COMMENTS REGARDING GENERAL PERMIT CONDITIONS

EPA Region IX received many comments about specific Draft Permit Conditions and recommendations for revisions to the Draft Permit Conditions. Where appropriate, the Region incorporated the recommended changes or made its own changes to address specific concerns. Where it disagreed with the commenter, the Region did not incorporate the changes. See the Final Permit in redline format.

Pursuant to 40 CFR § 124.17, the Region is required to make available to the public a response to comments at the time that any final permit decision is issued under 40 CFR §124.15. The response to comments should specify which provisions, if any, of the draft permit have been changed in the final permit decision, and the reasons for the change. It should also briefly describe and respond to all significant comments on the draft permit that were raised during the public comment period, including during any hearing. The Final Permit in redline format also reflects the Region's corrections to typographical, grammatical, and other minor errors in the Draft Permit.

The following responses to comments are organized by Commenter and are identified either by reference to the Permit Modules and its cover sheet or simply by the letter "C" for "comment."

Comments made on the Draft Permit Cover Sheet – CS- Comment #.

Comments made on the Draft Permit Modules – Module # - Comment #.

Other Public Comments – C - Comment #.

References to documents in the Administrative Record include the name of the record file (typically a "pdf" file) in quotes as the document is listed in the Administrative Record for the final Permit. The Administrative Record is available upon request to US EPA Region IX.[1] File names generally start with a date, although there are numerous exceptions.

COVER SHEET:

CS-1. One commenter recommended the deletion of language in the cover of the draft permit that expressed how the Permittees' obligations might extend beyond the life of the permit.

RESPONSE: The Region acknowledges that the fixed term of a RCRA permit is not to exceed ten years in accordance with 40 CFR § 270.50.[2] However, the Region maintains that the specific reference to the Permittees' continued obligations to perform the conditions of the Permit does not contradict this requirement:

[1] For a copy of the Administrative Record, or particular documents identified in these Responses to Comments, or other records identified in EPA's Administrative Record Index published with the final Permit, please contact Mike Zabaneh at Zabaneh.Mahfouz@epa.gov or at (415) 972-3348.

[2] See, also, Guidance on RCRA Permit Renewals, Feb. 2, 2000, RCRA Online Number: 14709 at https://yosemite.epa.gov/osw/rcra.nsf/ea6e50dc6214725285256bf00063269d/786EEFB6524DF83385256ECA00642C3D/$file/14709.pdf.

> "All obligations for performance of the conditions of this Permit are in effect until deemed complete by the Director of the Land Division for the U.S. Environmental Protection Agency, Region 9 (the 'Director')."

Typically, if permittees wish to continue facility operations, they are obligated to submit a permit renewal application in a timely manner in accordance with the conditions of their RCRA permit 40 CFR § 270.30(b). In addition, 40 CFR § 270.51, which refers to the Administrative Procedures Act[3] for its due process requirements, specifies that the conditions continue in full force until the effective date of a new permit.[4]

When the permittees desire to cease operations, they are required to give notice to the permitting authority and implement their closure plan.[5] After closure and any corrective action activities are completed, if applicable, permittees may choose to seek a permit modification in order to shorten the permit term to allow for its earlier termination.[6]

However, if, for whatever reason, a RCRA permit expires before the permittees' obligations – such as the obligation to perform closure of the facility – have been deemed complete, the permittees may not then escape obligations that RCRA imposes for proper closure and corrective action at the facility. See, ***e.g.***, RCRA Section 3004(u).[7] This would be especially true where, for example, the permittees themselves secured the premature expiration of the permit by failing to file a timely renewal application.

In its *In re GMC Delco Remy* decision, EPA's Environmental Appeals Board expressed a similar sentiment, as follows:

> "Once the owner or operator of a facility receives a permit for treating, storing or disposing of hazardous waste, it makes no sense to say that the permittee can simply unilaterally abandon ongoing corrective action responsibilities whenever it finds it expedient to discontinue the activities that prompted it to obtain a permit in the first instance. While it may be true in some cases that a permit would no longer be required for the discontinued hazardous waste management activity, the same would not necessarily be true of pending corrective action." 7 E.A.D. 136, at 147-148, (RCRA Appeal No. 95-11, June 1997).[8]

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[3] 5 USC § 558.

[4] 40 C.F.R. § 270.51(b) states that "Permits continued under this section remain fully effective and enforceable."

[5] See 40 CFR § 264.113.

[6] See, *e.g.*, Guidance on RCRA Permit Renewals, referenced above in footnote (fn.) 2.

[7] RCRA Section 3004(u) directs EPA to require owners and operators to take "corrective action for ***all*** releases of hazardous waste or constituents from any solid waste management unit at a treatment, storage or disposal facility . . . regardless of the time at which waste was placed in such unit." 42 USC § 6924(u), (emphasis added). See also 40 CFR § 264.112(d)(3): "If the facility's permit is terminated, or if the facility is otherwise ordered. . . to cease receiving hazardous wastes or to close . . . the owner or operator must close the facility in accordance with the deadlines established in §264.113."

[8] The EAB delves into further detail regarding the legislative history of RCRA's Hazardous and Solid Waste Amendments (HSWA) in examining the issue of ongoing corrective action obligations and the basis for the duty reflected there: "The legislative history of the HSWA makes it clear Congress intended the amendments to subject all RCRA permitted facilities to corrective action regardless of their active status," citing to the House Conference

Another possible scenario where continuing obligations may extend beyond the life of any RCRA permit could be where institutional controls are included as part of any corrective action remedy. See, e.g., Handbook: Implementing Institutional Controls in Indian Country, US EPA Office of Site Remediation Enforcement, Office of Enforcement and Compliance Assurance, November 2013 at https://www.epa.gov/enforcement/handbook-implementing-institutional-controls-indian-country.

The language to which the commenter objects accurately expresses the Permittees' continuing obligations to complete performance of permit conditions that are not deemed completed upon permit expiration. The Region will not delete the language as suggested by the commenter.

MODULE I:

I-1. One commenter requested clarification of the roles of each of the Permittees in terms of their respective obligations under the Permit and suggested that the Colorado River Indian Tribes as the beneficial landowner not be identified throughout the Permit as a Permittee with operator-related obligations.

RESPONSE: The Region disagrees. Neither RCRA Section 3004 nor the regulations promulgated pursuant to RCRA's hazardous waste provisions distinguish permittees based on whether they are the owner versus the operator. 40 CFR § 270.1(c) requires that both owners and operators of hazardous waste management units have permits during the active life (including the closure period) of the unit. While facility owners and operators may agree between themselves which will be primarily responsible for compliance, and while compliance by one in nearly all cases constitutes compliance by both, the Region will not identify the permittees as anything other than co-equals. The Region will not make changes to the term "Permittees," which appears throughout the final permit.

I-2. One commenter suggested revisions to the draft permit's "permit as a shield" language in draft permit conditions I.A.1. and I.A.4. The commenter asserted that the language in these draft permit conditions does not correctly track the language in 40 CFR § 270.4(a)(1) and did not sufficiently convey the permit shield protection that it believed the Permittees are entitled to. The commenter suggested that the Region incorporate the "permit as a shield" language from a recently-issued draft RCRA permit to another permit applicant (June 2016 draft permit for Envirosafe Services of Ohio, Inc.) (the "Envirosafe Permit").

RESPONSE: The Region made some -- but not all -- of the suggested modifications to Permit conditions I.A.1 and I.A.4. The Region is not obligated to utilize permit language that other Regions have proposed. 40 CFR § 270.4 does not provide a defense to an EPA enforcement action, but rather sets forth the "permit as a shield provision" and its exceptions.

Report, H. Conf. Rep. No. 1133, 98th Cong., 2d Sess. 92 (Oct. 3, 1984), reprinted at 1984 U.S.C.C.A.N. 5649, 5663, and the Senate Report, S. Rep. No. 284, 98th Cong. 1st Sess. 31-32 (Oct. 28, 1983). *GMC Delco Remy*, 7 E.A.D. 136, at 148.

I-3. One commenter requested a change to Draft Permit Condition I.A.5 insofar as: (1) it suggests that the Permit application contained or created requirements; (2) it is interpreted as conflicting with Draft Permit Condition I.A.4; and (3) it creates ambiguity where the Draft Permit Conditions are duplicative and/or internally inconsistent.

RESPONSE: As to whether draft Permit condition I.A.5 suggests the permit application contained or created permit requirements, the Permit application contains and creates requirements that the Facility is obligated to follow, pursuant to the interim status regulations in 40 CFR Part 265, while in interim status. See 40 CFR § 270.72. Numerous attachments and appendices to the draft Permit were originally contained in the Permit application, and the Region incorporated these attachments and appendices into the draft Permit. Once final, the RCRA permit for this Facility and its attachments and appendices will supersede the interim status requirements and any operating conditions that were set forth in the permit application.

The Region identified certain errors requiring corrections and other changes necessitated with respect to some of the Permit attachments and appendices, which are addressed in these Responses to Comments. (See, *e.g.*, the Region's Responses to Public Comments I-36, II-14, and III-7.) Except as explained in the Region's Response to Public Comment II-14 with respect to the Contingency Plan, these errors, omissions, or new conditions will be addressed in revised attachments and appendices to be incorporated into the Permit through appropriate permit modification processes. See Permit Condition I.K. Once these revisions and modifications are completed in accordance with Permit Condition I.K., the revised attachments and appendices will supersede the Permit attachments and appendices that are now made part of the Permit accompanying these Responses to Comments.

As to whether draft Permit condition I.A.5 conflicts with draft Permit condition I.A.4, the Region disagrees, since these Permit conditions have distinct and separate requirements that do not conflict with each other. Permit condition I.A.4 states that the Permit does not shield the Permittees from orders or actions that may be brought under specific RCRA and/or CERCLA authorities and other statutes. Permit condition I.A.5. pertains to how the Permit's requirements, which have incorporated parts of the Permit application as Permit attachments and appendices, supersede the information contained in the application.

The commenter suggested revisions to draft Permit condition I.A.5. that would have basically reduced the condition to a statement that the Permit supersedes the Permit application and that the Permit's attachments, sections or appendices are incorporated into and made a part of the Permit. After considering the draft Permit condition and the commenter's suggested revisions, the Region revised Permit condition I.A.5. to clarify that the Permit, *including its attachments, sections, and appendices*, supersedes the Permit application. The Region has also revised the definition of "Permit Attachment(s), Permit Attachment Section(s) and Permit Attachment Appendix or Appendices" to eliminate the reference to the Permit Application Attachments, Sections, and Appendices. [See Permit condition I.D.]

The Region also retained the language in the draft Permit that references interim status requirements at 40 CFR Part 265 in any Permit attachments, sections or appendices are, where

appropriate, superseded by the Permit requirements at 40 CFR Part 264. The commenter had recommended deleting that sentence. While the Region endeavored to identify and see that any such references to the interim status standards are corrected, it retained the sentence to dispel any doubts that, once the Permit is in effect, the Facility will no longer be managing hazardous waste in accordance with RCRA's interim status requirements, or pursuant to the Permit application, but rather must comply with the Permit's requirements, which are based on the regulations at Part 264.

I-4. One commenter objected to the Region's incorporation of definitions in the draft Permit from 40 CFR Part 61 as creating uncertainty and potential conflicts.

RESPONSE: The Region removed references to 40 CFR Part 61, since those requirements apply to operations at the Facility independent of the Permit. The incorporation of the definitions from Part 61 has also been removed.

I-5. One commenter objected to the Region's incorporation of definitions in the draft Permit from 40 CFR Part 63 as creating uncertainty and potential conflicts.

RESPONSE: The RCRA regulations at 40 CFR 264.600, *et seq.,* authorize the Region to invoke 40 CFR Part 63, where appropriate, for a miscellaneous unit such as RF-2 and its associated equipment. The Region reviewed each of the draft Permit's references to 40 CFR Part 63 and retained the ones it determined ought to be applied to the miscellaneous unit, RF-2.

I-6. One commenter expressed a concern that the definition of the term "facility" in the draft Permit was too broad and exceeded the Agency's authority.

RESPONSE: The Agency revised the definition of the term "facility" to clarify that the scope of the term only extends as far as RCRA's authority will allow. The revised definition tracks the definition of "facility" at 40 CFR Part 270, instead of the definition at 40 CFR Part 260, because Part 270 directly pertains to EPA's hazardous waste permitting program.

I-7. One commenter recommended that the definition of Product be clarified.

RESPONSE: The Region clarified the definition to make clear that regenerated carbon or product is not considered a waste unless it is discarded.

I-8. One commenter recommended that the definition of site be revised to track the regulatory definition.

RESPONSE: The Region revised the definition of site to track the regulatory definition.

I-9. One commenter expressed a concern that the Region had not tracked the regulatory language in draft Permit condition I.E.2. with respect to the timing of the submittal of a renewal application.

RESPONSE: The Region revised Permit condition I.E.2 to reference the regulatory language, which allows for the Director to set a later date for the submittal of the renewal application.

I-10. One commenter expressed a concern that the Region had not tracked the regulatory language in draft Permit condition I.E.3. with respect to continuing the Permit conditions beyond the 10-year lifetime of the Permit when a complete renewal application is submitted in a timely manner.

RESPONSE: The Region revised Permit condition I.E.3 to reflect the regulatory language.

I-11. One commenter expressed a concern that the Region had not tracked the regulatory language in draft Permit condition I.E.8, with respect to EPA's entry and access authority.

RESPONSE: The Region revised Permit condition I.E.8 to reflect the regulatory language, with minor revisions to accommodate the fact that there are two Permittees identified in the final Permit.

I-12. One commenter expressed a concern that part of the language in draft Permit condition I.E.9.a. should not be included in Module I's general conditions but was more appropriate for other sections of the Permit. The commenter pointed out that these specific conditions were also found elsewhere in the draft Permit and recommended their deletion from draft Permit condition I.E.9.a.

RESPONSE: The Region revised Permit condition I.E.9.a. to eliminate the duplicative language.

I-13. One commenter suggested that the record retention provision in draft Permit condition I.E.9.b be clarified so that it clearly excludes the retroactive application of the provision.

RESPONSE: The Region revised Permit condition I.E.9.b to clarify that it only applies prospectively but includes records that RCRA's interim status requirements require to be maintained up until the Permit's effective date.

I-14. One commenter suggested that the Region remove from draft Permit condition I.E.9.b the reference to a 3-year record retention obligation that is inconsistent with the 2-year records retention requirement set forth in Permit Attachment Appendix XXI. The commenter suggested the Permittee did not have fair notice of requirements that the Region will seek to enforce.

RESPONSE: The Region provided fair notice of the applicable 3-year record retention obligation in draft Permit condition I.E.9.b, for which it sought – and the commenter provided – public comment. See also the response above regarding draft Permit condition I.A.5. The Region added language to Permit condition I.E.9.b. to clarify that the 2-year document retention period mentioned in Appendix XXI, which is based on the 40 CFR Part 61, Subpart FF requirements, is excepted from this provision because the Region removed references to 40 CFR Part 61, Subpart FF requirements in general from this Permit. The "see also" reference to Permit condition V.G. in the brackets after the Permit condition has been retained for reference purposes only. See also Permit Condition I.A.7.

In addition, the Region clarified the reference to Permit condition V.G. as an exception to Permit condition I.E.9.b, by referring instead to Permit condition V.G.1., which specifically references the types of documents that must be maintained in the operating record for 5 years. This requirement specifies that certain RF-2 monitoring and inspection data be recorded and the records be placed in the operating record and maintained in the operating record for five years. Five years is an appropriate record-keeping period because the Region is setting a five-year period between trial burns for RF-2. Maintaining such records for this five-year period will ensure the data is available for comparison purposes when needed.

I-15. One commenter recommended revisions to draft Permit condition I.E.9.b to limit records that must be maintained during the course of an unresolved enforcement action.

RESPONSE: The Region did not make the recommended revisions because the requirement at 40 CFR § 264.74(b) pertains to all records and is not limited to specific records.

I-16. One commenter suggested deleting record retention requirements from draft Permit condition I.E.9.b pertaining to groundwater monitoring and groundwater surface elevations.

RESPONSE: Unless and until additional corrective action requirements are imposed or until closure is initiated, the only groundwater related data pertinent to this permitting decision is the groundwater information provided in Permit Attachment Section E and in the Environmental Assessment (EA), as supplemented, that was performed as part of the Bureau of Indian Affairs' ("BIA") decision to approve the lease of tribal trust land to the Facility operator. Maintenance of this information for the life of the Facility should not be a burden to the Permittees. Section E is already part of the Permit and the EA, as supplemented, is a significant document that was a necessary part of the BIA's decision-making process.

While there are no requirements for additional groundwater monitoring to be performed at or around the Facility, Permit condition I.E.9.b was intended to include groundwater monitoring that might be required as part of corrective action or closure activities at the Facility in accordance with 40 CFR Part 264, Subparts F or G. If corrective action or closure activities are initiated during the life of the Permit, record retention requirements will apply in accordance with those subparts.

With respect to maintenance of any additional groundwater surface elevation records, again, there are no requirements to obtain such data. Permit condition I.E.9.b was intended to include groundwater surface elevation data that might be required as part of corrective action at the Facility in accordance with 40 CFR Part 264, Subpart F. See, *e.g.,* 40 CFR § 264.97(f) and Permit condition VI.A.4.

I-17. One commenter objected to a monitoring record requirement in draft Permit condition I.E.9.c that might not apply in all circumstances.

RESPONSE: The Region revised Permit condition I.E.9.c to clarify that it is applicable only where appropriate.

I-18. One commenter objected to draft Permit conditions I.E.10 and I.E.11 insofar as these draft Permit conditions purported to extend beyond EPA's permitting jurisdiction.

RESPONSE: The Region revised Permit conditions I.E.10 and I.E.11 to clarify that the provisions are limited in scope to the extent of EPA's permitting authority under RCRA's hazardous waste provisions.

I-19. One commenter suggested deleting draft Permit condition I.E.10, pointing out that changes in design, operation and maintenance practices at RCRA permitted facilities often require permit modifications. They suggested that the reference to 40 CFR Part 63 standards for changes at facilities subject to the CAA is therefore inappropriate.

RESPONSE: The Region agrees that the reference to the Part 63 standards is not necessary considering other permit conditions that effectively accomplish the same ends. The Region removed this language from Permit condition I.E.10, while retaining the RCRA reporting requirements for planned changes and Permit modifications pursuant to 40 CFR Part 270. See, *e.g.*, Permit conditions I.E.11, and I.E.13.

I-20. One commenter suggested that there is ambiguity in the requirement at 40 CFR § 270.30(l)(1), requiring notice "as soon as possible of any planned physical alterations or additions to the permitted facility," insofar as the permit modification standards at 40 CFR § 270.42 allow for some changes with notice provided at specified times. See draft Permit condition I.E.10.

RESPONSE: The Region agrees that Class 1 permit modifications that do not require EPA's prior written approval are subject to the 7-calendar day notice set forth in 40 CFR § 270.42(a)(1). To the extent that other provisions of the RCRA permit modification procedures might conflict with the standards set forth in 40 CFR § 270.30(l)(1), the Region agrees that the specific notice standards set forth in 40 CFR § 270.42 ought to control over the more general standards set forth in 40 CFR § 270.30(l)(1). Permit condition I.E.10 was revised accordingly.

I-21. One commenter suggested that EPA revise draft Permit condition I.E.12 relating to the transfer of permits to clarify, in accordance with the regulations, that the notification to new owners of the Facility applies during the operating life of the Facility.

RESPONSE: The Region revised Permit condition I.E.12 to track the regulatory language by adding the phrase "during its operating life" to the sentence relating to the providing notice to new owners or operators of the facility. The Region also added language to clarify that changes in operational control or ownership of the Facility are subject to prior Director approval in accordance with 40 CFR § 270.42, Appendix I, as well as language clarifying additional obligations required prior to such a transfer in accordance with 40 CFR § 270.40.

I-22. One commenter suggested that EPA revise draft permit conditions relating to the obligations to provide oral and written notice within 24 hours and 5 days, respectively, of learning of any non-compliance that may endanger human health or the environment. See draft Permit conditions I.E.13.a. and I.E.13.c. The commenter argued that the requirements might subject both CRIT and Evoqua to a duty to act, and a compliance liability, even if one of the parties had no ability to know of facts that give rise to the duty and the liability.

RESPONSE: The Region rejected the suggestion because, when read in conjunction with Permit condition I.A.6, Permit conditions I.E.13.a. and I.E.13.c. make clear that, whichever Permittee first learns of the non-compliance, such Permittee is obligated to provide notice to EPA on behalf of both Permittees and that providing the notice fulfills the obligation of both Permittees.

I-23. One commenter objected to the Region's deviation from the regulatory language at 40 CFR § 270.30(l)(6), which pertains to the obligation to report any noncompliance that may endanger health or the environment. See draft Permit condition I.E.13.a.ii.

RESPONSE: The Region revised Permit condition I.E.13.a.ii. to more closely track the regulatory language. The Region also added the phone number of the National Response Center to Permit condition I.E.13.a. to clarify to whom the verbal notice should be provided. In so doing, the Region re-examined the 24-hour and non-compliance reporting requirements proposed in the draft Permit. And, as a result of that re-examination, the Region revised Permit conditions I.E.13.a. (to add the National Response Center phone number), I.E.13.c. and I.E.15., and to add new Permit conditions I.E.13.d.i. through I.E.13.d.iv. See also the Region's Responses to Public Comments C-39 and C-40.

The Region also determined that the notification of potential endangerments in accordance with Permit condition I.E.13. may require additional follow-up beyond the 5-day notice reflected in draft Permit condition I.E.13.c. As a result, the Region revised Permit condition I.E.13.c. to require that this 5-day written notice be submitted to the Director for approval in accordance with Permit Condition I.G.4., and that it include an assessment about appropriate potential corrective measures. Depending on the approved submittal's conclusions, new Permit condition I.E.13.d. may require that the Permittees undertake a process for developing, implementing and reporting on necessary interim corrective measures as set forth in Module VI. It may also further require, to the extent that the approved Interim Corrective Measures Report so concludes, that the Permittees follow the process set forth in Module VI for developing and implementing a Corrective Measures Study and Corrective Measures Study Final Report and for selecting an appropriate remedy. It further provides for the possibility that the Director will require the Permittees to prepare a RCRA Facility Investigation (RFI) Work Plan in accordance with Permit Conditions VI.E.4. and VI.F.

Permit condition I.E.15. addresses the reporting of non-compliance not otherwise subject to the reporting requirements of Permit Conditions I.E.10 through I.E.14. This reporting obligation would apply when Permit condition I.E.13., among others, does not.

Draft Permit condition I.E.15., tracked the regulatory language at 40 CFR § 270.30(l)(10) pertaining to the reporting of this category of "other" non-compliance. However, the regulatory

language's reference to such reports being due at "the time monitoring reports are submitted" was determined to be vague in the context of permitting this Facility because the referenced "monitoring reports" were not specified in draft Permit condition I.E.15. or elsewhere in the draft Permit.

For this reason, the Region revised Permit condition I.E.15 to require reporting of such other incidents of non-compliance within the meaning of 40 CFR § 270.30(l)(10), within sixty (60) days of the incident. Permit condition I.E.15. also now requires that the information be submitted in a "Report of Non-Compliance" submitted in accordance with Permit condition I.G. It also continues to require that the report contain the information listed in Permit condition I.E.13, but adds language to specify that the reference to Permit condition I.E.13. includes all the information listed in Permit conditions I.E.13.a. and I.E.13.b.

These revisions to Permit condition I.E.15. were deemed appropriate to ensure the clarity of the Permit's various reporting obligations and, specifically, the requirement that the Facility report incidents of non-compliance that might not rise to the level of the type of endangerment to which Permit condition I.E.13. pertains.

A period of sixty (60) days within which to report such "other" instances of non-compliance is a reasonable time to submit the requested information and should be interpreted as sixty (60) days from the time either Permittee first becomes aware of such non-compliance, or by the time a reasonable owner or operator should have become aware of the non-compliance.

By clarifying that the information listed in Permit conditions I.E.13.a. and I.E.13.b. needs to be included in Reports of Non-Compliance under Permit condition I.E.15., the Region is clarifying what such reports must contain. It is important to the Region, for example, that such reports include information regarding whether the noncompliance has been corrected, the anticipated time any non-compliance may be expected to continue, and any steps taken or planned that will reduce, eliminate, and prevent recurrence of the non-compliance.

The Region's interest in these revisions is not to expand the Agency's authority to require reporting of non-compliance, but rather to reasonably proscribe the time and manner for doing so with as little ambiguity as possible. These revisions achieve this goal, while still adhering as closely as possible to the most appropriate and reasonable interpretation of RCRA's statutory and regulatory language, considering all relevant circumstances.

I-24. One commenter objected to the Region's deviation from the regulatory language at 40 CFR § 270.30(l)(11) in draft Permit condition I.E.16. This draft Permit condition relates to the obligation to promptly update information provided to the Director whenever a Permittee becomes aware of a previous omission or error.

RESPONSE: The Region revised Permit condition I.E.16 to track the regulatory language.

I-25. One commenter objected to the requirement that the Permittees maintain an information repository. Nevertheless, this same commenter recommended the Region allow the maintenance of electronic records on an online website instead of requiring the

Permittees to maintain an information repository of hard copy documents. The commenter also recommended that the Region allow electronic submittals in lieu of paper. See draft Permit conditions I.G.1, I.G.2., I.J. and I.K.12.

RESPONSE: The Region revised Permit conditions I.G.1 and I.G.2 and added a new Permit condition I.G.3 to allow for the option of electronic submittals. These revisions also provide for electronic copies of submittals to be sent to the Director of the CRIT Environmental Protection Office. With respect to the requirements of draft Permit conditions I.J. and I.K.12., the Region disagrees with removing the obligation to create an information repository altogether. However, the Region agrees that an electronic information repository is an acceptable means of preserving records pertaining to Facility operations and making them accessible to the public via the internet. Permit condition I.J.1. has been revised accordingly.

Draft Permit condition I.K.12., which is now Permit condition I.K.5., continues to require an information repository be established by Permittees within the timeframe set forth in the schedule of compliance. Notice of this Information Repository, which may be web-based, must be provided to all persons on the Facility mailing list in accordance with 40 CFR § 124.33. However, due to concerns that the transfer of the Facility mailing list to the Permittees might violate the Privacy Act,[9] Permit condition I.K.5.a requires that these notices be mailed to the Director with sufficient postage to enable the Region to affix the addresses and post the notices. These changes were made because the public was not advised over the course of the time that the Facility mailing list was developed that personal mailing addresses, phone numbers, or email addresses would be released outside of EPA.

The Region intends to conduct additional outreach to all those whose personal information is on the Facility mailing list to provide the opportunity to "opt-in" to a Facility mailing list to be provided to the Permittees at a later date. Presumably, this later date will occur after the date by which the notice of the Information Repository must be sent, which is why the Region has revised Permit condition I.K.5. See also the Region's Responses to Public Comments II-14, C-39 and C-40.

I-26. One commenter objected to the language in draft Permit condition I.G.3 that was intended to clarify the way timeframes and deadlines should be calculated under the Permit. The commenter asserted that EPA's attempt to clarify how to undertake these calculations was itself confusing.

RESPONSE: The Region declines to revise draft Permit condition I.G.3., (now renumbered as Permit condition I.G.4.), and disagrees that the provisions are ambiguous or confusing. The provision at Permit condition I.G.4.a., applies when a timeframe under the Permit is scheduled to begin on the occurrence of an act or event. For example, Permit condition II.L.1.b. requires an unmanifested waste report be submitted to the Director within (fifteen) 15 days of receipt of unmanifested waste. Permit condition I.G.4.a. explains that the day after the unmanifested waste is received is the first day to be counted when calculating the 15-day timeframe for submittal of the unmanifested waste report.

[9] The Privacy Act of 1974, 5 USC § 552a, as amended.

Similarly, Permit condition II.N.4. requires written notice to the Director at least (sixty) 60 days before closure of any part of the Facility. Permit condition I.G.4.b. explains that in calculating the deadline for submitting this closure notice, the day before closure begins should be considered day 60.

I-27. One commenter recommended deletion of draft Permit condition I.G.4, arguing that the Region lacks any justification for a requirement to submit MACT reports for a facility category that EPA determined to not be subject to the MACT requirements.

RESPONSE: After reviewing the referenced notification of compliance requirements set forth in the 40 CFR Part 63, Subpart EEE regulations, the Region concluded that draft Permit condition I.G.4 was unnecessary. Notification requirements provided elsewhere in the Permit are sufficient. Draft Permit condition I.G.4 has been deleted.

I-28. One commenter suggested revisions to draft Permit conditions I.G.5, I.G.6, I.G.7, and I.G.8 based on several concerns focused primarily around the question of whether, as written, the draft Permit might compel the Permittees to conduct substantive work that might not be clearly defined or contemplated until well after the Permittees' right to comment on the draft Permit had passed. The commenter asserted that the Permittees might be faced with the possibility of being forced to either comply with an objectionable decision made by EPA, or defend an enforcement action brought by EPA to cure a claimed violation of an obligation in the Permit to implement unilateral modifications and conditions that EPA might issue after the Permit becomes final. Further, the commenter objected to the language in the draft Permit that purported to equate a material defect in a resubmittal with a failure to submit such deliverable in a timely or adequate manner.

RESPONSE: The Region revised Permit conditions I.G.5., I.G.6., I.G.7., and I.G.8. to clarify the Permittees' options in terms of the Region's approvals or disapprovals of submittals. It deleted the references in draft Permit condition I.G.5. to when the dispute resolution provisions of Permit condition I.L. may be invoked, since the Region revised Permit condition I.L. such that it may be invoked whenever there is an unresolved dispute. (See the Region's Response to Public Comment I-40, below.)

The Region also added a reference to Permit condition VI.H.5. in Permit condition I.G.5. Permit Condition VI.H.5. pertains to Emergency Interim Corrective Measures. While the Director's direction to the Permittees regarding implementation of such Emergency Interim Corrective Measures may be subject to the dispute resolution procedures of Permit Condition I.L., the Permittees will nonetheless be required to implement Emergency Interim Corrective Measures, as instructed by the Director, simultaneously during any invocation of dispute resolution under the Permit. Permit Condition VI.H.5. contains one of the Permit's exceptions with respect to a stay of any requirements in dispute pending the outcome of the dispute resolution procedures in accordance with new Permit condition I.L.3. The other is that the Director may disapprove such a stay. (See the Region's Response to Public Comment I-40, below.)

The references to the dispute resolution provisions in Permit condition I.G.7.c. have been left substantially untouched from what was proposed in the Draft Permit, as the information provided in this Permit condition merely explains that the Director's decisions regarding Permit modifications and the like, pursuant to 40 CFR Part 124, are not intended to be subject to the Permit's dispute resolution provisions. The Region's other changes to Permit condition I.L. do not affect this provision.

The commenter noted concern that draft Permit conditions I.G.5. through I.G.8 could violate the Permittees' due process rights by compelling substantive work that has not been clearly defined or susceptible to concrete analysis during the draft Permit's public comment period.

The commenter's concerns are focused on the Permit conditions that provide the Region with authority to modify or disapprove the Permittees' deliverables. Should either of the Permittees disagree with the Region's decision to modify or disapprove a deliverable, the Permittees have the option of invoking the dispute resolution provisions of the Permit. If they are dissatisfied with the results of the dispute resolution process, the Permit – as revised – is silent with respect to any further right to seek adjudication of the dispute. (See the Region's Response to Public Comment I-42, below, rejecting the same commenter's suggestion that the Permit specify that the Division Director's resolution of a dispute constitutes "final agency action" and would, therefore, be subject to judicial appeal.)

The commenter acknowledges EPA Environmental Appeals Board ("EAB") decisions on due process concerns with dispute resolution provisions (citing the following decisions: *In re General Electric*, 4 E.A.D. 615 (EAB 1993); *In re Allied Signal*, 4 E.A.D. 291 (EAB 1994); and *In re Caribe General Electric Products*, 8 E.A.D. 696 (EAB 2000)). But, the commenter rejects these decisions as incorrect, asserting they would not be upheld "if subject to judicial review." See p. 16/202 at "2017 01 06 Comments on Evoqua Draft Permit Decision.pdf."

The Region maintains that the dispute resolution provisions at Permit condition I.L. provide appropriate procedural safeguards to protect the Permittees' due process interests where disagreements regarding the sufficiency of deliverables arise under Permit condition I.G. See *In Re: Allied-Signal, Inc.*, 4 E.A.D. 291, at 297-298 (EAB 1994).

The Region disagrees with the commenter's concern with the condition indicating that a material defect in a resubmittal will be equated with a failure to submit such deliverable in a timely or adequate manner. This condition applies only to resubmittals, where the Permittees would have already been notified of any material defect(s) and would have failed to address such defect(s) in the revised submittal. Such repeatedly inadequate submittals could be equated with failure to submit the deliverable. To the extent that circumstances warrant a different response, the Region will exercise its enforcement discretion to respond appropriately, and the Permittees may invoke the dispute resolution provisions where they disagree. The Permittees may also raise any arguments tending to show why a re-submitted deliverable after notice of material defects in an initial submittal should not be equated with failure to submit the deliverable, in cases where the Agency proceeds with enforcement.

The Region also revised Permit condition I.G.5.d. to clarify that approved submittals need to be maintained in accordance with the Permit's record keeping provisions rather than "in the Operating Record" in order to account for documents that need to be maintained but not necessarily in the Operating Record.

The Region also revised Permit Condition I.G.8. The revision clarifies the Permittees' ability to put into effect or request a permit modification that is governed by 40 CFR § 270.42. The provision is otherwise retained as a guide or suggested process for the orderly administration of this Permit. However, it is not intended to limit the Permittees with respect to their decision as to when it may be appropriate for them to pursue such a modification.

Recommendations regarding appropriate modifications to RF-2's operating conditions based on the PDT results will follow the RCRA permit modification process. This process, although different from the process that units subject to the MACT Subpart EEE requirements must follow, will accomplish the same ends. See also the Region's Response to Public Comment V-39 regarding revisions made to Permit Condition I.G.8 regarding submittal of the PDT reports that may trigger permit modifications.

I-29. One commenter requested that EPA revise draft Permit condition I.H. to add language clarifying that EPA will treat material submitted with a claim of business confidentiality in accordance with 40 CFR Part 2.

RESPONSE: The Region incorporated the commenter's suggested language with respect to Permit condition I.H.

I-30. One commenter indicated that the Permittees should not be required to maintain all the records listed in draft Permit condition I.I.1. for the life of the Facility. The commenter asserted that the Region had not provided sufficient justification in the record to apply records retention requirements that exceed the Part 264 records retention requirements.

RESPONSE: The language that requires records listed in Permit condition I.I.1. to be maintained at the Facility until closure is complete has been revised to also allow for different time periods applicable to specific records. Additional language, for example, has been added to Permit condition I.I.1. to clarify that training records on *former* employees need only be kept for three years from the date the employee last worked at the Facility.

In addition, the retention of the Startup Shutdown and Malfunction Plan at the Facility must be maintained until the completion of closure of RF-2, as opposed to the closure of the Facility. The Region added this qualifier to the records retention requirement in Permit condition I.I.1., relating to the startup shutdown and malfunction plan (Permit Attachment Appendix XXII). This revised language now indicates that the SSMP needs to be maintained at the Facility for the operating life of RF-2. This revised language reflects the records retention period set forth in Permit condition V.C.2.

A number of the records that are the subject of Permit condition I.I.1. have been incorporated as attachments to the Permit and maintaining these records until Facility closure is completed and certified should not be a burden to the Permittees. The Region added a new Permit condition I.I.1.b. to clarify that these records, with the exception of the Contingency Plan, may be maintained in either hardcopy at the Facility or in an electronic format that is accessible as follows. The final Permit now requires that these records be made available or accessible to EPA, CRIT and CRIT EPO for the appropriate period, given the record.

With respect to the commenter's concerns that the Region is extending record keeping requirements beyond EPA's authority, the Region disagrees.

A written Waste Analysis Plan must be kept at the Facility in accordance with 40 CFR § 264.13. In accordance with this requirement, there is no time limit for the retention of a written Waste Analysis Plan. Thus, it must be kept at the Facility ***at all times*** until closure of the Facility is complete.

A written Inspection Schedule must be kept at the Facility in accordance with 40 CFR § 264.15. Thus, a written Inspection Schedule must be kept at the Facility ***at all times***. The Region notes that, in accordance with the Operating Record requirements in Permit condition II.M.1., the actual records and results of inspections (unlike the inspection schedule) need only be kept for three years in accordance with 40 CFR § 264.15(d).

Personnel training documents and records must be kept at the Facility in accordance with 40 CFR § 264.16. The regulation specifically indicates that these records must be maintained at the Facility until closure of the Facility. However, the Region revised Permit condition I.I.1. to acknowledge the regulatory requirement that provides that former employees' records need only be maintained for three years from the date of their last employment at the Facility.

40 CFR § 264.53(a) requires that the Facility maintain a Contingency Plan. Thus, the Contingency Plan must be maintained at the Facility through the Facility's operational life, *i.e.*, until closure is completed and certified. (See Permit Condition II.K.)

While some of the records required as part of an Operating Record need not be maintained until closure of the Facility is completed and certified, the Operating Record itself must be maintained throughout the Facility's operating life. See 40 CFR § 264.73. (See also Permit Condition II.M.1.)

A written Closure Plan must be maintained until closure is completed and certified in order to meet the requirements of the regulation at 40 CFR § 264.112.

Annually adjusted cost estimates for Facility closure must be maintained at the Facility during its operating life in accordance with 40 CFR §§ 264.73(b) and 264.142(d). 40 CFR § 264.73(b)(8) states that this information must be maintained in the operating record until closure of the Facility. This requirement applies to the latest closure cost estimate prepared in

accordance with 40 CFR § 264.142 (a) and (c) and, when this estimate has been adjusted in accordance with 40 CFR § 264.142(b), the latest adjusted closure cost estimate. The Region revised Permit condition I.I.1 to acknowledge the regulatory provision at 40 CFR § 264.73(b).

The Region also revised Permit condition I.I.1. to include the parenthetical reference to Permit condition IV.J.4. Permit condition IV.J.4 is one example of the additional record keeping requirements found in other provisions of the Permit. Pursuant to 40 CFR § 264.196(f) and Permit condition IV.I.1.e, major repairs in tank systems require a certification by a professional engineer before the repaired system may be returned to service. Pursuant to Permit condition IV.J.4 and 40 CFR § 264.196(f), the certification must be placed in the Operating Record and maintained until closure of the Facility.

There are other examples of Permit conditions with additional record keeping requirements that are not listed specifically in I.I.1. These include the corrective action record keeping requirements that have been added to Permit condition VI.B.2. These revisions are discussed in the Module VI section of these responses to comments. Other examples of Permit conditions that specify records retention periods include:

- Permit condition I.E.9.b., which requires the maintenance of groundwater wells and elevations data for the active life of the Facility;
- Permit condition I.J.2., which requires an update of the information repository every 5 years for the life of the Permit;
- Permit condition IV.G.1.c., which requires information relating to the air emissions deferral to CAA controls for tanks and containers under 40 CFR § 264.1080(b)(7) to be kept in the Operating Record for as long as the deferral is being invoked for the unit in accordance with 40 CFR §§ 264.1089(a) and (j);
- Permit condition IV.I.1.e., which requires tank repair certifications be maintained for the life of the system;
- Permit condition V.C.2.d., which requires maintenance of the Startup Shutdown and Malfunction plan for the operating life of RF-2; and
- Permit condition VI.B.2., which requires maintenance of copies of other Module VI-related reports and data until closure of the Facility is completed.

I-31. One commenter opposed the inclusion of records in the information repository required of the Permittees because a draft of Exhibit I, the list of documents to be placed in the repository, was not provided as part of the draft Permit published for public review and comment.

RESPONSE: The following is the list of documents that must be maintained in the information repository in accordance with Permit Condition I.J.1:

1. Final Permit and Attachments;
2. Permit Application, April 2016;
3. Any pending requests for Permit Modifications or Renewal;
4. All Final Permit Modifications;

5. Any Performance Demonstration Test (PDT) Work Plans approved in the preceding 3 years;
6. Any PDT Reports approved in the preceding 3 years;
7. Any Human Health and Ecological Risk Assessment Updates approved in the preceding 3 years; and
8. Final EPA RCRA Inspection Reports for the preceding 3 years.

See Permit Exhibit I.

The final Exhibit I has been published as part of this Final Permit Decision. The documents reflected on Exhibit I are the most basic records relating to the Facility's operations with respect to its RCRA Permit. The Region has taken into account the regulatory language describing the type of information to be included in the repository ("all documents, reports, data, and information deemed necessary by the Director to fulfill the purposes for which the repository is established,"[10]) and the factors to be taken into account in determining whether to impose the obligation to establish such a repository in the first place, (including, "the level of public interest; the type of facility; the presence of an existing repository; and the proximity to the nearest copy of the administrative record."[11]) Since the Region will allow the Permittees to maintain an electronic, internet-based information repository, the list of documents required to be maintained is not considered to be an undue burden on the Permittees. The Region also added language to Permit condition I.J.2 to clarify that the requirement to maintain the records in the information repository does not affect the time periods for which the records otherwise must be kept in accordance with the Permit.

I-32. One commenter opposed the Region's inclusion of a recurring Performance Demonstration Test and recurring update to the Human Health and Ecological Risk Assessment in the Permit's Compliance Schedule in draft Permit condition I.K. The commenter asserted that these recurring obligations do not qualify as items for a compliance schedule and proposed instead that a Performance Demonstration Test requirement be added to Module V.

RESPONSE: The Region moved the provisions relating to the recurring Performance Demonstration Test to Module V, as suggested. The requirements relating to the update to the Human Health and Ecological Risk Assessment were modified and moved to Module V. See final Permit conditions V.I.1. through V.I.5.

I-33. One commenter opposed the Region's inclusion of the closure of RF-1, the non-operational furnace at the Facility, in the draft Permit's Compliance Schedule in draft Permit condition I.K.6. The commenter asserted that the Facility is in full compliance with the closure standards for such units and that, therefore, the closure provisions should be moved to the Closure Section of the draft Permit (i.e., draft Permit condition II.N.)

[10] See, 40 CFR § 124.33(c).
[11] See, 40 CFR § 124.33(b).

RESPONSE: Regardless of whether the Facility is in compliance with the closure standards applicable to interim status and permitted facilities, the work to be performed in the closure of this non-operational unit must be completed within a year of the effective date of the Permit. While the closure of RF-1 is not a recurring obligation such as a periodic Performance Demonstration Test, or update to the Human Health and Ecological Risk Assessment, there is no difference between the closure obligations for RF-1 under interim status regulations at 40 CFR Part 265 versus the permit regulations at 40 CFR Part 264. The Region removed the requirements from the Compliance Schedule in draft Permit condition I.K. and created a new Permit condition V.H.5.

I-34. One commenter opposed the Region's inclusion of provisions addressing providing Hopper H-1 with secondary containment and performing an integrity examination of H-1 in the Permit's Compliance Schedule in draft Permit condition I.K. The commenter asserted that these obligations do not qualify as items for a compliance schedule and proposed instead that these requirements be added to Module IV, since H-1 is ancillary equipment to hazardous waste tanks T-1, T-2, T-5 and T-6. See Table IV-2.

RESPONSE: The Region moved the provisions (draft Permit conditions I.K.7, I.K.8, and I.K.9) relating to requirements for secondary containment and integrity examination for Hopper H-1, and the possible closure of the unit if the secondary containment is not provided in a timely manner. These provisions are now found in Module IV, as suggested. See Permit conditions IV.F.6.a, and IV.F.6.b.

I-35. One commenter recommended deletion of the provisions in the draft Permit's Compliance Schedule and the Tanks Module (Module IV) that addressed providing secondary containment for Hopper H-1, which is an underground feed hopper that is considered ancillary equipment to the feed tanks T-1, T-2, T-5 and T-6 (draft Permit conditions I.K.7. and IV.F.6.a.) This commenter also recommended deletion of the draft Permit's provisions requiring a leak test for H-1 pending the completion of the installation of the secondary containment (draft Permit conditions I.K.8., I.K.9., and IV.F.6.b.i. through iii). It is unclear whether this commenter was also recommending deletion of the inspection requirements for H-1 pending the secondary containment installation (draft Permit conditions IV.F.6.b.ii).

RESPONSE: See the Region's Response to Public Comment I-34, above, regarding a commenter's opposition to the Region's inclusion of the provisions addressing Hopper H-1's secondary containment in the draft Permit's Compliance Schedule in draft Permit condition I.K. See also Permit conditions IV.F.6.a, and IV.F.6.b.

The regulations applicable to secondary containment, integrity assessments and inspections of ancillary equipment for existing tank systems at permitted hazardous waste facilities are found at 40 CFR §§ 264.191, 264.193, and 264.195.

40 CFR §264.191 requires integrity assessments of existing tank systems, including ancillary equipment, for which secondary containment has not been provided. Pursuant to this

regulatory requirement, the assessment of the system must include each of the factors listed in subparagraphs (b)(1) through (b)(5). Pursuant to 40 CFR §264.191(b)(5)(ii), the assessment for ancillary equipment must include the results of "either a leak test . . . or other integrity examination that is certified by a qualified Professional Engineer in accordance with 270.11(d) of this chapter, that addresses cracks, leaks, corrosion, and erosion."

Draft Permit condition I.K.8., which has been incorporated into draft Permit conditions IV.F.6.b.i. through iii to create the final Permit condition IV.F.6.b.i. through iii, requires the integrity assessment of H-1.

40 CFR § 264.193 requires ancillary equipment, such as H-1, be provided with secondary containment meeting the requirements of 40 CFR §§ 264.193(b) and (c), and includes four specific exceptions. H-1 does not fit within any of the enumerated exceptions, since it is not any of the following: (1) aboveground piping; (2) welded flanges, welded joints, or welded connections; (3) sealless or magnetic coupling pumps or sealless valves; or (4) pressurized aboveground piping systems with automatic shut-off devices. Since H-1 is not one of the enumerated exceptions, it is subject to the secondary containment requirements of 40 CFR § 264.193(b) and (c). (Hence, H-1 is *not* covered by the inspection requirements set forth in 40 CFR §264.195(f), which only apply to the four exceptions listed at 40 CFR §264.193(f)(1) through (4).)

Draft Permit condition I.K.7., which has been incorporated into draft Permit condition IV.F.6.a., to create the final Permit condition IV.F.6.a., requires the installation of secondary containment on H-1.

40 CFR § 264.195(c) requires the daily inspection of: (1) any aboveground portion of H-1 to detect corrosion or releases of waste; and (2) the construction material and area immediately surrounding the accessible portion of H-1 to detect erosion or signs of releases of hazardous waste. However, draft Permit condition II.E., which has been renumbered as Permit condition II.F., requires inspections "as per Permit Attachment Section F and Permit Attachment Appendix XII and […] the requirements of 40 CFR § 264.15." Therefore, the inspection obligations pertaining to H-1 are included in the obligations set forth in Permit condition II.F. (See Permit Attachment Section F at F.3.1.1.1 and Permit Attachment Appendix XII.) Thus, draft Permit condition IV.F.6.b.ii was deleted and replaced with the deadline by which the integrity assessment must be completed. This deadline had previously been found in the Compliance Schedule in draft Permit condition I.K.8.a.

I-36. One commenter objected to draft Permit condition I.K.10. requiring the submittal of a revised Subpart BB Compliance Plan. "Subpart BB" refers to 40 CFR Part 264, Subpart BB, which includes air emission standards for equipment leaks. The commenter claimed EPA failed to include a basis for this requirement in the administrative record.

RESPONSE: The Region disagrees with the commenter's assertion that there was insufficient information in the Administrative Record to support the draft Permit condition I.K.10., which requires the revision and resubmittal of the Facility's Subpart BB Compliance

Plan. The Region maintains that the draft Permit conditions I.K.10.a. through 1.K.10.e. provided specific details regarding the required revisions and notes that additional support for the requirements imposed by RCRA's 40 CFR Part 264, Subpart BB standards is found in the Administrative Record and its Addendum. See, for example: "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf" at Appendix B – Checklists, at pp. 196–198/1064; "1991 12 03 RCRA Regs Applicable to Control Devices Required by the OAES - Dec 1991.pdf"; and "2016 09 26 Administrative Record Addendum.pdf," (referring to "October 2000 CAA and RCRA Overlap Provisions in Subparts AA, BB, and CC of 40 CFR Parts 264 and 265, US EPA R4, at "https://trainex.org/web_courses/subpart_x/TopicSearch%20pdf%20files/pdf%20docs%20ABC/Final%20Overlap%20Provisions.pdf "; "52 FR 3748, February 5, 1987"; and "55 FR 25454, June 21, 1990."

The Region is retaining the Compliance Schedule provision requiring the resubmittal of the Facility's Subpart BB Compliance Plan. (See Permit condition I.K.1.) In addition, in responding to the public comment and as explained in more detail below, the Region opted to revise the I.K. Compliance Schedule requirements for the Facility's Subpart BB Compliance Plan, which have been renumbered as Permit conditions I.K.1.a through I.K.1.c. (See also Permit condition IV.F.1.)

Permit Attachment Appendix XIX contains the Facility's Subpart BB Compliance Plan. The Region is not satisfied that the Plan fully addresses the Subpart BB requirements that apply to equipment at the Facility. As a result, the Region is requiring the submittal of a revised Subpart BB Compliance Plan. Regardless of whether the Facility chooses to follow 40 CFR Part 264 Subpart BB or 40 CFR Part 61 Subpart FF, the Permittees will need to revise the Subpart BB Compliance Plan to list the specific pieces of equipment that are subject to Subpart BB. The option to elect to comply with Subpart FF is also discussed below.

Equipment to Which Subpart BB Applies

The applicable definition of "equipment" is found at 40 CFR § 264.1031 by way of the Subpart BB regulation at 40 CFR § 264.1051, (see also 40 CFR §§ 265.1031 and 265.1051):

> "Equipment means each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by this subpart."

Scope of the "Threshold Exemption"

Permit Attachment Appendix XIX asserts that much of the Facility's "equipment" is exempt from regulation under Subpart BB based on the equipment not coming into contact with or containing hazardous waste with an organic loading of at least 10% by weight, based on language found at 40 CFR § 264.1050(b), which will be referred to here as the "Threshold Exemption."

The Threshold Exemption set forth in 40 CFR § 264.1050(b) does not constitute a complete and absolute exemption from Subpart BB, and some provisions of this subpart apply to all "equipment" at the Facility. Equipment that meets the exemption remains subject, for example, to the requirement at 40 CFR § 264.1064(k) to keep a log in the operating record, including an "up-to-date analysis and the supporting information and data used to determine

whether or not equipment is subject to the requirements in §§264.1052 through 264.1060." (The Region clarified the operating record requirement in Draft Permit Module II by adding clarifying language to Permit condition II.M.1.b.)

