waste (MSW) due to the threats dead animals pose to human health and the environment. Therefore, to be eligible for funding under the Cease and Transfer Program, a facility would need to cease disposal of dead animals.

As mentioned above, other options exist for local operators to dispose of dead animals including incineration, composting, rendering, and direct transfer to a regional landfill. Permitting requirements are based upon the option selected. The Department is happy to work with facility operators to identify alternatives for dead animal management.

Section 2(k)(iv) General Closure Permit for Municipal Solid Waste Landfills

Comment 3: Tim Waddell and Loren Grosskopf, Park County: The 2nd to last sentence states: "Petitions to terminate the post-closure period shall include certification from a Wyoming registered professional engineer that post-closure care has been completed in compliance with the post-closure plan and in a manner protective of human health and the environment." Park County would recommend inserting the word "approved" in front of *post-closure plan*.

Response 3: The Department agrees with this suggestion and has revised the proposed draft regulation to state:

Petitions to terminate the post-closure period shall include certification from a Wyoming licensed professional engineer that post-closure care has been completed in compliance with the approved post-closure plan and in a manner protective of human health and the environment.

Chapter 17 Municipal Solid Waste Landfill Remediation

Section 2 Definitions

Comment 4 - Phillip Griffin, Campbell County Department of Public Works: SHWRR Chapter 17, Section 2, (c) states, ""Leaking Municipal Solid Waste Landfill" means a unit at an existing facility that is exceeding groundwater protection standards." Is this referring to Chapter 8 - Quality Standards for Wyoming Groundwaters of the Water Quality Rules and Regulations?

How should this apply at facilities without Class of Use defined for the groundwater? We recommend that any groundwater protection standards established for site remediation be linked to the facility's groundwater use classification.

Response 4: Groundwater protection standards are established in accordance with the Solid Waste Rules and Regulations, Chapter 2, Sections 6(b)(i)(E)(VIII) and (IX), which include a cross reference to Chapter 8 of the Water Quality Rules and Regulations. Specifically, in accordance with Section 6(b)(i)(E)(VIII), the Administrator shall establish groundwater protection standards, which shall be:

1. For constituents where a maximum contaminant level (MCL) has been promulgated, the MCL for that constituent;
2. For constituents for which MCL's have not been promulgated, the background concentration established from wells in accordance with paragraph (b)(i)(B)(I); or
3. For constituents for which the background level is higher than the MCL or health based levels identified under paragraph (b)(i)(E)(IX) of this section, the background concentration.

Additionally, Section 6(b)(i)(E)(IX) allows the administrator to establish an alternative groundwater protection standard for constituents for which MCL's have not been established. These groundwater protection standards shall be health-based levels meeting the requirements of Chapter 8 of the Water Quality Rules and Regulations.

The Department will follow these two sections of the rules when establishing groundwater protection standards for a municipal solid waste landfill facility.

Section 3 Eligibility - Section 3(a)(i)

Comment 5 - Tim Waddell and Loren Grosskopf, Park County: The proposed rule states “*The operator must implement and revise the community's solid waste management plan as necessary to comply with all regulatory obligations.*” We anticipate some problems in the implementation of this. The integrated solid waste management plans were prepared by or on behalf of groups or entities that cross geo-political boundaries jurisdictions. For example, a plan may represent the interests and input of 5 or 6 different Town, City, and County governments. The operator seeking funding under the proposed rule for cease and transfer may represent a single town within the larger planning area. Is the town seeking funding required to hire the consultant that prepared the ISWMP and seek approval from all the governmental jurisdictional entities participating in the original preparation of the ISWMP? Since the ISWPM development is based on “planning areas”, there is often no legal jurisdiction or authority such as a solid waste management district that would cover the entire planning area. It seems that there could be legal justifications or complications that could come up if there is a conflict between jurisdictional entities within a planning area. For example, hypothetically, if the Town of Powell were to seek funding through the program for a transfer facility to haul waste outside of Park County, how would Powell go about changing an ISWMP which was prepared and paid for by Park County, particularly when the County would be unsupportive of the action?

Response 5: The Department recognizes the fact that the ISWMP is fluid and may change over time. The Department understands that situations may arise where multiple parties created an ISWMP and revision of that plan may not be immediately possible. This type of issue can be addressed in the written agreement between the facility and the State.

