



## Department of Natural Resources

### Five-Year Rule Review Worksheet

#### Phase 2 - Part C

#### BASIC INFORMATION

Date Part C Review Concluded: December 1, 2014

Reviewer Name(s): Chad Stobbe, Susan Johnson, Theresa Stiner, Amie Davidson

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Chapter<sup>1</sup> Number: Chapter 120

Chapter Name: Landfarming of Petroleum Contaminated Soil

#### 1. DOES THIS CHAPTER<sup>2</sup> DO THE JOB IT SETS OUT TO DO?

1a. Is this chapter effective at protecting the health, welfare, and safety of Iowans and our natural resources?

Yes  No  (check or circle)

1b. Explain how the chapter protects the health, welfare, and safety of Iowans and our natural resources.

This intent of this administrative chapter was to establish rules for the safe and effective remediation and disposal of petroleum-contaminated soil (PCS). The spreading of petroleum-contaminated soil on land allows for the contaminants of concern to volatilize into the atmosphere, leaving remediated soil. The requirements of this administrative chapter ensure the use of best management practices in siting, design and operation to maximize facility effectiveness and efficiency, while minimizing their impact on the surrounding community.

<sup>1</sup> If the Phase 1 Worksheet addresses a portion of a chapter, rather than a whole chapter, then this follow-up worksheet should address the same portion of the chapter (e.g. rule or rules, paragraph, etc.).

<sup>2</sup> Throughout this worksheet, the word "chapter" is meant to apply to the chapter or portion of a chapter to which the worksheet applies.

## 2. IS THERE LEGAL AUTHORITY FOR THIS CHAPTER?

2a. Is the chapter intended to implement any **state statutes**?

Yes  No  (check or circle)

*If this chapter is intended to implement any state statutes, then answer questions 2b and 2c. If not, then proceed to question 2d.*

2b. Provide citations for the specific provisions of the Iowa Code implemented by this chapter.

At the conclusion of this administrative chapter there is a chapter implementation sentence that states, "These rules are intended to implement Iowa Code sections 455B.301A, 455B.304 and 455B.383."

[Iowa Code section 455B.301A](#)

[Iowa Code section 455B.304](#) - 455B.304(1) and 455B.304(14)

[Iowa Code section 455B.383](#)

2c. Provide a narrative summary of how the state statutes are implemented by this chapter.

This administrative chapter directly implements the provisions of Iowa Code section 455B.304(14) in that it provides specific siting, design and operating requirements to ensure the safe and proper remediation of petroleum-contaminated soil via land application. This administrative chapter includes remediation criteria for petroleum-contaminated soil from underground tank clean up projects, as directed by statute, as well as petroleum-contaminated soil from emergency spills and historical contamination. In addition, while there are specific rules within this administrative chapter that have direct statutory authority, many requirements are based upon the broad authority given under Iowa Code section 455B.304(1) to adopt rules for the proper administration of Division IV "Solid Waste Disposal," Part 1 "Solid Waste." Within the examples given in Iowa Code section 455B.304(1) is the authority to establish rules for "the issuance of permits."

The provisions of Iowa Code sections 455B.301A and 455B.383 speak to protection of the health, safety, and welfare of Iowans and the protection of the environment by developing rules that protect the public from unnecessary exposure to hazardous substances. This administrative chapter implements these statutory obligations by outlining the proper management procedures for soils resulting from the remediation of underground storage tank releases in the State.

2d. Does the chapter implement any **federal statutes or regulations**?

Yes  No  (check or circle)

*If this chapter is intended to implement any federal statutes or regulations, then answer*

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*questions 2e and 2f. If not, then proceed to question 3.*

2e. Provide citations for the specific provisions of federal statutes and regulations implemented by this chapter.

Not Applicable

2f. Provide a summary of how federal statutes and regulations are implemented by this chapter.

Not Applicable

### 3. DOES THE CHAPTER GO BEYOND FEDERAL LEGAL REQUIREMENTS?

3a. Is this chapter more stringent than federal statutory or regulatory requirements?

Yes  No  Not Applicable  (check or circle)

*If the answer is "yes," then answer question 3b. If not, then proceed to question 4.*

3b. Provide a narrative statement regarding how this chapter is more stringent than required by federal statutes and regulations, and a short justification of why it is more stringent.