In accordance with 40 CFR § 264.1063(d), the Permittees must also make a determination – for each piece of "equipment" at the Facility -- whether or not the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10 percent by weight. And, 40 CFR § 264.1063(d)(3) requires the owner/operator to provide documentation when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used in determining if the Threshold Exemption applies.

The Feed Hoppers

To the extent that a determination has been made for each piece of equipment at the Facility concluding that the Hoppers H-1 and H-2 do not contain or contact hazardous waste with organic concentrations that equal or exceed 10 percent by weight, this conclusion needs to be substantiated further in a revised Appendix XIX. If any hazardous waste is fed into the hoppers during the transfer of spent carbon into the feed tanks prior to mixing with water, these hoppers may in fact be coming into contact with or contain hazardous waste with an organic loading of equal to or more than 10 % by weight. If so, Appendix XIX should be revised accordingly.

Equipment in Contact with Hazardous Waste Emissions

The commenter asserts, and the Subpart BB Compliance Plan supports the operator's claim, that a number of other types or pieces of equipment at the Facility are not subject to Subpart BB requirements because they do not come into contact with or contain hazardous waste but rather gaseous emissions from hazardous waste being managed in other units or equipment. However, the Region disagrees with the commenter's assertions that such equipment does not come into contact with or contain "hazardous waste."

Gaseous emissions of hazardous waste are derived from the spent carbon hazardous waste being managed in the units or equipment that contain or are in contact with the hazardous waste. Because the derivative emissions remain hazardous waste, even after changing phase into a gaseous form, and because these emissions are in contact with or contained in equipment at the Facility, where the emissions exceed 10% by weight organics, the equipment is subject to Subpart BB requirements.

The Definition of Solid Waste as it Pertains to Spent Carbon and its Emissions

The Facility manages spent carbon that constitutes a hazardous waste. The commenter does not disagree with that. What the commenter does disagree with, apparently, is whether the gaseous emissions emanating from the hazardous waste spent carbon managed at the Facility are themselves "hazardous waste." This discussion, therefore, will focus on that question.

The pertinent part of the RCRA statute's definition of "solid waste" is found at Section 1004(27) of RCRA, as follows:

> ". . . any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or ***contained gaseous material*** resulting from industrial, commercial, mining, and agricultural operations, and from community activities. . ." 42 U.S. Code § 6903(27). (Emphasis added.)

For the purposes of identifying the spent carbon and its derivatives, much of the pertinent part of EPA's regulatory definition of solid waste is found at 40 CFR § 261.2.[12] The commenter does not disagree that at least some portion of the waste carbon treated at the Facility constitutes hazardous waste within the meaning of RCRA.[13]

The Region also considers the gaseous emissions that are derivatives of the hazardous waste spent carbon to also be both solid wastes and hazardous wastes. While RCRA limits the Agency's authority to regulate gases as solid waste when they are discarded only when they are "contained gaseous material," the Region maintains that the organic emissions contained within or in contact with this Facility's "equipment," as defined in Subpart BB, are already hazardous waste subject to RCRA regulation *before* the wastes – or parts of the wastes -- enter the gaseous phase. That some of the hazardous waste enters the gaseous phase during management or treatment does not mean that these gases are no longer hazardous waste. Rather, as explained in more detail below, the emissions *remain* hazardous waste. Moreover, EPA's assertion of its authority to regulate the emissions generated as part of a thermal

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[12] Definition of solid waste.
(a)(1) A solid waste is any discarded material that is not excluded under §261.4(a) or that is not excluded by a variance granted under §§260.30 and 260.31 or that is not excluded by a non-waste determination under §§260.30 and 260.34 . . .
(2)(i) A discarded material is any material which is:
(A) Abandoned, as explained in paragraph (b) of this section; or
(B) Recycled, as explained in paragraph (c) of this section; or . . .
(b) Materials are solid waste if they are abandoned by being:
(1) Disposed of; or
(2) Burned or incinerated; or
(3) Accumulated, stored, or treated (but not recycled) before or in lieu of being abandoned by being disposed of, burned or incinerated; or. . .
(c) Materials are solid wastes if they are recycled—or accumulated, stored, or treated before recycling—as specified in paragraphs (c)(1) through (4) of this section. . .
. . . (3) Reclaimed. Materials noted with a "-" in column 3 of Table 1 are not solid wastes when reclaimed. Materials noted with an "*" in column 3 of Table 1 are solid wastes when reclaimed unless they meet the requirements of §§261.4(a)(17), or 261.4(a)(23), 261.4(a)(24), or 261.4(a)(27). . ."

[13] Some of the spent carbon processed at the Facility is a solid waste because, when it is "recycled," by being "reclaimed," it is considered a "discarded material," assuming it is not excluded under any of the sections listed at 40 CFR § 261.2(a)(1). However, in the Table referenced as "Table 1," and, more specifically, column 3 of Table 1 at 40 CFR § 261.2(c)(3), the Agency has drawn a distinction between the reclamation of spent carbon that is a "sludge" and the reclamation of spent carbon that is a "spent material." For the purposes of 40 CFR §§ 261.2 and 261.6, the terms "spent material," and "sludge," are defined in 40 CFR §§ 261.1(c) and 260.10, respectively. The spent carbon coming to the Facility that is generated from municipal, commercial, or industrial wastewater treatment plants, water supply treatment plants, or air pollution control facilities is considered a "sludge" within the meaning of RCRA's regulatory definition of solid waste. In addition, spent carbon from other types of operations would be considered a "spent material," within the regulatory meaning.

treatment process have been expressly retained over the years, (see, for example, 54 FR 50968 at 50973/2, [Dec. 11, 1989]).

Thus, as discussed in more detail below, the Region disagrees with the commenter's claims that gases coming off hazardous waste being treated at the Facility do not themselves constitute a hazardous waste.

The Definition of Hazardous Waste as it Pertains to the Emissions from Hazardous Spent Carbon Waste Managed at the Facility

The RCRA Air Emissions standards set forth at 40 CFR Part 264, Subpart BB were designed to prevent hazardous waste emissions from hazardous waste management activities from being released to the atmosphere in an uncontrolled manner as fugitive gases. As preventative requirements, they are, by design, applicable to emissions within the carbon regeneration system as a whole.[14] As stated above, as derivatives of the hazardous spent carbon received at the Facility, these emissions remain hazardous waste.

The part of the regulatory definition of hazardous waste pertinent to spent carbon and its derivatives is found at 40 CFR § 261.3. This rule states that a solid waste, as defined at 40 CFR § 261.2, is a hazardous waste if it: (1) is not excluded from regulation as a hazardous waste under 40 CFR § 261.4(b); and (2) meets the specific criteria listed at 40 CFR § 261.3(a)(2).

For solid wastes that are not excluded from regulation as a hazardous waste under 40 CFR § 261.4(b), 40 CFR § 261.3(b) indicates the solid waste "becomes a hazardous waste" when any of the following events occur: (1) in the case of a waste listed in 40 CFR Part 261, Subpart D, when the waste first meets the listing description; (2) in the case of a mixture of solid waste and one or more listed hazardous wastes, when a listed hazardous waste is first added to the solid waste; and (3) in the case of any other waste (including a waste mixture), when the waste exhibits any of the characteristics identified in 40 CFR Part 261, Subpart C.[15]

40 CFR § 261.3(c)(2)(i) indicates that, except as otherwise provided, "any solid waste generated from the treatment, storage, or disposal of a hazardous waste . . .is a hazardous waste. . .." See also *American Chemistry Council v. EPA*, 337 F.3d 1060 (D.C. Cir. 2003) (EPA's interpretation of "hazardous waste" as defined in RCRA validly encompassed derivatives and mixtures of hazardous wastes). Once the spent carbon destined for treatment at the Facility is determined to be a hazardous waste, 40 CFR § 261.3(c)(1) states that, "[u]nless and until it meets the criteria" of 40 CFR § 261.3(d),[16] a "hazardous waste will remain

[14] But, see footnote 18, below, and the Region's Response to Public Comment III-7, where the Region explains its approach to regulating RF-2 under 40 CFR Part 264, Subpart CC, including any of RF-2's "equipment."

[15] The hazardous waste spent carbon received at the Facility became a hazardous waste, for spent materials, when the carbon first met one of the three criteria set forth at 40 CFR § 261.3(b). For hazardous spent carbon received at the Facility that is considered a sludge, however, the carbon will only be considered a hazardous waste at the time it first met one of only two criteria, which are set forth at either 40 CFR §§ 261.3(b)(1) or (2).

[16] 40 CFR §261.3(d) states: "Any solid waste described in paragraph (c) of this section is not a hazardous waste if it meets the following criteria:

a hazardous waste."

Without either a rulemaking petition (40 CFR § 260.20), delisting petition (40 CFR § 260.22), or demonstration that the hazardous waste emissions are below the 10% by weight organic concentration threshold for Subpart BB applicability (40 CFR § 264.1050(b)), "equipment" which contains or contacts such emissions must also be addressed in the revised Subpart BB Compliance Plan. (See also 40 CFR § 264.1064(k).)[17] Measurements in the head space of the feed tanks and hoppers or other equipment may be used to determine the percentage by weight organics in the gaseous emissions contained in or contacting specific "equipment."

The Region is steadfast in its conviction that the overall purpose of the RCRA Air Emissions requirements is to ensure that fugitive volatile organic emissions from hazardous waste treatment systems and their equipment are controlled. For example, in the final rule's responses to public comments, EPA specifically refers to the Subpart BB equipment leak standards as controls for "fugitive" emissions. See, *e.g.*, 55 FR 25454 at 25472/3, (June 21, 1990). It is true that the Agency opined on the regulation of gases trapped in the columns of activated carbon units used as air emission control devices for *industrial processes* and found that these would not necessarily be regulated since the "gas originally being treated is not a hazardous waste." See 56 FR 7134 at 7200/2, (February 21,1991). But, the Region determined, where a carbon regeneration unit, such as RF-2, is treating solid or liquid hazardous waste, the gaseous emissions from such solid hazardous waste do in fact remain hazardous waste.

Equipment designed to capture fugitive emissions from other units that manage hazardous waste and equipment designed to convey such emissions to other treatment or control systems as part of overall hazardous waste management activities, cannot be excluded from RCRA's ambit just because the emissions themselves are not in the same form (or phase) as they were when these hazardous wastes were received at the Facility. Instead, the Region maintains that the regulations were in fact intended to include the equipment in which volatile organic emissions from hazardous waste are "contained" or through which they travel and with which they are "in contact" before further treatment, capture, and/or venting to the atmosphere.[18]

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(1) In the case of any solid waste, it does not exhibit any of the characteristics of hazardous waste identified in subpart C of this part. (However, wastes that exhibit a characteristic at the point of generation may still be subject to the requirements of part 268, even if they no longer exhibit a characteristic at the point of land disposal.)
(2) In the case of a waste which is a listed waste under subpart D of this part, contains a waste listed under subpart D of this part or is derived from a waste listed in subpart D of this part, it also has been excluded from paragraph (c) of this section under §§260.20 and 260.22 of this chapter."

[17] The Region is aware of Agency statements in a variety of regulatory preambles that address whether gases are considered a solid waste at the point of generation. See, for example: 47 FR 27520, at 27530/3, (June 24, 1982), and 54 FR 50968, at 50972/3 – 50973/2, (December 11, 1989) (Proposal to List Condensable Light Ends, the RCRA standards do not apply to fume incinerators since the input is not identifiable as a solid waste); and 78 FR 9112, 9128, (Feb. 7, 2013) (CISWI rule).

[18] To the extent that any valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required for such equipment pursuant to 40 CFR Part 264, Subpart BB (i.e., "equipment") that is associated with RF-2 comes in contact with or contains hazardous waste (or hazardous waste emissions) with greater than 10% by weight organics, the Region

In addition, the emissions are the same hazardous wastes as managed in the HWMUs, although they have volatilized, (*i.e.,* changed phase due to temperature or atmospheric pressure changes). Because the emissions from the hazardous waste carbon are derived from material that is already considered hazardous waste during management and treatment of that material, the emissions remain hazardous waste. (See 40 CFR § 264.1060).

Subpart BB Compliance Plan Revisions Necessary to Address Equipment in Contact with Hazardous Waste Emissions

There is information in Permit Attachment Appendix XIX that flanges between the spent carbon unloading hoppers and the spent carbon storage tanks and between the spent carbon storage tanks and the furnace feed tank might contain or come in contact with hazardous waste above 10% organics by weight. As a result of this information, the Region is requiring a more thorough explanation of the Subpart BB Compliance Plan's conclusions that other equipment at the facility would not come into contact or contain such hazardous waste (including hazardous waste emissions) above 10% organics by weight.

The Region is also requiring a more thorough basis be included in the revised Subpart BB Compliance Plan for the assertion in the Plan that there are no pumps (or eductors), sampling connection systems, or closed vent systems subject to Subpart BB because, as the existing Plan further claims, equipment is not used for the management of spent activated carbon.

Since the Region considers the feed hoppers at the Facility to be "open ended valves and lines," within the meaning of Subpart BB, the Region maintains that the Hoppers H-1 and H-2 are "equipment" that is potentially subject to Subpart BB. In addition, because the definition of "equipment" includes "any control devices or systems required" by the Subpart BB regulations, the Region also considers the control device equipment, such as Carbon Adsorber WS-2, which manages hazardous waste emissions from these hoppers, as "equipment," also potentially subject to Subpart BB. The revised Subpart BB Compliance Plan should address any such control device equipment or systems that may be required by the Subpart BB requirements, including WS-2.

Similarly, the claim that Subpart BB does not apply to pressure relief devices in gas/vapor service should include a more robust explanation than simply "because the hazardous wastes managed at the Facility are not in gas or vapor form," considering the Region's analysis of the status of the emissions from hazardous waste carbon as hazardous waste. See Section 2.0 of Permit Attachment Appendix XIX.

The Region revised draft Permit condition I.K.10.a (now Permit condition I.K.1.) and deleted draft Permit condition I.K.10.d to remove the references to 40 CFR § 264.1064(m), since the existing Subpart BB Compliance Plan does not reflect an election to comply with the

would not require this equipment to be addressed in the revised Subpart BB Compliance Plan. The Region provided an explanation for its approach to fugitive air emissions that may be associated with the Miscellaneous Unit RF-2 and its associated equipment in the Region's Response to Public Comment III-7, pertaining to the required revisions to the Subpart CC Compliance Plan. Pressure relief devices associated with tanks will be considered as included with their hazardous waste management unit in the Subpart CC Compliance Plan.

CAA regulations by the Permittees.[19] See Permit condition I.K.1. However, to the extent that the Permittees choose and are able to invoke the 40 CFR § 264.1064(m) deferral to CAA requirements for any specific pieces of equipment in the revised Subpart BB Compliance Plan, they are free to do so.

The revised Subpart BB Compliance Plan (and accompanying final Permit Attachment Section N, if appropriate) will require a Class I permit modification with prior Director approval, Class II or Class III permit modification.

I-37. One commenter objected to draft Permit condition I.K.11., requiring that the Permittees add provisions to the Facility's waste analysis plan to address a sulfur waste feed limit and associated sampling requirements. The commenter suggested that the Region include a permit condition requiring the revision of the waste analysis plan thereby avoiding a permit modification for a revised waste analysis plan. The commenter also asserted that the waste analysis plan is not an appropriate document in which to address an annual air emission limit (see Table V-1), which is the only limit the commenter felt was appropriate for controlling sulfur emissions.

RESPONSE: The Region appreciates the commenter's concerns regarding the burden of undertaking a permit modification to incorporate changes to the existing waste analysis plan (WAP). Therefore, the draft Permit condition I.K.11., renumbered as Permit condition I.K.3., has been revised to specify that the anticipated revisions to the waste analysis plan can be implemented pursuant to a Class 1 permit modification with prior Director approval. See Permit condition I.K.3.

The Region revised Permit condition I.K.3. to require the Permittees to revise the WAP to include a recommendation by the Permittees for a feed ***rate*** limit for sulfur in the waste carbon being fed to RF- 2. This feed rate limit, along with the results of the periodic PDTs, will be used by the Permittees to demonstrate to the Region that the sulfur oxides emission limit of 30 tons per year (tpy), the limit expressed in Table V-1 of Module V, is not exceeded.

In accordance with the Facility operator/commenter's September 19, 2016 letter, this demonstration shall be accomplished through a calculation of sulfur emissions using sulfur content of the feed, carbon reactivation production rate, and hours of operation over the course of the year, minus a 90% presumed sulfur removal rate for the packed bed scrubber system. See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf." The Region believes that, given the sulfur emission level data to date, the results of this demonstration will ensure protection of human health and the environment.

I-38. One commenter objected to the time frame for collecting and sending samples for analysis and suggested that it needs to account for weekends, holidays and both shorter and longer months.

RESPONSE: The Region agrees in large part with the commenter and revised draft Permit condition I.K.11.a., renumbered as Permit condition I.K.3.a., to allow for the time frame suggested by the commenter, with some minor revisions to require 4 samples per day every 4-6

[19] 40 CFR § 264.1064 allows facility owners and operators to elect to determine compliance with Subpart BB either by documentation pursuant to 40 CFR § 264.1064, or by documentation of compliance with the regulations at 40 CFR Parts 60, 61, or 63.

hours. This minor revision prevents simultaneous sampling.

I-39. One commenter objected to the requirement that the Permittees resubmit revised personnel training materials as set forth in draft Permit condition I.K.13. The commenter asserted that the imposition of additional training requirements based on the MACT EEE requirements for incinerators were beyond the requirements set forth in the Permit Attachment Appendix XIV and not sufficiently justified.

RESPONSE: The Region reconsidered the requirement that the Permittees resubmit revised personnel training materials as set forth in draft Permit condition I.K.13. Imposing burdensome incinerator training requirements from the MACT EEE standards on the Permittees because RF-2 is a miscellaneous unit is not justified considering the expertise and knowledge of the operator when it comes to operating RF-2, which the Region acknowledges is ***not*** an incinerator. The training requirements of 40 CFR § 264.16, coupled with Permit Attachment Section H and Permit Attachment Appendix XIV, are sufficient to ensure the proper training of Facility personnel. Accordingly, the Region deleted draft Permit condition I.K.13.

I-40. One commenter provided several comments concerning the dispute resolution provision in the draft permit. Among other concerns, this commenter objected to the Permittees having to work with the staff person responsible for the Permit after the provision is triggered. The commenter reasoned that the dispute resolution provision would only be invoked after negotiations with the EPA staff person had already proved fruitless. The commenter also objected to the EPA sending representatives to the dispute resolution meeting. The commenter also suggested changing the person who would ultimately be responsible for resolving disputes from the Division Director level to the Regional Administrator level.

RESPONSE: The Region disagrees that resolution of disputes by Regional staff is improper. See, *e.g.*, *In Re GMC Delco Remy*, 7 E.A.D. 136, at 170 (RCRA Appeal No. 95-11, June 1997).[20] Nonetheless, the Region acknowledges that the commenter's point is susceptible to a relatively easy solution, because there are currently two layers of management between Regional staff and the Land Division Director. The Region determined that disputes could be referred to the mid-level manager prior to any ultimate resolution of the dispute by the Division Director without creating an undue burden on the Region. For this reason, the dispute resolution provision (Permit condition I.L.) has been revised such that, during the initial 14-day dispute resolution period, which is triggered when the Permittees invoke dispute resolution, the Permittees will work to resolve the dispute informally with the *manager* of the RCRA Branch, instead of the EPA staff person.

In addition, the Region kept the Division Director as the individual responsible for resolving disputes rather than the Regional Administrator. The Regional Administrator delegated the authority to perform all actions necessary in connection with hazardous waste permitting. See, 2014 10 10 R9 Delegation RCRA TSD Permits R9-08-006.pdf. The Region believes that

[20] Citing *In re Exxon Co., U.S.A.*, 6 E.A.D. 32 at 44-45 (RCRA Appeal No. 94-8, May 1995); *In re Delco Electronics Corporation*, 5 E.A.D. 475, at 484-86 (RCRA Appeal No. 93-10, September 1994); *In re General Motors Corporation*, 5 E.A.D. 400, at 411 (RCRA Appeal No. 93-5, July 1994); and *In re General Electric Company*, 4 E.A.D. 615, at 639 (RCRA Appeal No. 91-7, April 1993).

keeping the responsibility to resolve disputes with the individual with overall responsibility for the permitting decision is appropriate.

With respect to the commenter's concern about EPA sending its representative to the dispute resolution meeting, the intent of the provision was to allow the ***Permittees*** to send representatives and this has been clarified in the final dispute resolution provisions.

In addition, in response to the numerous recommendations the commenter made throughout the draft Permit for specific provisions to be included within the ambit of the dispute resolution provisions of draft Permit condition I.L., the Region clarified that the Permittees ought to be able to invoke the dispute resolution provisions of the Permit whenever they are unable, after using best efforts and good faith, to resolve a Permit-related dispute with EPA. The Region revised Permit condition I.L. to remove the requirement that the Permit specifically identify each condition potentially subject to dispute resolution. The Region also removed references from the Permit conditions that purported to allow for invocation of dispute resolution, such as draft Permit condition VI.A.7.b.ii, (now Permit condition VI.A.5.b.ii.). The revisions to Permit condition I.L.1., which will allow the Permittees to invoke dispute resolution for any unresolved disputes, render references such as that in Permit condition VI.A.5.b.ii. superfluous.

In addition, while Permit condition I.L.2. has not been changed substantively[21] since the publication of the draft Permit, the Region added a new Permit condition I.L.3. New Permit condition I.L.3. clarifies that, generally, pending the resolution of a dispute, the Permittees may expect a temporary postponement of any relevant deadline for or other obligation to perform the specific requirement that is subject to dispute. But, new Permit condition I.L.3. also makes clear that, where the Director disapproves of the suspension of a requirement or deadline that is the subject of a dispute, the requirement or deadline may continue to apply while the dispute resolution process is ongoing. Likewise, new Permit condition I.L.3. also provides that where the Director directs the Permittees to conduct Emergency Interim Corrective Measures in accordance with Permit condition VI.H.5., the Permittees will need to implement such Emergency Interim Corrective Measures, as instructed by the Director, simultaneously during any such invocation of the Permit's dispute resolution procedures.

I-41. One commenter suggested adding a requirement that EPA include in its final decision, on any matters in dispute, the basis for EPA's decision.

RESPONSE: The Region agrees with the commenter and revised Permit condition I.L.1.c. accordingly.

I-42. One commenter suggested adding a new Permit condition I.L.1.d. to clarify that decisions resolving disputes in accordance with Permit condition I.L. are subject to appeal as final Agency actions. The commenter also suggested the deletion of the language in draft Permit condition I.L.1.c. that stated the resolution of disputes was not subject to administrative or judicial appeals.

RESPONSE: The Region does not agree that the Division Director's resolution of disputes ought to be considered a final agency action that would then be subject to

[21] A minor editorial change to references to "***informal*** dispute resolution" or "IDR" in the draft permit has been made to instead refer simply to "dispute resolution."

administrative or judicial appeal. Rather, the Region maintains that the dispute resolution provisions at Permit condition I.L. provide appropriate and adequate procedural safeguards to protect the Permittees' due process rights, where disagreements between the Permittees and the Region may arise. See *In re: Allied-Signal, Inc.*, 4 E.A.D. 291, 297-298 (RCRA Appeal No. 92-30, May 1994).

In both developing the draft Permit and responding to this comment, the Region evaluated whether the processes and procedures prescribed in the Permit would provide the Permittees with the opportunity to be heard "at a meaningful time and in a meaningful manner." See *Mathews v. Eldridge*, 424 US 319, 333 (1976) (citing *Armstrong v. Manzo*, 380 U.S. 545, 552 [1965] and *Grannis v. Ordean*, 234 U.S. 385, 394 [1914]). Such an analysis generally requires consideration of: (1) the private interests potentially affected; (2) the risk that the private interests may be deprived compared to the value of additional procedural safeguards; and (3) the burden on the government or the public imposed by such additional safeguards. *Matthews, 424 U.S.* at 334-347.

The Region understands the commenter's concern that unilateral modifications to workplans or other deliverables by the Region might result in significant expenditures or costs to the operator to which it had not agreed. However, the Supreme Court determined that "[f]inancial cost alone is not a controlling weight in determining whether due process requires a particular procedural safeguard prior to some administrative decision." Id. at 348. The financial interests of the operator must be considered in light of the government's interests, and hence the public's interests, in conserving "scarce fiscal and administrative resources." Id.

The Region also considered that there may be potentially significant costs to the Permittees based on resolutions of possible disputes, although such disputes are currently purely hypothetical. The Region considered further how to weigh potential and, at this stage at least, hypothetical costs to the operator against both the public's and the federal government's interests in the efficient use of Agency resources. To allow a Permittee to pursue administrative or judicial review of the Land Division Director's resolution of any dispute that may arise could potentially severely limit the government's administration of the Permit. Judicial and administrative review will typically cause significant delays to the implementation of critical Permit requirements.

On the other hand, where there are changes to the Permit or its attachments or appendices, such changes will necessarily be put into effect through the permit modification process, which does allow for review of the Region's permit decisions. However, immediate recourse to review by an administrative or judicial body is inappropriate where no permit modification occurs – such as where a deliverable is disapproved or modified. The Permittees may invoke the dispute resolution provision and be heard by the same individual who would make permitting decisions. The Region regards these protections as sufficient to protect the due process rights of the Permittees while not simultaneously over-burdening the Agency or putting the public at risk.

Although the Region declines to add a new Permit condition I.L.1.d. indicating the Director's resolution of a dispute would be a final agency action, as suggested by the commenter, the Region nonetheless deleted the language from draft Permit condition I.L.1.c. that indicated the resolution of disputes would ***not*** be subject to administrative or judicial appeal.

The Region disagrees with the commenter's conjecture that the EAB decisions from *In re General Electric*,[22] *In re Allied Signal*,[23] and *In re Caribe General Electric Products*,[24] "would not be upheld if subject to judicial review."[25] However, the Region also endeavors to ensure that it does not make it more difficult for a Permittee to exercise its constitutional rights by including language in its permits that could be interpreted as foreclosing any due process options that might otherwise be available to the Permittees. With this philosophy in mind, the Region revised Permit condition I.L.1.c. rendering the permit silent on the question of whether the resolution of a dispute constitutes a "final agency action."

[22] 4 E.A.D. 615 (RCRA Appeal No. 91-7, April 1993).
[23] 4 E.A.D. 291 (RCRA Appeal No. 92-30, May 1994).
[24] 8 E.A.D. 696 (RCRA Appeal No. 98-3, February 2000).
[25] See p. 16/202 at "2017 01 06 Comments of Evoqua Draft Permit Decision.pdf."

COMMENTS REGARDING GENERAL PERMIT CONDITIONS

MODULE II:

II-1. One commenter suggested revisions of draft Permit condition II (renumbered Permit condition II.A.). (General Facility Description) to: (1) differentiate between incoming spent carbon that is RCRA-regulated and that which is not RCRA-regulated; (2) clarify the waste feed process for RF-2; and (3) clarify information about the waste water treatment system and the facility's Clean Water Act-regulated discharges.

RESPONSE: The Region has incorporated the suggested revisions regarding incoming spent carbon, and the suggested revisions about the waste feed, with minor alterations, and has included the suggested language about the waste water treatment system and the Facility's discharges. One of the minor alterations was to change the reference to some of the incoming spent carbon as "exempt from hazardous waste classification" to indicate that such spent carbon "is not classified as hazardous waste upon receipt." Another was to change the phrase "received by the facility" to "received at the facility," in the additional text recommended by the commenter. Another minor alteration to the suggested changes was not to delete the word "operating" in reference to the carbon regeneration unit, RF-2.

II-2. One commenter suggested revisions to draft Permit condition II.A.2. in order to clarify the scope of regulated activities under the Permit.

RESPONSE: The Region has revised draft Permit condition II.A.2., renumbered Permit condition II.B.2., to clarify the intent, which is to prohibit activities that are subject to hazardous waste permitting requirements, except in accordance with the Permit.

II-3. One commenter suggested revisions to draft Permit condition II.A.3., in order to clarify the scope of the Permittees' obligations to comply with RCRA's land disposal restrictions.

RESPONSE: The Region has revised draft Permit condition II.A.3., renumbered Permit condition II.B.3., by deleting the first sentence as unnecessary and simplifying the remaining language, which requires compliance with 40 CFR Part 268.

II-4. One commenter suggested revisions to draft Permit condition II.A.4., to remove the reference to "modifications to the units," to clarify that some permit modifications may be made without submitting a request to the Region, and to clarify that some permit modifications may occur outside of the context of c-related deliverables set forth in draft Permit condition I.G.7.

RESPONSE: The Region agrees with the commenter and has revised draft Permit condition II.A.4., renumbered Permit condition II.B.4., as suggested.

II-5. One commenter suggested revisions to draft Permit condition II.A.6. because the cited rule, at 40 CFR § 264.73(b)(9), provides that the Permittees must certify that they have "a program in place to reduce the volume and toxicity of hazardous waste that is

generated on-site to the degree determined by the Permittee[s] to be economically practicable."

RESPONSE: The Region revised draft Permit condition II.A.6., renumbered Permit condition II.B.6., to include the phrase "determined by the Permittees," in order to track the regulatory language.

II-6. One commenter recommended changes to draft Permit condition II.E.2. in order to reference the inspection requirements in 40 CFR § 264.15(a) instead of paraphrasing those requirements in the draft permit condition.

RESPONSE: The Region revised draft Permit condition II.E.2., renumbered Permit condition II.F.2., to reference the inspection requirements in 40 CFR § 264.15(a) instead of paraphrasing them.

II-7. One commenter recommended changes to draft Permit condition II.E.3. in order to reference the inspection requirements in 40 CFR § 264.15(b) instead of paraphrasing select requirements in the draft Permit condition.

RESPONSE: The Region revised draft Permit condition II.E.3., renumbered Permit condition II.F.3., to reference the inspection requirements in 40 CFR § 264.15(b) instead of paraphrasing them.

II-8. One commenter suggested revisions to draft Permit condition II.E.4. in order to better track the regulatory provision at 40 CFR § 264.15(c).

RESPONSE: The Region revised draft Permit condition II.E.4., renumbered Permit condition II.F.4., to better track the regulation at 40 CFR § 264.15(c).

II-9. One commenter suggested revisions to draft Permit condition II.E.5. to incorporate the regulatory provision at 40 CFR § 264.15(d).

RESPONSE: The Region revised draft Permit condition II.E.5., renumbered Permit condition II.F.5., to incorporate the regulation at 40 CFR § 264.15(d) and has deleted the remaining language, which is included in the cited regulations.

II-10. One commenter recommended deletion of draft Permit conditions II.F.1. and II.F.2. as not consistent with EPA's RCRA permit requirements.

RESPONSE: The Region deleted draft Permit conditions II.F.1. and II.F.2. Draft Permit condition II.F.1 was redundant of the conditions in Module V that require proper maintenance, calibration and operation of the equipment and instruments listed in Table V-3. Draft Permit condition II.F.2 was overly broad and therefore vague and arguably duplicative of the entire Permit. The Region also renumbered draft Permit conditions II. through II.E. as Permit conditions II.A. through II.F.

II-11. One commenter recommended revising draft Permit condition II.H.1. to state the hazardous waste that the Permittees may manage as opposed to stating that the Permittees are prohibited from managing hazardous wastes not listed in Table II-2. The commenter also recommended that the Permit refer to Table C-1 in Permit Attachment Section C. (The same commenter also provided comments on draft Permit condition II.H.5.h., which are addressed in the response to similar comments associated with Module V, [see the Region's Response to Public Comment V-5].)

RESPONSE: The Region rephrased Permit condition II.H.1. so that it references hazardous waste codes that the Permittees may manage, instead of management of waste codes not on the list as prohibited from being managed. The Region deleted Table II-2 and, in its place, references Table C-1 of Permit Attachment Section C instead.

II-12. One commenter recommended changes to draft Permit condition II.J.4. to allow for the possibility that the Permittees could seek approval in accordance with 40 CFR § 264.35 to reduce the required aisle space in the hazardous waste container storage area.

RESPONSE: The Region modified Permit condition II.J.4 to clarify that the Permittees could seek a modification of the Permit to change the minimum aisle space required between the hazardous waste containers in the container storage area.

II-13. One commenter suggested revisions to draft Permit condition II.J.5., arguing that EPA had misstated its own rule in the draft Permit condition pertaining to preparedness and prevention arrangements with local authorities and objecting to the requirement that such arrangements be updated every five years.

RESPONSE: The Region incorporated some of the suggested revisions into Permit condition II.J.5. and rejected others. With respect to the commenter's assertion that the draft permit purported to compel the permittees to make arrangements with third parties who are not bound to comply with the permit, the Region revised the first sentence of Permit condition II.J.5. so that the Permittees' obligation is to *attempt* to maintain such arrangements. The arrangements need only be "maintained" as opposed to "made" because initial arrangements have already been made, as reflected in the facility's Contingency Plan. See Permit Attachment Section G and Permit Attachment Appendix XIII.

Similarly, the Region revised the requirement in Permit condition II.J.5. that purported to compel the permittees to obtain a third party's refusal to renew such arrangements in writing. Permit Condition II.J.5. requires that the permittees need only "seek to confirm" the refusal in writing. However, 40 CFR § 264.37(b) requires that the refusal be documented in the operating record. If the third party will not document its refusal to renew such arrangements in writing, the permittees can memorialize that refusal in writing themselves. This element of the requirement has been retained in Permit condition II.J.5.

The Region revised the requirement in draft Permit condition II.J.5. to maintain documentation of the refusal by local authorities to make arrangements with the Permittees for the operating life of the facility. Under Permit condition II.J.5., the Permittees need only

maintain such information in the operating record for five years or until the next attempt to update the arrangements is made. If the local authority continued to refuse to renew the arrangements, the new refusal to renew would again need to be documented and maintained in the operating record for the ensuing 5-year period (or until the attempts to renew the arrangements were made again).

The Region opted not to delete the requirement in Permit condition II.J.5. that the Permittees periodically update the preparedness and prevention arrangements with local authorities. The Region determined that the requirement to update the preparedness and prevention arrangements with local authorities every 5 years throughout the life of the Permit is warranted in light of the limited burden to the Permittees imposed by the obligation and the potential significance of the risks that may be posed if these arrangements are not periodically updated. See, for example, March 5, 2010 Memorandum from Matt Hale, Director, Office of Resource Conservation and Recovery, US EPA, to RCRA Directors re: Preparedness and Prevention Requirements for RCRA TSDFs, listed at "2016 09 26 Administrative Record Addendum.pdf." See also 45 FR 33154, 33186/1, May 19, 1980, ("[T]he Agency believes that where appropriate to protect human health and the environment in emergencies, it is vital that local authorities have up-to-date facility contingency plans in their possession.").

II-14. One commenter suggested that draft Permit condition II.K.2., which requires all revisions to the facility's contingency plan be submitted to all local police departments, fire departments, hospitals and state and local emergency response teams that may be called upon to provide emergency services, would be confusing and overly burdensome to receiving agencies. The commenter points to the March 5, 2010 Memorandum from Matt Hale, Director, Office of Resource Conservation and Recovery, US EPA, to RCRA Directors re: Preparedness and Prevention Requirements for RCRA TSDFs -- referenced in the preceding response -- as the basis for asserting that only significant changes in volumes or quantity of waste handled or significant design changes ought to trigger the need to provide contingency plan revisions to local emergency authorities. The commenter provided similar comments with respect to draft Permit condition II.K.3.

RESPONSE: To the extent that the commenter objects to Permit condition II.K.3. as an overly broad obligation to revise (or update) the contingency plan for changes that may not be considered "significant," the Region declines to revise Permit condition II.K.3. Permit condition II.K.3.a. tracks the regulation found at 40 CFR § 264.54. The Region considers each of the triggers for revising the contingency plan that are listed at II.K.3.a.i. through II.K.3.a.v. as "significant" enough to warrant the revision of the contingency plan. As a result, the Region has declined to make any changes to Permit condition II.K.3.a.

As noted, the commenter points to Mr. Hale's 2010 memorandum for the proposition that only significant changes to the Facility are intended to trigger the Permittees' obligation to submit a revised, updated contingency plan to local response agencies. Again, EPA determined that the triggers listed in Permit condition II.K.3 are significant and the Permit condition is in conformance with both the applicable regulatory language (see 40 CFR §§ 264.53 and 264.54). Furthermore, the sentence in Mr. Hale's memorandum immediately preceding the text quoted in the comment makes it clear that the memorandum includes some –

but not all -- examples of events necessitating updated written information (*i.e.*, an update to the contingency plan), which, in turn, would necessitate submittal of the updated written information to local authorities. It does not, as the commenter suggests, lead to the conclusion that ***only*** significant changes in volumes or quantity of wastes handled or significant design changes would trigger the obligation to submit revisions to the contingency plan to local authorities. Additionally, the examples in the memorandum are a non-exhaustive illustration of when the contingency plan should be revised, not whether the revisions need to be submitted to local authorities. If the contingency plan is revised at all, the revision must be kept in the Operating Record and must be submitted to the local authorities. The Region's approach is consistent with 40 CFR §§ 264.53 and 264.54 and the Region is therefore retaining the language that tracks the regulation in Permit condition II.K.2.

In responding to this comment, the Region determined that three (3) tables were missing between pages 4 and 5 of the Contingency Plan, although these tables had been included in a previously submitted version of the Contingency Plan as Appendix XIII of the April 2012 Permit application. See "2012 04 RCRA Application_Vol II-Appendix XIII_Rev 1.pdf." In addition, the Region determined that the phone number for EPA Region IX listed in Section 4.3 of the Contingency Plan is no longer the correct phone number and requires updating. As a result of these issues, the Region corrected the Contingency Plan by altering the version of the plan that was included in the 2016 Permit Application in the following ways:

1. the Region corrected the EPA Region IX phone number listed in Section 4.3 of the Contingency Plan [U.S. Environmental Protection Agency Region IX, 24-Hour Environmental Emergencies, (800) 300-2193]; and

2. the Region included the following materials between pages 4 and 5 of the Contingency Plan from the April 2012 Permit Application Appendix XIII: Table 2-1 Hazardous Wastes Received at the Parker Facility, Table 2-2 Organic Constituent Ranges for Spent Activated Carbon and Table 2-3 Metal Constituent Ranges for Spent Activated Carbon.

Because the Region's final decision on the Permit application includes a Contingency Plan that has been revised from the version that was submitted with the Permit application, the Region added a provision in Permit condition I.K. to require that the Permittees submit both a hard copy and an electronic copy of the revised Contingency Plan to the off-site response agencies listed in section 4.1 and the hospital listed in section 4.2 of the Contingency Plan within thirty (30) days of the effective date of the Permit. (See Permit condition I.K.4.) The Region also added a provision to Permit condition I.K.5., new Permit condition I.K.5.b., to require a link to an electronic version of the Contingency Plan be submitted to these entities by the time the Permittees send notice of the Information Repository to the entities on the Facility mailing list in accordance with Permit Condition I.K.5.a. [See also the Region's Response to Public Comment I-25, Permit condition I.J.3 and 40 CFR §§ 124.33(e) and 270.30(m).]

II-15. One commenter suggested revisions to draft Permit conditions II.L.1.a. and II.L.1.b. in order to better track the language in the regulations regarding manifest discrepancies that may be discovered and would then need to be reported.

RESPONSE: The Region revised the language in Permit conditions II.L.1.a. and II.L.1.b. as suggested to track the regulatory language. However, the Region also added citations to the list of regulatory provisions in Permit condition II.L.1., with which the Permittees must comply. The citations to 40 CFR §§ 270.30(l)(7) and (8) are incorporated into the body of Permit condition II.L.1. because, while 40 CFR § 264.72 only requires a manifest discrepancy report for "significant differences" between the type or quantity of hazardous waste under § 264.72(a)(1), 40 CFR § 270.30(l)(7) indicates that a report must also be submitted for manifest discrepancies described in both §§ 264.72(a)(2) (rejected wastes) and (3) (container residues that exceed the quantity limits for empty containers). Additional revisions to Permit condition II.L.1. make clear these reports are required as well.

In addition, after the issuance of the draft Permit, EPA promulgated regulations that necessitated additional revisions to Permit condition II.L.1 and the notice requirement in Permit condition II.C.1. On November 28, 2016, EPA issued the Hazardous Waste Generator Improvements Rule, which included revisions to 40 CFR Parts 257, 258, 260, 261, 262, 263, 264, 265, 266, 267, 268, 270, 271, 273, and 279. 81 FR 85732 (Nov. 28, 2016). And, on the same day, the Agency promulgated "Hazardous Waste Export-Import Revisions." 81 FR 85696, (Nov. 28, 2018). Later, on January 3, 2018, the Agency promulgated a Final Rule entitled "Hazardous Waste Management System; User Fees for the Electronic Hazardous Waste Manifest System and Amendments to Manifest Regulations," which included revisions to 40 CFR Parts 260, 262, 263, 264, 265, and 271. 83 FR 420, (Jan. 3, 2018).

To incorporate the newly promulgated regulations relating to hazardous waste imported from a foreign source into the final Permit, the Region revised Permit condition II.C.1. from the draft permit, where it was formerly draft Permit condition II.B.1., to conform the permit conditions regarding imports of hazardous waste to the revised regulations. Revised Permit condition II.C.1. requires that the Permittees provide notice of hazardous waste imports in accordance with 40 CFR §§ 264.12(a) and 264.71. The brackets at the end of the permit condition also now include a reference to the revised hazardous waste import requirements at 40 CFR § 262.84.

The Region also revised Permit condition II.L.1. to include citations to regulatory provisions that were promulgated or revised as part of the Hazardous Waste Generator Improvements Rule or the User Fees for the Electronic Hazardous Waste Manifest System Rule. Specifically, this included a reference to EPA's manifest fee program (see 40 CFR Part 264, Subpart FF) and additional citations to 40 CFR §§ 260.4 (Manifest copy submission requirements for certain interstate waste shipments), 260.5 (Applicability of electronic manifest system and user fee requirements to facilities receiving state-only regulated waste shipments), 264.1300 et seq. (Fees for the Electronic Hazardous Waste Manifest Program) and 270.30(l)(7) (Manifest discrepancy report) and (8) (Unmanifested waste report).

II-16. One commenter recommended deletion of draft Permit condition II.M.1.b. because the draft Permit condition created confusion in terms of whether it was intended to add Operating Record obligations beyond those set forth in draft Permit condition II.M.1.a. The commenter further asserted that, because the Region did not include a justification for the imposition of MACT EEE record-keeping requirements in the administrative

record for the draft Permit, the Region had no authority to impose the MACT EEE record-keeping requirements from 40 CFR § 63.1211.

RESPONSE: The Region's intention in including draft Permit condition II.M.1.b. in the draft Permit was not to add additional obligations beyond what is required in accordance with 40 CFR § 264.73, except to the extent that records pertaining to RF-2 (a "miscellaneous unit" regulated under 40 CFR § 264.600 *et seq.*) are not specifically listed in Part 264. Therefore, while the Region deleted the reference in the body of Permit condition II.M.1.b. to 40 CFR § 63.1211, it added in its place a reference to Module V, which includes its own specific references to RF-2-related documents that must be kept in the Operating Record for the facility, (see, *e.g.*, Permit conditions V.C.2.iv., V.C.4.i., etc.). The reference to 40 CFR § 63.1211 remains in the brackets at the end of Permit condition II.M.1.b. as a reference, and specific permit conditions from Module V that reference the Operating Record are listed there as well. The Region also added a qualifier to Permit condition II.M.1.b. ("in accordance with Permit condition II.M.1.a.") that is intended to clarify that Permit condition II.M.1.b. was not meant to add requirements beyond those described generally in Permit condition II.M.1.a. See a further explanation of this approach to this type of comment in Response to Comments III-2.

II-17. One commenter suggested that the table of Operating and Maintenance Manuals Maintained on Site in Permit Attachment Appendix XXI and Table D-2 Operating and Maintenance Manuals in Permit Attachment Section D (referenced in draft Permit condition II.M.1.c) should both be revised to incorporate more up-to-date information regarding the manufacturers of carbon vessels and the carbon monoxide continuous emissions monitoring system.

RESPONSE: The referenced tables in Permit Attachment Appendix XXI and Permit Attachment Section D were found in an identical form in the Permit application submitted by the Facility operator, who also is the commenter. The Region declines to make the suggested revisions since they are inconsistent with the Permit application. If the list of operating and maintenance manuals required to be maintained on site needs to be updated because the equipment listed on that table has changed since the table was submitted in the Permit application, the Permittees should have updated the table and resubmitted the application at that time. The Region has added a new paragraph to Permit condition I.K. that requires the Permittees, if necessary, to submit a revised and updated Permit Attachment Appendix XXI and revised and updated Permit Attachment Section D, with an accompanying request for a permit modification, within sixty (60) days of the effective date of the Permit. See Permit condition I.K.6., Permit Attachment Appendix XXI and Permit Attachment Section D. Any updates or revisions to this table may be accomplished in this manner.

II-18. One commenter objected to the inclusion of draft Permit condition II.M.1.d. as not supported by information in the administrative record and, therefore, as improper.

RESPONSE: Draft Permit condition II.M.1.d. required that the Permittees develop a quality control program for the CMS. The Region maintains that a quality control program for the CMS at the facility is important to ensure that the CMS is functioning properly. However, the Region recognizes that such a program could be incorporated into the periodic trial burn plans

required in accordance with final Permit condition V.I. instead of as part of a separate requirement pursuant to procedures more appropriate for facilities that are subject to the MACT EEE requirements.

As a result, the Region made substantial revisions to draft Permit condition II.M.1.d. such that Permit condition II.M.1.d. now refers to the time frames for maintaining documents in the operating record. Permit condition V.I.1.c.vii. now includes a provision that requires the Permittees to develop and implement a CMS quality control program as part of the development and implementation of the periodic PDT process, now set forth in Module V. The Region also revised Permit condition V.G.5. to remove the reference to the requirement to maintain in the operating record the site-specific CMS quality control performance evaluation test plan procedures in accordance with 40 CFR § 63.8(d). Instead, Permit condition V.G.5. now simply requires that the CMS quality control program documentation be maintained for three years.

While the basic requirements of a CMS quality control program set forth in 40 CFR § 63.8 should be included in work plans submitted pursuant to Permit condition V.I., the specific parameters and schedule can be tailored to the CMS at the Facility, subject to review and approval during the PDT work plan review and approval process.

The Region replaced draft Permit condition II.M.1.d. with a new Permit condition II.M.1.d that requires maintenance of the records that are required to be kept in the Operating Record for specific time frames. These requirements were added to clarify that, for the most part, the record keeping requirements for the Operating Record include a three-year retention period. However, the Permit condition II.M.1.d. also makes clear that there are exceptions, such as where the records must be maintained until closure in accordance with 40 CFR § 264.73(b), or where they must be maintained for five (5) years in accordance with Permit conditions V.C.5.viii. or V.G.1. The final Permit condition II.M.1.d. also acknowledges that other permit conditions may also specify specific retention periods for specific records and includes references to Permit conditions I.I.1., IV.J.4., V.C.5.viii., V.G.1., and VI.B.2. See also the Region's Response to Public Comment V-37.

II-19. One commenter objected to the citations to certain reporting requirements found in 40 CFR Parts 61 and 63 that were contained in draft Permit condition II.M.2. The commenter objected to the requirements referred to as not supported by information in the administrative record, and requested their deletion.

RESPONSE: The Region has removed the references to 40 CFR Parts 61 and 63 from Permit condition II.M.2., but added a reference to any conditions in the Permit that require reporting of information. This reference will include the specific reporting requirements applicable to RF-2 that are found in Module V. As explained in the Region's Response to Public Comment IV-2, the Region has removed references to 40 CFR Part 61 requirements that were in the draft Permit, because these requirements apply to the Facility independently from this Permit. The Region had drawn from the requirements for hazardous waste combustors at 40 CFR Part 63, Subpart EEE, as guidance in developing requirements applicable to the miscellaneous unit RF-2. However, the Region has reconsidered its reference to Part 63, Subpart EEE, and has opted to model the RF-2-related reporting requirements on RCRA's reporting requirements instead. See, *e.g.*, Permit Condition V.G.

II-20. One commenter suggested that language be added to draft Permit conditions II.P., II.Q. and II.R. to specify that changes in financial assurance mechanisms, changes in cost estimates, and changes in insurance coverage will not be considered changes to the Permit and will not require applications for permit modifications under 40 CFR § 270.42.

RESPONSE: The Region agrees with the commenter's recommended changes to draft Permit conditions II.P.2.a. and II.Q. and has revised the language of these permit conditions accordingly.

With respect to the suggested changes to draft Permit condition II.R, the Region agrees in part with the commenter's suggested revisions. The Region agrees that changes to the ***type*** of financial assurance for bodily injury and property damage (*e.g.*, surety bond changed to insurance policy) will not require a permit modification, but disagrees with the commenter regarding changes to the ***level*** of financial assurance. In accordance with 40 CFR § 264.147, Permit condition II.R. provides that changes to the ***level*** of financial assurance for bodily injury and property damage (*i.e.*, at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs) will require a permit modification.

COMMENTS REGARDING GENERAL PERMIT CONDITIONS

MODULE III:

III-1. One commenter recommended that the draft Permit not attempt to constrain the number and type of containers the Permittees may maintain for satellite accumulation, or where the Permittees may choose to locate 90-day accumulation containers.

RESPONSE: The Region agrees that satellite accumulation requirements do not need to be part of a RCRA permit and removed constraints on the number and type or location of containers in satellite accumulation areas from draft Permit condition Table III-1, which has been renamed "Table III-1 Container Storage Areas and Design Capacities." The Region has also deleted the note below Table III-1, which previously read: "Locations may vary due to facility needs. Permit Attachment Appendix III contains diagrams and maps with unit locations."

III-2. One commenter suggested the deletion of draft Permit conditions III.C., III.D.1, III.D.2, III.E.1, III.E.2, III.E.3.a and III.E.3.b as duplicative of draft Permit condition III.B.3. The commenter expressed concern that, should the Permittees violate one of the conditions set forth in III.C., III.D.1, III.D.2, III.E.1, III.E.2, III.E.3.a or III.E.3.b, the Agency not cite the Permittees for multiple violations of the same requirement simply because the requirement is stated multiple times in the Permit.

RESPONSE: The Region agrees that one violation of one provision of the container standards set forth in 40 CFR Part 264, Subpart I, which are incorporated in draft Permit condition III.B.3 (now Permit condition III.B.4.), should not result in citations for multiple violations of the Permit. Conversely, violations of multiple Subpart I provisions should be considered for multiple citations, and that might not be apparent if the Agency were to accept the commenter's recommended deletions.

Therefore, the Region has added language in Permit conditions III.C., III.D.1, III.D.2, III.E.1, III.E.2, III.E.3.a and III.E.3.b to clarify that compliance with the requirements set forth in these provisions is part of the obligation to comply with Permit condition III.B.4.'s broad reference to Subpart I. Thus, the Region believes that this language will protect the Permittees if any future enforcement action seeks to cite multiple violations of Permit conditions arising from a one-time failure to comply with only one of Subpart I's many requirements. At the same time, the added language will clarify the Region's ability to cite multiple Permit violations where there are multiple violations, including violations of more than one of Subpart I's requirements.

