33 C.S.R.1.A: DISPOSAL OF COMPLETION WASTE
AMENDMENTS MADE TO PROPOSED RULE IN RESPONSE TO COMMENTS
2017 RULEMAKING

Summary of Amendments:

The Division of Water and Waste Management's proposed Interpretive Rule entitled "Disposal of Completion Waste" (33 CSR 1A), which public comment period commenced on March 16, 2017, was amended in response to comments received by the agency as of April 17, 2017. One amendment involved modifying the proposed term "Completion Waste" to instead be termed as "Completion and Production Waste". The change of the term to include the words "Production Waste" would support the landfills in accepting production waste streams in addition to the completion waste streams.

Further, the agency amended Section 3.1 to clarify that the permittee should obtain a minor permit modification prior to accepting or disposing of completion waste in the landfill in accordance with subsection 4.13 of the Solid Waste Management Rule (33 CSR 1). DWWM has changed the language in subsection 3.3. to clarify the radiation monitoring requirements that apply are from subsection 3.5 of the proposed rule. Subdivisions 3.4.a and 3.4.b where combined to clarify the waste profiling requirements needed to obtain a minor permit modification. Subdivision 3.4.c. was amended to ensure that if the combined concentration in the waste was equal to fifty picocuries per gram (50pCi/gr.), the facility could also accept the waste for disposal. Therefore, the agency revised the language to say, "If the combined concentration in the waste is less than or equal to fifty picocuries per gram (50pCi/gr.), the facility may accept the waste for disposal."

33 C.S.R. 1A: DISPOSAL OF COMPLETION WASTE

RESPONSE TO COMMENTS

2017 Rule Making

On March 16, 2017, the Division of Water & Waste Management (DWWM) commenced a thirty-day public comment period to accept written comments on the proposed Interpretative Rule, *Disposal of Completion Waste* ("Rule"). DWWM proposed the following:

> Develop rules relating to the disposal of completion waste generated from well sites at commercial solid waste facilities. The proposed rule establishes limits for unique toxins associated with completion wastes and requires radiation and leachate monitoring at all facilities receiving completion waste.

DWWM accepted written comments through April 17, 2017. Four commenters submitted written comments regarding the proposed interpretive rule. No comments were received after the submission deadline. DWWM addresses written comments below.

1. **COMMENTERS:** West Virginia Oil & Natural Gas Association, Independent Oil & Gas Association of West Virginia, Waste Management of West Virginia

COMMENT A: Commenters state that section 1.2. of the Interpretive Rule, setting forth the authority to promulgate the rule, references W. Va. Code § 22-15-8(h), which authorizes the promulgation of legislative rules and emergency rules, not interpretive rules, and they suggest a different authorizing reference be used, or that the reference be eliminated.

RESPONSE A: Based on the definitions of the different types of rules an agency may promulgate, to authorize a legislative rule is also to authorize an interpretive rule, as an interpretive rule "is intended by the agency to provide information or guidance to the public regarding the agency's interpretations, policy or opinions upon the law enforced or administered by it. . . ." *See*, W. Va. Code §§ 29A-1-2(c) and 29A-3-1, et seq. The Solid Waste Management Act (W. Va. Code § 22-15-1, et seq.) and its implementing rule (33 CSR 1) is "law enforced or administered by [the agency]" and, thus, the agency offers this interpretive rule as clarification of how drilling waste is to be handled in accordance with the same. Therefore, DEP's cited authority to promulgate the instant rule is proper.

COMMENT B: Commenters state that Section 1.5., Applicability, states that the Interpretive Rule applies to commercial facilities that are authorized to accept horizontal well drill cuttings and drilling waste. Commenter asks if this applies to all horizontal wells, or only those regulated in accordance with Chapter 22, Article 6A.

RESPONSE B: This Rule applies to the facilities that accept "drill cuttings and drilling waste generated from horizontal well sites" for disposal pursuant to W. Va. Code § 22-15-8(g).

COMMENT C: Commenters state that the definition of "Completion Waste" as proposed includes waste streams that are generated in the production phase of the well; however, the term "Completion Waste" limits the ability of the landfills to accept production waste streams. Commenters suggest that the term be changed to "Completion and Production Waste".

RESPONSE C: DWWM concurs with the comment and has modified the term to "Completion and Production Waste".

COMMENT D: Commenters suggest that Section 3.1. should be revised to clarify that a minor permit modification should be obtained by a permittee prior to acceptance and disposal of the waste.

RESPONSE D: DWWM concurs with the comment, and Section 3.1. has been modified to say, "Prior to the acceptance and disposal of completion waste, a permittee shall apply for and obtain a special waste minor permit modification in accordance with subsection 4.13 of the Solid Waste Management Rule."