Section 3(a)(ii)

Comment 6 - Tim Waddell and Loren Grosskopf, Park County: The proposed rule states “*The operator must cease disposal of all waste streams at a leaking closed facility or the leaking portion of an operating facility which is undergoing remediation activities pursuant to department rules and regulations and the written agreement between the department and the local operator.*”

What about a landfill that is “not leaking” but that has reached capacity? Can the operator qualify for funds to assist with the closure and transfer to another site in this case? The language implies that it would not be eligible. Also, “leaking” seems to be a very subjective term. It is recommended that something more concrete like “*confirmed groundwater impacts*” be used instead. This is particularly important when you consider that many of the waste disposal facilities that would be applying for funding under this program were designed to standards that did not involve liners and leachate collection systems. The term “leaking” implies that there is some sort of liner or barrier between the waste mass and the underlying groundwater aquifer. In most cases this would not exist. This also does not give any credence to site specific geology and hydrogeological conditions that may favor natural attenuation. Again, “leaking” does not seem to be the issue as much as “confirmed groundwater impact” from the past waste disposal operations.

Note: *As a follow up to the above comments...After our meeting in Cody, we understand that landfills that are not thought to be contributing to the degradation of groundwater quality would not be eligible for funding under the remediation program but could be eligible under the cease and transfer rules.*

Response 6: The term “leaking” is taken from the statute. A facility that is considered “leaking” is a facility where groundwater has exceeded the groundwater protection standards (“GPS”)/maximum contaminant levels (“MCL”) as determined by the Wyoming Solid Waste Rules and Regulations, Chapter 2, Section 6(b)(i)(VIII) and (IX). Thus, if a facility has not exceeded a GPS/MCL, it would not be eligible for participation in the remediation program. However, the facility may qualify for reimbursement under the cease and transfer program. In order to clarify, the Department inserted the following definition into Section 2, “Definitions” of Chapter 17:

- (c) “Leaking Municipal Solid Waste Landfill” means a unit at an existing facility that is exceeding groundwater protection standards.

Section 3(a)(ii)(A)

Comment 7 - Tim Waddell and Loren Grosskopf, Park County: The proposed rule states “*The operator may continue to dispose municipal solid waste into units of facilities which have an approved containment system and those units that conform to performance based design standards.*”

The definition of municipal solid waste needs to be clearly defined in Chapter 1 and all chapters for consistency purposes. Since there are different standards for C&D landfills, an operator should be able to continue disposing C&D waste without an approved containment system or an approved performance based design. It is clear that the intent of the legislation and background for this rule is geared towards household garbage and not construction/demolition waste disposal facilities. Many entities have planned and budgeted for continued C&D disposal operations separate from their MSW disposal areas which are scheduled for closure and hopefully qualify for funding under these rules. There are enough problems and difficulties state wide, whereby the focus should be on MSW (excluding C&D) disposal facilities which are confirmed to be contributing to the degradation of groundwater quality. It is understood that the appropriated funding for this program is very, very limited. Inclusion of C&D waste criteria in this program could divert funding from the real problem MSW disposal sites that really need the help and focus.

Note: As a follow up to the above comments...After our meeting in Cody, we understand that it is not WDEQ's intend to restrict the continued operation of C&D Landfills under the proposed rules. As Commissioner Hall passionately stated during our meeting in Cody, the County is concerned that without clear definitions of MSW and C&D waste in the rules as it relates to applicability of Chapter 17, future enforcers and operators may reach a different interpretation which could be detrimental to many C&D landfill operations. We are unclear at this point as to the best way to clarify this but there definitely needs to be some additional thought on this issue moving forward.

Response 7: It is intended that a facility can continue disposal of clean, screened construction/demolition (C/D) waste to ensure only C/D waste is disposed and not mixed with municipal solid waste (MSW). Chapter 1, Section 1(e) of the current proposed draft regulations includes a change to the MSW definition to clarify that C/D waste is excluded from the definition of MSW. C/D waste will be regulated under Chapter 4 of the existing regulations. The revised definitions for C/D waste and MSW are included in Chapter 1 of the current proposed draft regulation and are provided below:

“Municipal Solid Waste” means solid waste resulting from or incidental to residential, community, trade or business activities, including garbage, rubbish, ~~ashes, street sweepings,~~ dead animals, ~~tires,~~ abandoned automobiles and all other solid waste other than construction and demolition, industrial, or hazardous waste.

"Construction/demolition waste" includes but is not limited to stone, wood, concrete, asphaltic concrete, cinder blocks, brick, plaster and metal or other inert material approved by the Administrator.