III-3. One commenter recommended the deletion of draft Permit condition III.D.3. on the grounds that it purported to tell the Permittees how to comply with draft Permit condition III.D.1, was not supported in the administrative record, and was either duplicative of draft Permit condition III.B.3 or constituted a vague and confusing effort to impose requirements beyond the scope of the regulations.

RESPONSE: The Region has retained Permit condition III.D.3, which is intended to ensure the safe use of containers that are compatible with the hazardous wastes to be stored. The procedures referenced in the documents included in Permit condition III.D.3. are relevant to ensuring the compatibility of waste and containers. The references to the Waste Analysis Plan, Permit Attachment Section C and Permit Attachment Appendix IV include the specific procedures and equipment required to assure compliance with Permit condition III.D.1.

III-4. One commenter recommended that the Region include a note on Table III-2, referred to in draft Permit condition III.E.3.c, to indicate that Table III-2 "represents information for the major types of containers managed at the Facility" and that "[o]ther containers of various volume and configuration may also be received."

RESPONSE: The Region agrees with the commenter and has modified Permit condition III.E.3.c. to clarify that the Permittees cannot exceed the maximum volumes of hazardous waste for each *container* in each category of containers listed in Table III-2. And, instead of adding the note below Table III-2, has included it in the body of Permit condition III.E.3.c.

III-5. One commenter suggested revisions to draft Permit condition III.F.2.a. to more closely track the regulatory language pertaining to the Permittees' obligation to remove spilled or leaked waste and accumulated precipitation from the sump or collection area.

RESPONSE: The Region has revised Permit condition III.F.2.a. so that it tracks the regulatory requirement at 40 CFR § 264.175(b)(5).

III-6. One commenter suggested the deletion of draft Permit condition III.F.2.b, which would require removal of liquids from the containment area within 24 hours of the initial accumulation, based on a daily inspection of the area as required by Permit Attachment Section F and Permit Attachment Appendix XII.

RESPONSE: The Region agrees with the commenter and has deleted draft Permit condition III.F.2.b. and renumbered draft Permit condition III.F.2.c., which tracks the language in 40 CFR § 264.175(b)(5), as Permit condition III.F.2.b. This change also necessitated renumbering draft Permit condition III.F.2.d. as Permit condition III.F.2.c.

III-7. One commenter suggested the deletion of draft Permit conditions III.G.2 through III.G.6 as duplicative of draft Permit condition III.G.1. Like the comments expressed with respect to draft Permit condition III.B.3, the commenter maintained that one violation of one provision of the container air emissions standards set forth in 40 CFR Part 264, Subpart CC, which are referred to in draft Permit condition III.G.1, should not result in citations for multiple violations of the Permit. The commenter argued further that the Permit should reference only the Subpart CC Compliance Plan at Permit Attachment Section O and Permit Attachment Appendix XX, rather than attempt to restate the regulatory requirements.

RESPONSE: The Region agrees that one violation of one provision of the container air emission standards set forth in 40 CFR Part 264, Subpart CC, which are referred to in draft Permit condition III.G.1, should not result in citations for multiple violations of the Permit. However, just as with the Region's position regarding the recommended deletion of draft Permit conditions pertaining to the Subpart I container standards, the Region does not think that multiple violations of Subpart CC's requirements should only be met with a citation to one violation of draft Permit condition III.G.1 either. But, in this case, although the Region maintains that it may continue to cite multiple violations of the Subpart CC requirements if they occur, the Region is choosing to delete draft Permit conditions III.G.2 through III.G.6.

The Region's approach with respect to the deletion of these draft Permit conditions is different from its approach to comments relating to draft Permit conditions III.C., III.D.1, III.D.2, III.E.1, III.E.2, III.E.3.a and III.E.3.b. as set forth in the Region's Response to Public Comment III-2. Here, the Region is also now requiring the revision and resubmittal of Permit Attachment Appendix XX, Subpart CC Compliance Plan, and, if necessary, Permit Attachment Section O, by the Permittees, as explained below. The Region anticipates that the revised Appendix XX is the best place to keep all the references to the Subpart CC requirements applicable to the Facility and that, once certain corrections are made, as detailed below, draft Permit conditions III.G.2 through III.G.6 will be unnecessary.

Because the Permit Attachment Appendix XX, Subpart CC Compliance Plan, contains some errors identified during the Region's review of these comments, the Region is requiring the resubmittal of the Permit Attachment Appendix XX, Subpart CC Compliance Plan, and, if necessary, a revised Permit Attachment Section O, in accordance with Permit conditions I.G.7 and I.K.2.

The Subpart CC Compliance Plan must be revised to: (1) reference the appropriate permit requirements at 40 CFR Part 264 instead of the interim status requirements at 40 CFR Part 265 (unless the interim status standards are appropriate); (2) revise any descriptions of the exclusion from Subpart CC referenced in 40 CFR § 264.1080(b)(7) to make clear that units subject to the deferral to the Clean Air Act requirements are equipped with, operating, and in compliance with the relevant CAA standard; (3) include all the most-current attachments; (4) revise Table 1 in Appendix XX to clarify the note indicating T-11 is "[e]xempt from treatment since benzene concentration is less than 10 ppmw," (5) similarly, modify Table T-1 to clarify the note regarding T-19; and (6) revise or rename Table 2 in Appendix XX, since it does not include either T-11 or T-19 but nonetheless purports to identify the units subject to Subpart CC that are not "equipped with and operating air emission controls" under the CAA, (see Permit condition I.K.2.). The Permittees have the option to comply with Subpart CC requirements instead of the Subpart FF requirements. If the Permittees choose to do so, they must reflect this choice in the revised the Subpart CC compliance plan.

The Subpart CC Compliance Plan includes a reference to RF-2 and its afterburner in Table 1. As with the other units listed on Table 1, the Permittees have pointed to the CAA Benzene NESHAP requirements -- specifically, 40 CFR § 61.348 -- as a basis for finding Subpart CC requirements inapplicable to RF-2, or its afterburner. The Table indicates,

"[r]egenerated carbon must contain less than 10 ppmw benzene and the unit must meet 99+% benzene destruction efficiency."

While RF-2 is a miscellaneous unit, 40 CFR § 264.601 specifically requires that such units be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. It also requires that permits for such units contain:

> ". . . such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. . ."
>
> 40 CFR § 264.601.

The requirement also specifically directs the Region to include in the Permit for RF-2 those requirements of 40 CFR Part 264, Subparts AA through CC "that are appropriate for the miscellaneous unit being permitted." Id. Module V of the Permit includes a comprehensive range of requirements applicable to RF-2, its afterburner and other associated equipment and controls. In light of these comprehensive requirements, the Region evaluated the extent to which the requirements of 40 CFR Part 264, Subparts AA through CC might nonetheless also be appropriate for RF-2 and its associated afterburner and other equipment.

With respect to RF-2, and its afterburner, Module V's Fugitive Emissions provision, at Permit condition V.E., pertains to the prevention of the release of fugitive emissions from the combustion zone. The referenced CAA standard at 40 CFR § 63.1206(c)(5) is met by the Permittees maintaining the combustion chamber as a sealed system.

In addition, as referenced in the Subpart CC Compliance Plan, the applicability of 40 CFR § 61.348 to RF-2 and the afterburner are a valid basis for asserting that CAA-required controls are installed and operating on RF-2 and its afterburner in compliance with CAA. Under that theory, the listing of RF-2 and its afterburner on Table 1 as "[w]aste management units that are exempt from Subpart CC requirements because they are otherwise regulated under the Benzene Waste Operation NESHAP" seems entirely appropriate. The controls being operated would include the ancillary equipment such as the wet electrostatic precipitator and Venturi scrubber that are associated with RF-2.

The equipment associated with RF-2 may, in some cases, meet the definition of "equipment" subject to the requirements of 40 CFR Part 264, Subpart BB (*i.e.*, "each valve, pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, or flange or other connector, and any control devices or systems required by" Subpart BB). Where hazardous waste emissions come into contact with or are contained in such equipment at 10% or more organic concentrations by weight, the Region considered whether it might be appropriate to require that the Permittees include such equipment in the Subpart BB Compliance Plan and decided against doing so for the very reason set forth with respect to RF-2 and its afterburner in the Subpart CC Compliance Plan in Table 1. The thermal treatment system, including its associated air pollution control equipment, is designed to destroy organic emissions such as benzene. Because the entire system is subject to and in compliance with the Benzene Waste Operation NESHAP, coupled with all the particular requirements that will apply

to the system once Module V is in effect, the Region is satisfied with the inclusion of RF-2 and its afterburner on Table 1 in the Subpart CC Compliance Plan. Any "equipment" associated with RF-2 need not also be added to the revised Subpart BB Compliance Plan.

The Region notes that, pursuant to 40 CFR §§ 264.1089(a) and (j), information relating to the units that are deferred from compliance with Subpart CC requirements under 40 CFR § 264.1080(b)(7) must be kept in the Operating Record for as long as the deferral is being invoked.[26] As a result, the Region has clarified the Operating Record requirement in Permit Module II by adding language referencing the Subpart CC requirements to Permit condition II.M.1.b.

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III-8. One commenter suggested the deletion of draft Permit conditions III.H.3 through III.H.5 as duplicative of the Inspection Plan at Permit Attachment Section F and Permit Attachment Appendices XII and XX. The commenter further asserted that the draft Permit conditions inaccurately paraphrase the rules they are based on and create new obligations beyond what the regulations would otherwise require of the Permittees.

RESPONSE: The Region has added language to Permit conditions III.H.2 through III.H.5 to clarify that compliance with the requirements set forth in these provisions is part of the obligation to comply with Permit condition III.H.1's broad reference to the inspection of containers in accordance with Permit Attachment F and Permit Attachment Appendices IV and XII.

The Region has retained Permit condition III.H.3, which is based on the regulatory requirement at 40 CFR § 264.174. One reason for the retention of this Permit condition, which has been revised to better track the regulatory requirement on which it is based, is that it provides more detail regarding the requirement than Permit Attachment Section F and Permit Attachment Appendix XII.

The Region has retained Permit condition III.H.4, since it contains requirements missing from the Permit Attachment Appendix XII pertaining to the inspection and monitoring of air emission control equipment. This provision is necessary in case the Facility receives any container with air emission control equipment.

The Region agrees with the commenter that since the requirements are already in Permit Attachment Appendix XX there is no reason to repeat them in the Permit. However, rather than deleting the requirement altogether, the Region has replaced draft Permit condition III.H.5 with a new Permit condition that refers the Permittees to Permit Attachment Appendix XX instead of relisting the regulations in 40 CFR Part 264, Subpart CC.

III-9. One commenter objected to language in draft Permit condition III.I. purporting to require recordkeeping under 40 CFR § 264.1086 for containers that are exempt under 40 CFR §

[26] Pressure relief devices associated with tanks will be considered as included with their hazardous waste management unit in the Subpart CC Compliance Plan.

264.1082(c), because that provision exempts such containers from the standards specified in 40 CFR §§ 264.1084 through 264.1087.

RESPONSE: The Region has revised Permit condition III.I. such that, with respect to containers subject to the exemption at 40 CFR § 264.1082(c), the Permittees are bound only to comply with the applicable recordkeeping requirements of 40 CFR § 264.1089.

III-10. One commenter suggested revisions to draft Permit condition III.I.5, in order to reflect that Permit Attachment Appendix VII already contains the information listed in the Permit condition and its sub-paragraphs.

RESPONSE: The Region has modified Permit condition III.I.5 to reflect the requirements in 40 CFR § 264.175. All the sub-paragraphs to draft Permit condition III.I.5 have been deleted, since the information required is in section D.3.1 in Permit Attachment Section D and in Permit Attachment Appendix VII.

III-11. One commenter objected to references in the draft Permit conditions III.I.6 and III.J to "reactive" waste since the draft Permit expressly prohibits the management of reactive waste in Section II.H.5, and the Waste Analysis Plan.

RESPONSE: The Region has modified Permit conditions III.I.6 and III.J to delete references to reactive waste and has deleted draft Permit condition III.J.4, which was related to the management of reactive waste.

III-12. One commenter requested that the Region clarify that draft Permit conditions III.J and III.K apply only to the management of hazardous wastes.

RESPONSE: The Region agrees with the commenter and has modified Permit conditions III.J and III.K by adding the word "hazardous" to the Permit conditions to clarify that these Permit conditions apply only to the management of hazardous wastes. See also Permit conditions III.I.3., III.I.6., IV.D.2., IV.E.2., IV.K.1., IV.K.2., IV.G.7., Table IV-2, V.B.1.a., and V.B.2.a.[27]

III-13. One commenter objected to draft Permit condition III.J.4 as not reflecting the existing regulatory requirements, which include no prohibition on stacking of drums of ignitable waste.

RESPONSE: The Region agrees with the commenter and has deleted draft Permit condition III.J.4.

[27] See also the Region's Responses to Public Comments V-2, V-6, V-8, and V-9.

COMMENTS REGARDING GENERAL PERMIT CONDITIONS

MODULE IV:

IV-1. One commenter objected to the use of the phrase “tank-like systems” in draft Permit conditions IV.A.1 and IV.B.2 as vague and ambiguous and suggested its deletion.

RESPONSE: The Region agrees that the phrase “tank-like systems” is unnecessary and has deleted it from Permit conditions IV.A.1. and IV.B.2.

IV-2. One commenter objected to the reference to the Benzene NESHAP requirements set forth in 40 CFR Part 61, Subpart FF as beyond the scope of RCRA’s permitting authority and duplicative of the NESHAP requirements which apply independently of the RCRA permit.

RESPONSE: The Region agrees that the Benzene NESHAP applies independently of the RCRA permit and has deleted 40 CFR Part 61, Subpart FF from the requirements of the Permit. The Region notes however, that there are ambiguities in the commenter’s invocation of the RCRA regulations that authorize permittees to defer, under certain circumstances, compliance with RCRA’s air emission standards to compliance with CAA requirements. The commenter states that the permittees may “elect to determine compliance” between both 40 CFR Part 264 Subparts BB and CC by documenting compliance or complying with CAA air emissions requirements. In fact, while 40 CFR § 264.1064(m) does provide for such an election with respect to equipment subject to Subpart BB standards, as explained previously in these responses to comments, Permit Attachment Appendix XIX currently includes no such election for the equipment at the Facility. Furthermore, the Subpart CC deferral to the CAA at 40 CFR § 264.1080(b)(7), for tanks and containers subject to RCRA air emission standards, requires a certification that CAA-mandated air emission controls are installed and operating in compliance with the CAA. More specific information about the Subpart BB compliance plan requirements can be found in the Region’s Response to Public Comment I-36. More specific information about the Subpart CC compliance plan requirements can be found in the Region’s Response to Public Comment III-7.

IV-3. One commenter suggested the deletion of draft Permit condition IV.B.3., which it claimed as duplicative of the requirements set forth in draft Permit condition IV.A.2 to comply with 40 CFR Part 264 Subpart J. The commenter incorporated the same arguments made with respect to Draft Permit Module III conditions, which were addressed previously in the Region’s Response to Public Comment III-2.

RESPONSE: The Region disagrees with the commenter regarding the inclusion of permit provisions that describe how Subpart J applies to the tank systems at the Facility. A simple recitation of an obligation to comply with a subpart, with a broad set of regulations contained therein, does nothing to assist the Permittees, regulators, or the public in understanding the specific compliance requirements that are applicable to the regulated hazardous waste units.

However, the Region agrees that one violation of one provision of the tank system standards set forth in 40 CFR Part 264, Subpart J, which are referred to throughout Permit Module IV, should not result in citations for multiple violations of the Permit. However, conversely, the Region does not think that multiple violations of Subpart J should only be met with a citation to one violation of Module IV, which could be the result if the Agency were to accept the commenter's recommended deletions.

Therefore, the Region has added language in Permit condition IV.B.3. to clarify that compliance with the requirements set forth in this Permit provision is part of the obligation to comply with Permit condition IV.A.2.'s broad reference to Subpart J. The Region believes that this language will protect the Permittees if any future enforcement action seeks to cite multiple violations of Permit conditions arising from a one-time failure to comply with only one of Subpart J's many requirements. At the same time, the added language will give the Region appropriate levels of flexibility with which – in the exercise of its enforcement discretion – it may cite multiple and/or specific Permit conditions where there are multiple alleged violations, including alleged violations of more than one of Subpart J's requirements.

The Region has also separated the reference in draft Permit condition IV.A.2 to Subpart J standards from Subparts BB and CC standards. This revision clarifies that, while the Subpart J standards are applicable to each of the hazardous waste tank systems, the Subparts BB and CC standards apply separately to equipment and tanks/containers.

IV-4. One commenter claimed that Tank T-11 is not subject to 40 CFR Part 264 Subpart CC because the annual testing demonstrates that no controls are required. This commenter appears to be suggesting the deletion of draft Permit condition IV.A.2's reference to Tank T-11. The commenter also recommended deleting T-11 from draft Permit condition IV.G.1.

RESPONSE: The partial exemption of tanks from the requirements of 40 CFR Part 264 Subpart CC is found at 40 CFR § 264.1082(c)(1). This provision provides an exemption from the requirements of 40 CFR §§ 264.1084 through 264.1087, "where all hazardous waste entering the unit has an average [volatile organic] concentration at the point of waste origination of less than 500 parts per million by weight (ppmw)." Thus, while Permit Attachment Appendix XX provides information regarding T-11's eligibility for this partial exemption, even tanks exempted under this provision must comply with the record keeping and reporting requirements of 40 CFR §§ 264.1089 and 264.1090. For this reason, Table IV-2 lists the exemption, record keeping and reporting provisions applicable to T-11 and the Region declines to delete language indicating that Tank T-11 is "subject to" Subpart CC.

The Region declines to incorporate the commenter's recommended changes to the description of T-11 in Table IV-2, since the description proposed in the draft Permit matches the description included in the permit application. To the extent the operator desires to modify the description of this unit in the Table, a Permit modification will be required. In addition, the Region declines to delete the reference to T-11 from Permit condition IV.G.1. for similar reasons

as explained with respect to Table IV-2. Record keeping and reporting provisions remain applicable to T-11. See 40 CFR §§ 264.1089(f) and 264.1090.

In reviewing the foregoing Response to this Comment, the Region also identified and corrected an error in Permit condition IV.G.6., which had referred to Subpart CC air emissions standards as referring to the "point of waste generation." While the two terms may be similar,[28] Permit condition IV.G.6. has been corrected to reflect the correct regulatory language, "point of waste origination." See also 40 CFR §§ 264.1082 and 264.1083.

IV-5. One commenter recommended revisions to Table IV-1 in the draft Permit with regard to hoppers H-1 and H-2's descriptions. The recommended revisions were based on the operator of the Facility's intention to replace the hoppers in accordance with design materials that EPA approved on March 20, 2015.

RESPONSE: The Region has revised Permit condition IV.A.4 to explain the inclusion of both the existing and the anticipated new hopper descriptions in Table IV-1. In addition, the Region deleted draft Permit condition I.K.7. -- requiring the submittal of the Work Plan to replace the hoppers -- and instead added the requirement to Permit condition IV.E.6.

The timing of the Permit applicants' intended replacements of the hoppers is uncertain. Given these unknowns, the Region has done its best to anticipate expected changes of which it has been made aware, but for which no Permit application revisions were received or even, potentially required. For example, the Permittees have the option of whether to include changes to hopper H-2 in the work plan required under Permit condition IV.E.6.a.

IV-6. One commenter objected to draft Permit condition IV.B.3 by incorporating some portion of its comments on draft Permit condition IV.A.2, and on the basis that the draft Permit condition is duplicative of draft Permit condition IV.A.2 insofar as it requires compliance with 40 CFR Part 264, Subpart J.

RESPONSE: The Region has retained Permit condition IV.B.3 with only minor changes despite the arguable duplication of the obligation to comply with 40 CFR Part 264, Subpart J. The status of hoppers H-1 and H-2 at the Facility is somewhat complicated because the hoppers are ancillary equipment to the tanks regulated under Subpart J, while simultaneously constituting equipment within the meaning of Subpart BB and individual drain systems under 40 CFR Part 61, Subpart FF. Because of the complexity, the Region has chosen to include hopper-specific Permit conditions that, while potentially redundant, it hopes will provide clarity to the Permittees, regulators, and the public.

With respect to the Agency's authority to regulate the hoppers, the Region maintains that these hoppers are considered ancillary equipment to the feed tanks under 40 CFR Part 264,

[28] See the note to the first part of the two-part definition of "point of waste origination" at 40 CFR § 265.1081. But note as well that the second part of the definition would apply to the spent carbon that the Facility receives from off-site.

Subpart J and as "equipment" within the meaning of 40 CFR Part 264, Subpart BB. Please also see the Region's responses to public comments I-36 and V-13.

With respect to the commenter's argument that Permit condition IV.B.3 is somehow improper because 40 CFR Part 264 Subpart BB allows the Permittees to elect to comply with CAA standards in lieu of the Subpart BB standards, the Region notes that such an election was not made, even though there is nothing in the draft Permit or the Permit that would foreclose such an election. Moreover, as Permit condition IV.B.3 merely requires compliance with 40 CFR Part 264 Subpart J, the comment with respect to regulating air emissions from these hoppers is misplaced. However, see also the Region's Response to Public Comment I-36 regarding the revisions being required for the Facility's Subpart BB Compliance Plan and the reasons behind them.

IV-7. One commenter objected to draft Permit condition IV.B.4, which requires a written structural integrity assessment of the spent carbon feed hoppers, which are ancillary equipment to hazardous waste management tanks at the Facility.

RESPONSE: The Region disagrees with the commenter's contention that no written assessment of the integrity of the hoppers is required by the applicable regulations. 40 CFR § 264.192(a) specifically requires the "written assessment reviewed and certified by a qualified Professional Engineer." This section applies to tank systems, with specific reference to "ancillary equipment."

The Region has revised Permit condition IV.B.4 to delete references to the leak test and the compliance schedule in draft Permit condition I.K as these references were made in error in the draft Permit. The Region has also added to Permit conditions IV.B.4.a and b: (1) specific references to the standards for ancillary equipment set forth in 40 CFR § 264.192(e); and (2) specific references to a future replacement of the hoppers (as envisioned by Permit Condition IV.E.6.) in order to make clear that these Permit conditions will continue to apply after any hoppers are replaced.

IV-8. One commenter objected to draft Permit condition IV.C.1 as an inappropriate imposition of the standards applicable to containers on the Facility's tank systems.

RESPONSE: The Region agrees and has deleted draft Permit condition IV.C.1. Tank management standards are dealt with in other Permit conditions such as Permit condition IV.A.2.

IV-9. One commenter suggested revisions to draft Permit conditions IV.E.1 and IV.E.2, which pertain to appropriate controls and practices to prevent spills and overflows from tank systems or containment systems. The commenter suggested revisions it asserted would more accurately reflect the regulatory requirements.

RESPONSE: The commenter's suggested revision to the introduction to draft Permit condition IV.E.2., has been incorporated and draft Permit conditions IV.E.1. and IV.E.2. have

been merged to more accurately reflect the regulatory language at 40 CFR § 264.194. See Permit condition IV.D.1.

IV-10. One commenter recommended narrowing the scope of draft Permit conditions IV.E.1 and IV.E.3 such that they would apply to the tank systems and containment systems only when managing hazardous waste.

RESPONSE: The Region is rejecting these recommended changes to draft Permit conditions IV.E.1 and IV.E.3, renumbered as Permit conditions IV.D.1. and IV.D.2. The tank systems and containment systems are used to manage hazardous waste as part of the operator's carbon regeneration process. As a result, the tank systems and containment systems are subject to management standards that remain constant even when the Facility is processing non-hazardous spent carbon. And, these systems must not be subjected to fluctuations in applicable standards depending on the variations of generator waste streams. Moreover, the regulatory language, which the commenter requested be tracked by the Region, is not limited in this way. See also the Region's Response to Public Comment V-8.

IV-11. One commenter recommended adding the term "hazardous waste" to draft Permit condition IV.F.2 to reflect EPA's prior clarification that, where secondary containment systems are provided for multiple tanks, such systems need be sized based on the largest hazardous waste tank within the containment.

RESPONSE: The Region has incorporated the recommended change by adding the qualifier "hazardous waste" in draft Permit condition IV.F.2., renumbered as Permit condition IV.E.2. While the regulatory language refers only to "tanks," the Region agrees that the capacity of the secondary containment should be based on the largest tank in which hazardous wastes are managed within the containment.

IV-12. One commenter recommended editorial changes to draft Permit condition IV.F.4 in order to clarify descriptions of the manner in which the secondary containment and tank capacities are addressed.

RESPONSE: The Region has accepted the changes and revised draft Permit condition IV.F.4 as recommended. The Permit condition has also been renumbered as Permit condition IV.E.4.

IV-13. One commenter objected to and recommended deletion of draft Permit conditions IV.F.6 and IV.F.7 and claimed that there is no regulatory requirement that hoppers H-1 and H-2 must undergo any leak testing or other integrity assessment, either on a one-time basis or annually as proposed. The commenter also asserted that hoppers H-1 and H-2 would be replaced prior to the effective date of any final Permit decision.

RESPONSE: The Region disagrees with the commenter's contention that no written assessment of the hopper containment is required by the applicable regulations. 40 CFR § 264.193(i)(3) requires such assessments annually for ancillary equipment until such time as

secondary containment that meets the requirement of 40 CFR § 264.193 is provided. In addition, 40 CFR § 264.193(i)(4) requires the maintenance of the results of the assessments in the Facility records. Hopper H-1 and its associated piping do not currently have secondary containment.

Tank system ancillary equipment is subject to standards that differ depending on whether secondary containment is provided for such equipment. See, for example, 40 CFR § 264.193(i)(3). Where secondary containment has been provided, such as in the case of H-2, an aboveground hopper on top of a concrete bermed pad, 40 CFR § 264.193(e)(1) applies. There are also exceptions to the requirements that ancillary equipment have secondary containment at 40 CFR § 264.193(f). None of the exceptions apply to hopper H-1.

Draft Permit condition IV.F.7., renumbered as IV.E.7., has been revised slightly to clarify the foregoing requirements.

This commenter has argued that, under 40 CFR 264.193(f), aboveground piping that is visually inspected for leaks on a daily basis is specifically excluded from secondary containment requirements. The commenter further argued that an open-ended line that is visually inspected daily would not be required to have secondary containment. The Region disagrees with the commenter since hopper H-1 and some of its piping is underground. Therefore, the Region has retained the Permit conditions.

Where secondary containment has not been provided for tank system ancillary equipment, as required by 40 CFR § 264.193(i), 40 CFR § 264.193(i)(3) requires an assessment for the ancillary equipment “as approved by” the Region. The Region has determined that the ancillary equipment assessment it is requiring for hopper H-1 must meet the requirements of 40 CFR § 264.191(b)(5)(ii). Draft Permit condition IV.F.6, renumbered as Permit condition IV.E.6., has been clarified accordingly.

The Region removed the draft Permit condition requiring the submittal of the Work Plan from the compliance schedule in draft Permit condition I.K. and inserted it into Permit condition IV.E.6. The Region also added language to Permit condition IV.E.6. giving the Permittees the option of including changes to hopper H-2 in the work plan to be submitted in accordance with Permit condition IV.E.6.a. Revised Permit condition IV.E.7 and new Permit condition IV.F.8 have been written with this option in mind. See also the Region’s Response to Public Comment IV-5, regarding Permit Table IV-1.

Permit condition IV.E.6.a. requires implementation of the secondary containment work plan for H-1 to comply with 40 CFR § 264.193(f). Permit conditions IV.E.6.b.i and ii. require the leak test or other integrity assessment -- until secondary containment for hopper H-1 has been provided -- in accordance with 40 CFR § 264.193(i)(3). Permit condition IV.E.6.b.iii. requires implementation of contingent Permit conditions if secondary containment is not provided for H-1 within the year specified. Such contingent Permit conditions, which pertain to contingent closure plan and proof of financial responsibility requirements, are required in accordance with 40 CFR § 264.197.

Permit condition IV.E.7 requires the Permittees to continue to maintain spent carbon unloading hopper H-2 in accordance with the rules governing secondary containment for ancillary equipment under 40 CFR § 264.193.

Finally, new Permit condition IV.E.8. applies to spent carbon unloading hopper H-1 after it has been provided secondary containment in accordance with Permit condition IV.E.6.a. Once the secondary containment has been provided for hopper H-1, the annual leak test or other integrity assessment and contingent conditions required in accordance with 40 CFR §§ 264.193(i), 264.197, and Permit condition IV.E.6.b will be unnecessary. For this reason, Permit condition IV.E.8 requires only that hopper H-1 meets the standards set forth at 40 CFR § 264.193.

IV-14. One commenter objected to the inclusion in draft Permit conditions IV.G.1 and IV.G.2 requirements that are based on 40 CFR Part 61 Subpart FF Benzene standards.

RESPONSE: As noted above with respect to comments received on the draft Permit definitions, the requirements of 40 CFR Part 61, Subpart FF apply to operations at the Facility independent of the Permit. The Region has deleted the unnecessary references to Subpart FF standards.

IV-15. One commenter suggested revisions to draft Permit condition IV.G.1 in order to clarify the applicability of RCRA air emission standards in light of deferrals to the CAA requirements found at 40 CFR §§ 264.1064(m) and 264.1080(b)(7).

RESPONSE: The Region has revised Permit condition IV.G.1 and, in order to clarify the Permit requirements, added language to track the different regulatory provisions found at 40 CFR §§ 264.1064(m) and 264.1080(b)(7).

IV-16. One commenter recommended revisions to draft Permit conditions IV.G.2.b and IV.G.2.c in order to clarify the regulatory status of the spent carbon feed hoppers and carbon adsorption systems.

RESPONSE: The Region revised Permit conditions IV.G.2.b and IV.G.2.c with slight modifications to the commenter's suggested revisions. The revised language repeats the Permittees' option for electing to comply with 40 CFR Part 264 Subpart BB requirements applicable to the hoppers and the carbon adsorption systems by demonstrating compliance with the CAA requirements at 40 CFR Part 61 Subpart FF. The revisions also make clear that the hoppers may be opened for feed operations, maintenance and repairs.

IV-17. One commenter suggested deleting draft Permit condition IV.G.4 as ambiguous and duplicative.

RESPONSE: The Region acknowledges that some of the ambiguity in the draft Permit condition was the result of the overly long description of Tank T-11, which the Region has

shortened. The Region declines to delete the remainder of Permit condition IV.G.4. The Region continues to believe that the explanations as to the applicability of specific conditions to the units at the Facility is more helpful to the Permittees, regulators, and the public than would be broad reference to regulatory requirements without explanations. The Region agrees that, where requirements may be repeated in separate provisions of the Permit, a Permittee's failure to perform a required action or performance of one prohibited action should not result in allegations of multiple Permit violations.

IV-18. One commenter suggested deletion of draft Permit condition IV.G.5 as an impermissible attempt to impose CAA standards in a RCRA Permit.

RESPONSE: The Region deleted draft Permit condition IV.G.5 because Permit condition II.B.1. already requires the Permittees to operate the Facility to avoid unpermitted air releases from hazardous waste operations.

IV-19. One commenter recommended deletion of draft Permit condition IV.G.7 as duplicative of Permit Attachment Appendix XX, the RCRA Subpart CC Compliance Plan for the Facility.

RESPONSE: The Region has deleted draft Permit condition IV.G.7 from the Permit. However, as explained above in the Region's Response to Public Comment III-7 regarding draft Permit conditions III.G.2 through III.G.6, the Region is requiring the submittal of a revised Permit Attachment Appendix XX and, if necessary, Permit Attachment Section O, by the Permittees, as described in more detail in the Region's Response to Public Comment III-7.

IV-20. One commenter suggested deleting draft Permit condition IV.G.8 arguing that it was inapplicable to any hazardous waste tanks at the Facility.

RESPONSE: The Region is retaining Permit condition IV.G.8.a, which was renumbered as Permit condition IV.G.7.a. The Permittees may opt to comply with RCRA air emissions standards through a demonstration of equipping hazardous waste tanks with and operating air emission control equipment in accordance with applicable CAA requirements. The Permittees indicated their intention – for all hazardous waste tanks except T-11 -- to invoke the deferral to the CAA found at 40 CFR § 264.1080(b)(7) in the Permit application. Permit condition IV.G.7.a. only applies if the Permittees opt to comply with RCRA air emission standards for these tanks instead of CAA standards.

The Region deleted draft Permit condition IV.G.8.b since it was based on a CAA requirement that applies to the Facility independent of the RCRA permit, as explained previously in these responses to comments. See the Region's Response to Public Comment IV-2.

IV-21. One commenter recommended the deletion of draft Permit conditions IV.H.2 through IV.H.6 (pertaining to tank inspections and schedules) as a duplicative attempt to paraphrase individual rule requirements. The commenter further recommended that the

rules simply be incorporated by reference and that these summary provisions be deleted in their entirety.

RESPONSE: The Region has reviewed draft Permit conditions IV.H.2 through IV.H.6 and has addressed the commenter's concerns as follows:

Permit conditions IV.H.2 and IV.H.2.b have been revised to track more closely the regulatory language at 40 CFR §§ 264.193 and 264.195 with respect to tank inspections.

Permit conditions IV.H.2.a., IV.H.2.c. and draft Permit condition IV.H.4., which was renumbered as Permit condition IV.H.3., have not been changed, because these Permit conditions track the regulatory language already.

Draft Permit condition IV.H.2.d has been deleted as duplicative of provisions contained in Permit condition IV.E.

Draft Permit conditions IV.H.3 through IV.H.3.d and IV.H.5 have been deleted. These requirements are sufficiently addressed in Permit Attachment Section F.

Draft Permit condition IV.H.6, renumbered as Permit condition IV.H.4., has been revised to clarify that it only applies to hazardous waste tanks for which the Permittees elect to comply with 40 CFR Part 264, Subpart CC rather than 40 CFR Part 61, Subpart FF. Permit condition IV.H.4. has also been revised to incorporate, rather than attempt to paraphrase, the regulatory requirement at 40 CFR § 264.1084(c).

IV-22. One commenter recommended a revision to draft Permit condition IV.H.7.a to clarify that any new hazardous waste tanks installed at the Facility would not be subject to the requirement to have an annual ultrasonic thickness test.

RESPONSE: The Region declines to revise draft Permit condition IV.H.7.a., which was renumbered as Permit condition IV.H.5.a. The Region agrees that a new hazardous waste tank is not required to have an annual ultrasonic thickness test because this requirement is based on the recommendations in Permit Attachment Appendix IX in the "Assessment of Tank Systems T-1, T-2, T-5, and T-6." Any new tank installation would require a new tank assessment prior to the tank being put into use and any new hazardous waste tank installation would require a Permit modification. Any recommendations from any such assessment should be evaluated for inclusion as Permit conditions when and if a permit modification request is submitted.

IV-23. One commenter recommended revisions to draft Permit condition IV.H.7.d on the basis that the activities required by the draft Permit condition had already been performed.

RESPONSE: The Region revised draft Permit condition IV.H.7.d., renumbered as Permit condition IV.H.5.d., to account for the circumstance where all carbon steel components and fittings of the tank systems that are in direct contact with the spent carbon and recycle water slurry have already been replaced with 300 series stainless steel components and fittings.

While this information was not documented in the Facility's Permit application, to the extent that the work has already been performed, this Permit will not require it be done again.

IV-24. One commenter objected to draft Permit condition IV.H.8., claiming that it was duplicative of the requirement already in the Permit in Section II.E.1, to comply with the inspection schedule in Section F and Appendix XII.

RESPONSE: The Region has revised draft Permit condition IV.H.8., renumbered as Permit condition IV.H.6., to clarify the relationship between Permit condition IV.H.6 and draft Permit condition II.E.1., itself renumbered as Permit Condition II.F.1. The Region agrees that one violation of one provision of the inspection requirements set forth in the inspection schedule in Permit Attachment Section F and Permit Attachment Appendix XII, which are referred to in Permit condition II.F.1, should not result in citations for multiple violations of the Permit. On the other hand, the Region declines to make the commenter's recommended deletions for the same reasons as set forth above in the Region's Response to Public Comment IV-3, and others. A simple recitation of an obligation to comply with a subpart, with a broad set of regulations contained therein lacks the kind of specificity that aids Permittees, regulators and the public.

Therefore, the Region has added language in Permit condition IV.H.6, (similar to the language added to Permit conditions III.C., III.D.1, III.D.2, III.E.1, III.E.2, III.E.3.a., III.E.3.b. and IV.B.3.), to clarify that compliance with the requirements set forth in these provisions is part of the obligation to comply with revised Permit condition II.F.1.'s broad reference to the inspection schedule. Thus, the Region believes that this language will protect the Permittees if any future enforcement action alleges multiple violations of Permit conditions arising from a one-time failure to comply with only one of the inspection schedule's numerous requirements. At the same time, the added language clarifies the Region's authority to use its enforcement discretion in appropriately alleging multiple Permit violations where there are multiple requirements at issue, including alleged violations of more than one of the requirements set forth in Attachment Section F and/or Permit Attachment Appendix XII. See also the Region's Responses to Public Comments III-2 and IV-6.

IV-25. One commenter objected to draft Permit condition IV.H.10 claiming that it was an inaccurate paraphrasing of the requirement set forth in 40 CFR § 264.193(i)(5). This regulation requires compliance with 40 CFR § 264.196, when a leak test or other integrity assessment indicates a tank system or component is leaking or otherwise unfit for use.

RESPONSE: The Region deleted draft Permit condition IV.H.10 and included additional requirements in draft Permit condition IV.I.1. Permit condition IV.I.1 tracks the requirements of 40 CFR § 264.196. In addition, the Region also deleted, in response to other comments, draft Permit condition IV.C, which was also referenced in draft Permit condition IV.H.10. In Permit condition IV.I.1, the Region has endeavored to track the regulatory language set forth in 40 CFR § 264.193(i)(5), while recognizing that the Permit itself, as opposed to the regulations, is the source for the Permittees' obligation to perform the referenced leak test or other integrity assessment.

IV-26. One commenter objected to the language in draft Permit condition IV.I.1. that required compliance with the Permit's provisions pertaining to responses to leaks, spills or defects when "a defect in a carbon adsorber is detected."

RESPONSE: The Region deleted the language regarding adsorbers from Permit condition IV.I.1 as it is not reflected in the regulatory language at 40 CFR § 264.196.

IV-27. One commenter suggested revisions to draft Permit condition IV.I.1.b. and recommended deletion of draft Permit condition IV.I.1.b.i.

RESPONSE: The Region declines to delete Permit condition IV.I.1.b.i., but has made some revisions to Permit condition IV.I.1.b.i. In addition to a minor grammatical revision to Permit condition IV.I.1.b., the Region is removing the requirement from Permit condition IV.I.1.b.i. that the Director approve additional time that may be needed when removal of waste and accumulated precipitation is not possible within 24 hours of the detection of a release. However, the Region is retaining the requirement that notice be provided to the Director when removal is not possible within such timeframe. This notice allows for the demonstration of the circumstances that make removal impossible in accordance with 40 CFR § 264.196(b), while allowing the Permittees to continue focusing their efforts on completing removal of waste and accumulated precipitation.

IV-28. One commenter objected to draft Permit condition IV.I.1.d. as inaccurately rephrasing and attempting to paraphrase 40 CFR § 264.196(e). The commenter argued that the language creates a presumption that a tank system must be closed, reversing the meaning of the language in the rule.

RESPONSE: The Region has revised Permit condition IV.I.1.d as recommended. This Permit condition pertains to tank system closure after a release or spill and the Permit condition was revised to better track the applicable regulatory language.

IV-29. One commenter objected to draft Permit condition IV.I.1.e, which pertains to major repairs to eliminate leaks or restore the integrity of the tank systems. The commenter argued that the draft Permit condition substantively changed the requirements imposed by 40 CFR § 264.196(f) and substantially increased the stringency of the rule requirements.

RESPONSE: The Region has incorporated the suggested revisions to Permit condition IV.I.1.e. While there is now no reference in this Permit condition to the certification that must be placed in the Operating Record and maintained until closure of the Facility in accordance with 40 CFR § 264.196(f), this requirement is found at Permit condition IV.J.4. In addition, the references to the notification requirements of 40 CFR § 264.196(d), which were removed from Permit condition IV.I.1.e., are at Permit conditions IV.J.2. and IV.J.3.

IV-30. One commenter suggested revisions to draft Permit condition IV.I.2 to clarify the applicability of 40 CFR Part 264, Subpart CC's requirements for repairing fixed roof tanks.

RESPONSE: The Region has incorporated and modified the suggested changes to Permit condition IV.I.2 to clarify its applicability to any tanks that need repairs, for which the Permittees elect to comply with 40 CFR Part 264, Subpart CC.

IV-31. One commenter suggested deleting draft Permit condition IV.J.1 since, according to the commenter, the Facility does not have any existing tank systems without secondary containment.

RESPONSE: The Region deleted the word "existing" from Permit condition IV.J.1, because the regulatory definition of "existing tanks" applies to tanks for which installation has commenced on or prior to July 14, 1986. The Evoqua Facility does not have existing tanks as per the definition. The Facility, however, does have "tank systems," specifically, ancillary equipment, that are without secondary containment. For this reason, the Region has retained draft Permit condition IV.J.1 with some minor clarifications.

IV-32. One commenter suggested modifying draft Permit condition IV.J.2, because, according to the commenter, the release reporting requirement from 40 CFR Part 264, Subpart J, (40 CFR § 264.196(d)), is limited to releases from tank systems. The commenter also claimed that the reporting requirement is summarized incorrectly in draft Permit condition IV.J.2, as it does not specify that it relates to releases from tank systems, or that a report made under 40 CFR Part 302 will satisfy this requirement.

RESPONSE: The Region revised Permit condition IV.J.2. to include the suggested revisions. The requirements of 40 CFR Part 264 Subpart J apply generally to owners and operators of facilities that use tank systems for storing or treating hazardous waste. Thus, the notification of releases of hazardous waste to the environment is limited to releases from such tank systems.

In addition, in its review of the draft and revised Permit conditions and this comment, the Region determined that there could be confusion regarding the requirements for following up after a release or spill from a tank system if, after 30 days, the release or spill has not been adequately addressed. The Region believes that, under such circumstances, there is a process to be followed that is already set forth in Module VI. However, the Region has clarified the relationship between the tank systems release and spill provisions in Module IV and the requirements to undertake responses to releases and spills, generally, in Module VI. Specifically, the Region revised draft Permit condition IV.J.3. to clarify that spills or releases that are not fully addressed within the time frame for the submittal of the 30-day report required by this revised Permit condition, may not thereafter remain unaddressed. The revised language requires that the 30-day report be submitted to the Director for approval and that it include an assessment as to whether any corrective measures may be appropriate as a result of the release or spill from the tank system. An approved submittal that concludes further measures

are appropriate may then trigger additional obligations to follow the processes set forth in Module VI for responding to releases and spills in accordance with a new Permit condition, IV.J.9. If, on the other hand, the approved 30-day report concluded that no further measures were appropriate, these obligations would not be triggered. This is similar to the approach taken with respect to the endangerment report required in accordance with Permit condition I.E.13., as explained above in the responses to comments pertaining to Module I. See the Region's Responses to Public Comments I-23 and I-28.

IV-33. One commenter suggested that the phrase "tank system or secondary containment system" be revised in draft Permit condition IV.J.3. because the phrase "tank system" includes the tank's secondary containment. As a result, the commenter argued, the phrase was redundant.

RESPONSE: The Region has rejected this suggested change, since the language in Permit condition IV.J.3 tracks the regulatory language in 40 CFR § 264.196.

IV-34. One commenter suggested modifying draft Permit conditions IV.K.1 and IV.L.1, stating that it is redundant to state "tank system or secondary containment system" as the definition of tank system at 40 CFR § 260.10 includes the containment system.

RESPONSE: The Region has incorporated the recommended changes in Permit conditions IV.K.1 and IV.L.1, since these revisions more accurately reflect the regulatory language in 40 CFR § 264.198.

IV-35. One commenter suggested deleting draft Permit condition IV.M.3, which includes contingent requirements that only apply if the secondary containment for hopper H-1 is not installed within one year of the effective date of the Permit. The commenter anticipates that H-1 will be replaced prior to the issuance of any final Permit and argued that, for this reason, the provision is unnecessary.

RESPONSE: The Region deleted draft Permit condition IV.M.3, since it was duplicative of Permit condition IV.E.6.b.iii. See also the Region's Responses to Public Comments IV-5 and IV-13.

COMMENTS REGARDING GENERAL PERMIT CONDITIONS

MODULE V:

ADDITIONAL EXPLANATIONS/CLARIFICATION PROVIDED IN THIS FORMAT

In the Region's Response to Public Comment V-12, below, and specifically in response to one comment that the Region failed to provide support in the Administrative Record for the conditions imposed on the carbon regeneration unit in Draft Permit Module V, the Region clarifies the basis for these conditions. The Region has sought to provide clarification regarding the basis for specific conditions at appropriate places within these Responses to Public Comments. As a result, the Region more fully articulates the rationale for the imposition of specific standards on RF-2 (for which the commenter claims there is insufficient support on the record) in a highlighted/shaded format, like that used here for this "Additional Explanation." These highlighted/shaded sections are found throughout the Responses to Comments for Module V. Each of these specially formatted sections identifies the information that supports the rationale behind specifically identified conditions as part of the Region's overall Response to Public Comment V-12.

V-1. One commenter suggested deleting a sentence from draft Permit condition V.A.3. that referenced 40 CFR Part 264 Subpart O regulations for incinerators and the 40 CFR Part 63 Subpart EEE standards for hazardous waste combustors. The commenter observed that these references were inappropriate as Permit conditions.

RESPONSE: The Region agrees with the commenter and has deleted the referenced sentence from Permit condition V.A.3.

V-2. One commenter suggested that the language in draft Permit condition V.B.1.i. could be interpreted as precluding treatment of non-hazardous spent carbon in RF-2.

RESPONSE: The Region agrees with the commenter and has revised draft Permit condition V.B.1.i., now renumbered as Permit condition V.B.1.a., as suggested. The Region also added additional clarifying language to Permit condition V.B.1.a., regarding the treatment of spent carbon that is not a hazardous waste. See also the Region's Responses to Public Comments III-12, IV-11, and V-6.

V-3. One commenter suggested deleting draft Permit condition V.B.1.ii and making certain modifications to draft Permit condition V.C.1.iv. The commenter argued that the inclusion of a provision addressing protection of workers from hazardous waste releases exceeded EPA's authority.

RESPONSE: The Region disagrees with the commenter's assertion regarding EPA's authority to protect human health, including worker health, from hazardous waste releases. RCRA's provisions

authorize the Agency to regulate activities at hazardous waste management facilities so as to prevent releases, spills or other management practices involving hazardous waste in order to protect human health and the environment in the surrounding community. These same requirements also, in tandem with Occupational Safety and Health Administration (OSHA) requirements, protect worker health irrespective of whether RCRA's requirements are specific to *worker* health. However, the Region acknowledges that Permit condition II.B.1. provides similar protections, although it applies Facility-wide, whereas, draft Permit conditions V.B.1.ii and V.C.1.iv were focused on other specific kinds of operations, *i.e.*, spent carbon loading operations and the operation of RF-2, respectively.

As a result, the Region has deleted draft Permit condition V.B.1.ii., since it was duplicative of the broader provision found at Permit condition II.B.1. The Region has also made the commenter's suggested modifications to draft Permit condition V.C.1.iv, renumbered as Permit condition V.C.1.d., although the changes of the terms "safely operate" and "properly monitor" to "operate" and "monitor" do not substantively alter the Permittees' obligations to perform all their operations in a safe and proper manner in accordance with the Permit. See, *e.g.,* Permit condition II.B.1.

V-4. One commenter objected to language in draft Permit condition V.B.1.iii as suggesting that there would be a requirement for a specific shaft speed, pointing out that the only important technical consideration is the 38-minute residence time, based upon a calculation at an assumed shaft speed. The commenter also brought it to the Region's attention that the rabble arm in the furnace rotates at one revolution every approximately 54 seconds and not every minute as the draft Permit condition V.B.1.iii. states.

RESPONSE: The Region agrees with the commenter and has revised draft Permit condition V.B.1.iii., now Permit condition V.B.1.b., to reflect the revisions suggested by the commenter, with additional changes clarifying that the 38-minute residence time is based on a calculation at an assumed shaft speed of one revolution every 54 seconds.

MINIMUM RESIDENCE TIME

The Region set a minimum residence time of 38 minutes for the waste carbon in the hearth because, during the trial burn, it was shown that, at this speed, the furnace and the associated air pollution control equipment are able to destroy or control and properly treat the hazardous waste contaminants that are on the spent carbon in a safe manner such that emissions are compliant with applicable standards and do not pose an unacceptable risk to human health or the environment. A minimum residence time also ensures the toxic organics are adequately desorbed from the spent carbon being treated so that the regenerated carbon can be safely reused. The risk assessment performed as part of the permit application process demonstrated that, when operated within these limits, the Facility's operations do not pose an unacceptable risk to human health or the environment.

V-5. One commenter objected to the Region's use of the words "containing hazardous waste" in draft Permit condition V.B.2.i. and suggested changing the words to "bears a hazardous waste code." The reason the commenter cited was that the status of spent carbon received at the Facility should not be determined by applying the 'contained in' rule. Rather, the commenter asserted, the status of the spent carbon should depend upon whether the carbon exhibits a hazardous characteristic or is a listed hazardous waste, as determined through waste profiling and application of the site's Waste Analysis Plan, approved by EPA. In addition, the commenter suggested deleting the words "generated offsite," since that would prevent the Permittees from treating spent carbon generated onsite in RF-2.

RESPONSE: The Region agrees with the commenter regarding the use of the words "containing hazardous waste" and has revised draft Permit condition V.B.2.i., renumbered Permit condition V.B.2.a., to reflect the change.[29] Similar changes were also made to Permit Conditions II.H.5.g and II.H.5.h. In addition, the Region has deleted the words "generated offsite" from Permit Condition V.B.2.a. However, the Region notes that Permit condition V.B.2.b. specifically allows the Permittees to treat spent carbon generated onsite in RF-2. Whether the carbon is generated onsite or offsite, the revised language would prohibit treatment of any hazardous waste spent carbon not permitted for treatment in accordance Permit Condition II.H.

A new sentence in Permit Condition V.B.2.a clarifies that mixtures of hazardous and non-hazardous spent carbon may also be treated in the unit.