COMMENT E: Commenters state that Section 3.2. appears to be internally inconsistent. As defined, "Completion wastes" are not "drill cuttings and associated drilling wastes" and therefore a cell that contains both would seem not to be dedicated solely to "drill cuttings and associated drilling waste".

RESPONSE E: The intent of this interpretive rule is to clarify the definition of "drilling waste" to include completion and production waste in order to allow this waste to be disposed of in the dedicated cell(s) authorized by W. Va. Code § 22-15-8.

COMMENT F: Commenters suggests that the phrase "except as provided in Section 3.5. below" be add at the end of Section 3.3. as there are certain requirements in the Solid Waste Management Rule that do not apply. As an alternative to adding this language, the commenter suggests removing the phrase "and radiation monitoring" from Section 3.3.

RESPONSE F: The Commenters' point is well taken; DWWM has changed the language in 3.3. to clarify the requirements.

COMMENT G: Commenters are concerned about what must be sampled. Can the composite sample come from one of multiple containers of the same type of waste? Is it one sample from each type of waste? Does it allow composite sampling of different types of completion wastes, or completion wastes and other wastes, such as drill cuttings? Is it different from the requirement in Section 3.4.c. that "each load" be tested for Radium 226 and Radium 228?

RESPONSE G: This comment requests a statement from DWWM about how it will implement the rule, rather than a comment based on the merits of the rule itself, which comment is not entitled to a response, and DWWM will not be bound by any response it provides herein. Further, it is clear that subdivisions 3.4.b. and 3.4.c. are separate requirements, in that subdivision 3.4.c. clearly states, "In addition to analyses set forth in subdivision 3.4.b. . . ." However, in order to further clarify the language in the rule, DWWM (a) has modified subdivision 3.4.a. to say, "The facility shall obtain from the generator results

from at least one representative, composite sample of the waste, unless otherwise approved by the Secretary." and (b) combined subdivision 3.4.b. with subdivision 3.4.a.

COMMENT H: Commenters propose a screening method to allow generators to determine which wastes should be sampled for Radium 226 and Radium 228. In lieu of sampling, the commenters suggest allowing the waste generators to scan the waste to determine an exposure level of the waste. If a radiation exposure scan is less than or equal to 100μR/hr, the generator would not have to determine the combined concentration of Radium 226 and Radium 228. Scans above 100μR/hr would require concentration testing.

RESPONSE H: DWWM understands the request, but the requirement to test each container for radium 226 and 228 will remain in the Rule.

COMMENT I: Commenters oppose the requirements in Section 3.4.b requiring the sampling for Toxicity Characterization Leaching Procedure (TCLP) for metals, volatiles, semi-volatiles, Total Petroleum Hydrocarbons (TPH), and percent solids. Specifically, the commenters oppose the requirement that sampling results must not exceed the limits of 40 C.F.R 261.24, as oil and gas exploration and production wastes are exempt from hazardous waste regulatory requirements per 40 C.F.R. 261.4(b)(5), W. Va. Code § 22-18-6(a)(2)(A)(iv), and 33 CSR 20-3.1.

RESPONSE I: 40 C.F.R. § 261.4(b)(5) states that oil and gas exploration and production waste is a waste stream that is excluded from hazardous waste regulation under Subtitle C of the federal Resource Conservation and Recovery Act (RCRA). This Rule does not regulate these wastes as hazardous waste; rather it allows the disposal of this waste in permitted solid waste landfills, so long as the sampling results from the TCLP analyses do not exceed the limits of 40 C.F.R. § 261.4. Further, 33 C.S.R.1 § 4.13.a.2 states, "Nothing must limit or affect the power of the Secretary to prohibit or require special handling requirements determined to be necessary to protect the environment or the health, safety, and welfare of the public."

COMMENT J: Commenters state that TPH and percent solids do not have a corresponding limit in 40 C.F.R § 261.24 and that a "reasonable limit" be set for these parameters.

RESPONSE J: DWWM has combined subdivisions 3.4.b. and 3.4.a. to clarify the requirements. The waste must contain 20% solids by weight in accordance with the Solid Waste Management Rule. There is no limit for TPH. The DEP requires special handling for certain waste streams based on the level of TPH in the waste.

COMMENT K: Commenters believe the regulation of completion waste by the State of Ohio might offer an alternative approach that West Virginia could consider.

RESPONSE K: DWWM believes the approach set forth in this Rule is appropriate for the protection of the environment and the health, safety and welfare of the public, and is in compliance with the West Virginia Solid Waste Management Act and the Solid Waste Management Rule.

COMMENT L: Commenters believe Section 3.4.c. should be revised to indicate that if the combined concentration is "less than or equal to fifty picocuries per gram…", the facility may accept the waste. Otherwise, waste at 50 pCi/g cannot be accepted or rejected.