Not Applicable

### 4. DOES THIS CHAPTER HAVE UNINTENDED CONSEQUENCES?

4a. Does the chapter result in the equitable treatment of those required to comply with it?

Yes  No  (check or circle)

4b. Provide a narrative summary of your response.

This administrative chapter creates two types of permits for landfarming operations. The first is a single-use landfarm applicator permit which is issued to the applicator, not the site; allowing the applicator to apply petroleum-contaminated soil at multiple locations. The second is a multiuse landfarm permit which is issued for a specific property that is plotted out for multiple applications of petroleum-contaminated soil. Multiuse landfarms have more stringent operating requirements than those for single-use. However, a site used by a single-use applicator can be reused by closing it after the petroleum-contaminated soil passes closure standards, and then reopened as a new single-use site.

Because multiple single-use landfarms can be issued to a single location and multiuse landfarm permits have additional regulatory requirements, the DNR has never received an application for a multiuse landfarm permit. Because the single-use landfarm applicator permit does not

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require groundwater monitoring, data is not available to determine whether the process of repeated landfarming at a fixed location is having a negative environmental impact (i.e. contaminating groundwater).

Pursuant to 567 IAC 113.8(1)“b”(10), municipal solid waste sanitary landfills are prohibited from accepting petroleum-contaminated soil for disposal unless managed pursuant to 567 IAC 120. However, 567 IAC 120.2 states, “These rules do not apply to PCS that is being remediated or disposed of at a sanitary landfill. For rules governing the remediation and disposal of PCS at a sanitary landfill, see 567—Chapter 109.” These statements are contradictory and confusing to those wanting to land apply petroleum-contaminated soil. To further complicate matters, the remediation standards expressed in 567 IAC 120 and 109 are different.

Pursuant to the general special waste provisions of 567 IAC 109.11(2)“h,” petroleum-contaminated soil that has been remediated to 100 ppm total hydrocarbon content may be used as daily cover material or incorporated into the working face of a municipal solid waste sanitary landfill. Pursuant to 567 IAC 120.12, petroleum-contaminated soil that has been remediated to Tier I contaminant levels (from 567 IAC 135.9) is considered “clean” soil and does not have any use restrictions. In addition, 567 IAC 108.4(14)“b” states that petroleum-contaminated soil that has been remediated to the contaminant levels in 567 IAC 120.12 can be used as either fill material at the original excavation site pursuant to 567 IAC 108.6(1), or an alternative cover material at a sanitary landfill pursuant to 567 IAC 108.8. 567 IAC 113.8(1)“b”(1) specifically prohibits a municipal solid waste sanitary landfill from disposing of petroleum-contaminated soil unless managed and remediated pursuant to 567 IAC 120. As a result, there are four administrative chapters that have varying levels of remediation that provide for varying levels of reuse. These discrepancies speak directly to the lack of equitable treatment of those required to comply with the different standards in the various administrative chapters.

In addition to the varying remediation standards, there are several operational discrepancies that result from having petroleum-contaminated soil remediation standards in multiple administrative chapters. For example, 567 IAC 120 allows landfarming of petroleum-contaminated soil only during certain times of the year, where 567 IAC 109 allows it year round at a sanitary landfill. No trespassing signs, fencing, sediment control measures and groundwater monitoring are required at all multiuse landfarms, but not at single-use landfarms.

4c. Does the chapter result in the inequitable treatment of anyone affected by the chapter but not required to comply with it?

Yes  No  (check or circle)

4d. Provide a narrative summary of your response.

Not Applicable

4e. Are there known negative unintended consequences of this chapter?

Yes  No  (check or circle)

*If the answer is "yes," then answer question 4f. If not, then proceed to question 5.*

4f. Specifically state the nature of any negative unintended consequences.

The assumption was that a site used by an entity with a single-use landfarm applicator permit would be used only once. However, given a site can be closed and then reopened indefinitely, this has not been the case. As a result of this and other reasons expressed in response to question 4b above, the DNR has never issued a multiuse landfarm permit.

The definition of "petroleum contaminated soil" may be too broad in that it includes all soils with any level of petroleum contamination. In addition, soils that contain heavier oils (e.g. motor oil, lubricants, hydraulic oil) where the level of effort required to achieve the mandated remediation standards for these types of wastes may not be justified by the incremental increase in environmental protection.