Construction/demolition (C/D) waste is by definition inert waste resulting from construction and demolition activities. Construction demolition landfills may be used for the disposal of construction demolition waste. Because the list of inert wastes could be nearly unlimited, the Department has by policy defined which wastes may be considered inert and acceptable for disposal in an unlined construction demolition landfill. The Department believes this approach provides appropriate flexibility and protection of human health and the environment. We have proposed clarifying this approach in the proposed change to the definition of "Construction/demolition waste." In response to additional comments, the Department believes this approach should also be incorporated into the "construction/demolition landfill" definition. Therefore, the Department is proposing the following changes to the definition of "Construction/demolition landfill."

"Construction/demolition landfill" means a solid waste management facility that accepts only inert construction waste, demolition waste, street sweepings, brush and other inert materials approved by the Administrator. This does not include garbage, liquids, sludges, paints, solvents, putrescibles, dead animals, friable asbestos, and hazardous or toxic wastes.

Section 3(a)(ii)(b)

Comment 8 - Tim Waddell and Loren Grosskopf, Park County: The proposed rule states "*The operator may continue to dispose of construction and demolition waste in portions of an operating facility if the operator shows, to the satisfaction of the Administrator, that disposal of construction and demolition waste in the leaking portion of the operating facility is necessary for the purpose of achieving the permitted or approved final grade and is protective of the environment.*"

Where did this come from? Why the issue and concern with C&D waste when there are so many more pressing issues involving household garbage. This is particularly puzzling when considering the limited funding reserves for this program. The continued use and disposal of C&D waste at a site should not be tied to the "permitted or approved final grades". Operators recognize and are aware of the fact that they will need to amend their permit to dispose C&D waste past their permitted boundaries (horizontal and vertical). However, the way the rule reads... if the operator accepts funding under this rule, they are to cease all C&D disposal once they achieve permitted limits. Why is this the case? Many have planned and established rates on continued disposal of C&D waste. Again, the emphasis on C&D waste disposal seems like it should involve separate legislation if the WDEQ feels that it is a legitimate problem or concern. Adding language to the proposed rule geared towards restricting localized disposal of C&D waste at the City and County level (as opposed to regional), seems counter-productive and possibly an over-reach by the WDEQ when considering the rapidly increasing waste disposal costs and the increasing demand for State assistance. Priorities, priorities, priorities!!!

Note: As a follow up to the above comments...After our meeting in Cody, we understand that it is not WDEQ's intend to restrict the continued operation of C&D Landfills under the proposed rules. Also, we understand that the WDEQ does not intend to restrict the continued disposal of C&D waste at a site in a new or expanded area if a permit modification is submitted and approved. Some minor rewording of this section of the rule could help clarify this.

Response 8: The Department tied the authorization to dispose C/D waste to the permitted or approved final grade to accommodate the operator's needs to fill the remaining voids in the existing facilities in the most cost efficient manner available. Allowing C/D waste to be used as void fill provides an alternative to the operators from having to haul in soil to fill the void to reach closure grades at the facilities. Chapter 1, Section 1(e) of the current proposed draft regulations changes the definition of MSW to exclude C/D waste in an effort to allow a facility to continue C/D waste disposal if remaining space is available. The operator can open new C/D disposal units as well under existing regulatory authority.

Section 3(a)(iii)(A)(I)

Comment 9 - Chris Athanassopoulos, CETCO: On November 5, 2013, the Department issued proposed amendments to the state solid waste rules and regulations and extended a request for comment on the proposed amendments. CETCO submits the following comments with supporting information regarding the use of geosynthetic clay liners (GCLs) in the closure of municipal solid waste landfills.

Specifically, our comments relate to Chapter 17, Section 3 (a)(iii)(A)(I), which states, "The presumptive remedy shall be one or more of the following: (I) Construction of an impermeable gap... " In the case of landfills with potentially leaky bottom liners, the cover system takes on greater importance. As shown below, GCL-based cover systems (either geomembrane/GCL composite liners, or geomembrane-laminated GCLs, GCLs) have demonstrated very low percolation rates.

Albright et al. (2010) evaluated the performance of several types of cover systems as part of the Alternative Cover Assessment Program (ACAP), a study completed for the USEPA. This study compared the performance of clay, geomembrane/GCL composite, geomembrane/clay composite, and evapotranspiration (ET) cover systems. Test facilities were constructed and monitored at 12 sites throughout the United States. Of these, two sites, one in Boardman, Oregon, and the other in Apple Valley, California, employed geomembrane/GCL cover systems. The data presented by Albright et al. (2010) showed the following:

- Geomembrane/GCL cover systems were the best performing covers in the entire study, allowing 0 mm/yr percolation. It should be noted that the GCL component of both composite liner systems was found to have experienced ion exchange from contact with calcium-rich subgrade soils (Scalia and Benson, 2011); however, the overall composite cover still performed better than even the geomembrane/clay systems (five sites, with measured percolation rates up to 29 mm/yr).