RESPONSE L: DWWM agrees with the comment and has revised the language say, "If the combined concentration in the waste is less than or equal to fifty picocuries per gram (50pCi/gr.), the facility may accept the waste for disposal."

COMMENT M: Commenter states that for consistency with 33 CSR 1 § 5.6.d.4., the word "average" should be added before "local background" in subdivision 3.5.d., and the introductory phrase of subsection 3.5.e. should be revised accordingly: "If a load of completion waste is confirmed to be equal to or greater than 10μR/hr above average local background…"

RESPONSE M: The Solid Waste Management Rule, 33 C.S.R. 1 § 5.6.d.4. does not contain the word "average", and the language in this Rule is consistent with 33 C.S.R. 1.

COMMENT N: Commenter states that Section 4.1 refers to protection of the "environment to the health, safety and welfare of the public". Comment assumes the "to" was intended as an "or".

RESPONSE N: DWWM finds the comment well taken; the word "to" was intended to be "or" and the Rule has been revised accordingly.

2. **COMMENTER:** Hanna Law Office by Samuel F. Hanna on behalf of Mark Butler, Manager for American Disposal Services of West Virginia, Inc. d/b/a Short Creek Landfill

COMMENT: The commenter objects to the content of the draft Rule; specifically, to the portion of the Rule restricting the disposal of completion wastes solely to monofills. The commenter believes that co-disposal with MSW provides equivalent protection to monofilling. He states that facilities that co-dispose of MSW and drill cuttings have received approval of a Radiation Monitoring Plan and they monitor their leachate for Radium 226 and Radium 228. He states that the likelihood of leachate containing problematic level of Radium 226 and Radium 228 are reduced at facilities that co-dispose of drilling wastes, completion wastes and MSW. He believes there is no technical justification for requiring monofilling of completion wastes and that it deprives existing facilities of business opportunities.

RESPONSE: Co-disposal of this waste stream does not allow for separate testing of the leachate. DWWM is requiring this waste stream to be disposed in an oil and gas waste specific disposal cell in order to monitor the leachate separately from the rest of the facility, in accordance with the Solid Waste Management Act and the Solid Waste Management Rule.

WVONGA
West Virginia Oil and Natural Gas Association

IOGA
West Virginia

April 14, 2017

VIA E-MAIL
Subhir Patel, Waste Permitting Supervisor
West Virginia Department of Environmental Protection
Division of Water and Waste Management
501 57th Street SE
Charleston WV 25304
sudhir.d.patel@wv.gov

RE: Proposed West Virginia Interpretive Rule, Disposal of Completion Waste, 33 CSR 1A

Dear Mr. Patel,

Please find attached for submittal with the West Virginia Department of Environmental Protection, the Comments of the West Virginia Oil & Natural Gas Association and the Independent Oil & Gas Association of West Virginia regarding Proposed West Virginia Interpretive Rule, Disposal of Completion Waste, 33 CSR 1A.

Thank you for your attention to this matter.

Sincerely,

Anne C. Blankenship (SMS)

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Attachment

Comments of the
West Virginia Oil & Natural Gas Association
and the
Independent Oil & Gas Association of West Virginia
regarding
Proposed West Virginia Interpretive Rule, Disposal of Completion Waste,
33 CSR 1A

To: Division of Water and Waste Management
West Virginia Department of Environmental Protection
ATTN: Sudhir D. Patel, Waste Permitting Supervisor
501 57th Street SE
Charleston WV 25304

The West Virginia Oil & Natural Gas Association and the Independent Oil & Gas Association of West Virginia ("Commenters") appreciate the opportunity to submit the following comments on the proposed interpretive rule, Disposal of Completion Waste, 33 CSR 1A ("Interpretive Rule").[1] The Interpretive Rule was submitted to the Secretary of State on March 16, 2017, and comments are due to the West Virginia Department of Environmental Protection ("DEP"), Division of Water and Waste Management ("DEP DWWM") on or before April 16, 2017

A. §33-1A-1. General.

Section 1.2 of the Interpretive Rule, setting forth the authority to promulgate the rule, references *W. Va. Code* §22-15-8(e), which authorizes the promulgation of legislative rules and emergency rules, not interpretive rules. We are not taking issue with the DEP's authority to issue this Interpretive Rule, but suggest this particular reference be eliminated.

We note that Section 1.5, Applicability, states that the Interpretive Rule applies to commercial facilities that are authorized to accept horizontal well drill cuttings and drilling waste. Does this apply to all horizontal wells, or only those regulated in accordance with Chapter 22, Article 6A? Some horizontal wells, such as those drilled into the Lower Huron, may not fall under Article 6A.