RESTRICTION ON TREATMENT OF HAZARDOUS WASTE SPENT CARBON

The reason hazardous waste spent carbon not permitted for treatment in accordance with Permit Condition II.H is prohibited from being treated in RF-2 is to ensure the regeneration unit only treats carbon that contains toxic organics that are no more difficult to destroy relative to what was demonstrated in the trial burn test. For example, if carbon that contained harder to treat organics were processed under operating conditions that were identical to the conditions demonstrated during the test, there would be no assurance that the applicable emission limits were being achieved. In other words, the operating limits and parameters included in the Permit were based on those specific wastes identified in Permit Condition II.H.* Furthermore, the risk assessment performed as part of the permit application process demonstrated that, when operated to treat these waste codes, the Facility's operations do not pose an unacceptable risk to human health or the environment.

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[29] EPA's RCRA "contained-in" policy defines when certain contaminated media such as soil or groundwater can be considered to no longer "contain" hazardous waste and is inapplicable to the spent hazardous waste carbon treated in RF-2. See, *e.g.*, 63 FR 65874 at 65878/1, Nov. 30, 1998.

* The Dellinger Scale is used to classify chemical constituents based on how difficult they are to destroy by thermal treatment. Wastes were chosen to be burned in the trial burn based on this scale, such that the test evaluated the effective treatment of the constituents that are the most difficult to destroy. The trial burn workplan established Principal Organic Compounds (POHCs), which, according to the trial burn workplan, were "selected for their ability to demonstrate the effectiveness of the unit in destroying compounds that are equal or more thermally stable, and are thus equal or more challenging to treat, than those currently found on the spent activated carbon. This provides assurance that the unit will be effective for all of the spent carbon contaminants." See Permit Attachment Appendix V, Carbon Reactivation Furnace Performance Demonstration Test Plan and http://www.tandfonline.com/doi/pdf/10.1080/1073161X.1993.10467126.

V-6. One commenter objected to language in draft Permit condition V.B.2.ii., which the commenter asserted impermissibly limited the spent carbon that can be treated in RF-2.

RESPONSE: While the Region believes that draft Permit condition V.B.2.ii (now Permit Condition V.B.2.b.) did not impermissibly limit the spent carbon allowed to be treated in RF-2, it acknowledges that the broader language suggested by the commenter is preferable because it provides more clarity and does not restrict the sources of spent carbon generated onsite that may be treated in RF-2. Thus, Permit Condition V.B.2.b. has been revised accordingly and language has been added to reference Permit Condition II.H. Thus, any hazardous waste spent carbon generated onsite would be subject to the provisions of Permit Condition II.H. In addition, to better clarify what is not prohibited from treatment in RF-2, Permit Condition V.B.2.b. has been revised to also state that the Permittees are explicitly permitted to treat in RF-2: (1) hazardous waste spent carbon received from off-site sources; (2) any spent activated carbon that is not classified as a hazardous waste under 40 CFR Part 261; and (3) any spent activated carbon generated on-site as a result of the Permittees' hazardous waste storage or treatment activities.

V-7. One commenter objected to draft Permit condition V.B.3. as a restatement of restrictions from other parts of the draft Permit.

RESPONSE: The Region agrees that draft Permit condition V.B.3, pertaining to hazardous wastes that are prohibited from treatment in RF-2, is duplicative of Permit condition V.B.2. Thus, the Region has deleted draft Permit condition V.B.3.

V-8. One commenter suggested adding the word "hazardous" in two places in draft Permit condition V.C.1 in order to limit the restrictions on waste being fed into RF-2 only to hazardous waste spent carbon as opposed to both hazardous and non-hazardous waste spent carbon. This commenter also recommended revisions to the language referring to the permissible feed limits.

RESPONSE: Permit condition V.C.1. includes the "General Operating Conditions" for RF-2. The restrictions on the feed to RF-2 are for all spent carbon wastes being fed and not just for hazardous waste spent carbon. The Region regulates RF-2 as a hazardous waste management unit any time it is in operation. The Commenter's suggestion to add the word "hazardous" in draft Permit condition V.C.1 – and elsewhere – has implications that would require modifications to the Permit. If the

Permittees would like to operate RF-2 under different parameters while processing non-hazardous spent carbon than those that apply during the processing of hazardous spent carbon, they would need to first demonstrate that the emissions and other potential impacts from such operations would remain consistent with the conclusions of the risk assessment. See, *e.g.*, 40 CFR § 264.601, ("Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment…"). To do that, a future trial burn would need to be designed in such a manner to support that analysis and to develop proposed modifications to the Permit.[30]

Should the Permittees propose Permit modifications regulating RF-2 operations while processing non-hazardous spent carbon, the Permittees must demonstrate that any hazardous waste residues or constituents that might remain in RF-2's air pollution control equipment would be sufficiently destroyed during such non-hazardous spent carbon processing. As it currently stands, to avoid limits on the operation of RF-2 during the processing of non-hazardous spent carbon, the Permit would first require the closure of RF-2 in accordance with the closure requirements of Module V.

The Facility operator is not permitted to turn on and off systems that are tied to the parameters set forth in the Permit based on when they are only treating non-hazardous spent carbon. Once the Facility has a Permit, the hearth is regulated by the Permit as a hazardous waste management unit. Therefore, the feed rate limits expressed in Table V-1 apply whenever spent carbon is fed into RF-2, whether hazardous or non-hazardous.

The feed rate limits in Table V-1 are established to ensure that the emission limits for certain categories of contaminants (*i.e.*, those categories of contaminants for which a feed rate limit is set forth in the third column of Table V-1) are being met. These feed rate limits, along with the other Permit conditions regulating RF-2, such as the parameters set forth in Table V-2, serve as the means by which the Permit ensures that Facility emissions are kept below the emission levels demonstrated to be protective of human health and the environment, and, in the case of sulfur dioxide (SO2) and nitrogen oxide (NOx), below the voluntary emission limits established in the Permit.

Therefore, the Region declines to add the word "hazardous" in Permit condition V.C.1, as requested by the commenter. See also clarifications made to Permit conditions V.B.1.b., V.C.2.a., V.C.3., V.C.4.b., V.C.5.b.i., V.C.5.c., V.C.5.e., V.C.5.f., V.C.5.g. and V.D.1.[31]

The commenter's recommended changes to the reference to the feed rate limits for low-volatile metals, semi-volatile metals, total chlorine, and mercury set forth in Table V-1 were adopted in Permit condition V.C.1., because the commenter's suggested language was simpler and more straight forward than the proposed draft Permit condition language. In addition, the language adopted for the sulfur feed rate limit for Table V-1 is based primarily on the commenter's own letter dated September 19, 2016. See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf." The Facility

[30] The Region notes as well that, to the extent that the Permittees wish to rely on the RCRA permit as a "practically enforceable mechanism" in lieu of a Title V permit under the CAA, the RCRA permit should control emissions of sulfur and other criteria pollutants on a continuous basis. See, *Sierra Club v. EPA*, 551 F.3d 1019, 1028 (D.C. Cir. 2008).

[31] See also the Region's Responses to Public Comments III-12, V-2, V-6, and V-9.

operator agreed to control emissions by limiting the amount of sulfur in the spent carbon being fed into RF-2. The Facility operator/commenter's suggestion that the Region delete compliance schedule requirements pertaining to the Waste Analysis Plan and add language to Module II in order to establish waste analysis feed related requirements for sulfur feed is addressed in the Region's Response to Public Comment I-37. It is the Facility operator's responsibility to establish its sulfur feed rate limit in accordance with its September 19, 2016 letter, which describes using the following factors as part of its calculations: sulfur content of the feed, carbon reactivation production rate, and hours of operation over the course of the year, minus a 90% presumed sulfur removal rate for the packed bed scrubber system.

The Region has also clarified the operating parameter limits for SO2 and NOx that were used in draft Permit Table V-4. The references to the term "per consecutive 12 month period" in revised Table V-1 now include footnotes clarifying that the term is synonymous with the term "on a 12-month rolling sum basis." This clarification is consistent with the explanation provided in the Region's Statement of Basis, published with the draft Permit. However, in reviewing the proposed changes to draft Permit Table V-1 and the deletion of draft Permit Table V-4, the Region felt that the clarification of this term was appropriate to avoid any potential confusion. See Permit condition V.C.6. and Table V-1, at footnotes 15 and 18. See also USEPA Statement of Basis, Section 5.4.6., The Clean Air Act, p. 10/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

V-9. One commenter noted that the draft Permit condition V.C.1.ii. (renumbered V.C.1.b.) did not include the exception to meeting the emission standards and operating requirements during startup, shutdown, or malfunction events or when hazardous waste is not in the combustion chamber, as reflected in 40 CFR § 63.1206(b). In addition, the commenter pointed out redundancies and suggested changes to this draft Permit condition.

RESPONSE: The Region has incorporated some of the commenter's recommended changes into Permit condition V.C.1.b., and rejected others. The Region changed the commenter's suggested language regarding "hazardous waste" to "spent carbon" to clarify that the Permit regulates the operation of RF-2 at all times, regardless of whether or not the spent carbon being fed into RF-2 is a hazardous waste. Please see the Region's Response to Public Comment V-8, above.

Permit Attachment Section D (Process Information) lists the parameters (Group A1, A2, B and C) that are applicable to RF-2. See also Table V-2. Each of these parameters will be "continuously monitored," even during startup, shutdown, and malfunction events. The Region expects the Facility to monitor these parameters continuously when RF-2 is in operation, as described in Permit Attachment Section D.

For additional information about comments relating to the implementation of the SSMP, please see the Region's Response to Public Comment V-17.

V-10. One commenter requested that the Region add an explanation in the Permit regarding how the feed rate limits are designed to ensure the Facility doesn't exceed the emission limits. [See draft Permit condition V.C.]

RESPONSE: The Region has revised Tables V-1 and V-2 and deleted draft Permit Table V-4 in part to clarify the relationship between the feed rate limits and other operating parameter limits listed in Column 3 of Table V-1 and the referenced emissions standards to be used in performance testing, which are listed in Column 2 of Table V-1. (See also the Region's Response to Public Comment V-12, below, for more information about the deletion of Table V-4 and the revisions to Tables V-1 and V-2.) Column 3 in Table V-1 references the 40 CFR § 63.1203 standards which were used as guidance at the time of the performance demonstration test (PDT) to develop proposed Permit conditions, which were included in the Permit application as appropriate to RF-2. According to Section D of the Permit Application, Permit Attachment Section D:

> "Since completion of the PDT, the regulations at Subpart EEE have been changed, and revised standards have been added at 40 CFR [§] 63.1219. A review of the RF-2 PDT results indicate that the unit meets the new standards at 40 CFR [§] 63.1219." See note under Table D-4, Section D.5.5., Permit Attachment Section D.

Column 2 in Table V-1 references the 40 CFR § 63.1219 standards, which are the replacement standards that shall be used as guidelines in future periodic PDTs the same way that the 40 CFR § 63.1203 standards were used during the 2006 PDT. The PDT reports should include the Permittees' recommendations regarding any appropriate changes to the operating parameters in Table V-1, column 3. For example, if the Permittees are able to demonstrate that the hearth can be operated to achieve the 40 CFR § 63.1219 replacement standard for hydrogen chloride and chlorine gas (total chlorine) of 32 ppmdv, the Permittees should consider whether a Permit modification is appropriate for Table V-1, column 3. Such a Permit modification may involve both a recalculation of the feed rate limit, currently 60 lbs/hr, and/or the emission limit to be demonstrated during periodic PDTs, currently 77 ppmdv.

TABLE V-1

The "Performance Standards and Operating Parameter Limits" set forth in Table V-1 establish the RF-2 performance standards for the purposes of PDT testing and the RF-2 operating parameter limits. The RF-2 operating parameter limits set forth in column 3 of Table V-1 are based on: (1) the Permit Application Section D, Permit Attachment Section D, including Table D-4: and (2) for sulfur oxides and nitrogen oxides, the operator's September 19, 2016 letter to USEPA Region 9. See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf." The 2006 Trial Burn utilized the interim emission standards from 40 CFR § 63.1203 as a guide for the development of the majority of these operating parameter limits (DRE, particulate matter, HCl/Chlorine, Mercury, Semi-volatile metals, Low volatile metals, Dioxin and furans, Carbon monoxide, and Total hydrocarbons). See the note below Table D-4 in Permit Attachment Section D. In addition, the operating parameter limits for SO2 and NOx were voluntarily agreed to by the operator.

The operating parameter limits set forth in Permit Attachment Section D have been supplemented by the requirement that, for each parameter, these standards shall be demonstrated during future, periodic trial

burns (or PDTs). These periodic (5 year) trial burn tests shall in part be designed to demonstrate the emissions limits established during the 2006 Trial Burn (i.e., the interim emission standards from 40 CFR § 63.1203 that are set forth in column 3 of Table V-1).

The Region maintains that such periodic trial burn testing is necessary to demonstrate the emissions limits, which in turn demonstrates that the unit's operations do not pose an unacceptable risk to human health or the environment based on the Human Health and Ecological Risk Assessment performed as part of the Permit application process and memorialized at Permit Attachment Appendix XI. The Region also maintains that periodic testing of emissions of sulfur oxides and nitrogen oxides is also appropriate to demonstrate the voluntary emissions limits for these parameters.

Below Table D-4 in Permit Attachment Section D, it is noted that the CAA MACT Air Emissions Replacement Standards, which are set forth in 40 CFR § 63.1219, were added after completion of the PDT but that "[a] review of the RF-2 PDT results indicate[s] that the unit meets the new standards at 40 CFR [§] 63.1219." Should the Trial Burn test results from future periodic PDT tests demonstrate that operations of the unit also meet the new (or "Replacement") standards, such information may form the basis for one or more Permit modifications to revise the limits set forth in column 3 of Table V-1. Thus, in addition to demonstrating the operating parameter limits, the periodic trial burn tests will also be used to evaluate whether these limits warrant updating over time.

In addition, an update of the Human Health and Ecological Risk Assessment -- to ensure its conclusions remain current and appropriately reliable -- requires that the initial trial burn test that is required after permit issuance also be performed in such a manner as to generate data that can be included in the Risk Assessment update.

V-11. One commenter claimed that the Region lacks authority to impose requirements under the RCRA permit based on the CAA's standards at 40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.) [See draft Permit condition V.C.]

RESPONSE: The Region disagrees with the commenter. RCRA's regulations classify the Carbon Regeneration furnace, RF-2, as a 40 CFR Part 264 Subpart X, Miscellaneous Unit. The regulations for Miscellaneous Units specifically authorize the Region to incorporate terms and provisions in permits for Miscellaneous Units "as necessary to protect human health and the environment." 40 CFR § 264.601. These regulations specifically identify the requirements of 40 CFR Part 264 Subparts I through O and Subparts AA through CC, Part 270, Part 63 Subpart EEE, and Part 146 that should be considered as potentially appropriate for the miscellaneous unit being permitted.

In addition, the Facility's Permit application specifically identifies the CAA MACT EEE requirements as appropriate for RF-2. See, for example, Permit Attachment Section D, which states:

> "Specific to the carbon reactivation furnace and associated equipment, [the operator] believes that it is appropriate to regulate emissions in accordance with the provisions of 40 CFR [Part] 63 Subpart EEE applicable to existing hazardous waste incinerators (although this unit is not an incinerator)."

The Region has, therefore, incorporated the standards that the application envisioned would apply.

Furthermore, in developing the work plan for the performance of the trial burn, the operator approached the establishment of operating limits in the Permit by following the specifications of 40 CFR Part 63 Subpart EEE and guidance prepared for RCRA incinerator permits. The PDT Workplan acknowledged that, while those regulations and guidance did not strictly apply to RF-2, they were nonetheless appropriate to use as guidelines for the development of some of the limits included in the Permit for RF-2. See Permit Attachment Appendix V, Carbon Reactivation Furnace Performance Demonstration Test Plan, Section 1.6. See also Permit Table V-1 and the Region's Response to Public Comment V-10, above.

In addition, after the trial burn was completed, EPA modified the MACT EEE regulations and revised standards were added at 40 CFR § 63.1219 (the "Replacement Standards"). A review of the PDT results for RF-2 indicated that, in addition to the MACT EEE standards that were in place at the time of the trial burn, RF-2 was also operating within the more stringent parameters established under the Replacement Standards at 40 CFR § 63.1219. (See, *e.g.*, Permit Attachment Section D, note at Table D-4.) Future, periodic PDTs will use the Replacement Standards as guidance.

Application of Certain MACT Hazardous Waste Combustor Standards
(40 CFR Part 63, Subpart EEE) to RF-2

The Region also maintains that Clean Air Act standards for Hazardous Waste Combustors are -- in certain, specific ways -- appropriate for this unit because this Facility uses thermal treatment* with air pollution control equipment to regenerate hazardous spent carbon with toxic organic compounds that are hazardous waste. This thermal treatment, with the associated air pollution control equipment, destroys, controls and reduces the toxic organic compounds that desorb from the carbon to less harmful or innocuous byproducts. For this reason, the Region deems it necessary to regulate this unit using certain relevant MACT EEE standards. The inclusion of these MACT EEE standards in the Permit ensures that volatile organic compounds are controlled before emissions reach the stack. The inclusion of these MACT EEE standards in the Permit ensures that the destruction of organic compounds is sufficiently completed before emissions reach the stack. It also ensures that the emissions levels from the stack (*e.g.*, unburned organics that may be present at very low levels, byproducts of organic compound decomposition, low-volatile and semi-volatile metals) do not pose an unacceptable risk to human health or the environment, as demonstrated by the risk assessment.

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* "Thermal treatment" is defined at 40 CFR § 260.10 as the treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the hazardous waste.

V-12. One commenter asserted that EPA has already determined at the time it promulgated rules for boilers and industrial furnaces (the "BIF Rule") that carbon regeneration units should not be subjected to the same standards as incinerators. The commenter suggested that language in the BIF Rule preamble precludes EPA from imposing permit conditions on RF-2 that are based on the requirements for incinerators. The commenter also objected to EPA including MACT EEE Rule requirements pursuant to 40 CFR § 264.601 without an appropriate rationale supported in the permitting record. The commenter claimed that extensive and costly compliance with MACT EEE standards is not justified in the administrative record. Although the commenter objected to the Region's purported interchangeable use of the term "feed rate" and "feed limit" in Module V of the draft Permit, it did not object to certain substantive limitations set forth in the draft Permit, including, "feed rate, carbon monoxide, nitrogen oxides and sulfur oxide limits and appropriate monitoring in Tables V-1 and V-4 and … the many specified operational limits in Table V-2 …" [See draft Permit condition V.C.]

RESPONSE: The Region notes that the commenter's objections appear to be focused on references to the MACT EEE Rule in the draft Permit as opposed to the substantive standards set forth in the draft Permit. The Region points out that many of the draft Permit conditions referred to MACT EEE requirements as references, but did not incorporate every condition in which these regulations were referenced. However, the Region acknowledges that, even in the case where a provision references but does not incorporate a MACT EEE regulation, a number of the draft Permit and Permit conditions were developed using the MACT EEE and RCRA incinerator requirements as guidance.

In addition, the Region has made a concerted effort to ensure that the Permit only imposes obligations on the Permittees that are necessary for the protection of human health and the environment. The Region recognizes that the Facility provides an environmentally beneficial service in terms of regenerating spent carbon and, although it takes its obligation to ensure protection of human health and the environment under RCRA and its regulations very seriously, the Region also has no interest in unnecessarily burdening or putting the Facility at a financial disadvantage with respect to its competitors. As set forth in more detail below, the Region has retained -- and in some cases modified -- Permit conditions as necessary to ensure protection of human health and the environment and has clarified the technical basis for these conditions. Where appropriate, the Region has removed conditions found to be unnecessary. (See, *e.g.*, the Region's Response to Public Comment V-9, above.)

The Region maintains that the rationale to support the inclusion of the MACT EEE Rule requirements *was* included in the administrative record for the draft decision. However, the Region supplements that information below.

Use of MACT EEE Requirements as Guidance for Permitting RF-2

RF-2 does not qualify as an incinerator because it is a carbon regeneration unit. A "hazardous waste incinerator" is defined in 40 CFR Part 63, Subpart EEE as a "device defined as an incinerator in § 260.10 of this chapter and that burns hazardous waste at any time." (40 CFR § 63.1201). "Incinerator" is defined in 40 CFR § 260.10 as "any enclosed device that: (1) Uses controlled flame combustion ***and neither meets the criteria for classification as a*** boiler, sludge dryer or ***carbon regeneration unit,*** nor is listed as an industrial furnace; or (2) Meets the definition of infrared incinerator or plasma arc incinerator." (Emphasis added.)

RF-2, instead, is designated by Subpart X of the RCRA regulations as a "Miscellaneous Unit." According to 40 CFR § 264.601 of the Subpart X regulations, permit terms and provisions for a Miscellaneous Unit must include appropriate requirements of 40 CFR Part 264, Subparts I through O and Subparts AA through CC, 40 CFR Part 270, 40 CFR Part 63, Subpart EEE, and 40 CFR Part 146.

While the Region acknowledges that incinerators and carbon regeneration units are different in several ways, there are similarities that justify the imposition of similar standards on the units. Thus, the Region disagrees with the assertion that the BIF Rule preamble precludes the Region from imposing incinerator standards on a specific carbon regeneration unit under a RCRA permit. The BIF rule preamble acknowledged these similarities by classifying carbon regeneration units as thermal treatment units for the purposes of RCRA's interim status standards at 40 CFR Part 265, Subpart P:

> "… we are concerned… that emissions from the regeneration process can pose a serious hazard to public health if not properly controlled, and therefore are clarifying today that [carbon regeneration units] are regulated as thermal treatment units." 56 FR 7134, at 7200/3, (Feb. 21, 1991).

See, also, 45 FR 33153, at 33161/3 (May 19, 1980) ("The risks associated with the thermal treatment of hazardous waste are similar to those posed by hazardous waste incineration.")

Use of Subpart P Thermal Treatment Standards as a Baseline for CRU Permit Conditions

Since incinerators are a subset of thermal treatment units, many of the Part 265, Subpart P requirements, which are applicable to interim status carbon regeneration units, are similar to the Part 265, Subpart O, standards for interim status incinerators. The Subpart P requirements, for example, require that:

- before adding hazardous waste to a thermal treatment unit, the unit must be operating under steady-state (normal) conditions of operation (§265.373);
- owners/operators may use auxiliary fuel or other means to bring the unit to operational readiness before burning hazardous waste. The owner/operator must also perform waste analysis to determine the heating value of the waste, the halogen and sulfur content of the waste, and the concentrations of lead and mercury in the waste (§265.375);
- owners/operators are required to conduct monitoring and inspections of the temperature and emission control instruments, the stack plume, and all process and ancillary equipment (§265.377);
- at closure, all hazardous waste and hazardous waste residues must be removed from the thermal treatment unit (§265.381); and
- Finally, unless the thermal treatment unit receives a special certification, the unit may not treat dioxin-bearing hazardous wastes (F020, F021, F022, F023, F026, or F027) (§265.383).

The Region regards the interim status standards for carbon regeneration units as a baseline set of standards appropriate for RF-2, in part because these requirements have applied to the Facility since 1991. In addition, because the Facility was required to maintain operations in accordance with its Permit Application under 40 CFR Part 270, Subpart G, the standards established in the Permit Application are assumed, without evidence or a rationale to the contrary, to be a required set of standards appropriate for RF-2. See also "2016 04 26 Evoqua Letter.pdf."

Use of Permit Application as Required Standards

Because of the similarities between the interim status requirements for incinerators and carbon regeneration units, the Region disagrees that it is inappropriate to have used the standards for incinerators as guidance in developing the Permit requirements for RF-2. In fact, in the Permit Application, the commenter/Facility operator included numerous references to using the MACT EEE requirements as guidance in the development of proposed operating parameters for RF-2. See, e.g., Permit Attachment Section D (Process Information), at Section D.5.

Comments Regarding Use of "Rates" and/or "Limits" in Module V

The Region notes that the standards set forth in Module V of the draft Permit included both air emission "limits" and feed rate "limits" for several parameters. While the commenter did not, apparently, object to the "feed rates" expressed in the draft Permit, the commenter did recommend that -- for the parameters of low-volatile metals, semi-volatile metals, chlorine/chloride, and mercury -- the feed rate be used as the "limit" rather than both the feed rate and emission "limits."

When referring to the feed rate limit set forth in the revised Permit, the Region has revised the draft Permit to consistently use the term "feed rate limit." When referring to the feed rate in general, the Region has revised the draft Permit to consistently use the term "feed rate."

The air emission "limits" set forth in the third column of Table V-1 of the Permit are based on the hazardous waste combustor standards at 40 CFR Part 63 Subpart EEE, for which RF-2 has been shown to be in compliance, based on the trial burn test report. See Permit Attachment Appendix V; see also 40 CFR § 63.1203. As a practical matter, during normal operations, compliance with these standards is demonstrated in accordance with 40 CFR § 63.1209, which looks to a *feed* limit for these parameters, (*i.e.,* low-volatile metals, semi-volatile metals, chlorine/chloride, and mercury). The commenter has suggested that the air emission "limits" set forth in Table V-1 of the draft Permit be removed and the table list only the feed rate limit.

The Region has reconsidered the draft Permit's Table V-1 and acknowledges that clarification of the Table's requirements is appropriate. Moreover, upon a closer review of Tables V-1 and V-4, in light of the commenter's suggestions, the Region merged the information in the two tables into a revised Table V-1, deleting Table V-4 in the process. In addition, the Region has revised references to both Tables V-1 and V-4 to reflect the revised Table V-1. As explained above in the Region's Response to Public Comment V-10, the revised Table V-1 entitled "Performance Standards and Operating Parameter Limits" establishes the RF-2 performance standards for the purposes of PDT testing and the RF-2 operating parameter limits.

Because the practical enforcement of the air emission limits for low-volatile metals, semi-volatile metals, chlorine/chloride, and mercury is accomplished by monitoring and performing calculations based on the actual feed rates of these parameters, the feed rates establish the limits for the purposes of enforcement during normal operations. The feed rate "limits" expressed in the third column of Table V-1 for low-volatile metals, semi-volatile metals, chlorine/chloride, and mercury, calculated on a rolling 12-hour average, ensure that the emission limits, which are also set forth in the third column of Table V-1, are being met.

The Region does not interpret the comments as objections to the feed rate limits for low-volatile metals, semi-volatile metals, chlorine/chloride, or mercury, as expressed in Table V-1. Since these feed rate limits ensure that the emission limits are met, the feed rate limits suffice as the measure of compliance during normal operations.

The commenter suggested the Region delete the 40 CFR § 63.1219 "replacement standards" from Table V-1. However, the Region believes that the Permit application itself suggests that the unit

would also be able to meet these standards. See Permit Attachment Section D at the note under Table D-4, Section D.5.5. Therefore, as explained more fully in the Region's Response to Public Comment V-10, above, the Region has identified these standards in the second column of revised Table V-1 to be used as guidelines in the periodic trial burn tests. To the extent that future trial burn tests demonstrate that the feed limits and emissions limits set forth in the third column of Table V-1 could be revised to reflect these updated standards, this approach will facilitate appropriate changes to these operating parameters.

CHLORINE/CHLORIDE FEED RATE LIMIT AND EMISSION STANDARD

Acute (short-term) and chronic (long-term) exposures to varying levels of chlorine, chlorine gas or hydrogen chloride (HCl) may produce a wide variety of impacts to human health. See, *e.g.*, 67 FR 44713-44719, (July 3, 2002), https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=396 (HCl), and https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=405 (Chlorine).

The trial burn test report calculated the maximum total chlorine/chloride feed rate by using the average of the total chlorine/chloride feed rates during each test run. This demonstrated that the maximum total chlorine/chloride feed rate would allow the Facility to meet the emissions standard for total chlorine/chloride for hazardous waste combustors at 40 CFR § 63.1203. The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

LOW-VOLATILE METALS FEED RATE LIMIT AND EMISSION STANDARD

Acute (short-term) and chronic (long-term) exposures to varying levels of low-volatile metals, such as arsenic, beryllium, and chromium, may produce a wide variety of impacts to human health. See, *e.g.*, https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=278 (Arsenic), https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=12 (Beryllium), https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=28 (Chrome +3), and https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=144 (Chrome +6).

The trial burn test report calculated the maximum low-volatility metal feed rate limit as the average of the low-volatility metal feed rates during each test run, extrapolated upward based on the measured system removal efficiency of the low-volatility metals. This demonstrated that the maximum low-volatility metal feed rate would allow the Facility to meet the emissions standard for low-volatile metals for hazardous waste combustors at 40 CFR § 63.1203. The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

Semi-Volatile Metals Feed Rate Limit And Emission Standard

Acute (short-term) and chronic (long-term) exposures to varying levels of semi-volatile metals in the air, such as lead and cadmium, may produce a wide variety of impacts to human health. See, *e.g.*, https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=277 (Lead), and https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=141 (Cadmium).

The trial burn test report calculated the maximum semi-volatility metal feed rate limit as the average of the semi-volatility metal feed rates during each test run. This demonstrated that the maximum semi-volatility metal feed rate would allow the Facility to meet the emissions standard for semi-volatile metals for hazardous waste combustors at 40 CFR § 63.1203. The site-specific risk assessment for the Facility determined that approximately 90% of the direct inhalation risk for residents exposed to Facility stack emissions is from a single constituent – namely cadmium. It also established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

Mercury Feed Rate Limit and Emission Standard

Acute (short-term) and chronic (long-term) exposures to varying levels of mercury may produce a wide variety of impacts to human health. See, *e.g.*, https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=370 (Mercury), and https://www.epa.gov/mercury/health-effects-exposures-mercury#metallic.

Due to the low amounts of mercury expected in the spent activated carbon, the operator elected to comply with the mercury standard by calculating and complying with a 12-hour rolling average Maximum Theoretical Emission Concentration (MTEC), as described in 40 CFR § 63.1209(l)(1)(iii)(D), conservatively assuming no mercury removal across the air pollution control system. The MTEC is complied with as a maximum mercury feed rate limit. This limit has been calculated from the performance test data by using the stack gas flow rate and oxygen concentration, and the maximum allowable stack gas mercury concentration based on the MACT EEE regulations. The MACT EEE replacement standards at 40 CFR § 63.1219 include the same emissions limit for mercury as is found at 40 CFR § 63.1203. The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

CARBON MONOXIDE AIR EMISSION STANDARD

The presence of excess carbon monoxide in stack emissions is an indicator of incomplete combustion of the hazardous contaminants on the spent carbon during reactivation. The carbon monoxide emission standard helps the operator of a carbon regeneration unit in ensuring adequate combustion and treatment of the organics that desorb from the spent carbon. See Permit Attachment Section D, D.5.1.

The commenter does not object to the emission "limit" or appropriate monitoring for carbon monoxide as set forth in Table V-1. See, *e.g.*, "2017 01 06 Comments of Evoqua Draft Permit Decision.pdf" (Supplemental AR) at p. 43/202. However, because the Region has revised Table V-1 to clarify that the second column reflects the MACT EEE replacement standards, as opposed to air emission "limits," the third column for carbon monoxide has been revised to include the appropriate air emission "limit," to be monitored by continuous emissions monitoring. The maximum stack gas CO concentration limit is 100 parts per million by volume, dry basis, corrected to 7% oxygen under the standards set forth in the MACT EEE requirements for hazardous waste combustors at both 40 CFR § 63.1203 and § 63.1219. Because carbon monoxide is continuously monitored at the stack, column 3 in Table V-1 includes an Air Emissions Limit for carbon monoxide, as opposed to a feed rate limit.

In addition, the references in draft Permit Conditions V.C.5.ii.a (renumbered as Permit condition V.C.5.b.i.), and V.C.5.v.b.(1)., (renumbered as Permit condition V.C.5.e.i.), were revised such that the broad reference in these provisions to the emission limits set forth in Table V-4 has been removed and replaced with a reference to the emission limit for carbon monoxide set forth in the revised Table V-1. This change was made because carbon monoxide is the only parameter tied to the Automatic Waste Feed Cutoff (AWFCO) system (Group A1 and A2 Parameters in Table V-2) that is listed in revised Table V-1. Draft Permit Condition V.C.5.v.a. was deleted and draft Permit conditions V.C.5.v.b.(1). and V.C.5.v.b.(2). were renumbered as Permit conditions V.C.5.e.i. and V.C.5.e.ii.

TOTAL HYDROCARBONS EMISSION STANDARD

Total Petroleum Hydrocarbons (TPH) is a term used to describe a broad family of several hundred chemical compounds that originally come from crude oil. In this sense, TPH is really a heterogenous mixture of chemical compounds. They are called hydrocarbons because almost all of them are made entirely from hydrogen and carbon. See, *e.g.*, ATSDR Public Health Statement, Total Petroleum Hydrocarbons, dated September 1999 at https://www.atsdr.cdc.gov/ToxProfiles/tp123-c1-b.pdf.

Health impacts from exposure to TPH depend on many factors. These include the types of chemical compounds in the TPH, how long the exposure lasts, and the amount of the chemicals contacted. Acute (short-term) and chronic (long-term) exposures to varying levels of some of the TPH compounds,

particularly the smaller compounds such as benzene, toluene, and xylene (which are present in gasoline), may produce a wide variety of impacts to human health. See, e.g., https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=276 (Benzene), https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=118 (Toluene), and https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=270 (Xylene).

In its 40 CFR Part 63, Subpart EEE MACT regulations for hazardous waste combustors, EPA adopted standards for carbon monoxide, hydrocarbons, and destruction and removal efficiency "to control the other organic hazardous air pollutants listed in CAA section 112(b)(1) that do not have specific emission standards established in" those requirements. See 64 FR 52828, at 52834/1 (Sept. 30, 1999). The Agency also stated that both carbon monoxide and hydrocarbon emissions exceeding the MACT EEE standards "are indicative of poor combustion conditions and the potential for increased emissions of nondioxin/furan organic hazardous air pollutants." Id., 64 FR at 52847/3.

The maximum stack gas total hydrocarbon concentration limit is 10 parts per million by volume, dry basis, corrected to 7% oxygen under the standards set forth in the MACT EEE requirements for hazardous waste combustors at both 40 CFR § 63.1203 and § 63.1219. During the trial burn test, the Facility operator documented compliance with this standard. The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

CONTROLLING DIOXIN/FURAN EMISSIONS

Acute (short-term) and chronic (long-term) exposures to varying levels of dioxins and furans may produce a wide variety of impacts to human health. See, *e.g.*, https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=1024 (Dioxin - 2,3,7,8-TCDD) and https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=56 (Furans). Dioxins and furans are potent carcinogens and EPA has established quantitative measures of their ability to increase the likelihood of developing cancer following chronic exposures.

The MACT EEE replacement standards at 40 CFR § 63.1219 include the same emissions limit for dioxins/furans as is found at 40 CFR § 63.1203. The Emission Standard for dioxins/furans set forth in the permit is based on the MACT EEE standard, 0.40 ng TEQ*/dscm, as corrected to 7 percent oxygen. The Facility operator has demonstrated this limit in the PDT data. The PDT Report states in Section 4.2:

> "Dioxin and furan sampling results and emission concentrations are presented in Tables 4-3 through 4-5. The data presented show the PCDD/PCDF emissions are in compliance with the HWC MACT standard of 0.40 ng TEQ/dscm corrected to 7% O2 applicable to existing systems with a temperature at the entrance to the primary particulate matter control device of 400°F or less. [40 CFR 63.1203(a)(1)(ii)]."

The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the permit do not pose an unacceptable risk to human health or the environment.

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* TEQ – Toxic Equivalency, which means the international method of expressing toxicity equivalents for dioxins and furans as defined in U.S. EPA, Interim Procedures for Estimating Risks Associated with Exposures to Mixtures of Chlorinated Dibenzo-p-dioxins and -dibenzofurans (CDDs and CDFs) and 1989 Update, March 1989.

CONTROLLING PARTICULATE MATTER EMISSIONS

Particulate matter (PM), also known as particle pollution, is a complex mixture of extremely fine particles (less than 10 micrometers in diameter) and aerosols that become airborne. Once inhaled, these particles can elicit a wide range of adverse health effects. See, e.g., EPA Brochure: Particle Pollution and Your Health, at https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001EX6.txt and https://www.epa.gov/pm-pollution/particulate-matter-pm-basics#effects (Particulate Matter).

The maximum stack gas particulate matter concentration limit is 0.013 gr/dscf, (listed in the regulation as 34 milligrams per dry cubic standard meter of air [mg/dscm]), corrected to 7% oxygen under the standard set forth in the MACT EEE requirements for hazardous waste combustors at 40 CFR § 63.1219. During the trial burn test, the Facility operator documented compliance with this standard. The site-specific risk assessment for the Facility established that emissions at or below the standard set forth in the Permit do not pose an unacceptable risk to human health or the environment.

The particulate matter standard is a surrogate to control non-mercury metallic hazardous air pollutants (HAP) under the MACT EEE regulations. When a hazardous waste combustor emits particulate matter, it also emits non-mercury HAP metals as part of that particulate matter, and when particulate matter is removed from emissions, the non-mercury HAP metals are removed as well. Non-mercury metal HAP emissions are therefore reduced whenever particulate matter emissions are reduced. The particulate matter standard under 40 CFR § 63.1219 thus is an effective and appropriate surrogate that assures sources are controlling these metallic HAPs with an appropriate back-end control technology. See, Environmental Justice Findings, USEPA Statement of Basis, Appendix E, p.27/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

CONTROLLING SULFUR OXIDES AND NITROGEN OXIDES EMISSIONS

Acute (short-term) and chronic (long-term) exposures to varying levels of sulfur oxides and nitrogen oxides may produce a wide variety of impacts to human health. See, *e.g.*, https://www.epa.gov/so2-pollution/sulfur-dioxide-basics (Sulfur Dioxide) and https://www.epa.gov/no2-pollution/basic-information-about-no2 (Nitrogen Dioxide).

The emission limit for sulfur oxides is 30 tons per year. (See, Operating Parameter Limits on Table V-1, column 3.) This limit is based on the September 19, 2016 letter from Evoqua Water Technologies LLC (Mr. Monte McCue) to USEPA Region 9 (Mr. Gerardo Rios). See "2016 09 19 Evoqua Ltr USEPA R9 re SO2 NOx Limitations on Emissions.pdf." This limit for sulfur oxides needs to be demonstrated on a 12-month rolling sum basis.

Compliance with the emission limit for sulfur oxides shall be demonstrated on a 12-month rolling sum basis, using sulfur content of the feed, carbon reactivation production rate, and hours of operation over the course of the year, minus a 90% presumed sulfur removal rate for the packed bed scrubber system, along with periodic Performance Demonstration Tests at least once every five years.

The emission limit for nitrogen oxides is 22 tons per year. (See, Operating Parameter Limits on Table V-1, column 3.) This limit is also based on the September 19, 2016 letter from Evoqua Water Technologies LLC (Mr. Monte McCue) to USEPA Region 9 (Mr. Gerardo Rios). See "2016 09 19 Evoqua Ltr USEPA R9 re SO2 NOx Limitations on Emissions.pdf." Compliance with the emission limit for nitrogen oxides shall be demonstrated on a 12-month rolling sum basis by using the NOx stack gas concentration from the most recent stack test where NOx was measured (average of 3 runs), flow rate out of the stack, and the hours of operation of the reactivation unit, along with periodic Performance Demonstration Tests at least once every five years.

The Region notes here that the revisions described above with respect to the changes made in the second column of Table V-1 have also been made with respect to sulfur oxides. Here, however, the emission "standard" set forth in the second column refers to the emission standard provided by the Operator to EPA Region 9's Air Program Office, since there is no MACT EEE standard for sulfur oxides. A footnote has been added to Table V-1 referring to the September 19, 2016 letter from Evoqua Water Technologies LLC (Mr. Monte McCue) to USEPA Region 9 (Mr. Gerardo Rios). See permit condition V.C.6. and Table V-1, at footnote 15.

Similarly, the emission "standard" in the second column of Table V-1 with respect to nitrogen oxides also includes a reference to the same September 19, 2016 letter as the source of this standard. See permit condition V.C.6. and Table V-1, at footnote 18.

The emission limits in the third column of Table V-1 for sulfur oxides and nitrogen oxides have been established because the permitting process required the evaluation of these parameters as part of the risk assessment. See Section 2.3.1, "Criteria Pollutants" at page 2-41, (91/810 of the pdf), and TABLE A1.6-5 in the Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities Final, 2005,

https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10067PR.txt. The specific operating parameters that ensure sulfur oxides and nitrogen oxides emissions stay within the limits agreed to by the operator are also set forth in the third column of Table V-1.

Sulfur Oxides and Nitrogen Oxides

The commenter has not objected to the emission "limits" or "appropriate monitoring" for sulfur oxides and nitrogen oxides as set forth in the draft Permit's Table V-1. See p. 43/202 at "2017 01 06 Comments of Evoqua Draft Permit Decision.pdf." The Region's Response to Public Comment V-8 addressed the sulfur feed monitoring that would be used to demonstrate compliance with the air emission limit for sulfur oxides. See also the Region's Responses to Public Comments V-17 and V-39.

With respect to controlling sulfur dioxide (SO2) emissions from the carbon regeneration furnace, a packed bed scrubber is operated with a control efficiency of 90 percent for minimizing SO2 emissions. See, *e.g.,* "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf." According to an August 2012 CAA Registration filed by the operator, the Facility's pre-control SO2 potential to emit (PTE) is estimated at 299.85 tons per year (tpy), which exceeds the NSR major source threshold of 250 tpy and the Title V major source threshold of 100 tpy. Based on this information, the Facility would need to adopt practically enforceable limits to maintain its SO2 emissions below the NSR and Title V major source thresholds.

By including additional requirements for SO2, the RCRA permit may be used as an enforceable permitting mechanism in place of obtaining a Tribal Minor NSR permit under the CAA. These practically enforceable requirements include an annual cap of 30 tpy, demonstrated on a 12-month rolling basis using sulfur content of the feed, carbon reactivation production rate, and hours of operation over the course of the year, minus a 90% presumed sulfur removal rate from the packed bed scrubber system. In addition to the operation of the packed bed scrubber, which minimizes the Facility's SO2 emissions, the RCRA permit's "practically enforceable limits" on the sulfur feed rate ensure that emissions of SO2 remain below the NSR and Title V major source thresholds. And, in addition to many other requirements imposed under the RCRA permit, these practically enforceable limits also include a requirement to conduct a trial burn test demonstrating the SO2 emission standard of 30 tpy at least once every five years.

Additionally, the carbon regeneration furnace combusts natural gas, which produces nitrogen oxides (NOx). The RCRA permit imposes a Facility-wide cap of 22 tpy demonstrated on a 12-month rolling sum basis, using the NOx stack gas concentration from the most recent stack test where NOx was measured (average of 3 runs), flow rate out of the stack, and the hours of operation of the reactivation unit. The amount of natural gas that can be combusted in the furnace must be tracked such that NOx emissions will not exceed 22 tpy. The Permittees can ensure that NOx emissions are kept below this operating parameter limit by monitoring and recording the Facility's natural gas usage each month, the 12-month rolling sum of NOx emissions in tons per year. See Permit Condition V.C.6. The

Facility is also subject to a requirement to conduct a trial burn test demonstrating the NOx emission standard of 22 tpy at least once every five years.

The Agency may rely on the practically enforceable limits imposed under the RCRA permit as an appropriate and efficient means of ensuring that a hazardous waste management unit's emissions of criteria and hazardous air pollutants are kept below levels that would otherwise trigger the need for a separate CAA permit. Alternatively, the operator could be required to submit an application for a CAA Title V permit if either of the following occurred: (1) changes were made to the RCRA permit that adversely affect the operation of the packed bed scrubber; or (2) the Facility's PTE emissions for any criteria pollutant or hazardous air pollutants exceed the applicable major source threshold.

The site-specific risk assessment for the Facility established that the SO2 and NOx emission limits set forth in Column 3 of Permit Table V-1 do not pose unacceptable risks to human health or the environment.

MAXIMUM SPENT CARBON FEED RATE LIMIT

Table V-2 sets the maximum spent carbon feed rate limit at 3049 lbs/hr. The maximum spent carbon feed rate limit was established using 40 CFR §§ 63.1209(j)(3), and 63.1209(k)(4) as references. In addition, the spent carbon feed rate needs to be limited since treatment efficiency can be adversely affected at higher organic loading to the unit.* Pollutant concentrations in emissions can also be adversely impacted at higher spent carbon feed rates, which could impact risk assessment assumptions. While the MACT EEE regulations call for establishing this limit on an hourly rolling average basis using the average of the highest hourly rolling average values from each test run, the operator preferred a block hour average limit from the average of feed rates demonstrated during each of the three runs of the PDT. This is a more conservative value because using an average of the highest hourly rolling average values would give the facility a higher feed rate, which in turn impacts treatment efficiency, potentially increasing pollutant concentrations in emissions as well as potentially impacting the risk assessment assumptions. If the 3049 lb/hr limit is exceeded, an AWFCO will be triggered.

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* See, generally, discussions regarding treatment efficiency in US EPA's Risk Burn Guidance for Hazardous Waste Combustion Facilities, July 2001, at https://archive.epa.gov/epawaste/hazard/tsd/td/web/pdf/burn.pdf.

Other Operating Parameter Limits

The commenter has also not objected to "appropriate monitoring in Tables V-1 and V-4 and … the many specified operational limits in Table V-2 …" (Draft Permit Table V-4 has been merged into Permit Table V-1, as explained previously.) For these reasons, no additional revisions to Tables V-1 and V-2, beyond the changes reflected in these responses to comments, were appropriate.

MINIMUM AFTERBURNER TEMPERATURE

Table V-2 sets the minimum afterburner temperature to 1760° F. The minimum temperature Operating Parameter Limit has been established for the afterburner to ensure destruction of organic constituents using 40 CFR §§ 63.1209(j)(1), and 63.1209(k)(2) as references. An AWFCO will be triggered if this limit is exceeded.

MINIMUM TEMPERATURE FOR HEARTH #5

Table V-2 sets the minimum temperature for hearth #5 at 1350° F.

The operator established a minimum Hearth #5 temperature following the PDT. See, *e.g.*, 2012 04 Response to Request for Information and Comments on Feb 2007 App.pdf" at pp. 17-21. See, also, "2004 09 08 Letter re Minimum Bottom Hearth Furnace Temperature.pdf."

Even though the main purpose of the reactivation furnace hearths is not to provide organic destruction but rather volatilization, a minimum temperature in Hearth #5 is a reasonable permit condition to ensure adequate volatilization of organic constituents from the spent carbon feeds. The operator undertook a review of boiling point data for the specific organic constituents associated with the waste codes accepted at the Facility, and determined that a temperature of 1000°F would ensure volatilization of those constituents, and documented this to the Region. See "2004 09 08 Minimum Bottom Hearth Furnace Temp w Attachment.pdf." This is implemented as an Operating Parameter Limit, with an associated AWFCO, based on an hourly rolling average.

MINIMUM VENTURI SCRUBBER PRESSURE DIFFERENTIAL

Table V-2 sets the minimum venturi scrubber pressure differential at 18 inches of water column. The Quench/Venturi Scrubber is a dual-purpose device used to rapidly quench the hot combustion gases exiting the afterburner and to remove particulate matter. See Permit Attachment Section D, D.5.1.4. Venturi scrubber pressure differential is an important parameter because maintaining the minimum pressure differential helps to ensure proper operation of the venturi scrubber at the most efficient operating conditions.

> "The effectiveness of a scrubbing system is usually directly related to the pressure drop across the scrubber. The higher the pressure drop, the greater the turbulence/mixing and, therefore, the more effective the scrubbing action . . . For a 21-1- particle, for instance, a pressure differential of 8 inches (WC) (Water column equivalent to water gauge, WG) will result in a removal efficiency of 95% whereas a 35-inch WC differential will provide almost total (99.9%) removal from the gas stream." *

The minimum venturi pressure differential limit was established using 40 CFR §§ 63.1209(m)(1)(i)(A), 63.1209(o)(3)(i), and 63.1209(n)(3) as references. The limit is determined based on the average of the test run averages, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

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* Brunner C.R. (1985) Wet Gas Scrubbers. In: Hazardous Air Emissions from Incineration. Springer, Boston, MA. See also https://link.springer.com/chapter/10.1007/978-1-4613-2539-0_13.

MINIMUM QUENCH VENTURI SCRUBBER TOTAL LIQUID FLOW RATE

Table V-2 set the minimum quench venturi scrubber total liquid flow rate at 75 gallons per minute. Minimum quench venturi scrubber total liquid flow rate is an important parameter to ensure proper saturation of the exhaust gases leaving the afterburner in order to remove the particulate. Scrubber liquid flow rate is a key indicator of performance provided the liquid is being properly distributed, and the liquid-gas interface is maintained. This limit was established using 40 CFR §§ 63.1209 (m)(1)(C), 63.1209(o)(3)(v), and 63.1209(n)(3), which allow for the establishment of either a minimum liquid to gas ratio or a maximum stack gas flow rate and a minimum liquid flow rate. The limit was established as the average of the test run averages, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

MINIMUM PACKED BED SCRUBBER LIQUID FLOW RATE

Table V-2 set the minimum packed bed scrubber liquid flow rate at 63 gallons per minute. The minimum packed bed scrubber liquid flow rate is an important parameter to ensure removal of hydrogen chloride and chlorine gas. The packed bed scrubber is designed to remove a minimum of 99 percent of the incoming hydrogen chloride. Just as with the venturi scrubber, the liquid flow rate of the packed bed scrubber is a key indicator of performance. Where liquids are distributed evenly and liquid gas interface is maintained,

higher liquid flow rates are indicative of higher levels of control. The minimum packed bed liquid flow limit was established using 40 CFR §§ 63.1209 (m)(1)(C), 63.1209(o)(3)(v), and 63.1209(n)(3) as references. These requirements allow for the establishment of either a minimum liquid to gas ratio or a maximum stack gas flow rate and a minimum liquid flow rate. The limit was derived from the average of the test run averages, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

MINIMUM PACKED BED SCRUBBER pH

Table V-2 set the minimum packed bed scrubber at pH 4.4. The packed bed scrubber is the device used for acid gas control. Therefore, the packed bed scrubber pH needs to be controlled at a minimum of 4.4. The pH is continuously monitored to ensure efficient acid gas removal, and caustic is added to neutralize the scrubber water if the pH gets low. The minimum pH limit was established using 40 CFR § 63.1209(o)(3)(iv) as a reference. The limit was derived from the average of the test run averages, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded. See Permit Attachment Section D at Section D.1.1 on page D-2. See, also, "2012 04 Response to Request for Information and Comments on Feb 2007 App.pdf" at p. 21.

MINIMUM PACKED BED SCRUBBER PRESSURE DIFFERENTIAL

Table V-2 sets the minimum packed bed scrubber pressure differential at 0.1 inches of water column. The packed bed scrubber pressure differential is an important parameter because maintaining the minimum pressure differential helps to ensure proper operation of the packed bed scrubber at the most efficient operating conditions. The minimum packed bed scrubber pressure differential is based on past operating experience. The minimum pressure differential limit was derived using 40 CFR § 63.1209(o)(3)(ii) as a reference. It was established from manufacturer's information and the facility operator's operating experience. It will be implemented on an hourly rolling average basis. See Permit Attachment Section D at Section D.5.6.5. on page D-27.