- In contrast, covers consisting of *only* compacted soil did not perform nearly as well as specified or expected (three sites, with measured percolation rates ranging from 7.4 to 156 mm/year, and increasing with time). The study concluded that the performance of all three clay caps deteriorated within the 4-year monitoring period to "levels inconsistent with the performance criterion of minimizing drainage into waste. The field data from all three sites support the assertion that environmental factors including the effects of desiccation, freeze/thaw and plant root penetration resulted in development of preferential flow paths in the clay barriers." Benson et al. (2007a) noted that due to these post-construction changes, the saturated hydraulic conductivity of selected barrier cover soils can increase by as much as a factor of 10,000.
- ET covers installed at all 12 sites showed highly variable performance, with average percolation rates ranging from 0 to 207 mm/yr of percolation. ET cover performance was strongly related to the climate, with the lowest percolation rates measured at sites located in arid or semi-arid climates, and the highest percolation rates measured at sites located in sub-humid and humid climates. One of the ACAP study's conclusions about ET covers was, "Low percolation rates (1 mm/yr or less) cannot be achieved with water balance covers at all sites. Stringent percolation objectives are unlikely to be achieved at more humid sites." (Albright et al. 2010).

In a separate study by Benson et al. (2007b), field test plots containing a GCLL (a standard GCL laminated to a 0.1-mm thick polyethylene geofilm) were constructed in the final cover of a coal ash landfill in Wisconsin. Two phases were constructed: In the first, the laminated GCL was installed with the geofilm facing down; in the second, the laminated GCL was placed with the geofilm facing up. Lysimeters were used to monitor percolation through each test section. The study found that the GCLL exhibited excellent performance, with percolation rates between 2.6 and 4.1 mm/yr over a five year period, representing less than 0.5% of the precipitation. More recent discussions with Professor Benson indicate that the laminated GCL continues to perform well, more than ten years after installation.

In addition to their hydraulic performance, GCLs also have the benefit of faster and more reliable installation. QA/QC samples are collected at the manufacturing plant and testing is often complete before the material arrives at the project site. Typical installation rates for GCLs are 1 acre per day, while a compacted clay liner may only cover a 0.5-acre area in the same period of time. Additionally, GCLs have the benefit of a smaller carbon footprint. For a typical installation, one truckload of GCL will cover the same area as 10 truckloads of compacted clay. The decreased hauling also provides the benefit of decreased truck traffic and disruption through adjacent communities. Athanassopoulos et al (2010) presented a case study which provides an example of the expedient delivery and installation of GCL to cap a large tailings impoundment in Northern Alberta, Canada. Construction of the 200-acre geosynthetic capping system began in late 2009, proceeded through the winter months, and was completed in 2010, a timetable that would not have been possible to meet with a traditional compacted soil cover.

Based on the information presented above, CETCO requests that WYDEQ consider GCLs among the approved list of barrier alternatives in the Municipal Solid Waste Landfill Remediation Program. As outlined above, field studies have shown that a composite system,

consisting of either a GCL underlying a geomembrane, or a geofilm-laminated GCL, provide excellent hydraulic performance. Many state regulatory agencies have accepted GCLs in waste containment applications. In a survey of state regulations performed by the Geosynthetic Research Institute (OR! report #32, January 12, 2007), it was determined that sixteen states allow the use of GCLs in cap applications.

Additionally, CETCO and our parent company AMCOL International, currently employ over 130 people in a variety of operations in the state of Wyoming, ranging from bentonite mining to the production of the finished GCL product. The use of GCLs in the landfill remediation program therefore provides an opportunity to use products made in Wyoming to solve environmental challenges in Wyoming.

Response 9: Rather than require a specific impermeable cap for the remediation program, the Department included language which will allow a facility to demonstrate the effectiveness of the chosen material to perform as an impermeable barrier for a final cover system. Thus, it is the responsibility of the facility to choose the material for the impermeable barrier and provide the appropriate demonstration that the material will adequately perform as an impermeable barrier. Section 3(a)(iii)(A)(IV) states that the presumptive remedy may be an “other remedy as proposed by operator.”