There is also the concern of the volatile organic compounds being released into the atmosphere, which are currently unmonitored at landfarm sites. Perhaps landfilling certain petroleum-contaminated soils (i.e. heavy oils) would be more environmentally appropriate management method due to its inherent nature to remain stable and not degrade with exposure to air. Direct burial of these wastes and recouping the methane from the continued degradation of the contaminants in the soil may also constitute a more environmentally protective and beneficial use, as well as offering additional protection to employees over the traditional land application approach.

While there is no policy on what constitutes "clean soil," what has been conveyed is that if the soil is analyzed for petroleum (Iowa Methods OA-1 and OA-2) and the concentrations are beneath Tier 1 levels, the soil has no use restrictions. If the analysis yields concentrations at or above Tier 1 levels, the soil must be disposed of at a landfarm or sanitary landfill. If the sanitary landfill wants to dispose of petroleum-contaminated soil, it must either meet the 100 ppm standards expressed in 567 IAC 109 or the Tier I levels pursuant to 567 IAC 108.8(10). It's difficult to defend the remediation levels to 567 IAC 120 standards, as stated in 567 IAC 113 and 567 IAC 108 for disposal in a sanitary landfill, while a landfarm can leave the same petroleum-contaminated soil in place in order to meet landfarm closure requirements.

Whether the petroleum-contaminated soil is remediated at a single-use, multiuse or sanitary landfill site, the design and operating requirements should be nearly identical. For example, 567 IAC 120 specifies that the landfarming season is the time period between April 1st and October 31st, however, sanitary landfills are not bound by this same timeframe for landfarming activities. Another example is the varying remediation standards and authorized applications for petroleum-contaminated soil that are expressed in 567 IAC 108, 109, 113 and 120.

**5. CAN THE GOALS OF THE CHAPTER BE ACHIEVED IN A MORE EFFICIENT OR STREAMLINED MANNER?**

5a. Is the chapter broader than necessary to accomplish its purpose or objective?

Yes  No  (check or circle)

5b. Provide a narrative summary of your response.

Iowa Code section 455B.304(14) requires the DNR adopt rules for the land application of soils resulting from the remediation of underground storage tank releases in the state. This enabling statute does not mandate the development of a permitting program nor authorize the DNR to regulate those petroleum-contaminated soils that are not the result of an underground storage tank release (e.g. transport spills, legacy clean-up sites). As such, this administrative chapter could be considered broader than necessary to accomplish its statutory purpose. In addition, the two permit approach may be overly broad considering that no entities have ever requested a multiuse landfarm permit.

5c. Is the purpose of this chapter achieved in the least restrictive manner?

Yes  No  (check or circle)

5d. Provide a narrative summary of your response.

The purpose of this administrative chapter is not achieved in the least restrictive manner as it regulates more types of petroleum-contaminated soil than what statutory authority grants. In addition, the multiuse landfarm permits could be rescinded due to the remediation activities being identical to those occurring at sites issued a single-use landfarm applicator permit. Those best management practices applicable only to multiuse landfarm permits (e.g. groundwater monitoring, sediment control measures) could be considered for inclusion within the provisions relevant to single-use landfarm applicator permits to monitor and minimize any possible negative environmental impact.

Clarification is also needed as to whether the practice of landfarming petroleum-contaminated soil is considered a sanitary disposal project (i.e. facilitates the final disposition of waste) or whether it is more akin to recycling. If a sanitary disposal project designation is not applicable, certain permitting requirements (e.g. financial assurance, emergency response and remedial action plan) may no longer be statutorily required, but may be sound management practices that could be revised to provide additional flexibility.

5e. What, if any, reasonable and practical alternatives to this chapter are available by the agency?

- A fundamental issue that must first be addressed is to ensure that the DNR has been granted the statutory authority to administer a regulatory program for the remediation of petroleum-contaminated soil that results from activities other than an underground storage tank release.
- This administrative chapter creates two types of permits for landfarming operations.

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The first is a single-use landfarm applicator permit which is issued to the applicator, not the site; allowing the applicator to apply petroleum-contaminated soil at multiple locations. The second is a multiuse landfarm permit which is issued for a specific property that is platted out for multiple applications of petroleum-contaminated soil. Multiuse landfarms have more stringent operating requirements than those for single-use; however, a site used by a single-use applicator can be reused as long as it's closed upon the petroleum-contaminated soil passing closure standards, and then reopened as a new single-use site. As a result of this and other reasons expressed in response to question 4b above, the DNR has never issued a multiuse landfarm permit.