B. §33-1A-2. Definitions.

The definition of "completion waste" is limited to wastes "generated during the completion process or derived from the hydraulic fracturing process associated with horizontal natural gas well development . . . ." However, the definition goes on to list as completion wastes several categories of wastes that are generated throughout the production life of the well, after

[1] To avoid confusion, the Solid Waste Management Rule is referenced as "33 CSR 1-__ __" and the specific provisions of the Interpretive Rule are referred to as "Section ____".

wells have been fracked and completed. For example, wastes such as brine, tank bottoms, filters, filter media, and pipe scale will be generated throughout the production phase.

We believe the Interpretive Rule should be applied more widely than to only those wastes generated during well completion activities. The Interpretive Rule definition appears to have been drawn from the list of substances excluded from the term "drill cuttings and associated drilling wastes" found at 33 CSR 1-5.6.a.1, which suggests that the DEP intended to differentiate between drill cuttings on one hand, and other solids, liquids, and sludges that are generated at a well site. While it is relatively easy to distinguish drill cuttings from other wastes, it is much harder to determine whether other sorts of waste were generated during completion, or after production had begun. More importantly, we do not see the need to draw a line between completion wastes and production wastes, when the timing of a waste's generation does not affect its environmental risk. We believe the DEP should address all wastes generated during completion or the production phase of the well as special wastes subject to this Interpretive Rule, and we would appreciate the DEP confirming that it will do so. If the DEP agrees that all types of waste coming from a well pad can qualify as a special waste subject to the Interpretive Rule, we suggest the reference in the Interpretive Rule be changed to "completion and production waste."

If the DEP wishes to distinguish between completion wastes and production wastes, we suggest that: 1) a clearer line be drawn between completion and operating wastes, and 2) for operating waste disposal, the DEP advise whether a special waste permit is not required, or whether alternative disposal requirements will apply.

C. §33-1A-3. Acceptance and Handling of Completion Waste as a Special Waste.

Section 3.1 requires a permit modification before a solid waste facility can accept completion waste, and references 33 CSR 1-4.13. That Section of the Solid Waste Management Rule states that "[f]acilities may receive solid waste that requires special handling methods for processing or disposal only by specific provisions within the facility permit, by obtaining a minor permit modification, or by obtaining other express written approval from the Secretary." Consequently, Section 3.1 should be revised to clarify that a minor permit modification should be obtained by a permittee prior to acceptance and disposal of completion waste. In addition, we suggest that the DEP leave itself some flexibility, and also allow use of "express written authorization" for acceptance of additional wastes, to be granted at the DEP's discretion. This would allow some leeway when evaluating whether to allow disposal of special wastes under Section 3.4, as a minor permit modification may not always be needed for a single load.

Section 3.2 appears to be internally inconsistent. "Completion wastes" are not "drill cuttings and associated drilling waste" per the definitions of those two terms, and therefore a cell that contains both completion wastes and drill cuttings would seem not to be dedicated solely to "drill cuttings and associated drilling waste." Furthermore, it suggests that landfill cells cannot be dedicated to completion wastes alone, and that any disposal of such wastes must be accompanied by drill cuttings.

Commenters do not object to combining completion waste in a cell with drill cuttings and associated drilling waste, but believe Section 3.2 should be clarified to indicate that completion wastes, drill cuttings and associated waste are to be confined in a separate, dedicated cell.

Section 3.3 mandates compliance with all the requirements related to liner systems and radiation monitoring that are specified in the Solid Waste Management Rule for drill cutting disposal. We suggest that the phrase "except as provided in Section 3.5, below" be added at the end of Section 3.3, as there are certain requirements in the Solid Waste Management Rule that do not apply, such as the prohibition in 33 CSR 5.6.d.4 against disposal of waste that is greater than 5 PCi/g above background level, and the requirement of submitting an incident report to the Department of Health and Human Resources within 24 hours. As an alternative, the DEP might consider deleting the phrase "and radiation monitoring" from Section 3.3, as we believe Section 3.5 contains all the requirements that apply for radiation monitoring of completion waste.

D. §33-1A-3.4. Waste Profiling Requirements.

Section 3.4 presents a number of issues that concern us. One overall concern is the absence of clear guidance as to what must be sampled. Section 3.4.a requires that each disposal facility obtain from the generator "at least one composite sample of the waste." Is that a sample from one of multiple containers of the same type of completion waste? Is it one sample from each type of waste? Does it allow composite sampling of different types of completion wastes, or completion wastes and other wastes, such as drill cuttings? Is it different from the requirement in Section 3.4.c that "each load" be tested for Radium 226 and Radium 228?

We believe that the best course of action is to require that, initially, the composite sample be a representative sample taken from the container holding each waste or commingled wastes. The container could be a box, a roll off container, or truck load. As long as the sample is representative, the amount of the total waste should not matter. Consequently, we suggest that Section 3.4.a be changed to read "Prior to disposal, the facility must obtain results from at least one representative, composite sample of the waste, unless otherwise approved by the Secretary."