MINIMUM WESP SECONDARY VOLTAGE

Table V-2 set the minimum wet electrostatic precipitator (WESP) secondary voltage at 22 kilovolts Direct Current (kVDC).

> "A WESP is designed to operate at a relatively constant voltage. A significant decrease in voltage is indicative of a change in operating conditions that could lead to an increase in emissions. Low voltage can indicate electrical shorts or poor contacts that require maintenance or repair of electrical components." (Revised Draft Technical Guidance Document: Compliance Assurance Monitoring, August 1998 at Appendix A.9. See also https://www3.epa.gov/ttn/emc/cam/toc-ch3.pdf.)

The WESP, in conjunction with the Venturi scrubber, is designed to help control particulate matter and metals emissions. See Permit Attachment Section D, D.5.1.6. WESP secondary voltage is used as the indicator of continuing WESP performance. The limit has been established from the average of the minimum hourly rolling averages recorded during each test run, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

MINIMUM WET SCRUBBER BLOWDOWN FLOW RATE

Table V-2 set the minimum wet scrubber blowdown flow rate at 58 gallons per minute. The minimum wet scrubber blowdown flow rate is an important parameter to prevent the buildup of dissolved solids in the recycled water. The packed bed scrubber minimum blowdown flow rate was established, based on the PDT and using 40 CFR §§ 63.1209(m)(1)(i)(B), and 63.1209(n)(3) as references. The limit was derived from the average of the test run averages, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

MAXIMUM STACK GAS FLOW RATE

Table V-2 set the maximum stack gas flow rate at 9550 actual cubic feet per minute (acfm). The treatment system's organic destruction efficiency is primarily a function of the afterburner temperature and the stack gas flow rate (which is an indicator of combustion zone residence time). As stack gas flow rate increases treatment efficiency decreases because the organics are subjected to elevated temperatures for a shorter

period of time. The maximum stack gas flow rate limit was derived using 40 CFR §§ 63.1209(j)(2), 63.1209(k)(3), 63.1209(m)(2), 63.1209(n)(5), and 63.1209(o)(2) as references.

The maximum stack gas flow rate is based on the average of the stack gas flow rate measurements from each test run during the trial burn, and is implemented on an hourly rolling average basis. An AWFCO will be triggered if this limit is exceeded.

HAZARDOUS WASTE PROHIBITED FROM TREATMENT IN RF-2

Table V-2 sets the allowable hazardous constituents that may be treated in RF-2 by referencing Permit Condition II.H.5, which has been revised to reflect the wastes that are prohibited from treatment in RF-2. The only type of hazardous waste that the facility may treat is spent carbon.

Revised Permit Conditions II.H.5.b and II.H.5.c prohibit the Facility from receiving dioxin or furan hazardous waste or leachate. The operator has voluntarily agreed to not receive such waste for treatment, with the understanding that the MACT Subpart EEE requirement for 99.9999% destruction removal efficiency (DRE) standard would not be imposed on RF-2. Instead, the unit would be subject to a 99.99% DRE. See, e.g., 40 CFR § 63.1219(c).

Revised Permit Conditions II.H.5.a. and II.H.5.f. prohibit the facility from receiving radioactive, nuclear, or mixed waste. The operator has voluntarily agreed to not receive such waste for treatment, stating that "the Facility will not accept spent carbon containing . . . regulated levels of radioactive wastes (as regulated by the Nuclear Regulatory Commission) . . ." See Permit Attachment Section C at C.2.6.

Revised Permit Condition II.H.5.d. prohibits the Facility from receiving TSCA-regulated levels of PCBs. The operator has voluntarily agreed to not receive such waste for treatment, stating that "the facility will not accept spent carbon containing . . . TSCA-regulated levels of PCBs . . ." See Permit Attachment Section C at C.2.6.

Revised Permit Condition II.H.5.e. prohibits the Facility from receiving medical or infectious wastes. The operator has voluntarily agreed to not receive such waste for treatment, stating that "the facility will not accept spent carbon containing . . . infectious wastes . . ." See Permit Attachment Section C at C.2.6.

Revised Permit Condition II.H.5.g. prohibits the Facility from receiving corrosive or reactive wastes. The operator has voluntarily agreed to not receive such waste for treatment, stating that "the facility will not accept spent carbon containing . . . spent carbon exhibiting
the characteristics of corrosivity (40 CFR 261.22) or reactivity (40 CFR 261.23)." See Permit Attachment Section C, at C.2.6.

Revised Permit Condition II.H.5.h. prohibits the Facility from receiving any benzidine-contaminated waste bearing the hazardous waste code U021. The operator has voluntarily agreed to not receive such waste for treatment.* See "2007 07 13 Email_Re_benzidine.pdf."
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* The Facility operator's risk assessment determined that roughly 30% of the total cancer risk is associated with a single constituent – namely benzidine. The type and nature of adverse health impacts associated with chronic benzidine exposure can be found in the IRIS website at: https://cfpub.epa.gov/ncea/iris2/chemicalLanding.cfm?substance_nmbr=135.

V-13. One commenter asserted that RCRA compels EPA to "avoid duplication, to the maximum extent practicable, with the appropriate provisions of the Clean Air Act…" and that RCRA precludes EPA's regulation of air emissions, including fugitive emissions, from carbon regeneration units because the Agency failed to promulgate air emissions regulations for carbon regeneration units in the 1980s. [See draft Permit conditions V.C. and V.E.]

RESPONSE: While the Region recognizes that it should seek to avoid duplication between RCRA and the CAA, it disagrees that EPA lacks the authority to promulgate air emission rules for the monitoring and control of air emissions, including fugitive emissions, at hazardous waste treatment, storage and disposal facilities. As noted by the commenter, RCRA section 3004(n) directs EPA to regulate air emissions from hazardous waste treatment, storage and disposal facilities:

> "AIR EMISSIONS
>
> Not later than thirty months after November 8, 1984, the Administrator shall promulgate such regulations for the monitoring and control of air emissions at hazardous waste treatment, storage, and disposal facilities, including but not limited to open tanks, surface impoundments, and landfills, as may be necessary to protect human health and the environment." RCRA 3004(n).

(See also, *e.g.,* 78 FR 9112, at 9128/2, Feb. 7, 2013 [discussing EPA's authority to regulate certain types of uncontained gases under RCRA], and 45 FR 33154, at 33166/1-3, May 19, 1980 [explaining the Agency's approach to the regulation of volatile hazardous waste air emissions under RCRA].)

While the Region appreciates the commenter's concerns, it does not regard its regulation of these emissions under RCRA as an unauthorized duplication of its CAA authority. The full text of RCRA Section 1006(b)(1) reads as follows:

> "The Administrator shall integrate all provisions of this chapter for purposes of administration and enforcement and shall avoid duplication, to the maximum extent practicable, with the appropriate provisions of the Clean Air Act [42 U.S.C. 7401 et seq.], the Federal Water Pollution Control Act [33 U.S.C. 1251 et seq.], the Federal Insecticide, Fungicide, and Rodenticide Act [7 U.S.C. 136 et seq.], the Safe Drinking Water Act [42 U.S.C. 300f et seq.], the Marine Protection,

> Research and Sanctuaries Act of 1972 [16 U.S.C. 1431 et seq., 1447 et seq., 33 U.S.C. 1401 et seq., 2801 et seq.], and such other Acts of Congress as grant regulatory authority to the Administrator. Such integration shall be effected only to the extent that it can be done in a manner consistent with the goals and policies expressed in this chapter and in the other acts referred to in this subsection."

To the extent that the draft Permit sought to impose the CAA requirements associated with the Facility's benzene operations under 40 CFR Part 61, Subpart FF through the RCRA permitting authority, the Region acknowledges that such provisions in the draft RCRA permit were unnecessary and potentially duplicative. As a result, the draft Permit conditions that were based solely on these CAA benzene NESHAP regulations have been removed from the final Permit. To the extent that these requirements are applicable to the Facility's emissions, they apply independently from the RCRA permit.

On the other hand, where the Region drew from the CAA requirements associated with emissions from hazardous waste combustion facilities found at 40 CFR Part 63, Subpart EEE, the final Permit retains the requirements for which the Region is providing a technical basis. The reason for retaining these specific Subpart EEE standards -- as opposed to the Subpart FF standards -- is that, while the Subpart FF standards apply to the Facility because it receives waste from facilities that are subject to Subpart FF, the Subpart EEE standards are *not* independently applicable to carbon regeneration units such as RF-2. Since carbon regeneration units are not defined under RCRA as incinerators, nor under the CAA as hazardous waste combustors, and are therefore not regulated as hazardous waste combustion units under Subpart EEE, the application of the standards to the Facility through the use of RCRA's authority to regulate miscellaneous units in a permit is duplicative of no other statutory requirement. Thus, the inclusion of the Subpart EEE standards in the Permit in no way implicates RCRA 1006(b).

The Region disagrees that the language cited above from RCRA Section 3004(n) only provided EPA with a "limited window" within which to promulgate air emission standards, including fugitive emission standards, for TSDs under RCRA. Rather, the November 8, 1984 date constituted a deadline by which Congress wanted EPA to act. Nothing in this provision prohibits EPA from promulgating RCRA air emissions standards after November 8, 1984.

V-14. One commenter recommended deleting draft Permit condition V.C.1.ix as an inappropriate condition for a RCRA permit.

RESPONSE: Draft Permit condition V.C.1.ix, renumbered as Permit condition V.C.1.h., compelled compliance with monitoring standards for incinerators under the MACT EEE requirements. The Region agrees that the broad incorporation of these standards by reference into this Permit condition is inappropriate. Monitoring requirements for RF-2 are found in Permit attachment section D. Permit condition V.C.1.h. now refers to Permit Attachment Section D as the source for the monitoring requirements for RF-2. The Region notes that Permit Attachment Section D includes its own internal

references to 40 CFR § 63.1209 as the source for the monitoring standards included in Permit Attachment Section D.

The applicant/operator has proposed a number of different monitoring systems in Section D of its Permit application, which is incorporated into the Permit as Permit Attachment Section D. These monitoring systems, include, for example, the continuous emission monitoring system, the continuous monitoring system, and other means of ensuring that the carbon regeneration and air pollution control devices are operating properly. These monitoring systems ensure that the furnace and all its associated equipment meet the parameters established during the trial burn and the limits set as a result of the permitting process.

V-15. One commenter recommended deleting draft Permit condition V.C.1.x. as an inappropriate condition for a RCRA permit.

RESPONSE: Draft Permit condition V.C.1.x. repeated a standard found in the MACT EEE requirements that equates violations of operating requirements to violations of emission standards. The Region agrees that it is an inappropriate condition for a RCRA permit insofar as a violation of any permit requirement is a violation of the Permit and need not be equated to the failure to ensure compliance with an emission standard. As a result, the Region had deleted draft Permit condition V.C.1.x.

V-16. One commenter objected to the Region's inclusion of dioxin and particulate matter emission limits based on a number of factors pertaining to the specific design parameters associated with RF-2 and its pollution control equipment.

RESPONSE: The draft Permit included limits for dioxin that were established by the Permit applicant during the PDT and memorialized in Permit Attachment Section D (Table D-4). Based on the results of the Permittees' human health and ecological risk assessment, the Region accepted the dioxin limit in Section D and has included it as a performance parameter to be demonstrated during the PDTs required under the Permit. The Region acknowledges that many of the controls associated with RF-2 are likely to ensure dioxin emissions remain well beneath acceptable limits. However, the unique nature of RF-2 -- in terms of its particular combination of reactivation furnace, afterburner, packed bed scrubber, and wet electrostatic precipitator, in that order – demands a periodic evaluation as part of the PDT. The Region also believes that the relatively small burden imposed on the Permittees to demonstrate the dioxin standard every five years is warranted. In making its Permit decision, the Region has considered the constituent-specific health risks associated with -- and community concerns raised during the permitting process about -- dioxin emissions. See also the Region's Response to Public Comment V-12, above, regarding the dioxin/furan emission standard.

The draft Permit included limits for particulate matter based on the standards for incinerators set forth at 40 CFR § 63.1219(a)(7), rather than the standard in the Permit Attachment Section D (Table D-4). As explained in the Region's Responses to Public Comments V-8, V-10, V11, and V-12 above, the Region merged the Draft Permit Tables V-1 and V-4. The revised Permit Table V-1 establishes the

particulate matter operating parameter limit (Column 3) based on the MACT EEE interim standard at 40 CFR § 63.1203, since this is the standard that was used during the 2006 trial burn test as a guide to developing the unit's operating parameter limits.

However, Permit Attachment Section D acknowledges that,

> "[a]t the time of the PDT, the appropriate standards were found in 40 CFR 63.1203, and are reflected in the table [D-4]. Since completion of the PDT, the regulations at Subpart EEE have been changed, and revised standards have been added at 40 CFR 63.1219. A review of the RF-2 PDT results indicate that the unit meets the new standards at 40 CFR 63.1219." See Permit Attachment Section D at page D-20.

As a result, the Region is retaining the standard derived from 40 CFR § 63.1219(a)(7) for particulate matter in Table V-1 (Column 2) and is also requiring this MACT EEE replacement standard to periodically be used as a guide during the PDTs to occur every five years.

The Facility processes solid and liquid hazardous waste, of which small particles can form prior to and within the treatment system. These small particles can then get entrained in the stack gases and emitted into the atmosphere. Permit Attachment Section D includes numerous references to air pollution control equipment that is used to control particulate matter. See, *e.g.*, Permit Attachment Section D at Section D.1.1. As with the dioxin standard, the relative burden on the Permittees to demonstrate continued compliance with the particulate matter interim standard is warranted considering the health concerns associated with inhalation of particulate matter. See the Region's Response to Public Comment V-12, above, regarding the particulate matter emission standard.

V-17. One commenter recommended revisions to draft Permit condition V.C.2.b. to clarify the circumstances in which the SSMP must be implemented.

RESPONSE: The Region agrees that the draft Permit condition was susceptible to further clarification and has revised Permit condition V.C.2.b. accordingly. As the commenter points out, the SSMP exists to provide procedures to follow when there is a start-up, shut down or malfunction, when the unit is not in steady state operation. While the Region believes that such events might result from events which themselves may be or were caused by permit violations, that was not the focus of this Permit condition V.C.2.b. However, in response to this commenter's concerns, the Region has revised Permit condition V.C.2.b. such that it now requires that the Permittees "implement" the SSMP anytime there is an SSMP event in order to ensure that impacts from such events are avoided or minimized. Thus, the focus of the provision has been clarified to pertain to minimizing impacts from start-up, shutdown or malfunction events.

The commenter has suggested a revision to the draft Permit that appears to provide for a temporary suspension of the emission standards and other operating requirements during startup, shutdown, or malfunction events. The Region notes that this language is also included in the SSMP:

> "Emission standards and operating limits do not apply during periods of startup, shutdown, and malfunction. Facilities are exempted from emission standard and operating limit violations during startup, shutdown, and malfunction events, ***provided the SSMP procedures are followed and compliance with the SSMP is properly documented.***" See Permit Attachment Appendix XXII, at Section 1.0. (Emphasis added.)

The assertion that facilities are "exempted from emission standard and operating limit violations during startup, shutdown, and malfunction events, provided the SSMP procedures are followed and compliance with the SSMP is properly documented" presumes that the unit is subject to a prescribed set of requirements as opposed to a set of site-specific requirements imposed through a RCRA hazardous waste permit. Here, however, so long as the SSMP procedures are complied with and documented, the Permittees are subject to procedures spelled out in the SSMP, which are designed to minimize impacts from start-up, shutdown or malfunction events. These are spelled out in the SSMP with specific reference to the procedures for starting up RF-2, shutting down RF-2 (including emergency shutdowns), and responding to malfunctions relating to RF-2. These SSMP requirements restrict operations during start-ups, (*e.g.*, maximum carbon monoxide stack gas flow rate must not be exceeded during a start-up event), and shutdowns, (*e.g.*, the SSMP requires air pollution control equipment to remain operational to the extent possible during a malfunction, since there are approximately 38 minutes during which spent carbon may continue being processed after waste feed is cut-off).

Thus, despite the quoted language, miscellaneous units like RF-2 are subject to the conditions specified in the Facility's RCRA hazardous waste Permit, based on the Agency's determination on a site by site basis as to what is necessary to protect human health and the environment. Miscellaneous units may be "exempted" from some requirements during SSMP events so long as the permitting authority determines that operating requirements applicable during SSMP events continue to be protective of human health and the environment. See 40 CFR § 264.601. Here, certain controls for SO2 and NOx are also imposed by consent of the Permittees in order to control emissions of these pollutants below Title V major source limits.

The Region notes that RCRA provides alternatives with respect to SSMPs for incinerators, cement kilns, lightweight aggregate kilns, solid fuel boilers, liquid fuel boilers, and hydrochloric acid production furnaces in accordance with 40 CFR § 270.235. Comparison of the SSMP for this Miscellaneous Unit at Permit Attachment Appendix XXII with the options described in the RCRA regulations shows that this Facility's SSMP generally follows the option listed at 40 CFR § 270.235(a)(2)(ii)(*1*), "RCRA Option B." This option requires that permits include conditions "that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history…" This Permit includes similar language at Permit Condition V.C.2.a. ("The Permittees shall implement the Start-up, Shutdown, and Malfunction Plan [SSMP] to minimize emissions of toxic compounds from startup, shutdown, and malfunction events.")

The Facility's SSMP describes how startup, shutdown, and malfunction procedures were developed for the carbon regeneration system based on a review of information about the design and operating history of RF-2 by a multi-disciplinary team, and how the operator will respond if unforeseen malfunctions occur. The SSMP also describes the monitoring, recordkeeping, and reporting requirements associated with startup, shutdown, and malfunction events. These provisions – coupled with the SSMP as a whole -- satisfy the Region's need to ensure protection of human health and the environment during these events.

To the extent that SO2 and NOx emissions parameters have not been specifically addressed in the SSMP, the Region has endeavored to ensure that the RCRA permit's controls and emission limits for SO2 and NOx continue to apply even during start up, shutdown and malfunction events. For SO2, once the Waste Analysis Plan (WAP) is modified to identify and include a sulfur feed rate limit as part of RF-2's SO2 controls (pursuant to revised Permit Condition I.K.3), sulfur would then be treated like all other parameters associated with specific feed rate limits whereby sulfur levels in the feed would be sampled and analyzed regularly whenever spent carbon is fed into the unit. Thus, feed sampling would begin and end with waste fed into the unit, and waste feed is specifically addressed in the SSMP as part of any planned start up or shut-down, as part of any emergency or unplanned shutdown, and as part of any malfunction. Pursuant to this framework, there would be no operation of the unit without continuous controls (*i.e.*, feed rate limits) to ensure that SO2 emissions remain below the Permit limit of 30 tons per year.

Similarly, NOx emissions are controlled by monitoring and recording monthly natural gas usage in accordance with Permit Condition V.C.6.b. The Region has added clarifying language to this Permit Condition indicating that the monitoring of natural gas usage on a monthly basis must be maintained even for those months when startup, shutdown, or malfunction events occur. Thus, pursuant to this framework, there would also be no operation of the unit without continuous controls (*i.e.*, recording natural gas usage) to ensure that NOx emissions remain below the Permit limit of 22 tons per year.

The Region has revised Permit Condition V.C.1.b, (which was draft Permit condition V.C.1.ii) to except SO2 and NOx emissions from the general requirement, such that, so long as the SSMP is followed, the emission standards and operating requirements are not applicable during periods of startup, shutdown and malfunction, and when spent carbon is not in the reactivation furnace (RF-2). This exception is necessary to allow the Permit's emission limits for SO2 and NOx to constitute practically enforceable limits in lieu of a CAA Title V permit.

Finally, Section 4.5 of the SSMP also states:

> "If the SSMP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, EWT will revise the SSMP within 45 days after the event to include detailed procedures for operating and maintaining the spent activated carbon reactivation process during similar malfunction events and a program of corrective action." See Permit Attachment Appendix XXII.

The Region notes that revisions to the SSMP will require a Permit modification because the SSMP is incorporated into the Permit as Permit Attachment Appendix XXII. Modifications to the SSMP should be proposed in accordance with Permit Condition I.G.7. Such changes might, as a practical matter, include the modification of SSMP Section 4.5 to clarify that changes to the SSMP should be ***initiated*** within 45 days after the malfunction event, but that, because the SSMP has been incorporated into the Permit at Permit Attachment Appendix XXII, such changes must also be undertaken in accordance with the permit modification procedures set forth at 40 CFR Parts 124, 264, and 270. Such modifications, where relatively minor, may be proposed as Class 1 permit modifications without prior Director approval, as appropriate.

In revising Permit condition V.C.2.b., the Region also incorporated the language from draft Permit condition V.C.1.viii. regarding implementation of the SSMP during continuous monitoring system (CMS) instrument malfunctions. This draft Permit condition V.C.1.viii. was then deleted, to avoid duplicative permit conditions.

STARTUP SHUTDOWN AND MALFUNCTION PLAN (SSMP)

The applicant/operator's SSMP is incorporated into the Permit as Permit Attachment Appendix XXII. According to this document, the purposes of the SSMP are as follows:

- To ensure that the reactivation furnace unit, including emission control equipment is operated and maintained in fulfillment of [the Permittees'] general duty to minimize emissions to the greatest extent in a manner consistent with good air pollution control practices.
- To ensure that owners and operators are prepared to correct malfunctions as soon as practicable.
- To minimize the reporting burden associated with excess emissions. The SSMP should address startup, shutdown, and malfunction events of the thermal treatment process that could result in an emission or operating limit exceedance.

Permit Condition V.C.2.d., continues to require the maintenance of an SSMP in the Operating Record for the operating life of the unit. This ensures that Facility personnel will always have ready access to the SSMP in the event of a malfunction, shutdown, or when restarting the unit.

V-18. One commenter stated that the Region failed to provide technical justification for requirements imposed on RF-2. To be comprehensive, the Region interprets this broad comment to include a comment seeking the Region's technical basis for requiring the maintenance, calibration and operation of monitoring equipment associated with RF-2 and the related obligation to record the data required by the Permit while the Facility is processing spent carbon in RF-2. [See draft Permit condition V.C.3.]

RESPONSE: Please refer to the Region's Response to Public Comment V-14, above, regarding the reasons for including a variety of monitoring requirements associated with the operation of RF-2 in the Permit. It is important for the equipment to be maintained and calibrated to make sure it is functioning properly. Most of the data needs to be retained for three years in accordance with Permit Condition V.G.1 in order to ensure an adequate historical record of compliance with the requirements. Please refer to the Region's response to Public Comment V-35, below, regarding the record keeping requirements of Module V, in general.

MAINTAINING INSTRUMENTATION

Draft Permit Condition V.C.4.i. has been renumbered as Permit Condition V.C.4.a. This provision references Table V-3, which includes the maintenance and calibration requirements for a variety of instruments necessary to ensure proper operation of RF-2. Each of these instruments is included in the Permit Application's Table D-3, reflecting appropriate calibration and maintenance practices. See Permit Attachment Section D, at Table D-3. For all of these instruments, the reasons for requiring periodic calibration and maintenance are self-evident.

For example, it is important to calibrate the oxygen monitor since all emission standards listed in Table D-4 of Permit Attachment Section D (except DRE) are corrected to 7% oxygen. It is also important to calibrate the carbon monoxide CEMS, since it is the indication used for incomplete combustion and, if it exceeds the standard (100 ppmdv), an automatic waste feed cutoff will be triggered. Both monitors are calibrated daily because they are so crucial to proper monitoring of system operations and stack emissions. See Table D-4 of Permit Attachment Section D.

Permit Condition V.C.4.a. also requires the performance of quality assurance and quality control in accordance with 40 CFR Part 60's QA/QC requirements. Quality assurance and quality control procedures help in evaluating data quality correlating to emissions monitoring and unit performance. Maintaining appropriate records relating to these procedures helps ensure they are both in place and followed.

V-19. One commenter recommended deletion of draft Permit condition V.C.4.ii and revisions to draft Permit condition V.C.4.iii, which were cited as "burdensome and expensive," "vague and malleable," and "arbitrary and capricious."

RESPONSE: In light of the commenter's claims that the requirements as proposed in the draft Permit would be burdensome and expensive, the Region has deleted draft Permit condition V.C.4.ii and modified what was draft Permit condition V.C.4.iii., renumbered as Permit condition V.C.4.b. The Region has also modified Permit condition V.C.4.b. to address the commenter's concerns, albeit with some changes from what was recommended by the commenter. The reference to 40 CFR § 63.8 has

been removed, given the broad language already included in Permit Condition V.C.4.a., Table V-3, and Permit Attachment Section D.

V-20. One commenter suggested changes to draft Permit conditions V.C.5.i. and V.C.5.v. in order: (1) to clarify that a malfunction of the Automatic Waste Feed Cutoff (AWFCO) system would not constitute a Permit violation if the SSMP were followed; and (2) to delete the requirement to follow the MACT EEE requirements in the operation of the AWFCO system.

RESPONSE: Certain operating parameters (*i.e.,* Group A1 and A2), when they are not met, trigger an automatic cutoff of the spent carbon being fed to RF-2. Because these parameters are crucial to proper system operations and controlling stack emissions, operations outside of these parameters leads to the automatic cutoff of the feed to the hearth.

The Region agrees that if the AWFCO system malfunctions and the SSMP is followed as a result, there would be no Permit violation and the Region deleted the word "functioning" from draft Permit condition V.C.5.i., renumbered as Permit condition V.C.5.a., to clarify that intent. The Region agrees with the comment to reference the Permit instead of the MACT EEE regulations for implementation of the AWFCO procedures and has made revisions accordingly to Permit conditions V.C.5.a. and V.C.5.e., (the latter of which was proposed as draft Permit condition V.C.5.v).

V-21. One commenter objected to language in the draft Permit requiring the Permittees to "automatically" cut off the feed to RF-2 upon the occurrence of certain specified events as duplicative of the draft Permit condition requiring the Permittees to have an "automatic" waste feed cut off system in place. [See draft Permit condition V.C.5.ii.]

RESPONSE: The Region agrees with the commenter and has revised the language in draft Permit condition V.C.5.ii., renumbered as Permit condition V.C.5.b., accordingly.

V-22. One commenter objected to the use of the words "met or exceeded" for the parameters in the draft Permit. [See draft Permit condition V.C.5.ii.a.]

RESPONSE: The Region agrees with the commenter and has modified the draft Permit condition V.C.5.ii.a., renumbered as Permit condition V.C.5.b.i., to use the word "exceeded" for the Group A1 and Group A2 parameters on Table V-2 that have associated "maximum" values and the word "met" for all the other Group A1 and Group A2 parameters, which have associated "minimum" values listed on Table V-2.

V-23. One commenter suggested deleting all of draft Permit condition V.C.5.v.c.

RESPONSE: The Region has revised draft Permit condition V.C.5.v.c., renumbered as Permit condition V.C.5.e.iii., to delete references to the MACT EEE requirements. However, the Region has retained the requirement to conduct an investigation and submit a summary report to the Director for approval after any 10 exceedances during any 60-day block of time. The Region is cautiously optimistic that exceedances will be few and far between and that the occurrence of 10 such events in any 60-day

period would signal a serious problem with the operation of RF-2. The Region maintains that the serious nature of the occurrence of 10 exceedances within a 60-day window warrants investigation and evaluation of the causes of the exceedances and potential remedies. Thus, while the substance of the draft Permit condition V.C.5.v.c. is preserved, unnecessary references to the MACT EEE regulations have been removed from Permit condition V.C.5.e.iii.

V-24. One commenter asserted that the Region failed to provide technical justification for certain feed rate limitations imposed on RF-2. To be comprehensive, the Region interprets this broad comment to include a comment seeking the Region's technical basis for prohibiting the Permittees from starting the waste feed to RF-2 until the operating parameters specified in Table V-2 and the CEMS have returned to within the operating limits. [See draft Permit condition V.C.5.vii.]

RESPONSE: Permit Attachment Appendix XXII, the SSMP, establishes appropriate procedures for restarting the waste feed after a shutdown. The SSMP requires that all AWFCOs "be satisfied in order to initiate a feed start." The Region understands this to mean that spent carbon feed would not begin until the operating parameters and emission levels are within the limits established in the Permit. Such a requirement is consistent with 40 CFR § 63.1206(c)(3)(iii) and with the Subpart P interim status requirement for thermal treatment units like RF-2 at 40 CFR § 265.373. The MACT Subpart EEE regulation requires continued monitoring during the cutoff of the operating parameters for which limits are established under 40 CFR § 63.1209. It also requires the emissions that are monitored by a CEMS, pursuant to 40 CFR § 63.1209 continue to be monitored. Owners and operators of facilities subject to the MACT Subpart EEE requirement may not restart the hazardous waste feed "until the operating parameters and emission levels are within the specified limits." 40 CFR § 63.1206(c)(3)(iii). Meanwhile, the RCRA interim status, baseline requirement for RF-2 set forth at 40 CFR § 265.373, requires thermal treatment units be brought "to steady state (normal) conditions of operation—including steady state operating temperature" before hazardous waste may be added to the system.

Consistent with the RCRA Subpart P interim status requirement, the MACT Subpart EEE requirement and the SSMP, draft Permit Condition V.C.5.vii., renumbered as Permit condition V.C.5.g., prohibits restarting the waste feed "until the operating parameters specified in Table V-2 and the CEMS have returned to within the operating limits."

V-25. One commenter suggested deleting draft Permit condition V.C.5.viii as duplicative of the SSMP.

RESPONSE: The Region has deleted draft Permit condition V.C.5.viii (Failure of an AWFCO) since it is duplicative of Section 4.6 of the SSMP (Appendix XXII), which also includes the language about stopping the waste feed as quickly as possible. It is important that the waste feed to RF-2 be stopped as quickly as possible if one of the Group A1 or A2 parameters listed in Table V-2 are not met, to ensure that the unit meets these operating parameters. If the AWFCO system fails to cut off the flow of spent carbon, the SSMP requires the feed be cut off as quickly as possible as a fallback, safety precaution.

V-26. One commenter suggested deleting draft Permit condition V.C.5.ix. as it duplicates the inspection schedule and checklist, Permit Attachment Section F and Permit Attachment Appendix XII, and imposes burdensome and unwarranted recordkeeping requirements.

RESPONSE: The Region has revised the first sentence of draft Permit condition V.C.5.ix., renumbered as Permit condition V.C.5.h., in order to refer to Permit Attachment Section F. Section F includes the monthly inspection table applicable to the AWFCO system including its associated alarm systems. [See also Permit condition II.F.1.] The Region has also removed the requirement to maintain the testing procedures in the Operating Record, since Permit Attachment Section F itself includes the procedures for testing the AWFCO system.

Both the RCRA incinerator standards at 40 CFR Part 264 Subpart O[32] and the 40 CFR Part 63 Subpart EEE[33] MACT Combustor standards require the results of the AWFCO system testing be maintained. And, the Region wants the ability to review the AWFCO test results over the newly-referenced five-year period. Maintaining these records for five years ensures an adequate historical collection of AWFCO testing data is available to review during trial burn test result analysis. Therefore, the Region is requiring the Facility to keep the records for 5 years. Because of the importance of the AWFCO to ensure safe operation of the unit, the Region considers any burden imposed by the obligation to keep the records of the AWFCO testing procedures and results for 5 years to be entirely warranted and appropriate.

V-27. One commenter recommended a modification of draft Permit condition V.C.6.ii and the deletion of V.C.6.iii, arguing that the amount of natural gas burned should be preserved in regular units of gas used, not in millions of standard cubic feet (MMSCF) and, apparently, that the monthly rolling average for NOx emissions to be calculated should be changed to a calendar year basis.

RESPONSE: The Region deleted the requirement in draft Permit condition V.C.6.ii., renumbered as Permit condition V.C.6.b., to convert the natural gas used to MMSCF. However, the Region disagrees with the suggestion to deleting -- and has instead modified -- draft Permit condition V.C.6.iii., renumbered as Permit condition V.C.6.c. Permit condition V.C.6.c. reflects the calculation of NOx emissions required by the Permit. The NOx emissions limit is, in part, driven by CAA

[32] 40 CFR §§ 264.347(c) and (d):
(c) The emergency waste feed cutoff system and associated alarms must be tested at least weekly to verify operability, unless the applicant demonstrates to the Regional Administrator that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, operational testing must be conducted at least monthly.
(d) This monitoring and inspection data must be recorded and the records must be placed in the operating record required by §264.73 of this part and maintained in the operating record for five years.

[33] 40 CFR § 63.1206(c)(3)(vii): Testing. The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless you document in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, you must conduct operability testing at least monthly. You must document and record in the operating record AWFCO operability test procedures and results.

requirements for synthetic minor sources and is based on the Permit applicant operator's agreement to be bound by this limit as a condition of the RCRA permit. Permit condition V.C.6. reflects the operator's agreement as reflected in a September 19, 2016 letter to EPA. See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf." See also the Region's Responses to Public Comments V-8, V-12, V-17, above and V-39, below.

V-28. One commenter recommended deleting draft Permit condition V.C.5.v.a. as duplicative of draft Permit conditions V.C.5.ii.a. and V.C.5.viii. These draft Permit conditions addressed the operation of the automatic waste feed cutoff system for RF-2.

RESPONSE: The Region agrees with the commenter's assertion and has deleted draft Permit conditions V.C.5.v.a. and V.C.5.viii as duplicative of draft Permit condition V.C.5.ii.a, which has been renumbered as Permit condition V.C.5.b.i. Draft Permit condition V.C.5.v.a. required the AWFCO system to immediately and automatically cut off the hazardous waste feed, if the Permittees fail to meet an emission standard listed in Table V-4 or a Group A-1 or Group A-2 parameter specified in Table V-2. It also required the Permittees to cease feeding hazardous waste as quickly as possible, if the malfunction itself prevented immediate and automatic cut off of the hazardous waste feed.

Draft Permit conditions V.C.5.ii and V.C.5.ii.a., which were revised and renumbered as Permit conditions V.C.5.b. and V.C.5.b.i., respectively, require that the Permittees set the AWFCO system to stop the feed to RF-2 if the specified operating limits are not met. In addition, Permit condition V.C.5.e. requires that, during malfunctions, the Permittees are to comply with the AWFCO requirements of the Startup Shutdown and Malfunction Plan (Permit Attachment Appendix XXII).

After deleting draft Permit condition V.C.5.v.a., the Region renumbered draft Permit conditions V.C.5.v.b.(1). and V.C.5.v.b.(2). as Permit conditions V.C.5.e.1. and V.C.5.e.2., respectively.

V-29. One commenter claimed that the language of draft Permit conditions V.D.1. and V.D.2. was vague and confusing, that the use of two Tables to include "limits" is confusing and that the standards ought not apply unless hazardous waste is present in the combustion chamber.

RESPONSE: The Region made significant changes to Permit condition V.D.1 due to the merger of draft Permit Table V-1 with draft Permit Table V-4, the latter of which was then deleted. Otherwise, the Region incorporated the commenter's recommended changes to Permit condition V.D.1 to clarify the provision's intent and change the reference to the test protocols in Table V-1, as opposed to draft Permit Table V-4, which had been deleted. The Region also modified the revised Permit condition V.D.1. to clarify the meaning of the word "maintain" in the provision and to clarify that the provision applies only when there is spent activated carbon in the unit. The Region did not limit application of the provision to only when there is hazardous waste in RF-2, because the air pollution control systems need to be operated whenever RF-2 is in operation, i.e., whenever spent carbon is in the unit. See also the Region's Responses to Public Comments V-8 and V-12, above.

DRAFT FAN AND EMISSIONS STACK

A variable speed induced draft fan is provided to exhaust combustion gases from the furnace and afterburner and through the air pollution control system. The 110-foot high stack is used to exhaust the effluent stream to the atmosphere across a large dispersion area.

V-30. One commenter suggested deleting draft Permit condition V.D.3, which would have required the Permittees to perform any necessary operations and air pollution control equipment maintenance to minimize emissions.

RESPONSE: The Region agrees with the commenter and has deleted draft Permit condition V.D.3. Draft Permit condition V.D.3 is duplicative of draft Permit conditions that require the Permittees to meet emission limits. It is also potentially duplicative of Permit condition II.B.1, which requires the Permittees to "maintain and operate the Facility to minimize the possibility of . . . any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment."

V-31. One commenter suggested deleting draft Permit condition V.D.4 as beyond the Region's authority, contending that the draft Permit condition is based on a CAA standard and cannot be imposed on the Permittees via a RCRA permit.

RESPONSE: The Region disagrees with the commenter because EPA has the authority to impose conditions in the RCRA permit that are necessary to protect human health and the environment. This is especially true where, as here, the unit in question is a "Miscellaneous Unit" regulated under 40 CFR Part 264, Subpart X, as explained previously. Here, the draft Permit condition required the Permittees, "to the extent practicable," to maintain and operate RF-2's equipment in a manner consistent with good air pollution control practice for minimizing emissions. It was based on a Clean Air Act requirement found at 40 CFR § 61.12(c), but mirrors statements made repeatedly in the Facility's Permit application. See, *e.g.*, Permit Attachment Appendix XXII, Startup, Shutdown and Malfunction Plan at Section 2 ("This SSMP has been developed to provide guidance for operating and maintaining the spent carbon thermal treatment process during startup, shutdown, and occurrence of malfunctions ***in a manner consistent with safety and good air pollution control practices for minimizing emissions***." [Emphasis added.])

However, based on the commenter's concerns, the Region has nonetheless deleted draft Permit condition V.D.4 as unnecessary. The existence of other Permit conditions that require proper operation and maintenance of RF-2 and all its associated equipment suffice for the purposes of ensuring that the Permittees exercise "good air pollution control practice." See, *e.g.*, Permit conditions II.B.1 and V.C.

V-32. One commenter suggested deleting draft Permit condition V.E.1. regarding fugitive emissions as a CAA requirement that is beyond the Region's authority to include in a RCRA permit.

RESPONSE: The basis for controlling fugitive emissions from RF-2 is that such a requirement is "necessitated by the danger of escape of fugitive emissions -- including hazardous waste constituents -- that could threaten human health or the environment." 46 FR 7666, Jan. 21, 1981. "Where feasible this should be through total sealing of the combustion zone." Id. The imposition of operating parameters on combustion unit fugitive emissions -- also referred to in some CAA requirements and preambles as "combustion system leaks" -- is necessary to ensure that these emissions do not leak from the combustion device, air pollution control devices, or any ducting connecting them. See 61 FR 17358, April 19, 1996.

Contaminants must be properly controlled and fugitive emissions from the combustion zone must be avoided to ensure that emissions from the Facility do not exceed the assumptions made regarding the Facility's emissions as part of the Facility's risk assessment.

For this Facility, the Permit application's attachment "Section D," incorporated as Permit Attachment Section D to the Permit, included an analysis of the potential for fugitive emissions from RF-2. This submittal from the Facility operator indicates that the design of RF-2 constitutes a complete seal such that fugitive emissions from the unit are not possible, and that this design, therefore, constitutes compliance with the MACT EEE standard for combustion units at 40 CFR § 63.1206(c)(5) (which is identical in all relevant ways to the RCRA fugitive emissions standards for incinerators and BIFs). See also Draft Permit Attachment Section D.

Permit Attachment Section D.5.6.3 describes how the Facility satisfies the fugitive emission standard in 40 CFR § 63.1206(c)(5) -- as applied to RF-2 -- by design. By design, the combustion chamber constitutes a sealed system. There are no locations for combustion system leaks to occur from the combustion zone. Therefore, the RF-2 system complies with 40 CFR § 63.1206(c)(5)(i)(A). The Region has evaluated the assertion regarding the unit's compliance with the standard and concurs with the information in the Permit Attachment Section D. However, the Region disagrees with the commenter's suggestion that draft Permit condition V.E.1. be deleted in its entirety. This unit meets this standard by design but it must also continue to do so.

"Fugitive" emissions are by nature, uncontrolled, and their causes may also be unforeseen. The Region has retained the language in Permit condition V.E.1. requiring compliance with the fugitive emissions standard described in the Permit application in part so that it can be properly enforced if there are any leaks from the combustion zone for any reason, including any currently unforeseen reason.

The Region deleted references to 40 CFR Parts 61 and 264 from Permit condition V.E.1, but kept the rest of the Permit condition with revisions and additional references to Permit Attachment Section D.

V-33. One commenter suggested deleting draft Permit condition V.E.2. regarding fugitive emissions as a CAA requirement that is beyond the Region's authority to include in a RCRA permit.

RESPONSE: The Region deleted draft Permit condition V.E.2 because: (1) the Region has removed references to 40 CFR Part 61, Benzene NESHAP requirements for reasons referenced previously in the Region's Response to Public Comment V-13, (regarding Permit conditions V.C. and V.E.); (2) the reference to 40 CFR Part 264 Subpart CC was unnecessary since RF-2 is already addressed in Permit Attachment Appendix XX, the CC Compliance Plan; and (3) regulation of the fugitive emissions from the hearth is also addressed under Permit condition V.E.

V-34. One commenter suggested revisions to draft Permit condition V.F.1, arguing that the Region lacks authority to impose on RF-2 either the inspection requirements of 40 CFR Part 264, Subpart O, or the inspection requirements for hazardous waste combustion units set forth at 40 CFR Part 63, Subpart EEE. The same commenter suggested deletion of draft Permit conditions V.F.2 and V.F.3 as duplicative of the inspection requirements included elsewhere in the draft Permit and deletion of draft Permit condition V.F.4 (and the similar requirements in draft Permit condition V.I) as unnecessary considering the Permittees' obligations to periodically test RF-2.

RESPONSE: The commenter's recommended citation, (referring to 40 CFR Part 264's general inspection requirements, rather than to the specific inspection requirements of 40 CFR Part 264, Subpart O, or the inspection requirements for hazardous waste combustion units set forth at 40 CFR Part 63, Subpart EEE), has been added to draft Permit condition V.F.1., which was renumbered as Permit condition V.F. This revision was appropriate because Permit Attachment Section F and Permit Attachment Appendix XII include specific requirements for the inspection of RF-2.

For example, routine inspections are required in order to find leaks, spills, fugitive emissions, and signs of tampering early enough to correct the deficiency and prevent consequences that could harm human health or the environment. See *e.g.,* the Daily RCRA Inspection Checklist in Permit Attachment Appendix XII. See also Permit Attachment Section F.

The Region also agrees with the commenter's suggestion to delete draft Permit conditions V.F.2. and V.F.3. These provisions required the Permittees to thoroughly, visually inspect RF-2 at least daily, for leaks, spills, fugitive emissions, and signs of tampering and to thoroughly, visually inspect the instrumentation for out-of-tolerance monitored and/or recorded operational data, respectively. The inspection obligations contained in draft Permit conditions V.F.2 and V.F.3 are already set forth in Permit Attachment Section F and need not be restated in these conditions.

Draft Permit Condition V.F.4. required the Permittees, upon request of the Director, to perform sampling and analysis of the waste and exhaust emissions to verify that the operating requirements established in the Permit are being met. The Region agrees with the commenter's suggestion to delete the provision, because the Performance Demonstration Tests required to be performed periodically on

RF-2 will satisfy the Region's need for routine, periodic sampling and analysis of the exhaust emissions. In addition, the Facility's waste analysis plan (WAP) should address and satisfy the Region's need for routine, periodic sampling and analysis of the waste streams being fed to RF-2. The Region has broader authority under Permit Condition I.E.7 to request information from the Permittees to "furnish to the Director or the Enforcement Director, as appropriate, within a reasonable time, any relevant information which that the Director or the Enforcement Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Permit, or to determine compliance with this Permit." See Permit Condition I.E.7.

Draft Permit Condition V.I. also required the Permittees to conduct sampling and analysis of "the waste, soil and/or groundwater at or around the Facility, and exhaust emissions." The Region has deleted draft Permit Condition V.I., because the PDTs will satisfy the need for sampling and analysis of exhaust emissions and the WAP will satisfy the need for sampling and analysis of the waste. Additionally, sampling and analysis of soil and groundwater around the Facility may be required as part of closure of the Facility or if circumstances so warrant. See Permit Condition V.H and Permit Module VI.

If information not currently available to EPA becomes available later and that information warrants additional sampling and analysis beyond what the PDT, WAP, and closure provisions currently provide, the Region may explore a Permit modification in accordance with 40 CFR § 270.41, as well as other remedies and means of obtaining such information, including seeking the information in accordance with RCRA Section 3007, 42 USC § 6927. See, *e.g.*, Permit Condition I.E.7.

V-35. One commenter objected to the five-year record-keeping requirement contained in draft Permit condition V.G.1 in favor of a three-year record-keeping requirement for monitoring and inspection data pertaining to RF-2. The same commenter also recommended revisions to draft Permit condition V.G.3 to change citations to regulatory provisions from the CAA MACT EEE standards to refer instead to the Start-up Shutdown and Malfunction Plan.

RESPONSE: In general, recordkeeping requirements are an integral part of EPA's implementation of its hazardous waste permitting program. See *e.g.,* RCRA Section 3004(a)(1), 42 USC § 6924(a)(1). Recordkeeping requirements pertaining to RF-2 are required by the Permit to ensure that specific work practices are being followed.

During interim status, the RCRA Part 265, Subpart P standards for thermal treatment units like RF-2 require that most records be maintained in the Operating Record for three years (although some records must be kept until closure of the Facility). See 40 CFR § 265.73(b). The Region believes that records pertaining to RF-2's operations, including monitoring, testing or analytical data, must also be maintained *after* issuance of the Permit so that the Permittees, as well as the Region, are able to review and evaluate RF-2's performance and Permit compliance over time.

However, after reconsidering the Region's proposal that the Permittees maintain most records related to RF-2 for five years, the Region has revised Permit condition V.G. to reduce the records retention period for most records from the five-year retention period proposed in the draft Permit to a three-year records retention period. This change would not apply to any records that must be maintained until closure of the Facility. The three-year records retention requirement is consistent with RCRA's general operating record requirement at 40 CFR § 264.73(b).

The Region has retained the following three exceptions to the three-year record retention requirement such that the following records must be maintained for five years:

- Continuous monitoring records of combustion temperature, waste feed rate, the indicator of combustion gas velocity and carbon monoxide;
- Records of daily visual inspections of RF-2 and its associated equipment (pumps, valves, conveyors, pipes, etc.) for leaks, spills, fugitive emissions, and signs of tampering; and
- AWFCO operability test results.

For the three exceptions listed above, maintenance of these records for five years ensures that an adequate historical collection of the specified data is available to review during trial burn test result analysis (to occur at five-year intervals) and during periodic Facility inspections. See also 40 CFR § 264.347(d).[34] Therefore, the Region is requiring the retention of these three categories of records for five years. Because of the importance of maintaining system parameters for operation of the unit, the Region considers any burden imposed by the obligation to keep these particular records for five years to be entirely warranted and appropriate.

The Region agrees with and has made the commenter's suggested revisions to Permit condition V.G.3. Reference to the regulatory provisions from the CAA MACT EEE standards is unnecessary since the Start-up Shutdown and Malfunction Plan (SSMP) includes the relevant requirements. These references have been replaced with the reference to the SSMP.

V-36. One commenter recommended deletion of draft Permit condition V.G.4, pertaining to exceedances of applicable emissions limits where SSMP procedures are not followed. The commenter argued that this provision constitutes an inappropriate inclusion of the CAA MACT EEE requirements in a RCRA permit.

RESPONSE: The Region disagrees with the commenter's suggestion to delete Permit condition V.G.4, which requires a report within 7 days of a startup, shutdown, or malfunction, where the SSMP procedures were not followed and there was an exceedance of any emission standard or

[34] The Region is aware that the five-year records retention requirement for certain incinerator-related records at 40 CFR § 264.347 was developed to provide consistency with the CAA MACT EEE records retention requirements, which do not apply to carbon regeneration units such as RF-2. See 71 FR 16862, at 16865-16866, Apr. 4, 2006. However, the Region is setting the records retention period for these specific records at five years primarily in order to ensure the availability of five years' worth of data during the trial burn planning and review process.

operating limit while spent activated carbon was in RF-2. This report would inform the Region when and if the Facility has an exceedance of any emission standard or operating limit when the SSMP procedures were not followed. The Region would then work with the Permittees to evaluate potential causes and remedies.

The Region has retained most of the substantive requirements of the draft Permit condition as proposed, but has deleted the requirement to provide an initial report within 2 working days from Permit condition V.G.4., since the requirement that a report be submitted within 7 days of the occurrence will satisfy the Region's need for this information in relation to RF-2.

The Region has also deleted the reference to 40 CFR § 63.10(d)(5) from Permit condition V.G.4, since the revised Permit conditions are sufficient to provide guidance to the Permittees without incorporation of a MACT EEE requirement. Additional language to clarify the scope of the report has also been added. Finally, Permit condition V.G.4. has been revised to more closely track Section 9.2 of the SSMP with reference to the situation when "an exceedance of an emission standard or operating limit occurs while spent activated carbon is in RF-2."

V-37. One commenter recommended deletion of draft Permit conditions II.M.1.d and V.G.5, which reference 40 CFR § 63.8(d), since the commenter maintains that the MACT EEE requirements do not and should not apply to this Facility.

RESPONSE: The Region disagrees with the commenter's assertion that EPA lacks the authority to impose the CAA MACT requirements from 40 CFR Part 63, Subpart EEE, on a RCRA Miscellaneous Unit, as explained previously in these responses to comments. See, *e.g.*, the Region's Response to Public Comment V-11, above. The Agency has authority where it deems the requirement to be appropriate for the Miscellaneous Unit.

Here, the Region has decided to retain the obligation to develop and maintain site specific CMS quality control performance evaluation test plan procedures. The CMS quality control performance evaluation test plan program required in accordance with Permit Condition V.I.1.c.vi. must include the items listed at 40 CFR § 63.8(d)(2)(i)-(vi). Such testing and record-keeping is appropriate for this Facility because it is important that the Facility establish a written protocol that describes procedures for each of the following operations: (i) Initial and any subsequent calibration of the CMS; (ii) Determination and adjustment of the calibration drift of the CMS; (iii) Preventive maintenance of the CMS, including spare parts inventory; (iv) Data recording, calculations, and reporting; (v) Accuracy audit procedures, including sampling and analysis methods; and (vi) Program of corrective action for a malfunctioning CMS. Each of these specific requirements ensures that continuous monitoring of critical operating parameters is performed by systems that are fully functional and reliable, ensuring that operating conditions remain within the parameters established in the Permit.

While each of the foregoing requirements is not in and of itself burdensome, the Region recognizes that the development of such a protocol and the implementation of quality control

performance tests for the CMS could be streamlined and included in the PDT work plan development and implementation process, although the testing itself need not occur, and probably should not, at the same time as the trial burn.

The goal of incorporating the development and implementation of this CMS quality control testing program into the PDT process would be to reduce the overall burden to the operator while ensuring that systems are properly and periodically assessed. In addition, by providing the Permittees the flexibility to propose the CMS quality control performance evaluation test plan procedures and schedule as part of their PDT work plan, the Region hopes to enable a tailored program specific to and appropriate for the CMS associated with RF-2. Existing CMS quality performance tests and procedures would be appropriate for inclusion in a protocol that collects this testing information and any standardized procedures for each of the continuous monitoring systems.