As such, multiuse landfarm permit requirements could be rescinded due to the remediation activities being identical to those occurring at sites issued a single-use landfarm applicator permit. Those best management practices applicable only to multiuse landfarm permits (e.g. groundwater monitoring, sediment control measures) could be considered for inclusion within the provisions relevant to single-use landfarm applicator permits to monitor and minimize any possible negative environmental impact. These changes would streamline and standardize the permitting requirements for all landfarming activities, regardless of the location.

- Given the design and operating requirements placed upon Resource Conservation and Recovery Act (RCRA) Subtitle D compliant municipal solid waste sanitary landfills (e.g. composite liners, leachate and methane collection systems), further consideration should be given to the direct disposal of petroleum-contaminated soil, regardless of the type of petroleum or concentration.
- Landfilling may be a more environmentally appropriate management method for this material due to its inherent nature to remain stable and not degrade with exposure to air. Burying the material and recouping the methane from the continued hydrocarbon degradation of the contaminants in the soil may be a more environmentally protective and beneficial use, as well as offering additional protection to landfill employees and the waste generator, than using a land application method. In addition, there are those heavier petroleum products such as motor oils, lubricants and hydraulic oils, which cannot be readily remediated. The level of effort required to achieve the mandated remediation standards for these types of wastes may not be justified by the incremental increase in environmental protection.
- Allow for alternative management options regarding petroleum contaminated soils containing nonvolatile petroleum contaminants (e.g. composting, bioremediation, thermal treatment).

5f. How do the economic and social costs of various alternatives to this chapter, if known, appear to compare to the known economic costs of this chapter?

The alternatives expressed above would not only streamline the permitting process for the DNR

and the permit applicant, but would result in improved regulatory clarity and consistency across facilities that undertake this petroleum-contaminated soil remediation approach. With regard to groundwater monitoring at landfarming sites and the possibility of negative environmental impact, no data is available with which to draw a conclusion. As stated above, landfilling of petroleum-contaminated soil may be a more cost-effective (e.g. avoided costs of testing, remediation, and transport) and environmentally appropriate management method given the environmental controls in place at municipal solid waste sanitary landfills and the potential to recoup the methane gas for beneficial reuse. Further consideration should be given to this as another management option for petroleum-contaminated soil.

5g. Do the known economic costs of the chapter outweigh the known economic and social benefits?

While this administrative chapter provides an alternative to landfill disposal, the lack of groundwater monitoring data at sites that conduct petroleum-contaminated soil remediation makes a determination of ultimate economic and social benefit difficult. Because the practice of landfarming petroleum-contaminated soil has been considered a sanitary disposal project in regards to permitting requirements (e.g. financial assurance, emergency response and remedial action plans) the costs associated with complying with those requirements may not be necessary.

Despite the conflicting remediation standards and varying authorized applications of remediated petroleum-contaminated soil, this administrative chapter provides waste generators with management options. It allows the waste generator to make their own determination of whether the cost of compliance with the regulatory provisions of this administrative chapter outweighs the cost of alternative remediation methods (e.g. thermal treatment, bioremediation). So long as the practice of landfarming petroleum-contaminated soil can be conducted in a manner that does not adversely affect human health and the environment, the DNR should continue to encourage this management method as another option available to waste generators.

## 6. DOES THE CHAPTER AFFECT BUSINESS OR INDUSTRY?

6a. Does the chapter affect businesses operating in Iowa?

Yes  No  (check or circle)

*If the answer is "yes," then answer questions 6b through 6i as applicable. If not, then proceed to question 6f.*

6b. What kinds of businesses are affected by this chapter?

The primary industries that utilize this administrative chapter for the management of petroleum-contaminated soil are the gas and convenience store sectors addressing underground storage tank releases, and the fuel distribution sector in responding to emergency

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spill releases. This administrative chapter also impacts first responders in that it provides assurance that safe handling and disposal criteria are in place when dealing with emergency response situations. Companies that contract with the previously mentioned businesses and the landowners whose ground is used for the application of petroleum-contaminated soil are affected by this chapter as well.

6c. Does this chapter create a burden for businesses?