In Section 3.4.b, testing for Radium 226 and 228 is required in order to protect against disposal of material with radiation levels greater than 50 pCi/gr. Such testing takes a long time to complete, during which time the wastes must be stored on site. We propose a screening method which would allow generators to determine which wastes should be sampled for Radium 226 and 228. Instead of the requirement to sample each load for Radium 226 and Radium 228, the DEP should rely on an approach similar to the sampling of drill cuttings in 33 CSR 1-5.6.d.4, which requires analysis only for loads that exceed a 10 μR/hr reading above background. Not all completion wastes will exceed that 10 μR/hr, and a generator who wanted to avoid the extreme costs and time delays of analysis on every load could do appropriate μR/hr screening onsite where the waste is generated prior to shipment. Utilizing a conversion factor based on the Pennsylvania Department of Environmental Protection report entitled "Technologically Enhanced Naturally Occurring Radioactive Materials (TENORM) Study Report,"[2] a radiation level of 50 pCi/gr is equivalent to an exposure level of 100 μR/hr and should be used as a threshold instead of 10 μR/hr. A radiation scan of a load/batch that measures less than or equal

[2] http://www.elibrary.dep.state.pa.us/dsweb/View/Collection-12323

to the 100 µR/hr would not be required to conduct a combined concentration lab analysis for Radium 226 and 228. For those completion wastes exceeding 100 µR/hr, Commenters suggest that each batch or specific jobsite of completion waste entering the solid waste facility have a composite ASTM 901 sample analyzed for the combined concentration of Radium 226 and Radium 228. If the combined concentration in the waste is less than 50 pCi/gr and less than 100 µR/hr, then the waste could be disposed.

Commenters oppose the requirement in Section 3.4.b for sampling for Toxicity Characterization Leaching Procedure ("TCLP") metals, volatiles, and semi-volatiles; total petroleum hydrocarbons ("TPH"); and percent solids, and then states that "[s]ampling results for these parameters must not exceed the limits of 40 C.F.R. 261.24." Although not expressly stated, the clear intent is to prohibit disposal of wastes that exceed those levels.

As a preliminary matter, percent solids and TPH do not have a corresponding limit in 40 CFR § 261.24, so the "must not exceed" language in the subsequent sentence in the proposed Interpretive Rule is confusing and meaningless. We suggest that a reasonable limit for percent solids and TPH be established in the Interpretive Rule.

While we understand that the purpose of the TCLP testing is to prevent disposal of hazardous waste, we would point out that these completion and production wastes are not hazardous wastes, even if they fail the TCLP. Oil and gas exploration and production wastes are Bentsen wastes, and exempt from the hazardous waste regulatory requirements per 40 C.F.R. 261.4(b)(5), *W. Va. Code* §22-18-6(a)(2)(A)(iv), and 33 CSR 20-3.1. Subjecting these otherwise exempt wastes to an absolute West Virginia landfill prohibition based on those otherwise non-applicable limits would leave generators no disposal options in West Virginia. As a result much of the completion waste created in West Virginia is hauled out of state which not only burdens operators with a great deal of additional expense but also costs the State of West Virginia via loss of tipping fees.

We believe the regulation of completion wastes by the State of Ohio might offer an alternative approach that West Virginia could consider. Ohio currently recognizes the federal Resource Conservation and Recovery Act ("RCRA") exemption under 40 CFR 261.4(b)(5) for exploration & production ("E&P") waste (Bentsen Amendment). As such, Ohio does not mandate additional testing to secure disposal approval at subtitle D landfills within the state. The waste generator merely certifies that the waste is covered under the E&P exemption. Within West Virginia, generators are required to conduct testing in accordance with the DEP Waste Characterization Form which adds unnecessary time and expense to characterize a waste that has known levels of impact based on historical events. In essence, Ohio accepts a blanket profile based on generator knowledge. The landfill gives the generator approval for one year and as long as they do not have any changes, a second year is granted.

Ohio also allows for the profiling of E&P waste for multiple sites within a limited geographic region. For example, drill cuttings from multiple sites within a county can be profiled under one form to cover all the sites within that county. This alleviates the need to secure multiple approvals for essentially the same material. West Virginia requires that all waste

be profiled on a per site basis and does not allow for combining multiple sites for a waste approval to reduce time and costs.

Commenters note that Section 3.4.c should be revised to indicate that if the combined concentration is "less than *or equal to* fifty picocuries per gram . . .", the facility may accept the waste. Otherwise, waste at 50 pCi/gr can be neither accepted nor rejected.