As a result, the Region deleted and replaced draft Permit condition II.M.1.d with revised language, and has also modified Permit condition V.G.5. As set forth in the Region's Response to Public Comment II-18, the Region revised Permit condition V.G.5. to remove the reference to Permit condition II.M.1.d., which formerly required the Permittees to maintain in the Operating Record the site-specific CMS quality control performance evaluation test plan procedures in accordance with 40 CFR § 63.8(d). The requirement to submit the proposed CMS quality control performance evaluation test plan *program* is now found in Permit Condition V.I.1.c.vi. and the three-year record-keeping provision for the documentation relating to this program, which is found at Permit condition V.G.5., now refers to Permit Condition V.I.1.c.vi instead of Permit condition II.M.1.d.

In addition, in considering this comment, the Region decided that it was also appropriate to revise Permit condition V.G. to include additional language in Permit condition V.G.1. to clarify that the provision includes PDT recordkeeping. Permit Condition V.G.1., which pertains to monitoring and inspection data required by Module V, now includes language to clarify that PDT records must be maintained in accordance with that Permit condition. The Region is not changing the requirement because monitoring and inspection data would encompass PDT records, but is rather attempting to eliminate any ambiguity regarding the requirement.

Permit condition V.C.4.a. requires quality assurance and quality control in accordance with 40 CFR Part 60's Appendix F QA/QC requirements. The term "Appendix F" was added to this Permit Condition to provide more clarity. The Region also added language to Permit condition V.C.4.a. requiring the Permittees to document their quality assurance and quality control activities, as prescribed by Table V-3, in the Operating Record. See also the Region's Response to Public Comment V-35, above.

V-38. One commenter suggested adding language to draft Permit condition V.H.4 to clarify that the Region's decision to approve, disapprove or condition the approval of a post closure plan is subject to the dispute resolution procedures set forth in Permit Condition I.L.

RESPONSE: The Region agrees with the commenter that the Region's decision to approve, disapprove or condition the approval of a post-closure plan should be subject to the dispute resolution procedures set forth in Permit Condition I.L. Nonetheless, the Region declines to revise draft Permit condition V.H.4. as suggested. Rather, the Region has revised Permit Condition I.L. such that the Permittees may invoke the procedures whenever they are unable, after the use of best efforts and in good faith, to resolve a dispute. See the Region's Response to Public Comment I-40, above.

RCRA's interim status regulations require thermal treatment facilities to undergo facility closure, during which all hazardous waste and hazardous waste residues must be removed from the thermal treatment unit. See 40 CFR § 265.383. Similarly, the Region requires proper closure of permitted thermal treatment units to ensure they will not pose a future threat to human health and the environment.

V-39. One commenter recommended revisions to the draft Permit conditions I.K.1. through I.K.4, relating to performance of a trial burn test (also called a "Performance Demonstration Test" or PDT). Many of these revisions focus on the timing of these tests. The commenter argues that the prior trial burn results are sufficient to demonstrate that the operation of RF-2 meets and exceeds all risk criteria. Much of the focus of these comments is directed to the draft Permit's requirements relating to the content of the trial burn test report. The commenter also suggested deleting the requirement regarding the subsequent trial burn test reports.

RESPONSE: As an initial matter, the Region notes that it has moved the trial burn test-related Permit conditions from the compliance schedule in Permit condition I.K to Module V. The Region has also deleted explanatory language from Permit condition I.K.1, that the Region has determined is not necessary as a Permit condition. (See Permit condition V.I.)

As explained in the Region's Response to Public Comment V-11 above, the regulations for Miscellaneous Units, like RF-2, specifically authorize the Region to incorporate terms and provisions in permits for Miscellaneous Units "as necessary to protect human health and the environment." 40 CFR § 264.601. The Region's justification for the requirements associated with both the PDT work plan and the PDT report are included in this response.

The Region has included a list of authorities in the brackets at the end of Permit Conditions V.I.1. and V.I.4., which each include, among other things, a reference to RCRA's omnibus provision for the requirements that the Permittees conduct periodic trial burn tests and supplement or update the human health and ecological risk assessment, respectively. See RCRA Section 3005(c)(3), 42 USC § 6925(c)(3),[35] and 40 CFR § 270.32(b)(2).[36] Although the Region considers the authority set forth in 40 CFR § 264.601[37] for miscellaneous units sufficient to justify the Permit's requirements to perform

[35] "[E]ach permit issued under this section shall contain such terms and conditions as the Administrator (or the State) determines necessary to protect human health and the environment."
[36] "Each permit issued under section 3005 of this act shall contain terms and conditions as the Administrator or State Director determines necessary to protect human health and the environment."
[37] "A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment. . ."

periodic PDTs and update the Human Health and Ecological Risk Assessment (HHERA), it has included the bracketed citations to RCRA's authority to regulate hazardous waste management units under 40 CFR Part 264, Subpart X and Part 270, Subparts B and C, at the end of these Permit conditions, in order to clarify the Agency's authority in this area. The bracketed citations were also added in response to the commenter's objections to the draft Permit conditions requiring periodic trial burn tests and the risk assessment update. See also 40 CFR §§ 264.601, 270.10(k), and 270.23(c) and (e), and the Region's Response to Public Comment V-41, below.

The Region considers the requirements of 40 CFR § 264.601 as the controlling standards for the Region's consideration of the appropriate Permit conditions applicable to RF-2, a miscellaneous unit. With respect to considerations regarding specific requirements necessary to protect human health or the environment, this regulation provides as follows:

> "Permits for miscellaneous units are to contain such terms and provisions as necessary to protect human health and the environment, including, but not limited to, as appropriate, design and operating requirements, detection and monitoring requirements, and requirements for responses to releases of hazardous waste or hazardous constituents from the unit. Permit terms and provisions must include those requirements of subparts I through O and subparts AA through CC of this part, part 270, part 63 subpart EEE, and part 146 of this chapter that are appropriate for the miscellaneous unit being permitted. Protection of human health and the environment includes, but is not limited to: …
>
> …(c) Prevention of any release that may have adverse effects on human health or the environment due to migration of waste constituents in the air, considering:
>
> (1) The volume and physical and chemical characteristics of the waste in the unit, including its potential for the emission and dispersal of gases, aerosols and particulates;
> (2) The effectiveness and reliability of systems and structures to reduce or prevent emissions of hazardous constituents to the air;
> (3) The operating characteristics of the unit;
> (4) The atmospheric, meteorologic, and topographic characteristics of the unit and the surrounding area;
> (5) The existing quality of the air, including other sources of contamination and their cumulative impact on the air;
> (6) The potential for health risks caused by human exposure to waste constituents; and
> (7) The potential for damage to domestic animals, wildlife, crops, vegetation, and physical structures caused by exposure to waste constituents."

See also 40 CFR § 270.23 (e).[38] The Region maintains that the specific references in the RCRA Subpart X regulations to the CAA MACT Subpart EEE standards for combustion units, and the seven considerations enumerated at 40 CFR § 264.601(c), in combination with the added authority of 40 CFR § 270.23, not only justify the obligations to perform a PDT, but also to periodically repeat performance testing to ensure that operating conditions remain within acceptable ranges over the life of the Permit. The Region points out as well that it has the authority under 40 CFR § 270.10(k) to require that the Permittees submit information to EPA regarding the performance of RF-2 and its potential to present risks to human health and the environment.

RCRA's "omnibus authority" at Section 3005(c)(3) applies to "each permit" the Region issues. Therefore, even though the Subpart X regulations codify RCRA's omnibus authority, the omnibus authority is *additional* authority for these particular permit requirements. See also *In Re: ESSROC Cement Corporation*, 16 EAD 433, 439-447 (EAB, July 2014) (addressing the risk assessment requirements applicable to hazardous waste combustion units at 40 CFR § 270.10(l)(1)).[39]

The Region disagrees with the commenter's suggested timeframes for conducting PDTs and has retained the timeframes that were proposed in the draft Permit. In the Region's view, a 5-year cycle is reasonable, despite the associated burden on the permittees, to protect both human health and the environment. A 5-year interval between PDTs is appropriate for this Facility because several performance and emissions standards are being verified during the periodic PDTs because they do not have continuous emission monitoring. In addition, as RF-2 continues to age, it is important to make sure it remains efficient in destroying and removing contaminants and that it continues to operate in a manner that does not pose an unacceptable risk to human health or the environment and the PDT is an efficient way to make that determination.

Table V-1 in Module V, Performance Standards and Operating Parameter Limits, identifies the list of parameters needing verification during the PDT. Column 2 of Table V-1 identifies the performance standards to be used as a guide for each parameter in terms of developing future operating parameter limits. And, Column 3 of Table V-1 identifies the operating parameter limits to be demonstrated during the PDTs. In accordance with Permit Condition V.I.1.c.ii., the PDT work plans shall also address "each operating parameter and limit set forth in Table V-2 of this Permit." See also Permit Condition V.I.1.c.iii., which references the requirements of 40 CFR § 270.62(b)(2)(v), among other things. See, as well, the Region's Response to Public Comment V-12, above, regarding the reasons that these parameters require periodic performance demonstration testing.

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[38] 40 CFR § 270.23(e) states that owners and operators of miscellaneous units must provide, "Any additional information determined by the Director to be necessary for evaluation of compliance of the unit with the environmental performance standards of §264.601."

[39] While the *ESSROC* decision addresses the authority applicable to hazardous waste combustors under 40 CFR § 270.10(l)(1), the "omnibus rule" at 40 CFR § 270.32(b)(2), along with its associated provision at 40 CFR § 270.10(k), applies to "each" RCRA permit issued by EPA and the states. Meanwhile, the authority specifically identified at 40 CFR §§ 270.23(c) and (e) applies to miscellaneous units under 40 CFR Part 264, Subpart X.

Of the parameters listed in Table V-1, only carbon monoxide requires monitoring with a CEMS. For some of these parameters, (*e.g.*, destruction removal efficiency and dioxins/furans, etc.), the Region will be relying on the PDT results to ensure that the operations continue to meet the operating parameter limits in Column 3 in Table V-1, and can be demonstrated to be protective of human health and the environment. This periodic confirmation that operational parameters are working as expected and remain within Permit limits becomes even more important as the system ages.

The carbon reactivation unit (RF-2) started operating in 1996 and had its first EPA-monitored trial burn test 10 years later, in March 2006. It has now been over 10 years since the last trial burn test was performed and the Region has scheduled the next trial burn test to occur within a reasonably expeditious time after the Permit is effective. Subsequent trial burn tests will be conducted periodically every 5 years. By the time the first trial burn test required by the Permit is performed, the unit will be over 22 years old and more frequent trial burn tests, (*i.e.,* one every 5 years instead of every 10 years), are appropriate as the system continues to age further. For example, long-term stress to the critical components of RF-2, such as its firing systems and emission control equipment, could adversely affect emissions. This is one of the reasons that the Agency requires both large and small sources regulated under the MACT EEE regulations to undergo comprehensive performance testing every five years. See 54 FR 52828, 52913 (Sept. 30, 1999). In addition, the carbon being regenerated at the Facility has been used to remove contaminants from processes where hazardous or toxic materials are being handled. Given the toxicity and quantity of hazardous or toxic organics desorbed from the carbon in this regeneration process, a five-year cycle of trial burn testing is warranted.

Most of the parameters listed in Table V-1 that rely on periodic trial burns to demonstrate the emissions standards are based on the typical trial burn parameters required for combustion units such as incinerators, boilers, and industrial furnaces. For example, the destruction and removal efficiency standards for incinerators and boilers and industrial furnaces (BIFs) require periodic trial burn tests to demonstrate performance under both RCRA and the CAA. A demonstration of the particulate matter emission standard is required for incinerators under RCRA and for all combustion units under the MACT Subpart EEE standards. See, *e.g.,* July 2001 Risk Burn Guidance for Hazardous Waste Combustion Facilities, at http://www.epa.gov/epawaste/hazard/tsd/td/combust/pdfs/burn.pdf. Moreover, the regulations for miscellaneous units at 40 CFR 264.601(c)(1) specifically authorize EPA to assess the unit's potential for "emission and dispersal of gases, aerosols and particulates. . ."

For the Subpart X unit, RF-2, the Region will require periodic trial burns to assess the destruction and removal efficiency of the unit, and the degree to which it is effectively treating and controlling total hydrocarbons, particulate matter, and dioxins[40] and furans. This approach is consistent with the Agency's approach to gauging the efficiency of thermal units using combustion.

[40] Dioxins are formed during the combustion process in the presence of specific organics and particulate matter. Some of the conditions that are conducive to dioxin formation are the combustion of organic material in the presence of chlorine and particulate matter under certain thermodynamic conditions such as low temperatures and combustion times. Unstable transient combustion conditions as well as the presence of particulate matter containing metals and the presence of soot

Two of the parameters listed in Table V-1 are not typically associated with the RCRA or CAA MACT Subpart EEE emission standards and associated trial burn requirements, sulfur oxides and nitrogen oxides. Both of these compounds are criteria pollutants as defined by the CAA, which may subject facilities emitting sulfur oxides or nitrogen oxides to national ambient air quality standards. But, sulfur oxides and nitrogen oxides may be appropriate for inclusion in a RCRA quantitative risk assessment on a case by case basis. See September 2005 Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities, at Section 2.3.1, page 2-41, (91/810 of the pdf) at http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10067PR.TXT.

In this case, these two parameters, sulfur oxides and nitrogen oxides, are included in what needs to be evaluated under the Permit during the periodic trial burn tests. Emissions of criteria pollutants like sulfur oxides and nitrogen oxides may be regulated under a CAA Title V operating permit program or, if appropriate to protect human health or the environment, under a RCRA permit.[41] Here, since there is no CAA Title V permit for this Facility, the Region has determined that it is appropriate to not only include emission standards for sulfur oxides and nitrogen oxides in the RCRA permit but to require as well that these parameters be evaluated during the periodic trial burn tests. In fact, where a RCRA permit effectively controls emissions of pollutants that might otherwise trigger a CAA Title V permit, the RCRA permit may operate in lieu of a CAA Title V permit as a "practically enforceable mechanism."[42] This is not only a benefit to the Facility operator, but also saves limited Regional permitting resources while ensuring protection of human health and the environment.

Criteria pollutant emissions may also be regulated under a CAA NSR permit program.

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also favor the formation of dioxin. See, *e.g.*, "1999 10 07 Landfill Gas to Energy _Dioxin_ Qs As.pdf," and "2002 05 21 Apr 2002 Open House Participation.pdf."

[41] The Clean Air Act requires EPA to set National Ambient Air Quality Standards (NAAQS) for maximum allowable concentrations of six "criteria" pollutants in outdoor air. The six pollutants are carbon monoxide, lead, ground-level ozone, nitrogen dioxide, particulate matter, and sulfur dioxide. Ground level ozone is not emitted directly into the air, but is created by chemical reactions between nitrogen oxides (NOx) and volatile organic compounds (VOCs) in the presence of sunlight. See CAA section 109 and 40 CFR Part 50.

[42] EPA's Tribal Minor NSR regulations define "enforceable as a practical matter" as where "an emission limitation or other standard is both legally and practicably enforceable as follows:
(1) An emission limitation or other standard is legally enforceable if the reviewing authority has the right to enforce it.
(2) Practical enforceability for an emission limitation or for other standards (design standards, equipment standards, work practices, operational standards, pollution prevention techniques) in a permit for a source is achieved if the permit's provisions specify:
(i) A limitation or standard and the emissions units or activities at the source subject to the limitation or standard;
(ii) The time period for the limitation or standard (e.g., hourly, daily, monthly and/or annual limits such as rolling annual limits); and
(iii) The method to determine compliance, including appropriate monitoring, recordkeeping, reporting and testing …"
40 CFR § 49.152.

The 5-stage furnace hearth (RF-2) uses natural gas burners to heat the waste carbon so that the carbon pores open up to release the volatile organic compounds. Some of the volatile organic compounds are destroyed (combusted) in the furnace, while others get combusted in the afterburner, which also uses natural gas to further heat the volatile organic compounds to their destruction. The afterburner is also equipped with two low NOx burners, which utilize heated combustion air. See "2012 08 30 Re_Minor New Source Review Program_Registration of Existing Source Under 40 CFR Part 49.pdf."

The furnace and afterburner combustion processes produce nitrogen oxides (NOx). The Facility's August 2012 CAA Indian Country New Source Rule registration showed NOx emissions during the "Mini-Burn Stack Test" at levels below 22 tons per year, indicating that the information was based on the "Mini-Burn Stack Test Results for RF-2." The Facility operator, in a letter dated September 2016, voluntarily agreed to a 22-tons per year limit on NOx emissions to be included in the RCRA permit in order to ensure that such emissions are kept below the major source threshold for the NSR permit program and the 100 tons per year major source threshold for the CAA Title V operating permit program. See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf."[43] The Facility operator volunteered to demonstrate the limit is met by monitoring and recording its natural gas usage.

The Draft Permit proposed an emission limit of 22.22 tons per year for nitrogen oxides. See Draft Permit Table V-1. The Draft Permit also proposed monitoring of the natural gas usage and the periodic 5-year trial burn tests as a means of ensuring that the emission limits are met. The final Permit imposes an emission limit of 22 tpy by monitoring and recording the natural gas usage and through the PDTs. The 22.22 tpy limit that was included in the Draft Permit was based on the Facility's August 2012 CAA Indian Country New Source Rule registration. The revised emission limit of 22 tpy is based on the Facility operator's September 2016 letter. The September 2015 letter also included a reference to the monitoring being performed on a calendar year basis. The Region disagrees with the commenter/operator and continues to require the monitoring be performed on a consecutive 12-month basis. Indeed, in order to clarify the term, the Region has added a footnote (Permit Condition Table V-1, at footnote 19) to reflect that this standard should be considered the same as a "12 month rolling sum basis," as was specified in the Region's Statement of Basis for the draft Permit. See Permit condition V.C.6. and Table V-1, at footnote 19, referring the reader to footnote 16. See also Section 5.4.6 The Clean Air Act, USEPA Statement of Basis, p.10/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." During the trial burn testing every 5 years, the NOx emissions will be evaluated to ensure that these emissions remain below this 22 tons per year limit.

For sulfur oxide emissions from the carbon regeneration furnace, a packed bed scrubber is operated with a control efficiency of 90 percent for minimizing sulfur oxide emissions. According to the

[43] The operator agreed to the following limit: "[f]or NOx, a 22 tons per year limit, demonstrated on a calendar year basis, using the NOx stack gas concentration from the most recent stack test where NOx was measured (average of 3 runs), flow rate out the stack and the hours of operation of the of the reactivation unit." See, "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf."

Facility's August 2012 CAA Indian Country New Source Rule registration, the Facility's pre-control sulfur oxide potential to emit (PTE) is estimated at 299.85 tpy, which exceeds the NSR major source threshold of 250 tpy and the Title V major source threshold of 100 tpy. The Facility operator, in its September 2016 letter, voluntarily agreed, based on the use of a packed bed scrubber and feed limits for sulfur, to a 30-tons per year limit on sulfur emissions to ensure that such emissions are kept below the major source threshold of 100 tons per year. Thus, the operator will continue to operate the packed bed scrubber and limit the feed rate on sulfur to control its sulfur oxide emissions. During the trial burn testing every 5 years, the SO_2 emissions will be evaluated to ensure that the Facility's emissions remain below the 30-tons per year limit set forth in the Permit. The Region has also revised draft Permit condition I.K.11, renumbered as Permit condition I.K.3, which requires the revision of the waste analysis plan to include sampling of the sulfur content in the waste carbon. See also the Region's Response to Public Comment I-37.

The 30.01 tpy limit that was included in the draft Permit was based on the Facility's August 2012 CAA Indian Country New Source Rule registration. The revised emission limit of 30 tpy is based on the Facility operator's September 2016 letter. The September 2016 letter also included a reference to the monitoring being performed on a calendar year basis. The Region disagrees with the commenter/operator and continues to require the monitoring be performed on a consecutive 12-month basis. Just as with the NOx standard, to clarify the term, the Region has added a footnote (Permit Condition Table V-1, at footnote 16) to reflect that this standard should be considered the same as a "12 month rolling sum basis," as was specified in the Region's Statement of Basis for the draft Permit. See Permit condition V.C.6. and Table V-1, at footnote 16.

Permit Condition V.I.1.c. requires that the trial burn work plans, to be submitted in advance of the periodic trial burns, include the information listed in specific regulatory provisions identified in this Permit condition. As explained in the Region's Response to Public Comment V-11 above, the regulations for Miscellaneous Units, like RF-2, specifically authorize the Region to incorporate terms and provisions in permits for Miscellaneous Units "as necessary to protect human health and the environment." 40 CFR § 264.601. See also "2001 01 18 Letter re Applicability of 40 CFR Part 63 Subpart EEE for RCRA Permitting Requirements.pdf."

However, considering the commenter's concerns, the Region reevaluated the PDT Workplan requirements that had been included in the draft Permit. The Region agrees that the requirements for a trial burn for this Miscellaneous Unit deserve more specificity. The Region re-examined the options relating to and goals for performing trial burns and concluded, due to the public comments received, that the goals for future trial burns should use, as a point of departure, the trial burn objectives laid out in the PDT Workplan that was included in the Permit Application and which is incorporated into the Final Permit at Permit Attachment Appendix V. See revised Permit condition V.I.1.c.iii. In the May 2003 PDT Workplan, the following objectives for the PDT were identified: (1) demonstrate compliance with applicable USEPA regulatory performance standards based on Hazardous Waste Combustion (HWC) Clean Air Act Maximum Achievable Control Technology (MACT) standards for Existing Hazardous Waste Incinerators; (2) establish permit operating limits; and (3) gather information for use in a site-

specific risk assessment. See "2012 04 RCRA Application_Vol I-Appendix V_Rev 1-Perf Demo Test Plan_Rev 0.pdf."

The first objective in the May 2003 PDT Workplan presumed that the PDT would show that RF-2 operated in conformance with "applicable" performance standards, based on the HWC MACT Standards for Existing Hazardous Waste Incinerators. The PDT Workplans required in accordance with Permit Condition V.I.1.c.i. must instead address "each performance standard and operating parameter limit set forth in Table V-1 of this Permit." In accordance with Permit Condition V.I.1.c.ii., they must also address "each operating parameter and limit set forth in Table V-2 of this Permit." See also Permit Condition V.I.1.c.iii., which references the requirements of 40 CFR § 270.62(b)(2)(v), among others. Each of the parameters and limits identified as elements of the first objective in the May 2003 PDT Workplan are addressed in Permit Conditions as elements of Table V-1 and/or one of the parameters and/or limits listed in Table V-2. Each of these is, therefore, included as parameters to be addressed in the PDT Workplan in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.ii.

The Workplan should, therefore, include a test strategy that will also enable the Permittees to:

(1) demonstrate a DRE of greater than or equal to 99.99% for the selected principal organic hazardous constituents (POHCs) chlorobenzene and tetrachloroethene in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.iii.;
(2) demonstrate stack gas carbon monoxide concentration less than or equal to 100 ppmdv, dry basis, corrected to 7% oxygen in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.ii.;
(3) demonstrate stack gas hydrocarbon concentration of less than or equal to 10 ppmdv, dry basis, corrected to 7% oxygen in accordance with Permit Condition V.I.1.c.i.;
(4) demonstrate a stack gas particulate concentration less than or equal to 0.013 gr/dscf corrected to 7% oxygen in accordance with Permit Condition V.I.1.c.i.;
(5) demonstrate that the stack gas concentration of hydrogen chloride (HCl) and chlorine (Cl_2) are no greater than 32 ppmdv, dry basis, corrected to 7% oxygen, expressed as HCl equivalents in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.ii.;
(6) demonstrate that the stack gas mercury concentration is less than or equal to 130 µg/dscm, corrected to 7% oxygen in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.ii.;
(7) demonstrate that the stack gas concentration of low volatility metals (arsenic, beryllium, and chromium, combined) is less than or equal to 92 µg/dscm, corrected to 7% oxygen in accordance with Permit Conditions V.I.1.c.i. and V.I.1.c.ii.; and
(8) demonstrate that the stack gas concentration of dioxins and furans does not exceed 0.40 ng/dscm, corrected to 7% oxygen, expressed as toxic equivalents of 2,3,7,8-TCDD (TEQ) in accordance with Permit Condition V.I.1.c.i.

For stack gas particulate concentration, hydrogen chloride/chlorine concentration, and low and semi volatile metals concentrations, the values established as "interim standards" under 40 CFR § 63.1203 were further tightened when the "replacement standards" of 40 CFR § 63.1219 were promulgated. The values for all the parameters in the May 2003 PDT Workplan were derived from the 40 CFR § 63.1203 (Interim Emissions Standards). Future PDT workplans should include the evaluation

of these parameters in light of the Replacement Emissions Standards at 40 CFR § 63.1219. Because these four concentration values are lower than the values reflected in the Interim Emissions Standards, when the PDT Report is submitted in accordance with Permit Condition V.I.3., it should include an analysis of RF-2's operations in light of these Replacement Emissions Standards. That analysis should include any recommendations regarding modifications to operating parameters and limits that may be appropriate as a result of the PDT results. The Replacement Emissions Standards, which the commenter reminds the Region, are not directly applicable under the CAA to RF-2, are nevertheless, appropriate RCRA standards for the purposes of performing this miscellaneous unit's PDT. As guidelines, these emissions standards provide a standard against which RF-2's operational efficiency may be compared.

In addition, the Region has included requirements to ensure that sulfur and nitrogen emissions are addressed in the PDT Workplan at Permit Condition V.I.1.c. Permit Condition V.I.1.c.i. requires that PDT Workplans address the performance standards and operating parameter limits in Table V-1, which include SOx and NOx. And, Permit Condition V.I.1.c.iv. requires that PDT Workplans include "provisions for testing for SOx and NOx emissions," with reference to specific EPA Test Methods. See also Permit condition V.I.1.c.iii.

The second prime objective of the May 2003 PDT Workplan was to "establish permit operating limits." This objective will have been accomplished by the effective date of this Final Permit, and this objective would no longer be appropriate for future PDT Workplans. However, the subcomponents of this prime objective as described in the May 2003 PDT Workplan can provide a guide for future PDT Workplans. The PDT Workplans required in accordance with Permit Condition V.I.1.c.ii. must address "each operating parameter and limit set forth in Table V-2 of this Permit."

The Workplan should, therefore, include a test strategy that will enable the Permittees to:

- Demonstrate maximum feed rate for spent activated carbon;
- Demonstrate minimum afterburner gas temperature;
- Demonstrate maximum combustion gas velocity (or a suitable surrogate indicator);
- Demonstrate maximum total chlorine/chloride feed rate;
- Establish a Maximum Theoretical Emission Concentration (MTEC) limit for mercury;
- Demonstrate system removal efficiency (SRE) for semi volatile and low volatility metals so feed rate limits can be developed by extrapolation from test results; and
- Establish appropriate operating limits for the air pollution control system components.

For the reasons set forth above, the Region has the authority to mandate that the Permittees include in future PDT Workplans the information required in accordance with Permit condition V.I.1.

The quality assurance and quality control program is required in order for the Region to determine the validity of the trial burn test results and to verify that the trial burn test was conducted with properly operated and calibrated equipment by trained personnel. It also ensures the precision, accuracy, and completeness of the data collected in order to fully characterize the waste feed material

and stack gas emissions during the trial burn test. For additional discussion regarding the CMS quality control program requirements, see the Region's Responses to Public Comments V-19 and V-37.

Permit Condition V.I.1.e. (formerly draft Permit condition I.K.1.e.) requires that the Permittees utilize the appropriate methods and performance specifications set forth in the Appendices to 40 CFR Part 60. The methods and performance specifications set forth in these appendices cover a broad array of activities and provide guidance to Permittees and regulators regarding specific elements of performing a trial burn test. If any of these methods or performance specifications are not relevant, they need not be incorporated in the work plan. Where relevant or specifically required, however, incorporation of these methods and performance specifications into the work plan ensures that there are clear and concise protocols available for reference.

Permit Condition V.I.3.a. requires the PDT report to include an assessment as to whether the operating parameters and emission limits set forth in Module V have been demonstrated with specific reference to the Group A1, Group A2, Group B and Group C parameters set forth in Module V of the Permit at Table V-2 – Operating Limits and Parameters. These parameters are critical to the proper operation of the hearth and important to make sure it is operating within the acceptable risk range. A primary purpose of the PDT is to demonstrate these parameters, so it is vital that the PDT report include an assessment of these parameters.

Permit Condition V.I.3.c. requires the Permittees to include in the trial burn report recommendations as to whether any Permit modifications are appropriate. If the trial burn test demonstrates that changes to the Permit may be needed, the Region wants that information to be brought to its attention at the earliest opportunity. Including such recommendations in the trial burn report submitted to the Director for approval will enable the Region to review and approve such recommendations, if appropriate.

The Region has revised draft Permit condition I.K.1.b (now V.I.1.b) by incorporating some of the commenter's suggested language relating to the establishment of deadlines and has deleted some of the less artful language regarding these deadlines that was proposed in the draft Permit.

The Region disagrees with the commenter's suggested deletion of the references to Permit condition I.G.5 in draft Permit condition I.K.3 (now Permit Condition V.I.3). This requirement that the Director approve the PDT Report ensures the Region's agreement with the Permittees' conclusions regarding the results of the PDT.

The Region has also revised Permit Condition I.G.8, which is referenced in Permit Condition V.I.3.d, formerly, draft Permit condition I.K.3.b. The Region has retained the reference to Permit condition I.G.8 in Permit condition V.I.3.d. Permit condition I.G.8 sets forth a preferred orderly administrative process for Permit modifications that are recommended in reports or deliverables. And, only those types of Permit modifications that do not require EPA approval may be "put into effect" by the Permittees. See 40 CFR § 270.42. The Region would prefer that any request for a Permit

modification, because of the trial burn report recommendations, not be submitted until after the report has been approved by the Director. However, the revised Permit condition I.G.8 makes clear that the Permittees' authority under 40 CFR § 270.42 is not limited by this Permit condition. See also the Region's Response to Public Comment I-28 for additional discussion regarding these revisions.

The Region also disagrees with the commenter's recommended deletion of key provisions from draft Permit conditions I.K.3.a, I.K.3.b, and I.K.3.c, but recognizes that these draft Permit conditions could be clarified. The Region has merged the language from draft Permit conditions I.K.3.a. and I.K.3.c. into Permit condition V.I.3. Relevant portions of draft Permit condition I.K.4 have also been incorporated into Permit condition V.I.3. The reference in the deleted draft Permit condition I.K.3.c to 40 CFR § 63.9(h)(2) has been removed and replaced with specific reference to the information to be included in the PDT report. The additional requirements, now included in Permit condition V.I.3., are limited to pertinent items of information, such as confirmation that the methods and performance specifications identified in the work plan were employed during the trial burn. Thus, CAA requirements such as the description of hazardous air pollutants emitted, and impacts of the trial burn results on the CAA status of the facility, are no longer included.

V-40. One commenter objected to the draft Permit condition requiring notice to the Facility mailing list each time a PDT test plan is prepared. The commenter argued that the dates for submitting the plans and for conducting the testing will be clearly identified in the Permit, and the public can easily access these plans upon request.

RESPONSE: The Region believes that it is vital to provide notice to a community of upcoming performance demonstration tests for hazardous waste thermal treatment units such as RF-2. Notification to the public of an anticipated trial burn test is part of the Region's commitment to community involvement. However, the Region acknowledges that providing notice of the PDT to the entire Facility mailing list might be unduly cumbersome in light of the availability of alternative means of providing notice on a large scale. Therefore, the Region is revising draft Permit condition I.K.1.f, which has also been moved to Module V, at Permit condition V.I.1.d.[44] Permit condition V.I.1.d requires the Permittees to post the PDT Work Plan to the Information Repository required in accordance with Permit condition I.J. and put an ad in a local newspaper. The one-time publication of a newspaper ad, coupled with the requirement to make the work plan available to the public via the Facility's Information Repository, represent significant benefits in terms of public outreach and transparency. And, these steps represent only a small burden to the Permittees.

V-41. One commenter suggested deleting draft Permit conditions that require the Permittees to perform periodic HHERAs. The commenter argues that RCRA does not require carbon regeneration units to undergo risk assessments, much less repeat them every 5 years. The commenter points out that the Facility operator performed a *voluntary* risk assessment as part of its preparation of the Permit application. It argues that the conclusions from that study demonstrate that further risk analysis is not warranted considering the costs and burden to the

[44] Draft Permit condition I.K.1.c, which has also been revised, has been moved to Permit condition V.I.1.c.

Permittees. The commenter further argues that there is no evidence suggesting that the risk profile of the Facility will change during the ten-year Permit term.

RESPONSE: The Region has reevaluated the HHERA periodic update requirements and has revised the Permit to require one update after the initial PDT report is approved. However, in light of other suggestions made by the commenter regarding the schedule of compliance in draft Permit condition I.K. in general, the Region has opted to move the HHERA provisions to Module V, at V.I.4.

For the reasons explained above in the Region's Response to Public Comment V-39, the Region has included a list of authorities in the brackets at the end of Permit Condition V.I.4.a., which includes, among other things, a reference to RCRA's omnibus provision for the requirement that the Permittees conduct an updated, supplemental human health and ecological risk assessment. Although the Region considers the authority set forth in 40 CFR § 264.601[45] for miscellaneous units sufficient to justify the Permit's requirements to update the HHERA, it has included the bracketed citations at the end of this condition in order to clarify the Agency's authority in this area. The Region points out as well that it has the authority under 40 CFR § 270.10(k) to require that the Permittees submit information regarding the performance of RF-2 and its potential to pose unacceptable risks to human health and the environment. See also 40 CFR § 270.23(c).[46]

As the carbon regeneration system ages, efficiency of the system potentially changes. In addition, the toxicity criteria and associated response actions for some of the contaminants are also subject to update by EPA. The air dispersion models used to predict the fate and transport of constituents that are released from the stack are also dependent upon site-specific meteorological data, which itself is variable with time. EPA's recommended models for site-specific analysis are also periodically updated based on the best available science.

To continue to ensure appropriate protection of human health and the environment, it is imperative that the HHERA be updated to verify that the Facility's emissions remain protective of human health and the environment. Permit conditions, V.I.4.a., V.I.4.b., and V.I.4.c., require the Permittees to update the site-specific risk analysis after approval of the initial PDT Report prepared after the Permit is effective. The Region notes that the 2008 risk assessment was conducted using methods and procedures that are no longer supported or have been updated by EPA. These include but are not limited to: updated air dispersion and deposition modeling analysis, updated toxicity criteria, and updated exposure assessment analysis. See, *e.g.*, Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities Final, 2005, https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10067PR.txt.

[45] "A miscellaneous unit must be located, designed, constructed, operated, maintained, and closed in a manner that will ensure protection of human health and the environment…"

[46] 40 CFR § 270.23(c) requires that owners and operators of miscellaneous units must provide, "[i]nformation on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures."

COMMENTS REGARDING GENERAL PERMIT CONDITIONS

MODULE VI:

VI-1. One commenter suggested deleting draft Permit condition VI.A.5 as overly broad. The commenter further argued that the provision is not required or authorized by any regulatory provision.

RESPONSE: Draft Permit condition VI.A.5 required that the Permittees provide, upon request of the Region, all "raw data and reports, including inspection reports, laboratory reports, drilling logs, geological and hydrogeological investigations, bench-scale or pilot-scale data, laboratory data and other supporting information gathered or generated during activities undertaken pursuant to this Permit…"

Permit condition II.M.1 requires that the Permittees maintain a written Operating Record at the Facility in accordance with 40 CFR § 264.73. That regulation requires, among other things, that the Permittees record, as it becomes available, and maintain in the Operating Record, the following:

> Monitoring, testing or analytical data, and corrective action where required by subpart F of this part and §§264.19, 264.191, 264.193, 264.195, 264.222, 264.223, 264.226, 264.252-264.254, 264.276, 264.278, 264.280, 264.302-264.304, 264.309, 264.602, 264.1034(c)-264.1034(f), 264.1035, 264.1063(d)-264.1063(i), 264.1064, and 264.1082 through 264.1090 of this part. Maintain in the operating record for three years, except for records and results pertaining to ground-water monitoring and cleanup which must be maintained in the operating record until closure of the facility." 40 CFR § 264.73(b)(6).

Furthermore, Permit condition I.I.2. tracks the regulatory requirement of 40 CFR § 264.74(a), requiring that all "records, including plans, required under this Permit," be made available to the Region. In addition, RCRA itself already mandates that the Permittees furnish the information that was listed in draft Permit condition VI.A.5. RCRA Section 3007(a) applies to "any person who generates, stores, treats, transports, disposes of, or otherwise handles or has handled hazardous wastes." Such persons are required "to furnish information relating to" hazardous wastes and allow authorized EPA representatives "at all reasonable times to have access to, and to copy all records relating to such wastes." 42 U.S. Code § 6927.

Due to the comprehensive nature of the corrective action-related information that must be kept in the Operating Record and made available to the Region under the draft Permit conditions and, indeed, RCRA's statutory authority, the Region deleted draft Permit condition VI.A.5. However, the Region has also revised Permit condition VI.B.2 to clarify that the spill and release reporting records and data subject to other Permit conditions must also be maintained in the Operating Record, as authorized by 40 CFR § 264.73(b)(6). Specifically, the Region is requiring maintenance in the Operating Record until closure is certified complete:

"(b) records of spills and releases, new HWMUs, SWMUs, or AOCs, or emergency incidents or non-compliance that may pose an endangerment required to be reported in accordance with the Permit Attachment Appendix XIII, (Contingency Plan) and/or Permit Conditions I.E.13., IV.I.1.b., IV.J.2., VI.D. and/or VI.E.1.a."

The Region is requiring these records to be maintained until closure of the Facility is complete because these are the very types of records that will be necessary to ensure that all contaminated areas, if any are identified, are properly addressed during the closure process. The preservation of these records will assist in streamlining decisions concerning appropriate measures or areas on which to focus - or not - further investigation.

VI-2. One commenter suggested deleting draft Permit condition VI.A.6 as "draconian." This draft Permit condition stated that the failure to timely submit the information required in the Permit, or falsification of any submitted information, would be grounds for termination of the Permit in accordance with 40 CFR § 270.43.

RESPONSE: The Region deleted draft Permit condition VI.A.6, since the requirements of 40 CFR § 270.43 relating to Permit termination are already addressed in Permit condition I.B.1. The language of 40 CFR § 270.43 allows for termination of a RCRA permit for noncompliance with ***any*** condition of the permit.

VI-3. One commenter suggested revisions to draft Permit conditions VI.A.7 through VI.A.7.c. The commenter suggested that the conditions requiring 45-days advance notice of every person who would be working on corrective action as overbroad and burdensome. The commenter made further suggestions regarding additional requirements relating to corrective action contractors and project coordinator.

RESPONSE: The Region generally agreed with the commenter and has incorporated the suggested revisions, but the provisions were renumbered as Permit conditions VI.A.5. through VI.A.5.c.

VI-4. One commenter suggested adding the words "to the environment" to draft Permit condition VI.E.1. to ensure that the spill notification provision is triggered only when hazardous waste is released to the environment and not, for example, inside the secondary containment.

RESPONSE: The Region incorporated the suggested language in draft Permit condition VI.E.1., limiting the obligations set forth in Permit condition VI.E. to spills or releases outside any RCRA-required secondary containment. In addition, during the review of draft Permit condition VI.E., the Region determined that the process for reporting newly discovered spills or releases should include the actions necessary to respond to spills or releases from tank systems as set forth in Permit Condition IV.I. The Region revised Permit Condition VI.E.1. to require the Permittees to follow the process identified in Permit Condition IV.I., including the requirements to: (1) immediately stop the flow of hazardous waste and determine the cause of the release; (2) remove waste and accumulated precipitation within 24 hours of the detection of the leak to prevent further release and to allow inspection and repair of any system from which the release occurred; (3) contain and inspect any visible releases to the environment; and (4) determine

whether the system from which the release or spill occurred should be closed and/or repaired. Permit Condition VI.E.1.a. also includes the obligation to report the release within 24 hours of detection – just as is required for releases or spills from tank systems in accordance with the requirements of Module IV. The Region maintains that these processes for reporting and responding to releases or spills of hazardous waste should be generally the same, regardless of whether the release or spill is from a tank system or another unit or area at the Facility.

The Region also reevaluated several Permit conditions in Module VI relating to investigations and corrective measures considering the changes made to conform Module IV and Module VI provisions, as explained above. In light of its reevaluation, the Region also made relatively minor but necessary modifications to Permit conditions VI.A.4., VI.B.3., VI.D.3., VI.E.3., VI.E.4., VI.H.1., VI.H.4., VI.H.5., and VI.I.1. to clarify and harmonize the processes for undertaking investigations and corrective measures and for ensuring appropriate due process is afforded to the Permittees in the implementation of these requirements. The specific changes are reflected in the "red-lined" document comparing the Draft Permit, as proposed, to the final Permit, as issued, which accompanies the Region's Responses to Public Comments. These changes can be characterized, generally, as: (1) changes acknowledging that, based on the circumstances, additional investigations or corrective measures or both may be appropriate; and (2) changes providing the Director more discretion whether to require a particular submittal instead of mandating that the Director require the submittal.

VI-5. One commenter objected to the language in draft Permit condition VI.E.2, which requires a Permit modification whenever there is a spill greater than a pound. The modification would update the list of hazardous waste management units, solid waste management units and areas of concern by noting the release from the unit or area. The commenter further suggested that a Permit modification should only be appropriate if there were a determination following a release that contamination was going to be left in place or that additional assessment will be necessary at a later time.

RESPONSE: The Region disagrees with the recommendation to delete the requirement for a Permit modification to modify one or more of the lists of HWMUs, SWMUs and AOCs in Module VI to reflect the fact that the spill occurred. Since Permit Condition I.G.7. anticipates that the Permittees may request the modification be a Class I modification with no prior Director approval, modifications relating to relatively minor spills above a pound may be undertaken with minimal effort. It is important that, at the time of closure of the Facility, the history of spills and releases be appropriately documented for each HWMU, SWMU and AOC in order to ensure a complete and thorough closure. The Region has determined that the prompt updating of Section J and the Module VI HWMU, SWMU and AOC lists is the most appropriate means of accomplishing this.

VI-6. One commenter suggested additional language be added to draft Permit conditions VI.E.4, VI.F.1, VI.I.1, VI.J and VI.M to clarify that decisions made by the Region in accordance with these Permit conditions are subject to the Permit's dispute resolution provisions.

RESPONSE: The Region agrees that its decisions ought to be subject to the Permit's dispute resolution provisions. However, in response to the numerous recommendations the

commenter made throughout the draft Permit for specific provisions to be included within the ambit of the dispute resolution provisions of draft Permit condition I.L., the Region decided instead to revise Permit condition I.L. to clarify that the Permittees ought to be able to invoke the dispute resolution provisions of the Permit whenever they are unable, after using best efforts and good faith, to resolve a Permit-related dispute with EPA. See Response to Public Comment I-40, above.

VI-7. One commenter suggested deleting the reference to EPA's RCRA Facility Investigation Guidance, OSWER Directive 9502.00-6C, dated May 1989, since this guidance is 26 years old and was never taken by the Agency beyond "interim final" status. The commenter further objected to the reference, included in draft Permit condition VI.G.1 for developing any RCRA Facility Investigation Final Report, as a rigid and inflexible approach to corrective action.

RESPONSE: The Region declines to delete the reference to the May 1989 RCRA Facility Investigation Guidance. Rather than being a rigid and inflexible approach to corrective action, Permit condition VI.G.1 merely requires that the Permittees consider taking into account the referenced 1989 Guidance. When and if the provisions of Permit condition VI.G.1 are ever triggered, the Permittees may also want to consider reviewing the list of guidance documents identified in the Region's Addendum for additional helpful guidance and other materials. See "2016 09 26 Administrative Record Addendum.pdf."

VI-8. One commenter suggested that draft Permit condition VI.L. (incorrectly identified as draft Permit condition V.L. in the comments) exceeds the Region's authority to require sampling and analysis of soil and groundwater. The commenter refers to the preamble to the proposed Subpart X Miscellaneous Unit requirements. The proposed rule's preamble provided, in part: "for miscellaneous units, Subpart F requirements under § 264.101 for corrective action will always apply. However, the requirements under § 264.91 through 264.100 for monitoring and response action programs apply only to those units that have a potential for contamination of ground water. These standards will apply on a case-by- case basis through the new § 264.602 . . ." [citing 52 FR 46946, at 46955, (Dec. 10, 1987)].

RESPONSE: Even though the Agency chose not to regulate carbon regeneration units or other Subpart X Miscellaneous Units as incinerators, the Agency also left open the possibility – as mentioned in the quotation included in the comments – that monitoring and response action requirements might be appropriate on a case-by-case basis.

However, as written, this Permit merely provides a process for undertaking ground water protection activities or corrective action obligations, if necessary, in the future. Nothing in the Permit would currently impose such obligations on the Permittees, apart from Facility closure. Facility closure would trigger certain investigations as part of dismantling and closing individual units or areas and, ultimately, the Facility.

Draft Permit condition VI.L. requires that information *be addressed* in any Permit modification application that seeks to demonstrate "no releases of hazardous wastes or hazardous constituents from HWMU(s), SWMU(s) and/or AOC(s) . . . that pose a threat to human health or the environment."

The language quoted by the commenter that specifically states that the monitoring and response action programs will be applied on a case by case basis to Miscellaneous Units is at odds with the commenter's conclusions that the Region lacks the authority to impose such obligations at this Facility. Here, the Region has decided that leaving open the possibility of requiring a monitoring and response program to be implemented, if necessary, is appropriate in this case.

VI-9. One commenter suggested deletion of certain units, (*i.e.*, venturi scrubber, the RF-1 emissions stack, carbon adsorber – PV1000, slurry transfer inclined plate settler tank, scrubber recycle tank T-17 and the filter press), from draft Permit Table VI-1. The commenter asserted that these units have been removed from the Facility and do not constitute hazardous waste management units. The commenter also requested deletion of the RF-2 induced draft fan and emissions stack from draft Permit Table VI-1, asserting that these units merely manage exhaust gas, which the commenter asserts is not a hazardous waste.

RESPONSE: The Region declines to delete the requested units from the list of hazardous waste management units in Module VI.

The referenced table ("Table VI-1 - Hazardous Waste Management Unit Identification, New Unit Name") is found in a similar form in the Permit application submitted by the Facility operator. The Region disagrees with the suggested revisions since they are not reflected on the Permit application which was submitted by the commenter. If the list of hazardous waste management units needs to be updated because the units have either been removed since the table was submitted in the Permit application or are not "hazardous waste management units," the Permittees should have updated the table and resubmitted the application. The Region will not unilaterally revise the table based solely on the operator's comment.

However, the Region has added a new provision to Permit Condition I.K. that requires the Permittees, if necessary, to submit a revised and updated Table VI-1 and revised and updated Permit Attachment Section J, with an accompanying request for a Permit modification, within 60 days of the effective date of the Permit. Any updates or revisions to this table may be accomplished in this manner. See Permit condition I.K.7.

The Region is also clarifying that releases from the stack, which are expressly provided for in the Permit, are not considered releases to be reported in accordance with Permit Condition VI.E. The word "unpermitted" has been added as a qualifier to the word "releases" in both the Cover Sheet for the Permit and in Permit condition VI.E.1. so as to make this point clear.

To reduce the unnecessary inclusion of materials as attachments to the Permit, the Region has also removed the RCRA Facility Assessment (RFA) as a Permit Attachment and has replaced the reference to this attachment in Permit condition VI.A.1. to refer instead to Permit condition Table VI-1 - Hazardous Waste Management Unit Identification, New Unit Name, Permit condition Table VI-2 - Solid Waste Management Unit Identification and Permit condition Table VI-3 - Areas Of Concern (AOC) Identification Table, New Unit Name. The Region has deleted draft Permit condition VI.C.1. pertaining to the RFA and substantially revised Permit condition VI.C.

The Region has also removed significant portions of the Performance Demonstration Test (PDT) Report (Permit Application Appendix V) and the Human Health and Ecological Risk Assessment (HHERA) (Permit Application Appendix XI). Permit Attachment Appendix V and Permit Attachment Appendix XI include only the initial text of the Permit Application Appendices. The full copies of the RFA, the PDT Work Plan, the PDT Report, and the HHERA are available on EPA's website for the Facility and in the Administrative Record for this final decision.[47]

[47] See https://www.epa.gov/az/evoqua. See also, *e.g.*, the RFA at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

COMMENTS REGARDING GENERAL ISSUES (C)

C-1. One commenter objected to the draft Permit on the basis that the issuance of a Resource Conservation and Recovery Act (RCRA) permit for this Facility violates several environmental, tribal, and historic-preservation laws and policies, namely EPA's Tribal Consultation policies and guidance, the National Historic Preservation Act, Executive Order 12898 on Environmental Justice, Title VI of the US Civil Rights Act, RCRA, the Clean Air Act, the Native American Graves Protection and Repatriation Act,[48] the American Indian Religious Freedom Act, and Executive Order 13007 on Indian Sacred Sites. The commenter further claims that the permitting process is unfair to Native Americans.

RESPONSE: The U.S. Environmental Protection Agency's (EPA's) RCRA permitting regulations apply equally to facilities within or outside of Indian country. And, since this Facility is located in Indian country, EPA Region 9 (the Region) has, throughout the Facility's life, made a concerted effort to engage the Tribe and the community on the Facility and its hazardous waste operations. See also the Region's Response to Public Comment C-18, below, regarding the Region's consideration of environmental justice as part of the decision-making process.

The Region has endeavored over the years to incorporate environmental justice considerations into its review of permit applications for RCRA permits. It takes this responsibility very seriously and notes that the Environmental Appeals Board has reinforced the importance of undertaking an environmental justice analysis in its opinions.[49] *See*, *e.g.*, *In re: Chemical Waste Management of Indiana, Inc.*, 6 EAD 66, 67-76 (1995) (concluding that the Region should exercise its discretion to implement the Executive Order on Environmental Justice "to the greatest extent practicable"); *In re: Envotech, L.P.*, 6 EAD 260, 278-283 (1996); and *In re: Shell Gulf of Mexico, Inc. & Shell Offshore, Inc. (Frontier Discovery Drilling Unit)*, 15 E.A.D. 103, 111 (2010).