Section 3(a)(iv)

Comment 10 - Tim Waddell and Loren Grosskopf, Park County: *The proposed rule states “The operator must control the source of releases of pollution so as to reduce or eliminate further releases from the leaking municipal solid waste landfill through the implementation of intermediate cover activities as specified by the Administrator.”*

As stated previously, the use of the word “leaking” is subjective. The rule should be restated to address the reduction or elimination of releases from municipal solid waste disposal areas (excluding C&D waste areas) which have been identified and confirmed to be contributing to the degradation of groundwater quality. Priority should be given to those facilities where there is the maximum potential for a legitimate health based or environmental concern.

Response 10: The term “leaking” is taken from the statute. A facility that is considered “leaking” is a facility where groundwater has exceeded the groundwater protection standards (“GPS”)/maximum contaminant levels (“MCL”). Thus, if a facility has not exceeded a GPS/MCL, it would not be eligible for participation in the remediation program. However, the facility may qualify for reimbursement under the cease and transfer program. In order to clarify, the Department inserted the following definition into Section 2, Definitions:

- (c) “Leaking Municipal Solid Waste Landfill” means a unit at an existing facility that is exceeding groundwater protection standards.

Section 4(f)

Comment 11 - *Tim Waddell and Loren Grosskopf, Park County:* The proposed rule states “*All facilities will be returned to local control and will no longer be eligible to receive funds from the Municipal Solid Waste Landfill Remediation Program ten (10) years after the implementation of the final remedy at the facility.*”

The language in the following subsections (Chapter 17, Section 4.(f)(i) and (ii) seems to be contradictory. This could be corrected by restating the above text to read:

“All facilities and associated reimbursement costs with the exception of those identified in Chapter 17, Sections 4(f)(i) and (ii) will be returned to local control and will no longer be eligible to receive funds from the Municipal Solid Waste Landfill Remediation Program ten (10) years after the implementation of the final remedy at the facility.”

Response 11: The Department believes that the current language adequately clarifies that in limited circumstances funding may be allowed to continue beyond the 10 years. Section 4(f) of the current proposed draft regulations addresses this issue, as indicated below:

Except as provided in (ii) below, all facilities will be returned to local control and will no longer be eligible to receive funds from the Municipal Solid Waste Landfill Remediation Program ten (10) years after the implementation of the final selected remedy at the facility.

Section 5(b)(i)

Comment 12 - *Tim Waddell and Loren Grosskopf, Park County:* The proposed rule states “*In carrying out monitoring and remediation activities under the program the department has the right to construct and maintain any structure, monitor well, recovery system, or any other reasonable and necessary item associated with taking remediation and monitoring actions.*”

The above situation would apply to a landfill and/or operator that is in default, incompetent or unwilling to voluntarily implement the remediation program, correct? The above language seems to give open and unrestricted access to the WDEQ in all circumstances including those facilities and operators that are gainfully working towards and willingly contributing to the successful implementation of the program. It seems that there should be a due diligence process of legal steps whereby the Owner/Operator is deemed to be an obstruction to the protection of public health and safety before the WDEQ has the authority to take such drastic measures.

Response 12: This Section of the current proposed draft regulation is a statutory requirement under W.S. §§ 35-11-532(d), 35-11-109, and the Solid Waste Rules and Regulations which require operators to grant Department access for facility inspections. As noted in the comment, this would also apply to a landfill and/or operator that is in default or unwilling to voluntarily implement the remediation program. It is understood that the intent of this statutory requirement is to allow the Department to provide

assistance to those operators that feel they do not have the staff or resources to manage these activities and who request support for those activities.

Section 5(c)(i)

Comment 13 - *Tim Waddell and Loren Grosskopf, Park County:* The proposed rule states “*The Department shall notify the affected public of all confirmed releases requiring a plan for remediation, and, upon request, provide or make available to the interested public information concerning the nature of the release and the remediation actions planned or taken.*”

Similar to our concerns with the subjective term “leaking”, we also object to “confirmed release”. A release from an unlined landfill is not unexpected. The question should be...is the release confirmed to be contributing the degradation of groundwater and has a groundwater protection standard been exceeded at the relevant point of compliance? A facility that is “leaking” or has a “release” is not necessarily a concern. There needs to be some common sense site specific determinations made on a health/risk based level similar to what is outlined in Chapter 17, Section 4.(e).

Response 13: The Department’s position is that the term “confirmed release” is based on existing standards in statutes and rules. Much like the term “leaking municipal solid waste landfill”, a facility that has a confirmed release is a facility where contaminant concentrations have statistically exceeded the groundwater protection standards (“GPS”)/maximum contaminant levels (“MCL”).