E. §33-1A-3.5. Radiation Monitoring.

For consistency with 33 CSR 1-5.6.d.4, the word "average" should be added before "local background" in subsection 3.5.d and the introductory phrase of subsection 3.5.e should be revised accordingly: "If a load of completion waste is confirmed to be equal to or greater than 10μR/hr above average local background . . .."

F. §33-1A-4. Daily Cover.

Section 4.1 refers to protection of the "environment to the health, safety and welfare of the public." We assume the "to" was intended as an "or".

G. Conclusion

For the reasons stated above, commenters respectfully request that DEP DWWM consider Commenters' comments and implement Commenters' suggestions as submitted. Commenters appreciate the opportunity to comment on the Interpretive Rule. Please do not hesitate to contact Mike Zeto at (304) 255-0491 or Doug Malcolm at (304) 343-9593 should you have any questions.

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April 13, 2017

Mr. Sudhir D. Patel
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West Virginia Department of Environmental Protection
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RE: West Virginia Interpretive Rule, Disposal of Completion Waste, 33 CSR 1A – Draft for Public Comment

Mr. Patel:

Waste Management of West Virginia ("WMWV") appreciates the opportunity to submit the following comments on the Interpretive Rule, Disposal of Completion Waste, 33 CSR 1A ("Interpretive Rule"). The Interpretive Rule was submitted to the Secretary of State on March 16, 2017 and comments are due to the West Virginia Department of Environmental Protection ("WV DEP"), Division of Water and Waste Management ("DEP DWWM") on or before April 16, 2017.

Waste Management of West Virginia operates 13 facilities in the state and contributed more than $13 million in direct labor costs to the West Virginia economy. Waste Management of West Virginia is a subsidiary of Waste Management, Inc., the leading provider of comprehensive waste and environmental services in North America.

Waste Management of West Virginia supports the comments submitted by the West Virginia Oil & Natural Gas Association and we have also added additional comments for WV DEP to consider.

A. §33-1A-1. General.

Section 1.2 of the proposed Interpretive Rule, addressing the authority to promulgate the interpretive rule references Section 22-15-8(e), which authorizes the promulgation of legislative rules and emergency rules, not interpretive rules. WMWV are not taking issue with the DEP's authority to issue this interpretive rule, but suggest a different authorizing reference.

B. §33-1A-2. Definitions.

The definition of "completion waste" is limited to wastes generated just during the completion/hydraulic fracturing phase. However, in defining completion waste, it includes certain wastes that are generated throughout the production life of the well. For example, wastes such as brine, tank bottoms, filters and filter media, and pipe scale will be generated

throughout the production phase. We believe this interpretive rule should also be available for wastes that are generated during the production phase of the well and that the defined term be changed to "completion and production waste."

C. §33-1A-3. Acceptance and Handling of Completion Waste as a Special Waste.

Section 33-1A-3.1 should be revised to clarify that a minor permit modification should be obtained by a permittee prior to acceptance and disposal of completion waste. Additionally, Section 33-1A-3.2 appears to be internally inconsistent. "Completion wastes" are not "drill cuttings and associated drilling waste" per the definitions of those two terms, and therefore a cell that contains both would seem not to be dedicated solely to "drill cuttings and associated drilling waste." WMWV does not object to combining completion and production waste in a cell with drill cuttings and associated drilling waste, but the Section should be clarified to indicate that completion & production waste, drill cuttings and associated drilling waste are to be confined to a separate, dedicated cell.

D. §33-1A-3.4. Waste Profiling Requirements.

WMWV has a number of concerns with the Waste Profiling Requirements in Section 33-1A-3.4. First, the requirement in subsection 3.4.a of "at least one composite sample of the waste," is not consistent with the requirement in subsection 3.4.c that "each load" be tested for Radium 226 and Radium 228. Instead of the requirement to sample each load for Radium 226 and Radium 228, WVDEP should rely on an approach more similar to the sampling of drill cuttings in 33 CSR 1-5.6.d. which required composite samples for profiling waste and landfills to install fixed radiation monitoring equipment. WMWV suggests each batch or specific jobsite of completion & production waste entering the solid waste facility shall have a composite ASTM 901 sample analyzed for the combined concentration of Radium 226 and Radium 228. All analyses must be conducted by a State certified laboratory. If the combined concentration in the waste is less than fifty picocuries per gram (50 pCi/gr) and less than 100 uR/hr as verified at the disposal facility then the waste may be disposed. If the values are greater than fifty picocuries per gram (50 pCi/gr) and / or 100 uR/hr , then the load must be rejected.