In performing the environmental justice analysis for this Facility, the Region collected available demographic data for a five-mile radius from the Facility and La Paz County, and compared that with data available for the state of Arizona, the Region and nationally. Based on a review of this demographic data, the Region concluded that the population within a five-mile radius of the Facility is above both the State and national average in its percentages of minority (54%) and low income (58%) residents. The Region also concluded that both the population within a five-mile radius of the Facility and La Paz County contain significantly higher percentages of Tribal or Indigenous populations than in the State or nationally. See Environmental Justice Findings USEPA Statement of Basis, Appendix E, (hereafter, "EJ Findings"), p. 481/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

Environmental justice concerns also helped inform the framework for the Human Health and Ecological Risk Assessment (HHERA) insofar as it was designed to ensure protection of

[48] Native American Graves Protection and Repatriation Act, Public Law 101-601; 25 U.S.C. §§ 3001-3013.
[49] See also "EPA Statutory and Regulatory Authorities Under Which Environmental Justice Issues May Be Addressed in Permitting," December 1, 2000, at https://www.epa.gov/sites/production/files/2015-02/documents/ej_permitting_authorities_memo_120100.pdf.

sensitive individuals, such as children, the elderly, those with predispositions (*i.e.*, susceptibilities), and communities with unique exposure patterns. See EJ Findings, p. 484/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." See also "2016 04 RCRA Application_Appendix XI_Rev 1.pdf." In addition, the health-based threshold for systemic health impacts in this assessment was reduced by 75% in an effort to account for cumulative exposures from any other facilities in the surrounding area. Id.

According to the Region's Environmental Justice Analysis:

> "The risk assessment demonstrates that, even with conservative assumptions, the potential risks associated with the Facility operations are below regulatory and target levels for human health impacts (both carcinogenic and non-cancer) and ecological impacts." See EJ Findings, p. 478/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

In evaluating the possible impacts of its permitting decision for the Facility on nearby minority and low-income residents, the Region took into consideration numerous factors that sought to address the particular and practical impacts of its decision on these members of the community. For example, the Region considered that both "[r]ecreational and subsistence fishing occurs both along the [Colorado R]iver and in the 250 miles of irrigation canals on the [CRIT] Reservation." See EJ Findings, p. 480/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." The Region also "conducted a survey within a five-mile area around the Facility using NEPAssist[50] to identify healthcare facilities, schools and community gathering places."[51]

In performing the environmental justice analysis that accompanied its draft permit, the Region also considered data regarding linguistic isolation in the nearby community, which may limit a household's capacity for civic engagement in the regulatory process. See EJ Findings, p. 481/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." And, the Region looked at both education and employment levels within the surrounding community. Education level may influence susceptibility and vulnerability to environmental pollution. Limited formal education is a barrier to employment, health care and social resources, and can increase the risk of poverty, stress, and impacts from environmental stressors. See id., p. 482/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." Low employment levels also increase stress and impacts from environmental stressors. Finally, in evaluating health data for the community, the Region found that the percentage of the total population without health insurance is higher than the state and national percentages. Id.

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[50] According to EPA's NEPAssist website, (https://www.epa.gov/nepa/nepassist): "NEPAssist is a tool that facilitates the environmental review process and project planning in relation to environmental considerations. The web-based application draws environmental data dynamically from EPA Geographic Information System databases and web services and provides immediate screening of environmental assessment indicators for a user-defined area of interest. These features contribute to a streamlined review process that potentially raises important environmental issues at the earliest stages of project development."

[51] See also "2018 03 14-CCR-090600226-2017 CCR Final Report-Big River Development.pdf" and "2018 06 07-CCR-090400051-2017 CCR+Certification of Delivery.pdf."

The Region has conducted numerous public meetings during the past two decades concerning this Facility and these efforts were, in part, in recognition that the Facility is located on Native American Indian lands.[52] And, the Region undertook a series of community interviews conducted with Tribal and non-Tribal residents within the community, government officials and other stakeholders as part of developing a site-specific and community-specific approach to ensuring appropriate outreach to and participation by the public in the decision-making process.[53]

In March of 2015, EPA reached out to the Tribal and Parker communities by holding an informational public meeting at the Parker Community Senior Center. EPA answered questions and provided the audience with information on how to get involved during the public comment period and public meeting/public hearing that would be held after the Region announced the draft permit decision.

The issuance of the draft permit was announced on September 28, 2016 and the public comment period opened on October 1, 2016. EPA held a public meeting for the community and a public hearing to obtain public comment on November 1, 2016 at the CRIT Tribal Casino meeting rooms in Parker, AZ. And, on November 15, 2016, EPA extended the public comment period, to January 9, 2017.[54]

In processing the Facility's permit application, proposing the draft Permit and issuing this final Permit decision, the Region has complied with all applicable requirements. Please see the following responses to comments regarding specific authorities mentioned by the commenter, which are also the subject of other comments from this commenter:

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[52] See, *e.g.*, "1994 06 14 Response to 01241994 Letter re Part B Permit Application.pdf," "1994 06 20 Response to 06141994 Letter from EPA.pdf," "2001 02 17 List of Concerns raised by community.pdf," "2002 08 13 Parker Pioneer Article about 2002 08 07 Public Meeting.pdf," "2002 08 07 Westates Public Workshop Documents.pdf," "2002 11 04 Letter re Response to concerns re public meeting on 08072002.pdf," "2003 08 29 Meeting Notes 08012003 NHPA Meeting - Various Recipients.pdf," "2003 08 29 Meeting Notes from 08012003 NHPA Meeting - DEddyJr.pdf," "2004 01 21 Memo Public Notice Air Emissions and RA Public Workshop w_o mailing list.pdf," "2004 02 11 Public_Workshop_Public_Hearing w o sign in sheets & incomplete pp.pdf," "2004 02 11 Public Workshop Public Hearing.pdf," "2005 01 11 Email re Action Items for 2004 12 17 Meeting.pdf," "2005 03 24 Ltr to David Harper re Feb 2004 Public Meeting.pdf," and "2016 10 26 Parker Pioneer PP_1026A_16.pdf."

[53] See, "2011 10 19 Interview 1 for PIP.pdf," "2011 12 19 Interview 2 for PIP.pdf," "2011 12 20 Interview 3 for PIP.pdf," "2011 12 21 Interview 4 for PIP.pdf," "2011 12 21 Interview 5 for PIP.pdf," "2011 12 21 Interview 6 for PIP.pdf," "2012 04 13 Interview 7 for PIP.pdf," "2012 04 13 Interview 7 notes for PIP.pdf," "2012 04 16 Interview 8 for PIP.pdf," "2012 04 16 Interview 9 for PIP.pdf," "2012 04 16 Interview 9 notes for PIP.pdf," "2012 04 23 Notes from 3 Interviews for PIP.pdf," "2012 05 07 Interview 10 for PIP.pdf," "2012 05 08 Interview 11 for PIP.pdf," "2012 09 12 Interview 12 for PIP including notes.pdf," and "2012 09 12 Interview 12 for PIP.pdf." See also "2011 03 17 Final signed CRIT Chairman letter for Public Participation at Siemens.pdf."

[54] See, "2016 09 28 Email Notification of Proposed Permit Decision.pdf"; "2016 09 29 Email Notification of Prposed Permit Decision.pdf"; "2016 10 03 Parker Line Online EPA Public Comments.pdf"; "2016 10 26 Email Transmitting Public Notice to Parker Pioneer.pdf"; "2016 10 26 Parker Pioneer PP_1026A_16.pdf"; "2016 11 01 Public Hearing Transcript.pdf"; "2016 11 10 Letter re Extension of Public Comment Period.pdf"; "2016 11 14 Email to CRIT Librarian re revised docs.pdf"; "2016 11 14 Fact Sheet for Proposed Permit (English).pdf"; and "2016 11 15 Evoqua Public Notice (English).pdf."

- Federal trust responsibility and consultation with respect to the Colorado River Indian Tribes (CRIT) (See the Region's Response to Public Comment C-15);

- the National Historic Preservation Act (NHPA) (See the Region's Response to Public Comment C-16);

- Executive Order 12898 on Environmental Justice (See the Region's Response to Public Comment C-18);

- Title VI of the US Civil Rights Act (See the Region's Response to Public Comment C-18);

- RCRA (See the Region's Response to Public Comments C-2 through C-18, generally); and

- The Clean Air Act (CAA) (See the Region's Response to Public Comment C-10).

Responses to the comments relating to the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), the American Indian Religious Freedom Act of 1978 (AIRFA), and Executive Order 13007– Indian Sacred Sites, are provided here. However, the Region's response with respect to the NHPA (C-16) is also relevant with respect to the commenter's assertions regarding the Agency's purported failure to comply with NAGPRA, AIRFA and Executive Order 13007 regarding Indian Sacred Sites.

NAGPRA was enacted in 1990 and represents "the culmination of 'decades of struggle by Native American tribal governments and people to protect against grave desecration, to [effect the repatriation of] thousands of dead relatives or ancestors, and to retrieve stolen or improperly acquired cultural property.'" *Yankton Sioux Tribe v. US Army Corps of Engineers*, 83 F. Supp. 2d 1047, 1054, (D.S.D., 2000) (citing Jack F. Trope and Walter R. Echo-Hawk, The Native American Graves Protection and Repatriation Act: Background and Legislative History, 24 Ariz. L. J. 35, 36 [1992]). The Act focuses on establishing the rights of Indian tribes and their lineal descendants to obtain repatriation of certain human remains, funerary objects, sacred objects, and other objects of cultural import from federal agencies and museums. In addition to its repatriation requirements, the Act makes several specific provisions for the protection of Native American cultural items, including human remains, which are excavated or discovered on federal or Tribal lands after November 16, 1990. See 25 U.S.C. §§ 3001-3013.[55]

However, for the following reasons, the Region believes that NAGPRA is inapplicable to the RCRA permit decision at hand. There is no evidence in the record relating to this decision to suggest that any cultural items subject to NAGPRA are implicated by this final RCRA permit decision. See 43 CFR Part 10. There is no evidence of any cultural items subject to NAGPRA excavated or discovered as part of the development or operation of the Facility or the RCRA permitting process. Nor is there any evidence of any such cultural items in the possession or control of EPA. On the other hand, there is ample evidence in the Administrative Record

[55] See also, *Yankton Sioux Tribe, supra,* 83 F. Supp. at 1054-1055.

demonstrating that the Region undertook to uncover whether cultural resources or items might be impacted by its RCRA permitting decision. See the Region's Response to Public Comment C-16, below.[56]

Notably, the land on which the Facility is located is CRIT's Tribal reservation land, so the disposition of Tribal remains, graves or other cultural or religious artifacts – to the extent relevant -- would properly be directly addressed by and between the Tribe and its lessee. Here, there is no particular information unknown to the Tribe or BIA, or any particular reason that related to hazardous waste management at the Facility, suggesting the Region had a responsibility to interfere in the Tribe's relationship with its lessee with respect to any specific cultural item, or an explicit invitation from the Tribe to do so. See, ***e.g.***, "1995 07 20 Building Permit Application.pdf."

The original lease of the Facility by the Colorado River Indian Tribes to the Facility operator was approved in early 1991. And, BIA, CRIT and the operator, as the signatories to the original lease agreement, explicitly addressed the issues of "antiquities" that may have been excavated or discovered during "all phases" of site development, as well as excavation or construction activities thereafter. The 1991 Lease Agreement required the lessees to leave "undisturbed and plainly marked" any graves, ruins or other antiquities within the exterior boundaries of the leased premises. It also required that the lessee/Facility operator report such findings to CRIT and BIA immediately. See, "1993 08 30 Request of Documents.pdf" at Section 31, pp. 51-53/111.

The Region also notes that the March 1991 lease agreement was already in effect and the Facility itself was already in construction when it achieved RCRA "interim status" as an existing facility later that year, (the Facility's interim status was effective as of August 21, 1991). See Facility Information US EPA Statement of Basis, p. 6/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

The Region acknowledges that other indigenous populations besides CRIT or its members may have interests in Tribal remains, graves or other cultural or religious artifacts that may have been excavated or discovered at or around the Facility. The Region notes that the original lease agreement uses the phrase "antiquities" without reference to any specific Tribal affiliation. Here, the Region has no information to suggest that any excavation or other activities at the Facility led to the discovery of cultural items subject to NAGPRA's requirements or, indeed, the discovery or excavation of any "antiquities," whether they may have been CRIT-related antiquities or otherwise. Therefore, there is no information indicating that NAGPRA has any applicability to this permit decision. (See also the Region's Response to Public Comment C-16, below.)

[56] See also, e.g., "1990 02 16 Letter EEI retained for Env Assessment.pdf"; "1990 11 29 Letter Re_Cultural_Resources_Determination.pdf"; "2002 09 27 Letter re Consultation on the Protection of Tribal Cultural Resources.pdf"; "2003 12 10 Letter with documents re Requesting Info about California Tribes.pdf"; "2003 12 15 Letter re Proposed EPA Undertaking.pdf"; "2003 12 23 Letter re Acitivities Conducted pursuant to NHPA - Various Recipients.pdf"; "Undated Book Passage on the CRIT.pdf"; and "UNDATED CRIT Mohave Resource Listing.pdf."

AIRFA was enacted in 1978. See 42 U.S.C. § 1996, *et seq*. The statute seeks to protect and preserve the traditional religious rights and cultural practices of Native Americans, including their rights of access to sacred sites, and the freedom to worship through ceremonial and traditional rites. The Act requires policies of all governmental agencies to eliminate interference with the free exercise of Native religion, based on the First Amendment, and to accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions.

Although AIRFA directs federal entities to accommodate access to and use of religious sites consistent with federal laws and mandates, it does not create a basis for objecting to the Region's permitting decision in this matter. See, *e.g.*, *Lyng v. Northwest Indian Cemetery Protective Ass'n,* 485 US 439, 455, 99 L Ed 2d 534, 108 S Ct 1319, (S.Ct. 1988) and *Henderson v. Terhune*, 379 F.3d 709, 711 (9th Cir. 2004). Nonetheless, the Region's decision in this matter involved extensive consultation, outreach and other communications with the Tribe and careful consideration of the religious interests and concerns raised by community members during public hearings and other meetings held in connection with the Region's permit decision. These considerations included the concerns expressed by some Mohave Elders, who regard Black Peak as sacred. (Further information about the Tribal consultation process in which the Region engaged, and the Region's consideration of religious interests and concerns during the NHPA decision-making process, is included in the Region's Responses to Public Comments C-15 and C-16, below.) Thus, the Region's decision-making process is consistent with the federal government's policy, as set forth in AIRFA. See, also, *Lyng*, *supra*, 485 US at 454-455.

Executive Order 13007 on Indian Sacred Sites was designed to protect and preserve Indian religious practices. It directs each federal agency that manages federal lands to "(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites." 61 FR 26771, May 29, 1996.

Executive Order 13007 does not apply to EPA in the context of this permit decision since neither the Facility nor the land comprising the Facility is managed by EPA. In addition, the plain language of the Executive Order demonstrates that it provides no authority under which to challenge the permit decision, stating:

> "Sec. 4. This order is intended only to improve the internal management of the executive branch and is not intended to, nor does it, create any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity by any party against the United States, its agencies, officers, or any person."

However, again, just as with the comments made with respect to the Region's adherence to AIRFA, the NHPA process that the Region undertook with respect to this RCRA permit decision demonstrates that the Region acted in conformance with Executive Order 13007. For example, the Region considered both access to and ceremonial use of "Indian sacred sites by Indian religious practitioners" and how such access and use might be impacted by this decision. See Executive Order 13007, Section 1. The NHPA process undertaken by the Region also demonstrates how the Region considered the potential for the permitting decision

to adversely affect the physical integrity of any such sacred sites and whether any such adverse impacts could be avoided. *Id.* For example, in developing its NHPA analysis, the Region considered ***all*** the land within a mile radius of the Facility as sacred land, from where prayers to Black Peak could be made.

See additional information regarding the NHPA analysis in the Region's Response to Public Comment C-16, below.

C-2. Several commenters claim that the permitting process has been tainted because the Agency was biased in allowing the Facility to operate for an extended period without proper permits or the landowner's signature on the permit application. The commenters assert that the Region was compelled, but failed, to deny the Facility's permit application when a complete application was not received by September 1, 2009.

RESPONSE: The Region acknowledges that the permitting process has taken longer than expected. However, because the Facility qualified and has continued to qualify for interim status under RCRA and the accompanying federal regulations, 40 CFR Part 265 and Part 270, Subpart G, the Facility is and has been operating legally under RCRA's hazardous waste program. In accordance with 40 CFR § 270.70(a), facilities that qualify for interim status "shall be treated as having been issued a permit." Furthermore, under interim status, the facility owner and operator must continuously comply with regulations designed to protect human health and the environment, as described in 40 CFR Parts 265 and 270. Pursuant to 40 CFR §§ 270.71-72, once a facility has entered interim status, while some changes may be made without prior Agency approval, the facility is not permitted to deviate from the wastes, processes, and design capacities specified in its Part A application without prior Agency approval.

Regarding the Facility operating for an extended period without the proper landowner signature, under RCRA's interim status requirements, a hazardous waste treatment, storage or disposal facility is not required to obtain a landowner signature in order to operate. Rather, the signature requirement contained in 40 CFR § 270.10(b) is part of the permit application process and must be satisfied before the Agency will deem a permit application complete. If an applicant fails to correct deficiencies in a permit application, the Agency may deny the application. See 40 CFR §§ 124.3(d), 270.10(e)(5). In fact, as part of the application process, the Tribe signed the Part A permit application in 1992. See "1992 11 30 Revised RCRA Part A Permit Application.pdf."

One of the commenters appears to rely for its argument on EPA's July 30, 2009 briefing paper prepared in anticipation of an August 3, 2009 meeting between EPA and the CRIT Tribal Council. See "2009 07 30 US EPA Messages for CRIT Council Meeting.pdf," (Supplemental Administrative Record). This briefing paper included the Region's stated intention to issue a notice of deficiency and a proposed denial of the application if a complete Part B Permit Application was not received by September 1, 2009. The commenter argues that this statement compelled the Agency to deny the permit application even though CRIT signed and certified the Facility's revised Part B permit application shortly afterwards, in December of 2009. The September 1 deadline was discretionary and was not required by statute or regulation and

therefore did not establish a legally binding deadline. The regulations governing RCRA Permit Applications do not compel the Region to propose a permit denial in these circumstances. See 40 CFR §§ 124.3(d), 270.10(e)(5) and 270.73 (Emphasis added). For example, 40 CFR § 124.3(d) states, in pertinent part, "If an applicant fails or refuses to correct deficiencies in the application, the permit may be denied . . ." While the July 30, 2009 briefing paper reflects the Region's need to see progress on the Tribal government's commitment to support the private lessee/operator's efforts to seek a RCRA permit, these ongoing communications by no means obligated the Agency to propose a permit denial if the Agency's stated "deadline" was not met. Neither does the failure to propose a denial of the permit for that reason constitute a misrepresentation or omission to either the Tribe or the community. (See also the Region's Response to Public Comment C-3, below.)

While the deadline passed, EPA observed that a Tribal Resolution approving the Tribe's signature and certification on the application was passed unanimously by the CRIT Tribal Council on October 26, 2009. (See: "2009 10 01 Section LCertification_Revision 1.pdf"; "2009 12 11 Certification of Permit Application.pdf"; and "2009 10 26 CRIT Resolution.pdf."[57]) And, as noted, the Tribe signed the application shortly afterwards, in December 2009. The Region also notes that CRIT reaffirmed its signature on the final Part B permit application in April of 2016. See, "2016 04 25 CRIT Ltr re Evoqua HW Permit Application.pdf."

As explained in the Statement of Basis for the draft Permit, the Region has engaged in numerous discussions and consultation with various CRIT tribal officials, including the CRIT Tribal Council, about the Permit application, the Tribe's obligations with respect to the application and the Facility, and the Agency's permit decision-making process. See Tribal Consultation with Colorado River Indian Tribes (CRIT) US EPA Statement of Basis, p. 11/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." These communications have occurred throughout the entire life of the Facility.[58]

One of the commenters claims -- but does not support or explain -- that EPA "provided misinformation to the tribal government and tribal members and also withheld other important information" and that such actions led to the Tribe signing the final Part B permit application. Because the commenter has failed to explain these assertions, the Region can only respond that it has consistently provided outreach and informational materials in good faith to both the Tribal government and the community regarding all aspects of the decision-making process, as evidenced generally throughout the documents contained in the Draft Permit Administrative Record and the Supplemental Administrative Record.[59] With the exception of some minor and

[57] See, also, *e.g.,* "2007 09 26 Letter Landowner signature and certification of Hazardous Waste Permit Application.pdf," "2007 10 15 Siemens Response re Landowner Signature and Certification of Permit Application .pdf," and "2016 03 07 USEPA R9 Ltr to CRIT re Signature Request and Status of EPA Consultation with CRIT.pdf."
[58] See also the Region's Response to Public Comment C-15 and footnote 101, below.
[59] See, *e.g.*: "1995 05 31 cover ltr CRIT w_o Encl Inspection Rpt Transmittal Letter Mar 1995.pdf"; "2000 08 31 Parker Public Library - Request to enclose documents.pdf"; "2000 09 26 Email Westates Publications 2000.pdf"; "2000 10 05 Review of Waste Permit Application – Oct 2000.pdf"; "2000 12 14 Email Westates_Publication_For the Record.pdf"; "2001 01 22 CRIT AG w_o encls.pdf"; "2001 07 20 Memo re Materials delivered to CRIT Reservation.pdf"; "2003 09 19 Re_Requesting Comments on Proposed Area of Potential Effects_DEddyJr.pdf";

specific errors, which are explained in these Responses to Comments, the Region is unaware of any incorrect information it may have communicated to CRIT or the general public, nor is it aware of any omissions of information that it should have provided to CRIT or the general public in advance of asking for the Tribe's signature on the RCRA permit application.

C-3. Several commenters expressed the concern that the permitting process has been illegitimate because the Agency has exhibited a pro-facility bias.

RESPONSE: The Region did not approach the permitting process with bias or with a predetermined outcome in mind.[60] One commenter based its concern on an incorrect statement from a previous EPA RCRA Permitting website that has since been corrected. This statement said that the Region was "in the process of issuing permits" for the Evoqua and Romic facilities. This statement was poorly worded and should instead have indicated that the Region was in the process of "making permit decisions." The Region acknowledges the error. Notably, however, the Region actually denied the referenced Romic facility permit application in 2007 for lacking the trust landowner tribe's signature. (See December 17, 2007 Notice of Denial of RCRA Permit Application at: https://www3.epa.gov/region9/waste/romic/pdf/romic-permit-denial.pdf.)

Many other Regional documents and webpages make clear that the Region did not prematurely decide to issue a RCRA permit for the Evoqua Facility. For example, the Region's November 2016 fact sheet for the proposed permit specifies that the Region was "proposing to issue a permit" for the Facility. See Fact Sheet: Proposed Permit for the Evoqua Water Technologies LLC Facility Near Parker, Arizona at "2016 11 Fact Sheet for Proposed Permit (English).pdf." The Region's February 2017 HHERA Fact Sheet similarly provides that the Agency "will . . . be making a decision about whether or not to issue a RCRA permit to allow the facility to continue managing hazardous waste." See HHERA at Evoqua Water Technologies at "2017 02 Risk Assessment Fact Sheet.pdf." And, the Region's Revised Statement of Basis states that, after the close of the public comment period, "[t]he Agency will then make a final decision to issue or deny the permit for the Facility." See Section 3.4 How EPA Will Make a Final Decision, US EPA Statement of Basis, p.6/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." See also the Region's Response to Public Comment C-12, below.[61]

"2003 09 30 Draft RFA Appendices.pdf"; "2003 10 14 Letter re Proposed Meetings and Workshops.pdf"; "2003 11 10 Letter EPA Meeting with Tribal Members.pdf"; "2003 11 18 Documents re Meeting with CRIT Tribal Members.pdf"; "2003 12 15 Public Access Amelia Flores.pdf"; "2003 12 30 Letters to Prospective Consulting Parties - DEddyJr.pdf"; "2004 01 09 Letter re Public Access - Amelia Flores.pdf"; "2004 01 09 Letter re Public Access - Jeannie Chavez.pdf"; "2004 02 11 Public_Workshop_Public_Hearing w o sign in sheets & incomplete pp.pdf"; "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf"; "2005 05 19 Email_Rescheduling the dioxin workshop.pdf"; "2006 02 28 Letter Concerning Public Access Amelia Flores.pdf"; "2006 02 28 Letter Concerning Public Access JSmith.pdf"; "2006 03 01 Memorandum Westates Web Page Launch.pdf"; "2006 03 26 Letter to thank for public access to documents.pdf"; "2006 07 31 Letter thanking for Public Access.pdf"; "2007 01 30 Section 106 NHPA Packet.pdf"; "2007 01 31 Letter Regarding Public Access.pdf"; "2015 03 05 EPA Response to CRIT Letter dated 20 Feb 2015.pdf"; and "2016 09 27 Letter with Transmittal Notifying CRIT of Draft Permit and Public Comment Period.pdf."

[60] The Region has previously addressed similar concerns raised by a representative of the Mohave Cultural Preservation Program. See "2002 11 04 Letter re Response to concerns re public meeting on 08072002.pdf."

[61] See also, e.g., EPA Fact Sheets and Public Notices dated: (1) September 2000, "Westates Carbon Has Requested a Hazardous Waste Treatment and Storage Permit," ("2000 09 26 Email Westates Publications 2000.pdf"); (2) August

C-4. One commenter objected to the issuance of a permit to the Facility because, the commenter claimed, the Agency has illegally allowed the Facility to operate for an extended period without an Environmental Impact Statement (EIS) or an EIS public participation process.

RESPONSE: The RCRA permitting process itself involves public participation and a thorough review of environmental considerations. The Agency is therefore not required to prepare an EIS under the National Environmental Policy Act (NEPA).[62] Federal regulation explicitly provides that "all RCRA . . . permits are not subject to the environmental impact statement provisions of section 102(2)(C) of the National Environmental Policy Act." 40 CFR § 124.9(b)(6). Consistent with this regulation, courts have established that the Agency need not prepare an EIS or otherwise comply with NEPA's public-participation requirements where "the agency is engaged primarily in an examination of environmental questions and where 'the agency's organic legislation mandate[s] specific procedures for considering the environment that [are] functional equivalents of the impact statement process.'" *Alabama ex rel. Siegelman*, 911 F.2d 499, 504 (11th Cir. 1990) (quoting *Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201, 207 (5th Cir. 1978), cert. denied, 431 U.S. 966 (1978)).

Further, BIA completed an Environmental Assessment (EA) under NEPA in 1991 as part of its decision to approve the lease of Tribal trust land for the construction and operation of the Facility.[63] BIA completed a Supplement to the Final Environmental Assessment (SEA) in 1996. Both the 1991 EA and 1996 SEA resulted in a Finding of No Significant Impact.[64]

2002, "Air Emissions Test at Westates," ("2002 08 01 EPA Notice Air Emissions Test.pdf"); (3) August 2002 "Risk Assessment at Westates," ("2002 08 01 EPA Notice Risk Assessment.pdf"); (4) December 17, 2003, "Public Notice Proposed Area of Potential Effects for US Filter Westates" ("2003 12 17 Public Notice Propsed Area of Potential Effects.pdf"); (5) January 2004 Public Notice Announcing a Public Workshop and Requesting Comments on US Filter Westates Proposed Air Emissions Test Plan and Risk Assessment Workplan," ("2004 01 21 Memo Public Notice Air Emissions and RA Public Workshop w_o mailing list.pdf" at p. 2/3); (6) May 31, 2006 "Public Notice Proposed Area of Potential Effects for US Filter Westates," ("2006 06 08 Public Notice for Proposed Area Potential Effects w o mailing list.pdf" at p. 2/5); and (7) August 1, 2006 "Public Notice Extension of Public Comment Period for Proposed Area of Potential Effects on Historic Properties for US Filter Westates," ("2006 08 09 Public Notice for Extended Comment Period.pdf" at p. 2/10).

[62] 42 USC § 4321, *et seq.*

[63] The EA was also previously addressed by the Region in correspondence to a representative of the Mohave Cultural Preservation Program. See, "2002 11 04 Letter re Response to concerns re public meeting on 08072002.pdf."

[64] See, "1990 02 16 Letter EEI retained for Env Assessment.pdf"; "1990 06 12 Transmittal of All Info Compiled from co approached the CRIT -06121990.pdf"; "1990 08 03 Letter Request for Review of Draft NEPA Document.pdf"; "1990 09 07 EPA Review of BIA Draft EA.pdf"; "1990 09 14 Notification of Intent to Construct Facility for Activated Carbon.pdf"; "1990 09 14 Re Review of Environmental Assessment.pdf"; "1990 09 XX EPA comments on BIA draft EA.pdf"; "1991 03 01 Final Environmental Assessment.pdf"; "1994 03 21 Letter Phase II Environmental Assessment.pdf"; "1996 05 01 Appendices G through Q to Final Environmental Assessment.pdf"; "1996 05 01 Appendix F to Supplement to Final Environmental Assessment.pdf"; and "1996 05 01 Supplement to the Final Environmental Assessment.pdf."

In order to address any concerns that the public may have with regard to activities conducted at the Facility, the Region has welcomed the submission of comments throughout the permitting process. Outreach to the public and the solicitation of public input into the decision-making associated with the Facility's application for a RCRA permit included seeking public comments on the draft permit[65] and, separately, on the risk-assessment[66] and trial burn test workplans.[67] The Region also solicited public comment throughout the National Historic Preservation Act (NHPA) process. See, for example, the fact sheets cited in the Region's Response to Public Comment C-3. See also the Region's Response to Public Comment C-16.

C-5. One commenter objected to the issuance of a RCRA permit to the Facility because, the commenter claimed, the Agency allowed the Facility to operate for 15 years without requiring a "Human Health and Ecological Risk Assessment" and because, the commenter further claimed, the assessment done by the operator in 2007 lacked any public participation component.

RESPONSE: The Facility has been operating as an "interim status" facility with respect to its RCRA status since August of 1991. The regulations governing interim status facilities have been promulgated to ensure that facilities operate safely until a RCRA permit decision has been made.

The Facility operator conducted a voluntary risk assessment in 1995 without EPA oversight. The operator used EPA's recommended methods and procedures to develop quantitative estimates of human health risk. While EPA did not oversee this site-specific risk analysis, the resulting risk-estimates turned out to be consistent with the findings from the EPA-

[65] See, *e.g.*, "2016 09 21 Evoqua-CRIT Draft Permit.pdf"; "2016 09 26 Fact Sheet for Proposed Permit (English).pdf"; "2016 09 29 Email Notifcation of Prposed Permit Decision.pdf"; "2016 10 03 Parker Line Online EPA Public Comments.pdf"; "2016 10 26 Email Transmitting Public Notice to Parker Pioneer.pdf"; "2016 10 26 Parker Pioneer PP_1026A_16.pdf"; and "2016 11 01 Public Hearing Transcript.pdf."

[66] See, (for the HHERA workplan), "2000 08 22 transmittal to B Angel w 1 encl and note.pdf"; "2000 08 31 Parker Public Library - Request to enclose documents.pdf"; "2000 11 13 transmittal to D Harper w 1 encl Note.pdf"; "2001 02 17 List of Concerns raised by community.pdf"; "2002 04 10 Inspection Warning Letter and Request for Info.pdf"; "Undated Potential Exposure Pathways.pdf"; "2002 08 01 EPA Notice Risk Assessment.pdf"; "2003 10 14 Letter re 09222003 Meeting with MCPP.pdf"; "2003 11 10 Letter EPA Meeting with Tribal Members.pdf"; "2004 01 09 Letter re Public Access - Amelia Flores.pdf"; "2004 01 09 Letter re Public Access - Jeannie Chavez.pdf"; "2004 01 21 Memo Public Notice Air Emissions and RA Public Workshop w_o mailing list.pdf"; "2004 02 11 Public_Workshop_Public_Hearing w o sign in sheets & incomplete pp.pdf"; "2005 03 16 PDT Plan Rev1 USEPA R9 Approval.pdf"; and "2005 03 21 EPA Approval of Air Emissions Test Plan.pdf."

[67] See, (for the trial burn test workplan), "2000 09 26 Email Westates Publications 2000.pdf"; "2000 12 14 Email Westates_Publication_For the Record.pdf"; "2001 01 17 ltr to Harper Angel re air emissions w_o encls.pdf"; "2003 10 14 Letter re Proposed Meetings and Workshops.pdf"; "2003 11 10 Letter EPA Meeting with Tribal Members.pdf"; "2003 11 18 Documents re Meeting with CRIT Tribal Members.pdf"; "2003 12 31 Letter re EPA Plans for a Public Workshop.pdf"; "2004 01 09 Letter re Public Access - Amelia Flores.pdf"; "2004 01 09 Letter re Public Access - Jeannie Chavez.pdf"; "2004 01 21 Memo Public Notice Air Emissions and RA Public Workshop w_o mailing list.pdf"; "2004 02 11 Public_Workshop_Public_Hearing w o sign in sheets & incomplete pp.pdf"; "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf"; "2005 05 19 Email_Rescheduling the dioxin workshop.pdf."

approved risk analysis conducted by the operator and completed in 2008. (See "2016 04 RCRA Application_Appendix XI_Rev 1.pdf," and "2008 03 13 Letter re Risk Assessment.pdf.")[68]

In 2001, the Region required that the Permit applicant/operator capture appropriate emissions data and perform a risk evaluation to demonstrate protectiveness of human health and the environment at the Facility and in the general vicinity. In August 2001, the Region requested that a Performance Demonstration Test (PDT or trial burn test) Plan and Risk Assessment Workplan (Workplan) be prepared. See "2001 08 21 Formal Request of Air Emissions Tests Plan and Risk Assessment Workplan.pdf." The risk assessment and the trial burn test are closely inter-related elements in the RCRA permit process. In its August 2001 letter, the Region identified various requirements for the HHERA. The Region considered the trial burn test and HHERA to be part of the process for completing its review of the RCRA facility permit application.

In April 2002, an "open house" was held by the operator at the Facility in Parker, Arizona, to provide the public with information about the Facility, the trial burn test, and the risk assessment process. The Facility operator submitted the first version of the Working Draft Risk Assessment Workplan in June 2002.[69] After several rounds of comments and response to comments, the Workplan was finalized and submitted to the Region in December 2003.[70] In January 2004, EPA issued a public notice in the Parker Pioneer and mailed the notice to the Region's mailing list for the Facility, inviting public comment on the Workplan.[71] The Workplan was made available in the Parker Public Library and CRIT Library in Parker, for public review.[72]

In April 2007, EPA provided approval to use the trial burn test air emissions data in the HHERA.[73] In summary, the Region believes that the Administrative Record for this decision

[68] The HHERA was initially presented in two documents: (1) The Draft Risk Assessment for the Siemens Water Technologies Corp. Carbon Reactivation Facility in Parker, Arizona, dated July 30, 2007; and (2) The Response to USEPA Region IX Comments on the Draft Siemens Water Technologies Corp. Carbon Regeneration Facility Risk Assessment, dated March 13, 2008. See, "2016 04 RCRA Application_Appendix XI_Rev 1.pdf."

[69] See, "2002 05 21 Apr 2002 Open House Participation.pdf"; and "2002 05 21 Open House Apr 2002.pdf." See also, "2003 05 07 Estimated Stack Emissions from Westates.pdf."

[70] See, "2002 08 01 EPA Notice Risk Assessment.pdf"; "2003 03 12 EPA Comments on PDT Plan and RA WP.pdf"; "2003 04 22 Letter re Request for Extension for Submittal of Revised Performance Demo Test Plan and RA WP.pdf"; "2003 05 07 Worksheet for Emissions tests 1993 1994 and 2000.pdf"; "2003 05 21 RA Anticipated Receptor Grid Layout.jpg"; "2003 05 21 RA Habitat Map - USGS Orthophotography.jpg"; "2003 05 21 RA Habitat Map - USGS Topography.jpg"; "2003 05 21 RA Vicinity Map.jpg"; "2003 05 29 RA protocol REDLINE 5_21_03.pdf"; "2003 05 29 RA protocol REVISED 5_ 21_ 2003.pdf"; "2003 05 30 RTC - PDT Plan and Risk Assessment WP.pdf"; "2003 05 30 RTC_Performance_Demo_Test_Plan_and RA WP.pdf"; "2003 09 25 Comments on PDT Plan and RA WP.pdf"; "2003 09 30 Draft RFA Appendices.pdf"; "2003 10 13 EPA Comments on Performance Demo Test Plan and Risk Assessment WP.pdf"; "2003 12 05 RTC Working Draft RA WP.pdf"; and "2003 12 05 Working_Draft_Risk_Assessment_Workplan.pdf."

[71] See, "2004 01 21 Memo Public Notice Air Emissions and RA Public Workshop w_o mailing list.pdf."

[72] See footnote 66, above, regarding documentation of community outreach about the HHERA workplan.

[73] See, "2006 11 30 Request for Complete Part B Permit Application and HH and Eco Risk Assessment Report.pdf"; "2007 04 02 Email_ Re Fw SiemensResponse to Data Review Comments.pdf"; "2007 04 10 Email_Evaluation of

reflects that it has in fact included adequate and appropriate outreach to and input from the community in the risk assessment process supporting this final permitting decision.[74]

C-6. One commenter objected to the issuance of a RCRA permit to the Facility on the basis that the risk analysis was based, in significant part, on only one trial burn test and that test was flawed and problem-plagued and that these problems were not revealed to the public. The commenter claimed that requiring only one trial burn test is an example of pro-polluter bias by EPA. The commenter also expressed concern that the Facility owner and operator knew there would be a trial burn test and were able to prepare for it. Another commenter asked whether future trial burn tests would be required.

RESPONSE: At this Facility, the Region required that the operator perform a trial burn test to establish appropriate operating parameters, including emission limits, because it determined that a trial burn test would be necessary for identifying the operating parameters that would be required if a permit were to be issued to this thermal treatment unit. The Region also required the Facility operator to perform an HHERA using the results of the trial burn to verify that the Facility operations do not pose an unacceptable risk to human health and the environment.

Given that there are some differences between carbon regeneration units and hazardous waste incinerators, the Region believes that using many of the same standards that RCRA would have applied to an incinerator in the Facility's Permit requirements for the carbon regeneration unit is a conservative approach. For example, RF-2 is used only for processing a relatively homogenous and well-characterized waste stream, spent carbon. Incinerators may take a much broader variety of waste streams both in terms of types and concentrations of toxic contaminants in the waste. Meanwhile, incinerators are required to comply with the numeric emission standards of the MACT EEE rule, a rule that does not apply to RF-2. The MACT EEE numeric standards have *not* been developed after undergoing a national risk assessment process but are generally thought to be protective of human health and the environment. In this case, the site-specific risk assessment performed by the operator demonstrates that this Facility may be operated such that its emissions are both within the MACT EEE numeric limits that were developed for incinerators and the site-specific risk numbers derived as part of the performance demonstration test, risk assessment and permit application process.

While RF-2 is not an incinerator, in requiring the trial burn, the Region considered that the RCRA regulations for incinerators allow for hazardous waste incinerator operating conditions to be based on the performance of only one trial burn test.[75] See 40 CFR §§ 264.340(b), 264.345(a), and 270.19(b). The Region did not deem it appropriate to require another trial burn test during the permit application period. The Region notes that the Permit

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Focus March 16 2007 RTC - Carbon Reactivation Furnace (RF-2) Performance Demo Test Data Review.pdf"; and "2007 04 18 Memo - Siemens Carbon RF-2 PDT Data Review.pdf."

[74] See, also, "2007 07 30 Draft_Risk_Assessment.pdf"; "2007 07 31 Email_Siemens Risk Assessment 07312007.pdf"; "2008 03 13 Executive_Summary_Carbon Regeneration Fac Risk Assessment.pdf"; and "2008 03 13 Letter re Risk Assessment.pdf."

[75] The Region notes that the RCRA incinerator regulations cease to apply once a hazardous waste incinerator has certified its compliance with the CAA MACT EEE standards in accordance with 40 CFR § 264.340(b).

requires that repeat trial burn tests be conducted periodically (every 5 years) to confirm that unit operations are within expected parameters. In addition, the HHERA will also be updated. See Permit Condition V.I.

In general, site monitoring activities such as trial burns are performed by the Facility owners and/or operators themselves, with Regional oversight. The RCRA and CAA regulations reflect this expectation for trial burn tests. See 40 CFR §§ 63.1207(b) and 270.62(d). For a trial burn test such as the one performed at the Facility, the Region's role is to review the workplan and request modifications, if necessary. See 40 CFR §§ 63.7(c)(2)(i), 63.1207(e)(1)(i)), and 270.62(b)(3), (b)(5), and (d). Once the Region approves the workplan, the Facility owner and/or operator conducts the trial burn test according to the approved workplan. See 40 CFR § 270.62(b)(8). At EPA's discretion, EPA may provide additional oversight during a CAA trial burn test. See 40 CFR § 63.7(b)(1). In this case, the Region determined that additional oversight was warranted for the Facility's trial burn test, and EPA staff were present during the test to verify proper testing procedures and to collect split samples. See "2006 03 28 NEW Monitoring Data and Sample Checklists; 2006 03 29 NEW Monitoring Data and Sample Checklists; 2006 03 30 NEW Monitoring Data and Sample Checklists; and 2006 03 28 Field Report.pdf."

Trial Burn Tests under the CAA and RCRA are coordinated tests, and cannot be conducted as "surprise" tests.[76] The trial burn test is not designed to test typical operating conditions, but instead tests the "extreme range of normal conditions" and is conducted under conditions that will result in higher than normal emissions. See, *e.g.*, 40 CFR §§ 63.1207(g) and (g)(1). These conditions are also referred to as "worst-case" conditions (Carbon Reactivation Furnace Performance Demonstration Test Plan (May 2003), p. 12 at Permit Attachment Appendix V.). The Facility must prepare in advance for the trial burn test and is required to specify details of the protocol in a test plan. See, *e.g.*, 40 CFR §§ 63.1207(f)(1), 63.1208(b) and 270.62(b)(2) - (b)(10). For example, extremes of feed flowrate, temperatures, and stack gas velocity and sampling methods were described in the Facility's Trial Burn Test plan. See Permit Attachment Appendix V.

Allowing the trial burn test to occur under normal operating conditions would not challenge the system sufficiently. Advance preparations are required to obtain the "worst-case" test conditions. For example, sufficient waste must be ready on hand to provide feed for the entire test week. In addition, "spiking" of the waste feed (i.e., adding representative contaminants) is necessary to obtain the maximum likely contaminant profile. Facility staff and management preparations are also necessary in advance of the stack sampling – three runs over three days -- to ensure that maximum feed rates, temperatures, and other conditions are met during the test.

During the trial burn test, stack emissions are monitored to determine whether the emissions are within regulatory limits. The Facility operator used the trial burn test results in the HHERA, and the Region used these test results and HHERA results to set limits for operating parameters in the draft Permit. See 40 CFR §§ 264.345(a), and 270.62 (b)(5)(iii) and (b)(11).

[76] The Region provided community members information about the trial burn test and why it would not be a surprise test in 2002. See, "2002 08 01 EPA Notice Air Emissions Test.pdf."

See also "2016 04 RCRA Application_Appendix XI_Rev 1.pdf." Stack emissions are expected to remain within acceptable risk limits, as long as the system remains within the operating parameters specified in the Permit.

After close scrutiny of the test results, EPA instructed the Facility operator to "please move forward" on the HHERA and informed the operator that "the qualified data from the March 2006 air emissions test could be used in the risk assessment."[77] This statement implies that the operational issues noted in the comment and described in the trial burn test report were not significant, and that accuracy of the test results was not compromised. See Carbon Reactivation Furnace RF-2 Performance Demonstration Test Report (June 30, 2006), pp. 15 – 17 at Permit Attachment Appendix V.[78] In one instance, the issue occurred before the trial burn test run had begun. In the other three instances, sampling of stack emissions had begun but was suspended until the issue was resolved. In all cases, the trial burn test report indicated that proper operating conditions were achieved as required by the regulations and specified in the workplan, during sampling of the stack emissions.[79]

The Region provided information about the outcome of the trial burn test in two fact sheets (See Risk Assessment at Evoqua Water Technologies, June 2016, at "2016 06 Risk Assessment Fact Sheet.pdf" and Risk Assessment at Evoqua Water Technologies, February 2017, at "2017 02 Risk Assessment Fact Sheet.pdf"), in records made available to the public,[80] and at public meetings.[81] EPA also conducted ongoing consultations with the Tribe, during which the results of the trial burn test were discussed.[82] In these venues, the Region would have been unlikely to enumerate the specifics of the trial burn test, such as the four operational problems noted in the comment, because the Region ultimately found that the results of the trial burn test could be used in the HHERA, as noted above. CRIT received a copy of the trial burn test report directly from the operator.[83] In addition, CRIT obtained information about the trial burn test from its contractor, who reviewed the trial burn test report and sent comments and opinions about the results directly to CRIT. In that review, CRIT's contractor did not take issue

[77] See "2007 05 21 Email_FW Siemens Project Response to update risk assessment workplan.pdf" at p. 2.
[78] See also "2007 01 26 Review of Siemens CRF RF-2 PDT - June 2006.pdf."
[79] See, *e.g.*, "2001 02 21 Preliminary Internal RF-2 Stack Test Data Oct 2000.pdf," "2002 05 21 Apr 2002 Open House Participation.pdf," "2002 05 21 Open House Apr 2002.pdf," "2005 03 24 Ltr to David Harper re Feb 2004 Public Meeting.pdf," "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf," "2005 05 19 Email_Rescheduling the dioxin workshop.pdf," "2006 01 01 Air Emissions.pdf." See, also, "2003 05 07 Worksheet for Emissions tests 1993 1994 and 2000.pdf." In addition, a "mini-trial burn" was conducted in 2005 to test for dioxin and other compounds. See, *e.g.*, "2015 01 13 Transmittal of Results from Mini Burn in April 2005.pdf."
[80] See, *e.g.*, "2006 07 31 Letter thanking for Public Access.pdf," "2007 07 31 Email_Siemens Risk Assessment 07312007.pdf," "2016 06 Risk Assessment Fact Sheet.pdf," "2016 09 26 Fact Sheet for Proposed Permit (English).pdf," "2016 09 29 Email Notifcation of Prposed Permit Decision.pdf," "2016 10 03 Parker Line Online EPA Public Comments.pdf," and "2016 11 14 Email to CRIT Librarian re revised docs.pdf."
[81] See, *e.g.*, "2015 02 23 Parker Pioneer EPA Meeting.pdf," "2015 03 10 Parker Pioneer EPA Meeting.pdf," "2016 03 07 USEPA R9 Ltr to CRIT re Signature Request and Status of EPA Consultation with CRIT.pdf," "2016 10 03 Parker Line Online EPA Public Comments.pdf," and "2016 10 26 Parker Pioneer PP_1026A_16.pdf."
[82] See, *e.g.*, "2016 03 07 USEPA R9 Ltr to CRIT re Signature Request and Status of EPA Consultation with CRIT.pdf."
[83] See, "2006 09 26 Email_Stack_Test_Report.pdf."

with any of the four "problems," but did mention two items to attend to regarding future operations at the Facility. [84]

C-7. One commenter objected to the issuance of a RCRA permit to the Facility on the basis that the Region falsely claimed it conducted the trial burn test and that it provided "oversight," when it was only present for a portion of the trial burn. The commenter pointed to an EPA fact sheet dated June 2016 to support its objection.

RESPONSE: The statement in the June 2016 Fact Sheet saying that EPA conducted the trial burn test was incorrect. EPA did not conduct the test, but did oversee the operator and its contractors, who performed the trial burn test. Numerous Regional outreach documents, including fact sheets and transcripts of verbal statements, provide correct information on this topic. See Risk Assessment at Evoqua Water Technologies, February 2017, at "2017 02 Risk Assessment Fact Sheet.pdf." The Region regrets the misstatement in the June 2016 fact sheet and has updated the fact sheet with the correct information on the EPA website.

EPA and CRIT EPO representatives were present for the entire three days of active trial burn testing (March 28 - 30, 2006) to observe key aspects of the trial burn test. See Air Emissions Test Calibration and Check Sheets / Runs 1-3, 03/28/2006 at "2006 03 28 Monitoring Data and Sample Checklists", "2006 03 29 Monitoring Data and Sample Checklists"," 2006 03 30 Monitoring Data and Sample Checklists." In addition, EPA staff and managers were present for the day prior to the active trial burn test, during pre-test preparations.[85] Three EPA staff were present on stack platforms during active trial burn testing to observe stack gas sampling performed by the operator's contractors. These EPA observers were present to confirm that stack gas sampling procedures were followed, and filled out checklists to document their observations. See Air Emissions Test Calibration and Check Sheets / Runs 1-3, 03/28/2006 at "2006 03 28 Monitoring Data and Sample Checklists," "2006 03 29 Monitoring Data and Sample Checklists," and "2006 03 30 Monitoring Data and Sample Checklists." In addition, one EPA staff collected split samples at three locations (spent carbon feed, waste water, and scrubber blowdown) during active trial burn testing to confirm the data at these key locations that would be submitted by the operator in its trial burn test report. See Field Report for Siemens Water Tech Corp Conducted March 28-30, 2006 at "2006 03 28 Field Report.pdf." Another EPA staff observed activities in the Facility control room during active trial burn testing and visited other locations of the Facility as needed. The statement in the Performance Demonstration Test Report (*i.e.,* that EPA was present only for portions of the trial burn test) appears to refer to certain aspects of the trial burn test that may not have been directly observed by EPA staff. Although EPA staff did not observe all aspects of the trial burn test at all times, the observations

[84] See, *e.g.*, letter from CRIT consultant Arcadis to CRIT Office of Attorney General, dated January 26, 2007, at "2007 01 26 Review of Siemens CRF RF-2 PDT - June 2006.pdf" at p. 2/8.

[85] See, *e.g.*, "2006 01 01 Air Emissions.pdf," "2006 02 14 Email - Schedule for Air Emissions Test.pdf," "2006 02 22 Email - Action Needed - HAZWOPR Certifications PPE for Air Emissions Test.pdf," "2006 03 23 Email_Pretest Calibrations.pdf," "2006 03 28 Evoqua Stack Test.pdf," "2006 03 28 Air Emissions Test Monitoring Data and Sample Checklists.pdf," "2006 03 29 Air Emissions Test Monitoring Data and Sample Checklists.pdf," "2006 03 30 Air Emissions Test EPA Notes.pdf," "2006 03 30 Air Emissions Test Monitoring Data and Sample Checklists.pdf," and "2006 07 28 submittal of final PDT Report.pdf."

of five EPA staff at key locations during the entire three days of active testing provided ample oversight of the trial burn test.[86]

C-8. One commenter objected to the issuance of a RCRA permit to the Facility because the Agency does not truly know what the "typical emissions" are at the Facility, because there was only one trial burn test, which was flawed, and because there has never been continuous monitoring of stack emissions for hazardous air pollutants.

RESPONSE: The Region's June 2016 Fact Sheet, entitled "Risk Assessment at Evoqua Water Technologies" included a pie chart entitled "What Typically Comes Out of the Smokestack?" It included relative percentages of the constituents emitted from the Facility stack, based on the results of the testing undertaken during the trial burn test, as presented in the trial burn report. The relative percentages shown in the pie chart are expected to be "typical" of what the relative ratios of the emission constituents are to each other.