Yes  No  **(check or circle)**

6d. Explain your response to question 6c.

This administrative chapter does not create a burden for businesses; rather it provides a management option to entities that generate petroleum-contaminated soil. It allows the waste generator to make their own determination of whether the cost of compliance with the regulatory provisions of this administrative chapter outweighs the cost of alternative remediation methods (e.g. thermal treatment, bioremediation).

*If the answer to question 6c is "yes," then answer question 6e. If not, then proceed to questions 6f through 6i.*

6e. If this rule does create a burden for businesses, what options are available to address those burdens?

Not Applicable

6f. Do industry standards affect the subject matter of this chapter?

Yes  No  **(check or circle)**

*If the answer is "yes," answer questions 6g through 6i as applicable. If not, proceed to question 7.*

6g. Have industry standards changed since the adoption of this chapter?

Yes  No  **(check or circle)**

*If the answer is "yes," answer questions 6h and 6i. If not, proceed to question 7.*

6h. What industry standards have changed since the adoption of this chapter?

The expansion of fuel types used in transport applications (e.g. ethanol and biodiesel) has created uncertainty in handling and treatment, as these may or may not be considered a refined petrochemical for which applicable remediation standards have been adopted.

6i. Would revision of the chapter be useful in implementing the purposes of the chapter in light of any industry standard revisions? (Cite the portions of the chapter that could be revised.)

The applicability of this administrative chapter would be entirely dependent upon whether these alternative biofuels are considered biodegradable petroleum products, and whether applicable remediation standards could be developed for these alternative fuel types.

## 7. DOES THIS CHAPTER AFFECT JOB CREATION?

7a. Does the chapter affect job creation?

Yes  No  (check or circle)

*If the answer is "yes," then answer questions 7b and 7c. If not, then proceed to question 8.*

7b. If this chapter affects job creation, in what manner does that occur?

Not Applicable

7c. If this chapter is required by state or federal statutes, or federal regulations, how has the department minimized negative job impacts?

Not Applicable

## 8. IS THERE ANY DOCUMENTATION OR PAPERWORK REQUIRED BY THIS CHAPTER?

8a. Is there any documentation or paperwork required by this chapter?

Yes  No  (check or circle)

*If documentation or paperwork is required, then answer questions 8b through 8e. If not, then proceed to question 9.*

8b. What is the purpose of the documentation or paperwork?

The rules within this administrative chapter that require the submittal of paperwork pertain to minimum permit application requirements and subsequent permitting actions (e.g. storage and land application notifications). This required documentation ensures petroleum-contaminated soil is being managed at authorized sites and in a manner that is protective of human health and the environment.

8c. Who reviews the paperwork required by the chapter?

DNR central office program staff and field office staff review permit applications, notification forms and site inspection reports to ensure compliance with regulations and that such activities are protective of human health and the environment. The minimum permit application and management plans required in this administrative chapter serve as the basis for permit issuance and documentation of compliance with operating requirements.

8d. How is the documentation or paperwork required by this chapter informative or useful for the public?

Because all paperwork is made public, it provides transparency and a level playing field for all required to comply with this administrative chapter. The minimum permit application, notification, and reporting requirements in this administrative chapter provide the DNR and the

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public with information on who, where and how petroleum-contaminated soil is being managed at a site. These permit application and notification requirements are vital to ensure the petroleum-contaminated soil remediation activities are being conducted at authorized locations and in a manner that is protective of human health and the environment. In addition, landfarming notifications provide the public with documentation regarding past land use and assurances that closed sites have met final remediation standards.

8e. How, if possible, can the documentation or paperwork requirements be reduced?

Opportunities exist to simplify the regulatory oversight (i.e. permitting and notification) of landfarming and the accompanying paperwork through standardizing the permitting process and establishing an online submittal procedure. Landfarming sites are similar in operation such that the issuance of a “general permit” or through a broader permit-by-rule approach to regulatory oversight could be considered.