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Second, WMWV opposes the portion of subsection 3.4.b which requires sampling for TCLP and other characteristics, and then states that "[s]sampling results for these parameters must not exceed the limits of 40 C.F.R. 261.24." Oil and gas exploration and production wastes are Bevill wastes, and exempt from the hazardous waste regulatory requirements per 40 C.F.R. 261.4(b)(5) and WV 22-18-6(a)(2)(A)(iv) and 33 CSR 20-3.1. Subjecting these otherwise exempt wastes to an absolute West Virginia landfill prohibition based on those otherwise non-applicable limits would leave generators no disposal options in West Virginia for these wastes.

Third, subsection 3.4.b requires submittal of analysis of "Total Petroleum Hydrocarbons (TPH)" and "Percent Solids". The "TPH" and "percent solids" do not have a corresponding limit in 40 CFR 261.24, so the "must not exceed" language in the subsequent sentence in the proposed interpretive rule is confusing and meaningless with regard to TPH or percent solids.

Fourth, subsection 3.4.c should be revised to indicate that if the combined concentration is "less than or equal to fifty picocuries per gram . . .", the facility may accept the waste.

E. §33-1A-3.5. Radiation Monitoring.

For consistency with 33 CSR 1-5.6.d.4, the word "average" should be added before "local background" in subsection 3.5.d and the introductory phrase of subsection 3.5.e should be revised accordingly: "If a load of completion waste is confirmed to be equal to or greater than 10μR/hr above average local background . . .."

F. §33-1A-4. Daily Cover.

Section 4.1 refers to protection of the "environment to the health, safety and welfare of the public." We assume the "to" was intended as an "or".

Waste Management of West Virginia appreciates the opportunity to comment on the Interpretive Rule and respectfully requests that WV DEP consider implementing WMWV's comments and suggestions. Do not hesitate to contact me at 412-996-9001 should you have any questions.

Sincerely,

Mike Rind
Area Director of Operations
Waste Management Energy Services

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MARGARET J. WILLIAMS,
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April 17, 2017

Dr. Sudhirbhai Patel
West Virginia Department
of Environmental Protection
601 57th Street, SE
Charleston, West Virginia 25304

VIA HAND DELIVERY

Re: Comments for 33CSR1A, Interpretive Rule,
Series 1A Disposal of Completion Waste, §33-1A-1 thru §331A-4

Dear Dr. Patel:

This firm represents American Disposal Services of West Virginia, Inc. d/b/a Short Creek Landfill (American Disposal) which is a solid waste facility located in Wheeling, West Virginia. As such, please find attached a letter dated April 17, 2017, written by Mark Butler, Environmental Manager for American Disposal. Please consider this letter as my clients comments regarding 33CSR1A, Interpretive Rule, Department of Environmental Protection Waste Management, Series 1A, Disposal of Completion Waste (§33-1A-1 thru §331A-4), a copy of which is enclosed.

Should you have any questions, please do not hesitate to contact me.

Sincerely,

Samuel F. Hanna

SFH/sed

cc: Short Creek Landfill

American Disposal Services of West Virginia
258 North Fork
Short Creek, WV 26003

April 17, 2017

West Virginia Department of Environmental Protection
601 57th Street SE
Charleston WV, 25304

Re: Draft Interpretative Rule, Series 1A, Disposal of Completion Wastes

Dear Sir:

Republic Services, Inc. (Republic) respectfully objects to the content of Draft Interpretive Rule, 1A, Disposal of Completion Wastes (Draft Rule) as currently written. Specifically, Republic objects to the portion of the Draft Rule restricting the disposal of completion wastes solely to monofills. Republic believes that it would be protective of public health and the environment to allow for the co-disposal of completion wastes and other solids wastes, as is currently allowed in regard to Oil and Gas Drill Cuttings. Republic offers the following specific comments on this issue:

- Co-disposal of Completion Wastes with MSW provides equivalent protection to monofilling, as these types of units are subject to the same specifications for construction and monitoring.
- Facilities that co-dispose of MSW and drill cuttings, including those potentially including completion wastes, must monitor their leachate for radium 226 and 228.
- The likelihood of leachate containing problematic levels of radium 226 and 228 will be reduced in a facility that co-disposes of drilling wastes, completion wastes and MSW compared to a facility that monofills only drilling wastes and completion wastes. This is becausae leachate from the MSW will dilute radium-containing leaching from the drilling and completion wastes.
- Facilities that co-dispose of MSW, drill cuttings and completion wastes – as well as monocells – must prepare, submit and receive approval of a Radiation Monitoring Plan.
- There is no technical justification for restricting disposal of completion wastes to monocells. Accordingly, such restriction unnecessarily deprives existing facilities of business opportunity.

In summary, Republic Services requests that the Draft Rule be amended to allow for co-disposal of completion wastes with solid wastes.