Section 5(e)

Comment 14 - *Tim Waddell and Loren Grosskopf, Park County:* The proposed rule states “*Contractors employed to conduct monitoring or remedial activities as an eligible facility must adhere to the requirements of this Chapter and the Solid Waste Rules and Regulations. All such contractors must be licensed and bonded with the State and must meet the requirements of the Solid Waste Rules and Regulations.*”

This needs to be clarified further. Is the license with the state a business or a contractor’s license? Is the bond project specific such as a performance/payment bond that is typical of most construction contracts? We are not aware of any current state licensing programs for Contractors. In most cases (if at all), licensing is at the local level.

Note: *As a follow up to the above comments...After our meeting in Cody, we understand that the WDEQ is intending to confirm registration of the Contractor as a business with the Wyoming Secretary of State’s office and not a contractor’s license which would be typically be administered by a State Contractor’s licensing board. Also, we understand that the bonding is in the form of a performance and payment bond similar to other construction funded programs administered by SLIB. Again, some minor clarification of the rule language for this section is needed.*

Response 14: The Department acknowledges that the State of Wyoming does not issue licenses for contractors. However, in order to receive in-state preference, the contractor must be registered with the Wyoming Secretary of State. This Section of the current proposed draft regulation was updated to include “registered” rather than licensed.

Section 5(e) of the regulation is proposed as follows:

Construction contractors employed to conduct activities at an eligible facility must adhere to the requirements of this Chapter and the Solid Waste Rules and Regulations. All such contractors must be registered and bonded with the State.

Section 6(a)(i)

Comment 15 - Tim Waddell and Loren Grosskopf, Park County: The proposed rule states costs associated with “*capping of a closed landfill*” can be reimbursed. What about the installation of final cover under a phased reclamation plan? For example, if a permitted solid waste disposal facility has other waste management operations on site (i.e., C&D waste disposal), the facility would not necessarily be closed. However, the MSW disposal areas could receive final cover and stabilized as part of an overall site phased reclamation plan. This method is the current tract Park County is using for the waste disposal facilities at Clark, Powell, and Cody. We have been careful in using the word “closed” as it relates to a solid waste management facility. In our opinion, a facility is not closed until all operational activities covered by the permit have been ceased and the disposal area has received final cover in accordance with an approved closure or phased reclamation plan. It seems that the intent of the rule would render “*phased reclamation*” activities as eligible.

Response 15: In the current proposed draft regulation, Section 6(a)(i) was updated to include approved phased reclamation of a closed landfill and verbiage from the statute “groundwater remediation and monitoring” and “methane mitigation and monitoring” has been added to the regulation to clarify that eligible project costs will include these costs, as per the statute, as indicated below.

- (a) Eligible project costs: The following costs incurred by operators or contractors performing work at eligible facilities pursuant to Section 3 can be reimbursed by funds from the Municipal Solid Waste Landfill Remediation Account:
 - (i) Capping or approved phased reclamation of a closed landfill;
 - (ii) Groundwater remediation and monitoring;
 - (iii) Methane mitigation and monitoring;
 - (iv) Other closure related expenses, including engineering, geological, and other professional services;

Response to Comments Received During Waste Water Advisory Board Meeting

December 5, 2013

Below please find comments received on the Department's proposed changes to Chapters 1 and 17 of the Rules and the Department's responses to each comment. These comments were received at the Waste and Water Advisory Board meeting held on December 5, 2013.

Chapter 1 General Provisions

General Comments

Comment 1: *Kathy Lenz – Town of Sundance* Construction of our transfer station will be complete this spring. We are #18 on the Prioritized List for Transfer Facilities and Landfill Capping for closure of our facility with an estimated cost of \$2,240,000. We are worried about our ability to make payments and meet the deadlines, especially with the requirement to take waste to a facility that has an engineered containment system or performance based design.

Response 1: The Wyoming Department of Environmental Quality (Department) appreciates your comment and understands the financial difficulties associated with the construction of these facilities. The Department is working with landfill operators around the state to either close or become regional landfills that have an engineered containment system or conform to performance based design and can continue to receive municipal solid waste. Another option may be a landfill located outside the state of Wyoming that will take the locality's waste.

Section 1(e) Definitions

Comment 2: *Cindie Langston, City of Casper:* The definition for construction/demolition landfill includes brush, which is not inert. The City of Casper would like to see consistency between the definitions for construction/demolition landfill and construction/demolition waste.