As stated in 5d above, clarification is needed as to whether the practice of landfarming petroleum-contaminated soil is considered a sanitary disposal project (i.e. facilitates the final disposition of waste) or whether it is more akin to recycling. If a sanitary disposal project designation is not applicable, certain permitting requirements may no longer be statutorily required. For example, Iowa Code section 455B.306(7)“d” states, “An emergency response and remedial action plan including established provisions to minimize the possibility of fire, explosion, or any release to air, land, or water of pollutants that could threaten human health and the environment, and the identification of possible occurrences that may endanger human health and environment.” However, the provisions in 567 IAC 120.10(4) are overly prescriptive and at times, not applicable to petroleum contaminated soil landfarms. Adopting the language verbatim from statute would be more appropriate and less prescriptive. Perhaps already existing facility safety plan(s) required by another entity (e.g. OSHA, county zoning) could be used to satisfy the emergency response and remedial action plan requirement.

## 9. DO OTHER STATE AGENCIES REGULATE THE ISSUES ADDRESSED BY THIS CHAPTER?

9a. Do any other state agencies regulate any issue(s) addressed by this chapter?

Yes  No  (check or circle)

*If the answer is “yes,” then answer questions 9b to 9e. If not, then proceed to question 10.*

9b. If other state agencies regulate any issue(s) addressed by this chapter, provide the name of each agency, a description of how each agency is involved, and specify the subject matter regulated by each agency.)

The DNR’s Underground Storage Tank (UST) section regulates certain aspects of underground storage tank releases, but the program does not always result in the excavation and remediation of petroleum-contaminated soil.

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9c. Is there a need for more than one set of rules?

Yes  No  (check or circle)

*If the answer is "yes," then proceed to question 9d. If not, then proceed to question 9e.*

9d. If any other state agencies regulate any issue(s) addressed by this chapter and one or more of the other sets of rules are necessary, explain why.

The underground storage tank regulations in 567 IAC 135 include requirements for determining when corrective action needs to be taken and whether institutional controls or excavation of soil is needed due to potential exposure receptors and the contamination concentrations that pose an unreasonable risk to public health and safety or the environment. While 567 IAC 135 and 567 IAC 120 regulate petroleum contaminated soil, both are necessary because 567 IAC 135 regulates the material and its risk in-situ and 567 IAC 120 regulates the risks to surface and groundwater once excavated.

9e. If this chapter or a portion thereof is duplicative, explain how and why.

While 567 IAC 135 and 567 IAC 120 both address the management of petroleum-contaminated soil, their provisions are not duplicative. 567 IAC 135 regulates petroleum-contaminated soil and its risk in-situ, while 567 IAC 120 regulates the risks to surface and groundwater once the petroleum-contaminated soil is excavated.

The duplication that does occur regarding the remediation of petroleum-contaminated soil is the result of four administrative chapters (i.e. 567 IAC 109, 108, 113 and 120) having varying remediation standards, as well as varying authorized reuse applications (see response to 4b above). Pursuant to the general special waste provisions of 567 IAC 109.11(2)"h," petroleum-contaminated soil that has been remediated to 100 ppm total hydrocarbon content may be used as daily cover material or incorporated into the working face of a municipal solid waste sanitary landfill. Pursuant to 567 IAC 120.12, petroleum-contaminated soil that has been remediated to Tier I contaminant levels (from 567 IAC 135.9) is considered "clean" soil and does not have any use restrictions. In addition, 567 IAC 108.4(14)"b" states that petroleum-contaminated soil that has been remediated to the contaminant levels in 567 IAC 120.12 can be used as either fill material at the original excavation site pursuant to 567 IAC 108.6(1), or an alternative cover material at a sanitary landfill pursuant to 567 IAC 108.8. 567 IAC 113.8(1)"b"(1) specifically prohibits a municipal solid waste sanitary landfill from disposing of petroleum-contaminated soil unless managed and remediated pursuant to 567 IAC 120.

## 10. IS THE CHAPTER USER FRIENDLY?

10a. Is the chapter written and organized in a clear and concise manner so that those to whom it applies can readily understand it?

Yes  No  (check or circle)

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*If the answer is “no,” then answer question 10b. If not, then proceed to question 11.*

10b. If not, explain what changes can be made to improve readability, eliminate ambiguity, or increase understanding. Be specific, to the extent possible.