Sincerely,

Mark Butler
Environmental Manager

cc: Sudihar Patel, West Virginia Department of Environmental Protection

33CSR1A

INTERPRETIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
WASTE MANAGEMENT

SERIES 1A
DISPOSAL OF COMPLETION WASTE

§33-1A-1. General.

1.1. Scope. -- This rule provides guidance and direction to commercial solid waste facilities for the proper disposal of completion waste as a special solid waste generated from horizontal well sites, pursuant to the provisions of the Solid Waste Management Rule, 33 C. S. R. 1.

1.2. Authority. -- W. Va. Code §§ 22-15-5 and 22-15-8(e) and (g).

1.3. Filing. -- .

1.4. Effective Date. -- .

1.5. Applicability. – This rule is applicable to the commercial solid waste facilities that are permitted to take drill cuttings and drilling waste generated from horizontal oil and natural gas well sites pursuant to the West Virginia Solid Waste Management Act, W. Va. Code § 22-15-8(g).

§33-1A-2. Definitions.

Unless the context in which used clearly requires a different meaning, the definitions contained in W. Va. Code § 22-15-2 and 33 C.S.R. 1 § 2 apply to this rule, in addition to the definition set forth below.

2.1. "Completion waste" means wastes generated during the completion process or derived from the hydraulic fracturing process associated with horizontal natural gas well development, including without limitation, flowback solids, brine, tank bottoms, pit cleanout material and sludges, filters and filter media, pipe scale and used fracturing sand and proppants.

§33-1A-3. Acceptance and Handling of Completion Waste as a Special Solid Waste.

3.1. Prior to the acceptance and disposal of completion waste, a permittee shall apply for and obtain a special waste permit modification in accordance with subsection 4.13 of the Solid Waste Management Rule.

3.2. The permittee shall dispose of all completion waste in a cell(s) dedicated solely to the disposal of drill cuttings and associated drilling waste, as established in the West Virginia Solid Waste Management Act and the Solid Waste Management Rule.

3.3. The permittee shall comply with all liner system and radiation monitoring requirements set forth in the Solid Waste Management Rule related to the construction of separate cells for the disposal of drill cuttings and associated drilling waste.

3.4. Waste Profiling Requirements.

3.4.a. The facility must obtain from the generator results from at least one composite sample of the waste, unless otherwise approved by the Secretary.

3.4.b. At a minimum, the facility must submit the following analyses with each application for a special waste minor permit modification: Toxicity Characterization Leaching Procedure (TCLP) Metals, EPA Method 1311; TCLP Volatile Organic Compounds, EPA Method 8260B; TCLP Semivolatile Organic Compounds, EPA Method 8270C; Total Petroleum Hydrocarbons (TPH), EPA Method 8015C; and Percent Solids, EPA Method Number 160.3 or 2540. Sampling results for these parameters must not exceed the limits of 40 C.F.R. § 261.24.

3.4.c. In addition to analyses set forth in subdivision 3.4.b above, the permittee must analyze each load of completion waste entering the facility for the combined concentration of Radium 226 and Radium 228, and each load shall be accompanied by the test results for that load. The analysis must be done by a laboratory certified by the Department's Environmental Laboratories Certification program. If the combined concentration in the waste is less than fifty picocuries per gram (50pCi/gr.), the facility may accept the waste for disposal. If the values are greater than 50pCi/gr, the facility shall reject the load.

3.5. Radiation Monitoring

3.5.a. The facility must also have a portable radiation monitor capable of determining dose rate and the presence of contamination on a vehicle. The facility shall provide staff with documented training in the operation of all onsite radiation monitors.

3.5.b. The radiation monitor installed at the facility pursuant to the Solid Waste Management Rule must be capable of measuring exposure rates from ten microroentgens per hour (10 μR/hr) to greater than fifty milliroentgens per hour (>50 mR/hr) (or equivalent units). The instrument must be maintained and calibrated according to manufacturer specifications.

3.5c. The detector elements must be configured to be as close as practical to the waste load and in an appropriate geometry to monitor the waste.

3.5.d. The facility shall set the detector to sound an alarm if the reading on the detector exceeds 10μR/hr (or equivalent units) above local background.

3.5.e. For each radiation alarm generated for completion waste the facility shall document the fixed detector reading and the associated combined concentration of Radium-226 and Radium-228 provided with the load. This information shall be supplied both to the

Department and to the West Virginia Department of Health and Human Resources' (DHHR) Radiological Health Program on a monthly basis.

3.5.f. Facilities accepting completion waste must submit to the DEP a Radiation Monitoring Plan that outlines the facility's procedures for managing the waste.

§33-1A-4. Daily Cover

4.1. The Secretary may require daily cover in excess of that required in the Solid Waste Management Rule on these drilling waste cells that receive completion waste if, in the Secretary's discretion, extra cover is needed to protect the environment to the health, safety, and welfare of the public.