Response 2: The Department appreciates the comment. It is the Department's position that it is important to keep the term "brush" in the definition because brush is acceptable to dispose in construction/demolition landfills in certain circumstances. However, in order to provide additional clarity to these definitions, the Department proposes to modify the language of the two definitions as provided below:

"Construction/demolition landfill" means a solid waste management facility that accepts only inert construction waste, demolition waste, street sweepings, ~~and/or brush,~~ or other inert material specifically approved by the Administrator. This ~~does not include excludes~~ garbage, liquids, sludges, ~~paints, solvents, putrescibles, dead animals,~~ friable asbestos, and hazardous or toxic wastes.

"Construction/demolition waste" includes but is not limited to stone, wood, concrete, asphaltic concrete, cinder blocks, brick, plaster and metal or other inert material specifically approved by the Administrator.

Comment 3: *Marge Bedessem, Water and Waste Advisory Board* Dead animals are not part of the municipal solid waste definition in EPA's Subtitle D regulations. The Department should look at the municipal solid waste definition in the Wyoming Solid Waste Rules and Regulations to remove dead animals. The public health exposure is greater to transfer dead animals than bury them in a construction/demolition landfill.

Response 3: The Department appreciates this comment and the definition of construction/demolition landfill was revised to eliminate dead animals as a waste that is excluded from being disposed in this type of facility. However, the removal of this waste from the definition does not authorize the disposal of dead animals at construction/demolition landfills in all cases. The disposal of dead animals at construction/demolition landfills will be authorized only after the proper demonstration is made by the operator that it will be protective of health and environment. Please see the response to Comment #2 above for the revised construction/demolition landfill definition.

Comment 4: *Klaus Hanson, Water and Waste Advisory Board* The definition of municipal solid waste was revised to eliminate tires, but kept abandoned automobiles in the definition. It is not clear if tires must first be removed from the abandoned automobile prior to disposal.

Response 4: The Department appreciates this comment and believes that the current definition maintains consistency with the Wyoming Statue that covers abandoned vehicles (Title 31, Chapter 13) which considers everything attached to the abandoned vehicle, including tires, to be part of the abandoned vehicle.

Chapter 17 Municipal Solid Waste Landfill Remediation

General Comment

Comment 5: *Phillip Griffin, Campbell County* If remediation and closure are required to be completed in one step, how will it be handled by DEQ to make it harmonious? A closed facility is defined as a regulated facility at which operations have been properly terminated in accordance with an approved facility closure plan on file. What if a facility does not have an approved closure plan on file?

Response 5: The Department appreciates this comment and believes that remediation and closure will be performed in as an efficient manner as possible under this program. It is important to note that an owner/operator does not have to close an entire facility to start remediation. Remediation may start at a facility that is still operating with only portions of the landfill that have received final cover. Furthermore, the Department believes that the written agreement will allow site specific conditions to be taken into consideration to allow for a smooth remediation and closure process.

Section 2 **Definitions**

Comment 6: *David Applegate, Water and Waste Advisory Board* For the definition of leaking municipal solid waste landfill, clarify that the facility has to statistically exceed groundwater protection standards in a point of compliance monitoring well.

Response 6: The Department appreciates this comment and proposes to clarify the definition of leaking municipal solid waste landfill as provided below:

“Leaking Municipal Solid Waste Landfill” means a unit at an existing facility that is statistically exceeding groundwater protection standards in a point of compliance monitoring well.

Section 3(a)(ii)

Comment 7: *Lorie Cahn, Water and Waste Advisory Board* The portion of this Section that reads “. . . or the leaking portion of an operating facility which is undergoing . . .” should read “. . . or the leaking portion of an operating facility that is undergoing . . .”

Response 7: The Department appreciates this comment and proposes to revise this Section to incorporate these changes as provided below:

Except as provided in subsections (A) and (B) below, the operator must cease disposal of all waste streams at a leaking closed facility or the leaking portion of an operating facility ~~which that~~ is undergoing remediation activities pursuant to Department rules and regulations and the written agreement between the Department and the local operator.

Section 3(a)(iii)(A)

Comment 8: *Lorie Cahn, Water and Waste Advisory Board* The second sentence should read, “The preliminary presumptive remedy is the remedy presumed by the operator prior to assessing corrective action.