Beyond the fundamental question of whether the practice of landfarming petroleum-contaminated soil is “recycling” or an activity that warrants permitting as a sanitary disposal project, there are several opportunities to consider in addressing the ambiguity within this administrative chapter. They include:

- The stated purpose of this administrative chapter in 567 IAC 120.1 is to “establish rules for the safe and effective remediation and disposal of petroleum-contaminated soil.” However, this administrative chapter only addresses remediation, and the disposal of petroleum-contaminated soil is only briefly referenced in 567 IAC 109.11(2)“h”. Further clarification is needed regarding what constitutes “disposal” of petroleum-contaminated soil.
- The definition of petroleum-contaminated soil in 567 IAC 120.3 needs to be clarified as to whether biodiesel and ethanol fuels are included. In addition, the level of petroleum contamination (e.g.  $\leq 100$  ppm total hydrocarbon, Tier I levels, Iowa statewide standards) that warrants regulation as a petroleum-contaminated soil pursuant to this administrative chapter should be clarified.
- 567 IAC 120.9(2) states that saturated, slurry or flammable petroleum-contaminated soil should not be land applied or stored at a landfarm and that it should be bulked with other biodegradable materials (e.g. compost, mulch) until it no longer retains those properties. While the addition of compost or mulch would address the saturation concern, doing so raises another concern of generating greater amounts of flammable material. There is also a question of whether the addition of bulking material would be considered illegal treatment of a hazardous waste (i.e. characteristically hazardous for ignitability 40 CFR, Part 261.21).
- Pursuant to 567 IAC 120.12(2), single-use landfarms may be “closed three years after the application of petroleum-contaminated soil, or at least six month after the application of petroleum-contaminated soil when documentation has been submitted and acknowledged in writing by the department that each landfarm plot has been tested as follows.” A concern that arises is in regard to the management of soil laden with heavy oils that do not readily remediate. This subrule allows for the situation where a landfarm site is allowed to close despite the petroleum-contaminated soil not meeting the associated remediation standards in 567 IAC 120.12(2)“a” and “b.”

In addition, 567 IAC 120.4(8) specifies that landfarm permits are issued for three years and may be renewed for a similar period of time. In the case of a landfarm managing soil

laden with heavy oils, the question arises as to whether the site should be allowed to expire after a three year period or be required to renew the permit, until the applicable remediation standards have been met. The application of a finite timeframe to dictate whether appropriate and adequate remediation has occurred does not take into consideration the various types of petroleum-contaminated soils that maybe managed.

- The provisions of 567 IAC 120.6 are comparable to the record-keeping and reporting requirement of 567 IAC 120.11, and as such could be combined to provide greater clarity and address any areas of duplication.
- As stated in response to 4b and 9e above, duplication and conflicting regulatory requirements exist regarding the varying remediation standards and varying authorized reuse applications expressed in 567 IAC 120, 109, 108 and 113. These regulatory inconsistencies must be addressed in any future rulemaking effort to provide the regulated community and the public with certainty that appropriate petroleum remediation standards and practices are in place, which are protective of human health and the environment.
- Further dialogue with interested parties is needed regarding whether groundwater monitoring is warranted at all landfarming sites or if the amount of petroleum-contaminated soil or the level of contamination should trigger groundwater monitoring.
- Pursuant to 567 IAC 120.11(1)“a” and “b”, multiuse and single-use landfarms are to provide the DNR with prior written notification of petroleum-contaminated soil storage and land application. While at least 30 days’ notice is encouraged, it’s not explicitly required and therefore the DNR often receives such notifications the day of or even after storage and land application activities have been undertaken. While requiring a 30-day prior notification may be perceived as burdensome to those landfarming petroleum-contaminated soils, identifying site deficiencies prior to storage or application would be far more cost-effective and environmentally protective than assessing them afterward.
- While not a reduction in paperwork, the permit application submittal needs to include a map delineating the land application area(s) and show application field slopes, nearby wells and residences, as well as a table showing locations and landowner information to expedite DNR review and permit issuance. While compliance with these provisions is required in 567 IAC 120.7, there is no associated documentation submittal to the DNR to ensure site compliance.

## **11. ARE THE CITATIONS IN THE CHAPTER ACCURATE?**

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<p>11a. If this chapter contains <u>lowa Code citations</u>, are those citations proper and current?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable <input type="checkbox"/> <b>(check or circle one option)</b></p> <p><i>If the answer is "no," then answer question 11b. If not, then proceed to question 11c.</i></p>
<p>11b. If not, list and explain the corrections that need to be made to the Iowa Code citations.</p> <p>Not Applicable</p>
<p>11c. If this chapter contains <u>federal statutory citations</u>, are those citations proper and current?</p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable <input checked="" type="checkbox"/> <b>(check or circle one option)</b></p> <p><i>If the answer is "no," then answer question 11d. If not, then proceed to question 11e.</i></p>
<p>11d. If not, list and explain the corrections that need to be made to the federal statutory citations.</p> <p>Not Applicable</p>
<p>11e. If this chapter contains <u>federal regulatory citations</u>, are those citations proper and current?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable <input type="checkbox"/> <b>(check or circle one option)</b></p> <p><i>If the answer is "no," then answer question 11f. If not, then proceed to question 11g.</i></p>
<p>11f. If not, list and explain the corrections that need to be made to the federal regulatory citations.</p> <p>Not Applicable</p>
<p>11g. If this chapter contains <u>internal cross-reference citations</u>, are those citations correct and current?</p> <p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Applicable <input type="checkbox"/> <b>(check or circle one option)</b></p> <p><i>If the answer is "no," then answer question 11h. If not, then proceed to question 11i.</i></p>
<p>11h. If not, list and explain the corrections that need to be made to the internal cross-references.</p> <p>Not Applicable</p>
<p>11i. If the chapter contains <u>cross-reference citations to other chapters</u>, are those citations correct and current?</p> <p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable <input type="checkbox"/> <b>(check or circle one option)</b></p> <p><i>If the answer is "no," then answer question 11j. If not, then proceed to question 11k.</i></p>
<p>11j. If not, list and explain the corrections that need to be made to the cross-references to other chapters or outside sources.</p> <p>The reference to 567 IAC 135.15 in subparagraph 120.6(2)"c"(3) should be changed to 567 IAC</p>

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135.19.

11k. If this chapter contains website references, are those website references necessary, correct and current?

Yes  No  Not Applicable  **(check or circle one option)**

*If the answer is "no," then answer question 11l. If not, then proceed to question 11m.*

11l. List and explain any necessary corrections to the website references.

Not Applicable

11m. If the chapter contains addresses and phone numbers, are the addresses and phone numbers necessary, correct and current?

Yes  No  Not Applicable  **(check or circle one option)**

*If the answer is "no," then answer question 11n. If not, then proceed to question 11o.*

11n. List and explain any corrections that need to be made to the addresses and phone numbers contained in the chapter.

Not Applicable

11o. If the chapter contains adoptions by reference, are those adoptions by reference correct and current?

Yes  No  Not Applicable  **(check or circle one option)**

*If the answer is "no," then answer question 11p. If not, then proceed to question 11q.*

11p. List and explain any corrections that need to be made to update adoptions by reference.

567 IAC 120.13(4)"f"(5) refers to Governmental Accounting Standards Board (GASB) Statement 18. GASB 19 pertains only to accounting standards for municipal solid waste sanitary landfill closure and postclosure care costs; not any activity this administrative chapter regulates.

11q. If the chapter contains DNR-created documents adopted by references, are those document references necessary, correct and current?

Yes  No  Not Applicable  **(check or circle one option)**

*If the answer is "no," then answer question 11r. If not, then proceed to question 12.*

11r. List and explain any corrections that need to be made to update the DNR-created document references.

Not Applicable

## 12. WHAT PUBLIC GROUPS ARE AFFECTED BY THE CHAPTER?

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12a. List any stakeholder groups, workgroups, public groups or other public participants impacted by the issues in the chapter.

Potential interested parties: Iowa Society of Solid Waste Operations (ISOSWO), Association of Business and Industry (ABI), Iowa Department of Agriculture and Land Stewardship (IDALS), Farm Bureau, Iowa Solid Waste Comprehensive Planning Areas, Iowa Department of Agriculture and Land Stewardship (IDALS), Sierra Club – Iowa Chapter, Iowa Environmental Council (IEC), Iowa Recycling Association (IRA), Petroleum Marketers and Convenience Stores of Iowa (PMCI), Iowa Environmental Health Association (IEHA), County Environmental Health Sanitarianics, Emergency responders, current permitted municipal solid waste sanitary landfills in Iowa, Land application contractors and landowners that allow petroleum-contaminated soil to be land applied.

12b. If any stakeholders have already been included in a review process for this chapter during the past five years, state the names of those stakeholder groups, workgroups, public groups, or other public participants, and explain the nature of their involvement.

External stakeholder feedback has not been sought in the past five years regarding revisions to this chapter.