Response 8: The Department appreciates this comment and proposes to revise this Section as provided below:

At the time of submitting notice of intent to participate, the operator must agree to provide funding for at least twenty-five percent (25%) of the preliminary presumptive remedy. The preliminary presumptive remedy ~~will be that which the operator believes the remedy will be~~ is the remedy presumed by the operator prior to assessing ~~prior to the assessment of~~ corrective action ~~being conducted~~. The preliminary presumptive remedy shall be one or more of the following:

Section 3(a)(iii)(A)(I)

Comment 9: *David Applegate, Water and Waste Advisory Board* I have a problem with “impermeable cap.” What is an “impermeable cap”? No cap is impermeable.

Response 9: The Department appreciates this comment and understands that very few things are truly “impermeable.” The Department proposes to revise this Section as provided below:

(I) Construction of an ~~impermeable~~ a final cap;

Section 3(a)(iii)(A)(II)

Comment 10: *David Applegate, Water and Waste Advisory Board* What does “control of leachate” mean? It is confusing. Will all landfills be required to do this?

Response 10: The Department appreciates this comment and understands that leachate may not always be present at all landfills. The term “control leachate” means to control the leachate migration to groundwater or surface water. To help clarify the issue, this Section has been revised as provided below:

(II) Control of landfill leachate, if present;

Section 3(a)(v)

Comment 11: *David Applegate, Water and Waste Advisory Board* This Section should not state that the operator shall adhere to *all* regulatory requirements of the program. I disagree with this statement. The owner/operator should be allowed to use procedures from the Voluntary Remediation Program to conduct monitoring and remediation.

Response 11: The Department appreciates this comment. It is the Department’s position that the Solid Waste Program must follow the minimum requirements of EPA’s Subtitle D Regulations for groundwater monitoring and remediation. The Department understands that operators are not required to comply with all regulatory requirements, but rather only those which are applicable to that facility. The Department has revised this Section to indicate that the operator shall adhere to applicable regulatory requirements rather than all regulatory requirements. This revised Section is provided below:

In instances where the operator has requested authorization ~~from the Department~~ to oversee or conduct monitoring and remediation ~~from the Department~~, the written agreement must contain a commitment that the operator shall adhere to all applicable regulatory requirements of the program in conducting monitoring and remediation activities.

Comment 12: *Lorie Cahn, Water and Waste Advisory Board* This Section should read, “In instances where the operator has requested authorization from the Department to oversee or conduct monitoring and remediation, the written agreement must contain a commitment that the operator shall adhere to applicable regulatory requirements of the program in conducting monitoring and remediation activities.”

Response 12: The Department appreciates this comment and proposes to revise this Section to incorporate these changes. The revisions are provided in the response for Comment #11 above.

Section 4(a)(i)

Comment 13: *Lorie Cahn, Water and Waste Advisory Board* The first letter of the words location, mailing, address, and facility do not need to be capitalized.

Response 13: The Department appreciates this comment and proposes to revise this Section to incorporate these changes as provided below:

(i) Name, ~~l~~ocation, and ~~m~~ailing ~~a~~Address of ~~f~~Facility;

Section 4(a)(v)

Comment 14: *Lorie Cahn, Water and Waste Advisory Board* This Section should be reworded to state a preliminary presumptive remedy for the landfill and its estimated cost.

Response 14: The Department appreciates this comment and proposes to revise this Section to incorporate these changes as provided below:

(v) A preliminary presumptive remedy for the landfill and its estimated cost ~~of such remedy~~;

Section 4(f)(ii)

Comment 15: *Lorie Cahn, Water and Waste Advisory Board* The first part of this Section should state, “The Department may authorize funding to continue for operation and maintenance . . .”

Response 15: The Department appreciates this comment and proposes to revise this Section to incorporate these changes as provided below:

(ii) The Department may authorize funding to continue ~~to a Facility~~ for operation and maintenance of a remedial system at the end of ten (10) years only in the event that the operator shows that unforeseen circumstances have prevented it from being able to continue the operation of the remedy and the failure of the remedy will result in a significant threat to public safety, health, or the environment.

Section 5(e)

Comment 16: *Lorie Cahn, Water and Waste Advisory Board* This Section should be clarified to state, “Construction contractors employed to conduct construction activities at an eligible facility must adhere to the requirements of this Chapter and the Solid Waste Rules and Regulations. All such construction contractors must be registered and bonded with the State.”

Response 16: The Department appreciates this comment and proposes to revise this Section to incorporate these changes as provided below:

Construction contractors employed to conduct construction activities at an eligible facility must adhere to the requirements of this Chapter and the Solid Waste Rules and Regulations. All such construction contractors must be registered and bonded with the State.