As noted in the Region's Response to Public Comment C-6, above, a "single" stack test conducted by the Facility under "extreme range of normal conditions" is sufficient to characterize typical constituent concentrations in stack emissions. The "single" trial burn test consisted of three runs that were representative of what these ***maximum*** stack gas constituents would likely be, since it is based on spiked feed and not typical waste feed. And, as further noted in the Region's Response to Public Comment C-7, the operational problems encountered during the trial burn test at the Facility did not compromise the results of the test.

As explained in the Region's Response to Public Comment C-6, above, the trial burn test is not designed to test typical operating conditions, but instead tests the "extreme range of normal conditions" and is conducted under conditions that will result in higher than normal emissions. Moreover, these "worst-case" conditions challenge the system under conditions that one would not want normally replicated.

The commenter is correct in stating that there has never been continuous monitoring of stack emissions at the Facility for hazardous emissions or hazardous air pollutants. Continuous emissions monitors for some of these contaminants at the appropriate detection levels – which are often very low -- may not exist. Neither is sampling of continuous monitoring data feasible. Moreover, continuous emissions monitoring is not necessary to confirm concentrations of hazardous emissions in the stack gases. The monitoring of stack emissions, including monitoring for hazardous air pollutants, which occurred during the trial burn test, demonstrated that the established parameters result in emissions that do not pose an unacceptable risk to human health or the environment. As long as Facility operations remain within the operating parameters tested, the emissions of hazardous air pollutants can be assumed to remain within the ranges observed during the test. See 40 CFR §§ 63.1209(a)(1)(i), (b)(1), and (k) - (o).

The operator continuously monitors certain parameters as shown on Table V-2, specifically, the Groups A1 and A2 parameters that trigger an automatic waste feed cutoff if they are not met. See Permit Conditions V.C.1.f., V.C.1.g. and Table V-2. Continuous monitoring of

[86] See footnote 85, above. See also, *e.g.*, "2006 03 28 Field Report.pdf," "2006 03 28 Evoqua Stack Test.pdf," "2006 03 30 Memo - PDT Pictures .pdf," and "2006 06 30 PDT Report.pdf."

these parameters is important because many of them are indicators of proper functioning of the system, as demonstrated during the trial burn test. See, *e.g.*, Permit Attachment Section D, and Permit Attachment Appendices V, VI, X, XXII.

In addition, the Permit requires continuous emissions monitoring of carbon monoxide and links that continuous monitoring requirement to restrictions of carbon monoxide in the stack gas emissions. See Permit Conditions V.C.1.b., V.C.1.h., and Table V-1. The results of the continuous emission monitoring for carbon monoxide are used as an indicator to ensure complete combustion of volatile organic contaminants is occurring in RF-2.

The Permit also requires recordkeeping of continuous monitoring data and reporting of exceedances. See Permit Conditions I.E.9.b. and V.C.5.e.iii. These Permit Conditions ensure the emissions of hazardous air pollutants will remain within the range observed during the trial burn test. In addition, the Permit requires that the Facility periodically perform trial burn tests (every 5 years) to ensure the system remains within the operating parameters specified in the Permit. See Permit Condition V.I.

C-9. One commenter objected to the issuance of a RCRA permit to the Facility on the grounds that the Region's claim that fugitive emissions are within regulatory levels has no basis in fact because fugitive emissions have never been monitored at the Facility. The commenter further asserted that the Region had failed to advise the Tribal landowner that there had never been any monitoring of fugitive emissions at the facility.

RESPONSE: Fugitive emissions have been monitored at the Facility through work practices. The Facility operator monitors Volatile Organic Compounds (VOC) fugitive emissions annually at multiple locations at the Facility. See Subpart FF Compliance Plan at Permit Attachment Appendix XXIII, and the RCRA Facility Assessment (RFA) at Section 4.1 at p. 13.[87] Results of fugitive emissions monitoring (for example from monitoring events in 2011, 2012, 2013, and 2015) demonstrate compliance with regulatory standards at the monitored locations. See Permit Attachment Section F and Permit Attachment Appendix XII. See also the RFA at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf," at pp. 522-1056/1064.

In addition, Facility personnel visually inspect air pollution control equipment and pumps, valves, and pipes daily to check for fugitive emissions. See Inspection Schedule and Checklist, Permit Attachment Section F, Permit Attachment Appendix XII, and Permit Condition II.E. The Permit also requires inspections of RF-2 be conducted in accordance with these standards. See, *e.g.*, Permit Condition V.F. In addition, information about fugitive emissions was included in the HHERA, and the Region used the results to determine that impacts from long-term exposure to Facility emissions are insignificant. See "2017 02 Risk Assessment Fact Sheet.pdf." The HHERA report reflected that both concentrations of fugitive emissions from carbon unloading at the Facility and measured worker breathing zone concentrations are below occupational exposure limits. See "2008 03 13 Letter re Risk Assessment.pdf" and" "2016 04 RCRA Application_Appendix XI_Rev 1.pdf."

[87] The RCRA Facility Assessment (RFA) is at Appendix G to EPA's Revised Statement of Basis, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf," at pp. 522-1056/1064. Page 13 of the RFA is at p. 537 of the pdf file.

In 2009, the Region briefed the CRIT Tribal Council about the monitoring of fugitive emissions within the context of the HHERA results.[88] The Region would not have intentionally misinformed the Tribe by telling any of members of the Tribal Council or representatives of CRIT EPO that there was no fugitive emissions monitoring occurring at the Facility, when such emissions monitoring was in fact occurring. The Region, therefore, disagrees with the commenter's assertion that the Region should have told the Tribe that no fugitive emissions had been monitored.

Indeed, fugitive emissions were addressed in detail in the HHERA, which was included in the Permit Application. See the HHERA Section 4.3 "Fugitive Emissions Exposure Assessment" and Section 4.2.2 "Fugitive Emissions" RCRA Part B Application, April 2016, at "2016 04 RCRA Application_Appendix XI_Rev 1.pdf." Results of three years of annual monitoring for fugitive emissions (2011, 2012, and 2013) were also included in the Permit Application. See Appendix F (Annual Method 21 Inspections Records) to the Subpart FF Compliance Plan, Permit Attachment Appendix XXIII. The CRIT EPO and CRIT Tribal government received copies of all documents pertaining to the Permit application, including the HHERA report.

C-10. One commenter objected to the issuance of a RCRA permit to the Facility on the basis that using the trial burn test to exempt the Facility from the Clean Air Act's Title V requirements is improper. The commenter asserted that the 2006 trial burn test was "completely flawed and problem plagued" and was, therefore, an insufficient basis on which EPA could conclude that "[t]he Facility's uncontrolled potential to emit criteria and HAP pollutants is below applicable major source thresholds, with the exception of sulfur dioxide (SO2) and oxides of nitrogen (NOx)."

RESPONSE: With respect to the commenter's assertion that the 2006 trial burn test was too old, flawed and problem plagued, please see the Region's Response to Public Comment C-6, above. See also the Region's Responses to Public Comments C-7, C-8, and C-9.

The Statement of Basis published with the Draft RCRA Permit explained the Region's determination that the Facility's uncontrolled potential to emit criteria pollutants (with the exception of SO2 and NOx) and HAPs is below applicable major source thresholds. See Section 5.4.6 "The Clean Air Act" U.S. EPA Revised Statement of Basis, p.10/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." The Region has already set forth the reasons it disagrees with the commenter's concerns about the trial burn test. (See the Region's Response to Public Comment C-6, above.)

The Statement of Basis also explained how the Draft RCRA Permit would impose practically enforceable, synthetic minor limits on SO2 and NOx to keep emissions of those pollutants below CAA major source thresholds. See Section 5.4.6 "The Clean Air Act" U.S. EPA Revised Statement of Basis, p.10/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." The Draft Permit Administrative Record included the Facility operator's September 2016 letter agreeing to the inclusion of practically enforceable permit limits in the RCRA Permit

[88] See "2009 05 28 ORC weekly hilite MMN.pdf."

to restrict its potential to emit SO2 and NOx to levels below major source thresholds. At that time, the operator agreed to the following limits:

> "For SO2, a 30 tons per year limit, demonstrated on a calendar year basis, using sulfur content of the feed, carbon reactivation production rate, and hours of operation over the course of the year, minus a 90% presumed sulfur removal rate from our scrubber system (which we believe to be a very conservative estimate of its removal efficiency).
> For NOx, a 22 tons per year limit, demonstrated on a calendar year basis, using the NOx stack gas concentration from the most recent stack test where NOx was measured (average of 3 runs), flow rate out the stack and the hours of operation of the of the [sic] reactivation unit."

See "2016 09 19 Evoqua Ltr to USEPA R9 re SO2 and NOx Limitations on Emissions.pdf."

We note that some changes to the draft Permit Conditions in Module V relate to the SO2 and NOx synthetic minor limits but do not affect the practical enforceability of those limits; they are noted here for completeness only. Please see the Region's Responses to Public Comments V-8, V-12, V-27, and V-39 for further information about these changes and other related matters pertaining to the trial burn test, and the SO2 and NOx requirements relating to the Final Permit Decision.

C-11. One commenter objected to the issuance of a RCRA permit to the Facility because, it alleged, the siting of the Facility was part of a strategic targeting of Tribal lands for hazardous waste management activities and because the Region remained silent as the Facility operator made false claims to tribal members and the general public about emissions.

RESPONSE: Based on the information available to it, the Region has no information other than the comment itself evidencing the alleged "targeting" of the Facility for development on Tribal lands in order to avoid local, county and state permits. See, *e.g.*, "1989 09 12 Letter Re_CRIT_Concerns_1989.pdf." Nor does the allegation affect the Region's RCRA permitting decision as EPA has an extremely limited role in where a private business enterprise locates. Typically, EPA has a voice in siting hazardous waste facilities only where there are specific siting requirements that apply under EPA's hazardous waste regulatory program. The only siting standards that apply to interim status facilities seeking permits are the flood plain requirements (40 CFR § 264.18(b)) and the prohibitions against disposal in salt domes, salt bed formations, underground mines or caves (40 CFR §§ 264.18(c) and 265.18). The prohibitions at 40 CFR §§ 264.18(c) and 265.18 are not relevant to this permit decision. And, the Facility is not located in a flood plain. See Permit Attachment Section B.

The Tribe negotiated and, along with BIA, approved a lease agreement, which initially went into effect in 1991. See the Region's Response to Public Comment C-4, above. The Region notes that the Tribe made and continues to maintain a business relationship with the Facility operator. The Region's involvement has been through the RCRA permitting process and has been appropriately implemented consistent with RCRA and EPA regulatory requirements. The Region has also engaged throughout the life of the Facility in government to

government communications with the Tribe regarding the Facility's operations and permitting. The Region notes that EPA's ongoing coordination with the Tribe involves a number of layers, including the Region's relationship to the Tribe as a co-regulator of a variety of activities conducted at the Facility. Fundamentally, however, the business decisions associated with the Facility's lease and operation on the Reservation are within the Tribe's sovereign prerogatives.

With respect to the assertion that the Region remained silent as the Facility operator made false claims to Tribal members and the general public about emissions, the Region has endeavored to ensure that the information provided to the public and to the Tribal Government by EPA regarding the Facility's emissions is accurate, concise and complete. The Region notes that it has been the subject of criticism by both the Facility operator and the commenter over the years both for statements and for omissions about the Facility and its impacts, including for the statements and omissions of others. However, the Region has consistently responded in an open and transparent manner that reflects its commitment to a fair permitting process that is engaged with all those who might be affected.[89] For example, when these same concerns were raised to the Regional Administrator in 2002, the Region affirmed that the information provided during its public meeting was factual and unbiased. And, the Region advised, it had "asked Westates to stop referring to the emissions as 'essentially steam.'" See "2002 08 13 Letter re Outrage at EPA Public Workshop on Facility statements and actions.pdf" and "2002 11 04 Letter re Response to concerns re public meeting on 08072002.pdf."

A wealth of information about the Facility's emissions has been presented to community members by both the Facility operator and EPA at various public meetings,[90] and through various informational materials,[91] as well as the HHERA, which was included in the Part B Permit Application. See "2016 04 RCRA Application_Appendix XI_Rev 1.pdf." As the commenter pointed out, the Regional Toxicologist presented a dioxin workshop to Tribal leaders and other community members in 2005.[92] As evidenced by the Administrative Record accompanying this Final Decision, the Region has done its best to present complex and detailed technical and risk-related information in as complete and comprehensible a manner as possible to the community.

Since the time Facility operations began in the early 1990s, the Region has engaged in extensive government to government consultation with CRIT and consistently reached out to the

[89] See, *e.g.*, "2002 06 20 Comments on EPA Fact Sheets .pdf," "2002 08 13 Letter re Outrage at EPA Public Workshop on Facility statements and actions.pdf," "2002 10 04 Request_for Meeting w RA.pdf," "2002 11 04 Letter re Response to concerns re public meeting on 08072002.pdf," "2004 06 09 Consultation regarding Air Emissions Test.pdf," and "2004 12 08 Letter re Consultation Regarding Air Emissions Test.pdf."
[90] See footnote 52, above.
[91] See, *e.g.*, "2000 09 26 Email Westates Publications 2000.pdf," "2000 12 14 Email Westates_Publication_For the Record.pdf," "2001 04 Westates In Depth Look Fact Sheets.pdf," "2001 04 03 Transmitting EPA Fact Sheets to Libraries.pdf," "2002 08 01 EPA Notice Air Emissions Test.pdf," "2002 08 01 EPA Notice Risk Assessment.pdf," "2004 02 11 Public Workshop Public Hearing.pdf," "2016 06 Risk Assessment Fact Sheet.pdf," and "2016 09 26 Fact Sheet for Proposed Permit (English).pdf."
[92] See, *e.g.*, "2005 03 24 Ltr to David Harper re Feb 2004 Public Meeting.pdf ," "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf."

general public and Tribal members with respect to this Permit decision.[93] The Region has taken seriously its obligations to include and reach out to minority, low-income and indigenous members of the community around the Facility, as evidenced by the significant volume of documents in the Administrative Record.

The Region has complied with the public participation process spelled out at 40 CFR Part 124. The Region also has complied with EPA guidance and policies on working and consulting with Tribal Governments. It has also complied with EPA's guidance and policies on engaging with and considering the concerns of minority, low-income and indigenous communities in its decision-making processes.[94] See also EJ Findings, p. 477/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."[95]

C-12. One commenter objected to the issuance of a RCRA permit to the Facility because, the commenter claimed, Fact Sheets dated June, September and November 2016 were biased and misleading because some information was not included.

RESPONSE: The Region does not agree that alleged omissions from the referenced Fact Sheets exist or amounted to bias or any attempt to mislead the public. In fact, the referenced Fact Sheets provide the necessary information to enable the public to review a variety of documents associated with the proposed Permit decision. These documents contain the level of detail the commenter says is lacking in the referenced Fact Sheets. That particular details were not included renders the Fact Sheets neither false, biased nor misleading. See also the Region's Response to Public Comment C-17, below.

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[93] See, *e.g.*: "2003 07 25 Re_NHPA Consultation Meeting for August 1 2003.pdf "; "2004 06 09 Consultation regarding Air Emissions Test.pdf"; "2004 10 22 Memorandum re Westates Web Page and Attached Documents April 2004 through Oct 2004.pdf"; "2005 02 09 Draft Programmatic Agreement for NHPA Review.pdf"; and "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf."

[94] See, *e.g.*: "2003 07 25 Re_NHPA Consultation Meeting for August 1 2003.pdf"; "2003 12 23 Letter re Acitivities Conducted pursuant to NHPA - Various Recipients.pdf"; "2003 12 30 Letters to Prospective Consulting Parties - DEddyJr.pdf"; "2004 06 09 Consultation regarding Air Emissions Test.pdf"; "2004 10 22 Memorandum re Westates Web Page and Attached Documents April 2004 through Oct 2004.pdf"; "2005 02 09 Draft Programmatic Agreement for NHPA Review.pdf"; "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf"; "2006 06 22 Letter re Inquiry Regarding Dave Harper Letter 06052006.pdf"; "2007 03 05 NHPA ext to public comment period.pdf"; "2007 03 12 Email_Extension_to the Public Comment Period.pdf"; "2007 03 14 Email_Fw Contacts for Siemens NHPA.pdf"; and "2007 03 23 Email Re Siemens NHPA -- request of Mohave Elders for Meeting with US EPA.pdf."

[95] See also, *e.g.*,: February 1994, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations at https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf; May 2013 EPA Region 9 Regional Implementation Plan to Promote Meaningful Engagement of Overburdened Communities in Permitting Activities at https://www.epa.gov/sites/production/files/2015-02/documents/2013-05-region-09-plan.pdf; and July 2014 EPA Policy on Environmental Justice for Working with Federally Recognized Tribes and Indigenous Peoples, at https://www.epa.gov/sites/production/files/2017-10/documents/ej-indigenous-policy.pdf. See additional guidance, policy and other materials cited in the Draft Permit Addendum ("2016 09 26 Administrative Record Addendum.pdf") and the Supplemental Addendum, "2018 09 18 Supplemental Administrative Record Addendum.pdf."

The commenter also asserts that EPA failed to provide information to the public about emissions from the Facility. Many of the documents referred to in the Fact Sheets, and to which the Fact Sheets themselves direct the public, include detailed information about air emissions at the Facility. See, for example Statement of Basis, Draft Permit Module V, Draft Permit Appendix V, etc.

C-13. One commenter objected to the issuance of a RCRA permit to the Facility because, the commenter asserted, EPA falsely claims it performed a risk assessment.

RESPONSE: The Region has corrected the Fact Sheets and record to reflect that it oversaw, but did not conduct, a risk assessment. However, that an incorrect line in the November 2016 Fact Sheet suggested that EPA had performed the risk assessment -- as opposed to having overseen its performance -- was unfortunate but not, in the Region's view, a basis to require it either re-propose the draft Permit or deny the Permit application. The Fact Sheet was corrected later. See "2017 02 Risk Assessment Fact Sheet.pdf." Moreover, sufficient information was provided to the public over many years regarding the development of and conclusions in the risk assessment, which was included by the operator in the Permit Application, for the public to appreciate EPA's role, not as author but as the approving entity. See, *e.g.*: "2000 09 04 Affidavit of Publication.pdf"[96]; "2002 08 01 EPA Notice Risk Assessment.pdf"[97]; and "2004 02 11 Public Workshop Public Hearing.pdf" at pp. 56-57/110[98]. See also the Region's Response to Public Comment C-3, above.

Where the Agency requires a risk assessment as part of the RCRA permitting process, EPA is responsible for developing and providing the permit applicant with the technical and scientific guidance necessary to perform human health and ecological site-specific risk assessments. In addition, EPA is responsible for providing the permit applicant with Agency-approved models and algorithms necessary to generate quantitative estimates of human and ecological health impact. EPA is also responsible for compiling and maintaining a peer-reviewed scientific database which provides the applicant with access to hazard and toxicity criteria for the broad range of constituents released from this facility.

In this case, EPA conducted direct oversight of the site-specific risk analysis for the Facility by examining and reviewing workplans or protocols for each step of the risk assessment process. EPA commented upon the initial and multiple iterations of the draft risk assessment conducted by Evoqua for several rounds of modification. See, *e.g.*, "2001 08 21 Formal Request of Air Emissions Tests Plan and Risk Assessment Workplan.pdf"; "2001 09 17 Response to

[96] This document includes a September 2000 EPA Fact Sheet for Westates Carbon-Arizona Inc. stating that the operator "will use the results of the performance demonstration to prepare an evaluation of the risks of the operation. This is called a risk assessment. EPA will review the results as well as the facility's risk assessment as part of the permit application review."

[97] This document is an August 2002 EPA Fact Sheet for Westates Carbon consisting of 2 pages describing the Risk Assessment to be performed by the Facility operator.

[98] This document includes a one-page February 2004 EPA Fact Sheet for US Filter Westates providing information regarding how "Westates must estimate the risk its operations may pose to human health or the environment" and that "Westates must conduct both a human health risk assessment and an ecological risk assessment." It also includes a one-page February 2004 EPA Fact Sheet for US Filter Westates providing "Specifics about Westates' Proposed Risk Assessment."

EPA 08212001 Letter reduced size.pdf"; "2003 03 12 EPA Comments on PDT Plan and RA WP.pdf"; "2003 04 22 Letter re Request for Extension for Submittal of Revised Performance Demo Test Plan and RA WP.pdf"; "2003 05 30 RTC_Performance_Demo_Test_Plan_and RA WP.pdf"; and "2003 10 13 EPA Comments on Performance Demo Test Plan and Risk Assessment WP.pdf."

C-14. One commenter objected to the issuance of a RCRA permit to the Facility because, the commenter claimed, the Region failed to investigate Tribal members' testimony and information about possible elevated cancer rates in neighborhoods near the Facility. Another commenter asked whether EPA had researched or investigated any potential health related issues to the community posed by Facility operations.

RESPONSE: The Region takes the possibility of unacceptable adverse human health impacts resulting from environmental conditions in the vicinity of the Facility very seriously. As a result, in responding to this comment, the Region submitted a query to the Arizona State Cancer Tumor Registry, which compiles both current and historic cancer data since 1981. This inquiry and its results are explained in more detail, below.

Cancer represents a group of diseases in which abnormal cells divide and reproduce without regulation or control and can invade nearby or distant tissues. Cancer is not one disease - rather an extremely complex group of diseases wherein multiple factors influence the likelihood of developing cancer. Age, genetic factors, lifestyle behaviors (diet/smoking), physical factors, biological agents and chronic exposure to chemical carcinogens have all been associated with an increased likelihood of developing cancer.

Cancers are extremely common in the United States and are the second leading cause of death in the US, exceeded only by diseases of the heart and circulatory system. The overall lifetime risk (likelihood) of developing cancer (incidence) in the U.S. is one in three, and one of every four deaths in the US is attributable to some form of cancer.

Because of cancer's extreme prevalence, cases may appear to occur with alarming frequency within a community even when the number of cases remains within the expected statistical norms. Further, as the U.S. population continues to age and as cancer survival rates improve, in any given community many residents will have experienced or observed many forms or types of cancer.

Several considerations are important when investigating potentially elevated rates of cancer. Cancers vary considerably in causation, predisposing factors, target organs and rates of occurrence. Cancers are often caused by a combination of factors which interact in ways that are not fully understood. For tumors that have been associated with chronic chemical exposures, the extended latency duration both complicates and confounds attempts to associate cancers occurring at a given time with local environmental releases or contamination. That is to say, since tumors may not appear until years or even decades after an exposure may have occurred, it is difficult to associate specific tumors with any specific condition or release to the environment.

The Center for Disease Control & Prevention (CDC) defines an elevated rate of cancer or cancer cluster as a greater than expected number of "cases that occur within a subgroup in a

distinct geographic area under a defined duration of time."[99] That means more people within a distinct geographic or demographic group within a specific time period develop cancer than is typical for similar populations.

In defining an elevated rate of cancer, or cancer cluster, the CDC's use of the phrase "cases that occur within a subgroup in a distinct geographic area under a defined duration of time" may include:

- a greater than expected number of observed cases in a similar setting over a defined time window; or
- a greater than expected number of tumors of the same type (tissue of origin); or
- the subgroup in which the cancer occurs is defined by a specific demographic factor (race/ethnicity); or
- a greater than expected number of cases in a distinct geographic area within a discrete duration of time occurs.

Elevated rates of cancer in a specific community that consist of one type of cancer or a rare type of cancer - or a tumor type which is not typically observed within a specific demographic group - are more likely to have a common cause.

In preparing its response to this comment, EPA has examined several lines of complementary scientific evidence while investigating a potential "cancer cluster" in subgroups or communities proximate to the Facility and has not been able to identify any statistical findings nor anecdotal evidence of an unusual pattern, prevalence or type of cancer in the communities proximate to this Facility.

The site-specific HHERA has estimated the excess likelihood of developing cancer from Facility releases as well within the Agency's acceptable thresholds and these estimates range from four (4) in ten (10) million (4E-07) to nine (9) in one billion (9E-09). That means that the acceptable thresholds are between four in every ten million people to nine in every one billion people potentially developing cancer from Facility releases. These estimates include individuals whose exposure scenario patterns vary from subsistence to recreational. Chronic excess lifetime cancer risks were found to be at least five times (5x) lower than EPA's combustion risk assessment target level (1E-05).[100] The excess lifetime cancer risks were reduced to fifty (50x) or more times lower than the target level when just one compound (benzidine) was eliminated from the analysis. It should be noted that benzidine was not detected in the stack gas during the performance demonstration test (PDT), and has not been received at the Facility in spent carbon.

[99] See Investigating Suspected Cancer Clusters and Responding to Community Concerns: Guidelines from CDC and the Council of State and Territorial Epidemiologists, September 27, 2013, at https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6208a1.htm.

[100] For more information about EPA's combustion risk assessment target level, see EPA's September 2005 Human Health Risk Assessment Protocol for Hazardous Waste Combustion Facilities at https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P10067PR.txt.

The Arizona Cancer Registry is a population-based surveillance system that collects, manages and analyzes information on the incidence, survival and mortality of persons diagnosed with cancer. The Arizona Cancer Registry began collecting cancer case information in 1981 and as of January 1992, cancer officially became a reportable illness in Arizona. The State & Regional tumor registries are considered the most reliable source of cancer surveillance information and data currently available.

EPA collected data and Information from the Arizona Tumor registry from Dr. Chris Newton, Cancer Epidemiologist – see web link: http://azdhs.gov/gis/community-health-analysis-area/index.php . This data and information is provided with the Age Standardized Cancer Rates information set forth below.

EPA collected data and information from the US Centers for Disease Control & Prevention, Department of Health and Human Services & National Cancer Institute - CDC WONDER Online Data for Epidemiologic Research (2016) – see web link: US Cancer Statistics 1999 - 2014 Incidence - http://wonder.cdc.gov/cancer-v2014.html. This data and information is provided with the Age Standardized Cancer Rates information set forth below.

It should be noted that cancer rates were examined for all sites, all races and for all neoplasms. Cancer rates have been standardized for age and no crude cancer rates are reported. All rates are reported per 100,000 individuals.

Cancer rates are typically reported on an annual basis, and can vary substantially by year. Therefore, rates reported over longer durations of time provide a more accurate characterization of the occurrence patterns and trends within a given community or geographic area. In addition, cancer rates collected over extended durations of time provide a more accurate basis for comparative analysis than do rates compiled over any individual year.

In general, cancer rates for the State of Arizona are 10-20% lower than comparable rates in the US general population. In general, cancer rates for the County of La Paz are lower than comparable rates for the State of Arizona. Finally, boundary-specific cancer rates for CRIT are most closely correlated with the Arizona Department of Public Health's Community Health Analysis Areas (CHAAs). The CHAAs are individual geographic units within Arizona that were created for use by various disease monitoring programs. Arizona contains 126 CHAAs and the geographic unit that is germane to CRIT encompasses Parker, AZ.

Age Standardized Cancer Rates:

- US general population Age-Standardized Cancer Rate 471 cases/100,000 (1999-2014).

- Arizona Age-Standardized rates from 1995-2009 vary from 410-450 cases/100,000. The rate for the most recent time-period currently available is 378 (400 male/364 female) cases/100,000 (Feb 2018 reporting).

- Age-Standardized rates from 1995-2009 for La Paz County vary from 283-381 cases/100,000. The rate for the most recent time-period currently available is 325 (330 male/316 female) cases/100,000 (Feb 2018 reporting).

- Age-Standardized rate for the Parker, AZ (Community Health Analysis Area [CHAA]) 359-418 cases/100,000.

In addition, in response to this Public Comment, EPA contacted the authoritative scientific personnel below in search of anecdotal evidence of any unusual patterns, incidence or prevalence of cancer on the CRIT reservation or within the community of Parker, Az. The scientists below reported that they were not aware of and have not observed any unusual patterns of cancer in these communities:

Dr. Michael Allison – Native American Liaison – Arizona Department of Health

Dr. Hisini Lin – State Toxicologist - Arizona Department of Public Health – Office of Environmental Health

Dr. Jamie Ritchey – Director of Epidemiology – Intertribal Council of Arizona

Mr. Zachary Hargis – Parker Indian Health Center – Office of Environmental Health

Ms. Sylvia Dawavendewa – Executive Director, Colorado River Indian Tribe (CRIT) Health Department.

See, "2017 08 29 Record of Communication M. Allison.pdf"; "2017 09 01 Record of Communication J. Ritchey.pdf"; "2017 09 12 Record of Communication Z. Hargis.pdf"; "2017 08 Record of Communication H. Lin.pdf"; and "2017 08 Record of Communication S. Dawavendewa.pdf."

Based on the results of the investigation that EPA has undertaken, as reflected in the information set forth above, in the Draft Permit Administrative Record and the Supplement to the Administrative Record, the Region has found no evidence of increased rates of cancer in communities proximate to the Facility.

C-15. One commenter objected to the issuance of a RCRA permit to the Facility as a result of what the commenter claimed was the Region's failure to undertake adequate Tribal Consultation with the beneficial landowner, the Colorado River Indian Tribes.

RESPONSE: The Statement of Basis accompanying the draft permit explained that EPA initiated "formal" Tribal consultation consistent with EPA's May 4, 2011 Policy on Consultation and Coordination with Indian Tribes (available online at https://www.epa.gov/sites/production/files/2013-08/documents/cons-and-coord-with-indian-tribes-policy.pdf) with respect to the RCRA Hazardous Waste Permit Application submitted to EPA for the Facility in August of 2014. This reference to "formal" Tribal consultation was a general reference to the "formal" consultation provisions established in that May 2011 Policy. The reference reflects the simple fact that consultation *pursuant to* the 2011 Policy could not have occurred until *after* the Policy was issued. It was not intended to suggest, nor do the voluminous records in the Administrative Record support the commenter's claim, that "consultation" with CRIT began in 2014.

EPA's communications with CRIT began at least as far back as 1992, when the Region received an early draft of the RCRA permit application for the Facility with the signature of the Vice Chairman of the Tribe on behalf of the Tribe as the beneficial landowner of the Facility. See, "1992 11 30 Revised RCRA Part A Permit Application.pdf." More direct communications between EPA representatives and CRIT officials about the Facility have occurred since at least the early 1990s through to the present.[101] These communications included meetings with CRIT Tribal officials since at least as far back as 1994. See, "1994 05 03 Memo re May 18 Conference.pdf." And, the Region has continued to meet with the CRIT Tribal Council and its

[101] See, *e.g.*, "1989 08 24 Letter Info related to Air Quality Permit w o encls.pdf," "1990 10 25 Response to Letter of Determination.pdf," "1992 11 30 Revised RCRA Part A Permit Application.pdf," "1993 01 05 RCRA Preliminary Assessment 1.pdf," at p. 10/38, "1994 03 10 EPA Letter re formal enforcement action.pdf," "1994 03 16 CRIT response to USEPA Letter.pdf," "1994 05 03 Memo re May 18 Conference.pdf," "1994 06 14 Response to 01241994 Letter re Part B Permit Application.pdf," "1994 06 20 Response to 06141994 Letter from EPA.pdf," "1995 05 31 cover ltr CRIT w_o Encl Inspection Rpt Transmittal Letter Mar 1995.pdf," "2000 02 29 Letter re Dec 1998 Inspection Report.pdf," "2000 10 05 Review of Waste Permit Application - Oct 2000.pdf," "2000 12 14 Email Westates_Publication_For the Record.pdf," "2001 01 22 letter to CRIT AG w_o encls..pdf," "2001 02 27 Tribal Consultation of Westates Permit Decision.pdf," "2001 05 03 Letter Notifying CRIT Plans to Move Forward.pdf ," "2001 07 21 ltr w_o full encl list of Westates Generators.pdf," "2001 07 09 Superfund Waste to Wesates Carbon Facility.pdf," "2001 08 21 Letter Request complete copies of previous RCRA Permit Applications.pdf," "2001 08 30 Providing Information on Additional Carbon Regeneration Facilities.pdf," "2001 11 15 Invitation to Meeting 11192001.pdf," "2001 12 18 Letter w_o Enclosure of 4 Maps of CRIT and Parker_AZ.pdf," "2001 12 19 Invitation to Meeting 01032002.pdf," "2002 02 01 Transmittal of CFRs to CRIT.pdf," "2002 02 04 Letter Re RFA.pdf," "2002 09 27 Letter re Consultation on the Protection of Tribal Cultural Resources.pdf," "2003 02 05 Email - EPA Discussion with Chairman Eddy on 02042003.pdf," "2003 02 06 Pursuant to 02052003 Telephone Conversation.pdf," "2003 02 10 Invitation for EPA to Attend an Event on Tribal Lands.pdf," "2003 03 06 Letter re Plans for EPA to Attend Cultural Tour with Dave Harper.pdf," "2003 06 11 Question of Tribal Facility Determination.pdf," "2003 06 17 EPA Undertaking Under NHPA - Various Recipients.pdf," "2003 07 25 Re_NHPA Consultation Meeting for August 1 2003.pdf," "2003 08 29 Meeting Notes from 08012003 NHPA Meeting - DEddyJr.pdf," "2003 09 04 Letter re Followup to 07182003 Consultation Letter.pdf," "2003 09 10 Letter re Designated Areas of Potential Effects.pdf," "2003 09 19 Re_Requesting Comments on Proposed Area of Potential Effects_DEddyJr.pdf," "2003 10 14 Letter re Proposed Meetings and Workshops.pdf," "2003 11 10 Letter EPA Meeting with Tribal Members.pdf," "2003 12 30 Letters to Prospective Consulting Parties - DEddyJr.pdf," "2003 12 31 Letter re EPA Plans for a Public Workshop.pdf," "2004 03 19 EPA Response to Aug 2003 Letters.pdf," "2004 06 09 Consultation regarding Air Emissions Test.pdf," "2004 06 09 Letter re Consultation regarding Air Emissions.pdf," "2004 08 13 Memo_Working Draft_Programmatic Agreement.pdf," "2004 12 08 Response to 06092004 Letter re Air Emissions Test.pdf," "2004 12 08 Letter re Consultation Regarding Air Emissions Test.pdf," "2005 03 21 EPA Approval of Air Emissions Test Plan.pdf," "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf," "2006 02 14 Email - Schedule for Air Emissions Test.pdf," "2006 02 27 Letter Concerning NHPA process.pdf," "2006 02 27 Letter re Concerning APE.pdf," "2006 02 27 Letter Review of Mohave Program Letter of 2002.pdf," "2006 12 04 NHPA Meeting Notes.pdf," "2009 05 28 ORC weekly hilite MMN.pdf," "2009 12 11 Certification of Permit Application.pdf," "2011 05 25 Apr 2011 Inspection Report.pdf," "2012 05 25 NHPA final rpt letters w 2012 07 12 memo.pdf," "2014 01 28 Letter re Review of Hazardous Waste Permit App.pdf," "2016 03 07 USEPA R9 Ltr to CRIT re Signature Request and Status of EPA Consultation with CRIT.pdf," "2016 04 25 CRIT Ltr re Evoqua HW Permit Application.pdf," "2016 05 09 USEPA R9 Ltr to Evoqua re Part B Application.pdf," "2017 06 22 AX-17-001-0776 CRIT Patch.pdf," and "2017 07 27 EPA HQ reply to Chrmn Patch CRIT.pdf." See also, EJ Findings, p. 479/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

representatives and engage with the Tribe on a government-to-government basis regarding both the Facility and this final permit decision.[102]

As explained in EPA's Statement of Basis, EPA regards its consultation with CRIT as an important aspect of the Agency's procedures as it engages in the RCRA permitting process for the Facility. Moreover, the Tribe's status as the beneficial landowner of the Tribal trust land on which the Facility is located made the Region's consultation process with the Tribe all the more significant because CRIT is a co-applicant on the RCRA Permit Application. The Statement of Basis explained that the "formal" phase of the consultation process on the permit decision closed on May 20, 2016. But, it also makes clear that the consultation process in general, as evidenced by the Administrative Record for this decision, is a continuous process. EPA's correspondence and other communications with CRIT have made it clear that EPA plans to continue regular consultation with the CRIT government regarding hazardous waste management at the Facility for as long as the Facility is managing hazardous waste and until RCRA closure of the Facility is completed. See Section 6. Tribal Consultation with the Colorado River Indian Tribe (CRIT) USEPA Statement of Basis, p. 11/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."[103]

To the extent that the commenter has also raised concerns that EPA has violated the federal government trust responsibility to CRIT, EPA disagrees with the assertion. See EPA's Response to Public Comment C-1. Although the United States has a general trust responsibility to federally recognized tribes, the Agency's decision making and permitting process with respect to this Facility are governed specifically by RCRA. The Region's compliance with appropriate permitting procedures, as well as compliance with cross-cutting statutes, such as the Endangered Species Act and the National Historic Preservation Act, demonstrate that the Region has acted consistently with the government's trust responsibility with respect to the Tribe. *See*, *e.g.*, *Gros Ventre Tribe v U.S.*, 469 F.3d 801, 810 (9th Cir. 2006); and *Morongo Band of Mission Indians v. FAA*, 161 F.3d. 569, 574 (9th Cir. 1998). See also 40 CFR § 270.3.

C-16. One commenter claimed that the Region violated the NHPA and made a mockery of the NHPA process and its federal trust responsibility and, for this reason, objected to the issuance of a RCRA permit for the Facility. The Region, the commenter claims, not only

[102] See, *e.g.*, "2001 03 29 Confirmation of Briefing for CRIT.pdf," "2002 09 27 Letter re Consultation on the Protection of Tribal Cultural Resources.pdf," "2003 02 06 Pursuant to 02052003 Telephone Conversation.pdf," "2003 07 25 Re_NHPA Consultation Meeting for August 1 2003.pdf," "2003 08 29 Meeting Notes from 08012003 NHPA Meeting - DEddyJr.pdf," "2003 09 04 Letter re Followup to 07182003 Consultation Letter.pdf," "2003 10 14 Letter re Proposed Meetings and Workshops.pdf," "2005 04 29 Letter re Date set for EPA Workshop re Dioxin.pdf," "2009 05 28 ORC weekly hilite MMN.pdf," "2011 05 24 Letter to Chairman Elderd Enas about Intended Site Visit.pdf," "2014 12 03 Meeting Agenda and Minutes w CRIT EPO.pdf," "2014 09 25 ORC R9 Weekly Activity Rpt.pdf," "2015 03 12 Tribal Consultation Presentation.pdf," and "2016 09 27 Letter with Transmittal Notifying CRIT of Draft Permit and Public Comment Period.pdf."

[103] See, also, *In re Desert Rock Energy Company, LLC*, 14 E.A.D. 484, at 500-501 (EAB 2009) (rejecting Diné Power Authority's claim that Region violated trust responsibilities in filing voluntary motion for remand); and *In re Shell Offshore, Inc., Kulluk Drilling Unit and Frontier Discoverer Drilling Unit*, 13 E.A.D. 357, at 402-403, (EAB 2007) (rejecting argument that Region had failed to satisfy obligations to work and consult with tribal governments under Executive Order 13175).

ignored the NHPA process while allowing it to drag on for years, it also violated civil rights, environmental justice, and other laws protecting sacred sites and religious freedom.

RESPONSE: The National Historic Preservation Act and its implementing regulations at 36 CFR Part 800 require EPA to review potential impacts of the proposed permit decision on historic properties as part of the decision-making process.[104] They also require that the Agency provide an appropriate opportunity for consulting partners to comment. See 54 U.S.C. §§ 300101, *et seq.*[105] The Statement of Basis accompanying the draft Permit summarized the Region's compliance with these requirements. See Statement of Basis at pp. 8-9/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." It also included the Region's NHPA Determination for this permit decision at Appendix C (NHPA Determination). See Statement of Basis at pp. 424-448/1064. The NHPA Determination concluded that this permit decision will not result in any adverse effects to historic properties. Id.

The Region undertook an analysis of the potential impacts from the issuance of a RCRA hazardous waste permit for the Facility over approximately a decade. And, in June of 2012, the Region made its final NHPA Determination that "no adverse effect" on historic properties would occur as a result of the Region's decision. Both CRIT and the Arizona State Historic Preservation Office, among others, were consulting parties to the NHPA Determination and provided input on the decision. Id.

The Administrative Record for this decision demonstrates that EPA has satisfied all the key elements of the NHPA process. The Administrative Record shows that the Region engaged with appropriate consulting partners and the public on NHPA determinations.[106] The Region determined a reasonable Area of Potential Effects for the decision.[107] The Region then

[104] See also 40 CFR § 270.3(b).

[105] See also 54 U.S.C. § 100101 (note) and 16 U.S.C. § 470(b).

[106] See NHPA Determination, Statement of Basis at pp. 424-448/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." See also, *e.g.*, "2003 10 01 Comments from consulting parties re Permit.pdf," "2003 11 25 Memorandum with Materials Received from Arizona SHPO.pdf," "2003 12 10 Letter with documents re Requesting Info about California Tribes.pdf," "2003 12 15 Letter re Proposed EPA Undertaking.pdf," "2004 06 09 Consultation regarding Air Emissions Test.pdf," "2004 08 13 Email Working Draft of Programmatic Agreement - Westates NHPA Process.pdf," "2005 02 09 Draft Programmatic Agreement for NHPA Review.pdf," "2005 04 29 Comments on the draft Programmatic Agreement.pdf." See also NHPA Timeline at Appendix B to the NHPA Determination at p. 437/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

[107] See, *e.g.*, "2003 10 01 Comments from consulting parties re Permit.pdf," "2003 11 25 Memorandum with Materials Received from Arizona SHPO.pdf," "2006 02 27 Letter Concerning NHPA process.pdf," "2006 02 27 Letter re Concerning APE.pdf," "2006 02 27 Letter Review of Mohave Program Letter of 2002.pdf," "2006 05 31 Public Notice for Proposed Area of Potential Effects.pdf," "2006 06 08 Public Notice for Proposed Area Potential Effects w o mailing list.pdf," "2006 06 08 Email-Greenaction Objection and Comments on Proposed Area of Potential Effects.pdf," "2006 06 09 Email - Greenaction Objection and Comments on Proposed area of Potential Effects.pdf," "2006 06 09 Email-Greenaction Objection and Comments on Proposed Areas of Potential Effects.pdf," "2006 06 12 Fax Transmittal - EPA Letters sent from CRIT.pdf," "2006 06 12 Letter Requesting Comments on Propsed Area of Potential Effects under NHPA.pdf," "2006 07 17 Email-NHPA Scope of Impact.pdf," "2007 02 16 Letter Re_Determination of Area of Potential Effects and Request for Information on Historic Properties under NHPA -

identified the historic and culturally significant properties within the Area of Potential Effects and, finally, assessed the potential effects of its decision-making on those properties.[108] Ultimately, the Region obtained all the appropriate concurrences on each of those determinations, including its ultimate determination that "no adverse effect" on historic properties would occur as a result of the Region's decision.[109]

During the NHPA process, the Region identified two sites within a one-mile radius of the Facility (Area of Potential Effects) as potential historic properties under the NHPA. One was the Parker Cemetery, a location where Navajo Code Talkers are interred. The second site that was considered consisted of all areas within the Area of Potential Effects from where Black Peak may be viewed or from where prayers might be directed toward Black Peak. Black Peak is a mountain that is sacred to the members of the Native American community in the area of the Facility, although it is located outside the Area of Potential Effects, at approximately 3 miles away from the Facility. As the NHPA Determination states:

> "Effectively, this means that EPA has assessed the potential impacts of the permit decision on the entire APE, not only specific locations of known historic properties. EPA believes that this approach to evaluating the potential impacts of the permit decision would also apply to locations outside the APE."[110]

In meeting its NHPA obligations, EPA identified potential effects of Facility operations on historic properties, including visual and auditory impacts, and impacts stemming from the mere presence of chemicals at the Facility and in the Facility's emissions. These impacts went

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with Enclosures.pdf," "2007 02 16 Letter Re_Determination of Area of Potential Effects and Request for Information on Historic Properties under NHPA - Various Recipients.pdf," "2007 03 05 NHPA ext to public comment period.pdf," and "2007 03 08 Letter Response to 02162007 Letter.pdf."

[108] See, *e.g.*, "2007 01 30 Section 106 NHPA Packet.pdf," "2007 02 16 Letter Re_Determination of Area of Potential Effects and Request for Information on Historic Properties under NHPA - with Enclosures.pdf," "2007 02 16 Letter Re_Determination of Area of Potential Effects and Request for Information on Historic Properties under NHPA - Various Recipients.pdf," "2007 03 02 Memoradum Public Notice for Designation of Area Potential Effects and Request for Info About Historic Properties for the PermitDecision.pdf," "2007 03 05 Public Notice - Determination of Area of Potential Effects_2.pdf," "2007 03 05 NHPA ext to public comment period.pdf," "2007 03 08 Letter in response to 2007 02 16 Letter from EPA.pdf," "2007 03 08 Letter Response to 02162007 Letter.pdf," "2007 03 12 Email Re Siemens NHPA - Extension to the Public Comment Period.pdf," "2007 03 12 public comment on NHPA.pdf," "2007 03 12 Letter from AZ State Parks after review of documents submitted on 2007 02 26.pdf," "2007 03 23 Email Re Siemens NHPA -- request of Mohave Elders for Meeting with US EPA.pdf," "2007 03 30 Emails Re Request Confirmation of April 2 Meeting re Siemens NHPA -- Request of Mohave Elders for Meeting.pdf," "2007 04 12 Public Notice_Extension of Public Comment Period for Request for Info about Historic Properties.pdf," "2011 09 20 SHPO Letter re APE and Risk Assessment NHPA.pdf," "2012 05 25 NHPA final rpt letters w 2012 07 12 memo.pdf," and "2012 06 19 SHPO Concurrence Final.pdf."

[109] See NHPA Determination, Statement of Basis at pp. 424-448/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." See also, *e.g.*, "2012 05 25 NHPA final rpt letters w 2012 07 12 memo.pdf," and "2012 06 19 SHPO Concurrence Final.pdf."

[110] NHPA Determination, Statement of Basis at p. 430/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

beyond strict human health risk and included the potential impacts to cultural practices of specific indigenous populations in the area, like the Mohave Elders.[111]

The commenter invokes a September 10, 2003 letter from the then-Chairman of CRIT regarding the cultural and historic interests of the Tribe and its members that requested the Region not limit its NHPA analysis to physical considerations, but include the Tribe's cultural and spiritual resources in the Region's NHPA evaluation. The commenter argues that the Region ignored information, such as the Chairman's 2003 letter, which it claimed "unequivocally" documented "profound adverse effects" to cultural or historic properties. There are many more years of correspondence between the Region and CRIT leading up to the NHPA determination in 2012. The Region considered all of the long history of correspondence and other communications with the Tribe, the public, and other stakeholders in its NHPA evaluation.[112]

Ultimately, the analysis of potential impacts resulting from the Region's permit decision was examined in the context of the specific decision being made. That is to say, the Region determined that this RCRA permit decision would not impact the specific toxins or contaminants able to be treated at or emitted from the Facility. Thus, because the Facility operator could continue treating non-hazardous spent carbon, whether a hazardous waste management permit were issued or denied, the Region concluded that the Permit decision would not require the Facility to cease business operations. From the perspective of whether NOx emissions might impact the cemetery, the Region made a specific finding about the distinction between emissions from treating non-hazardous and hazardous waste carbon, concluding that the SOx and NOx emission rates from the Facility would not be affected by the issuance of the Permit:

> "EPA has determined that the release of SOx and NOx from the facility through stack emissions is determined by the sulfur or nitrogen content of incoming waste streams. However, the presence and/or concentration of these two compounds in the waste does not determine the RCRA hazardous or non-hazardous classification of the waste, nor does it correlate with such a classification. Thus, whether or not the permit is denied, the facility could continue operating and SOx and NOx emissions rates would not be affected by the permit decision." See, "2012 05 25 NHPA final rpt letters w 2012 07 12 memo.pdf."

Thus, the commenter's assertions that "[e]missions from treatment of hazardous and non-hazardous materials are not the same. . ." was specifically addressed by the Region, with respect to the Parker Cemetery. The Region maintains that the same holds true for other purported distinctions between non-hazardous and hazardous waste carbon, to which the commenter avers.

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[111] The review included information obtained from records collected over the years including for example, the transcript of a February 11, 2004 hearing regarding workplans for the anticipated performance demonstration test and risk assessment. See pp. 6-42/110, "2004 02 11 Public Workshop Public Hearing.pdf." See also NHPA Determination, Statement of Basis at pp. 433-435/1064, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

[112] See, *e.g.*, footnotes 52, 53, 54, and 55, above.

There are a variety of factors that determine how spent carbon is characterized and whether it is considered a hazardous waste or even a solid waste. Some of these factors are dependent on where the spent carbon is generated and not necessarily on the specific characteristics or constituents in the spent carbon. See, *e.g.*, 40 CFR § 261.2.[113]

As the Region explained in a letter to the Tribal Chairman and copied to Tribal Council members in March of 2015, were EPA to deny the Permit application, the Agency would be unable to regulate air emissions at the Facility under RCRA Subtitle C. Without a RCRA permit, operations involving non-hazardous spent carbon – which might indeed have similar properties in terms of emissions to the hazardous spent carbon waste – could likely proceed with less stringent pollution controls.[114] The Facility would also need to apply for a Title V permit under the CAA. Thus, the Region has a fundamental disagreement with the assumptions underlying the commenter's claims.

As a result, the Region's determination that issuing a permit solely for the management of RCRA hazardous waste at the Facility will have no adverse effect on these nearby historic properties is appropriate in light of the specific waste streams managed at the Facility.

C-17. One commenter asserted that the Region repeatedly failed to disclose that a wide range of federal agencies and federal facilities send hazardous waste to the Evoqua Facility and that this non-disclosure reveals the Region's bias toward the Facility in the permit process. The commenter objected as well on the basis that the Region had not provided copies of hazardous waste manifests to CRIT Tribal Council members. Another commenter stated that EPA used this Facility for its own Superfund waste carbon. So, the commenter observed, it is ironic that the Agency is self-regulating at this Facility.

RESPONSE: As noted by the commenter, Evoqua receives hazardous waste from federal agencies such as the Department of Defense and the Department of Energy. EPA has also sent waste carbon to the Facility for regeneration including, for example, remediation waste associated with Superfund sites. See, *e.g.,* "2001 07 21 encl list of Westates Generators.pdf." The Facility operator has estimated that all the hazardous waste carbon sent by the Federal

[113] Note, for example, that spent carbon *sludge* that is regenerated at the Facility will not be considered a solid waste (and therefore not a hazardous waste) unless it is listed at either 40 CFR § 261.31 or § 261.32. Meanwhile, the spent carbon *spent material* that is regenerated at the Facility will be considered a solid waste (and potentially a hazardous waste) regardless of whether it is a listed waste or a characteristic waste. *See* Table 1 at 40 CFR § 261.2. The term "spent material" is defined at 40 CFR § 261.1(c)(1) as "any material that has been used and as a result of contamination can no longer serve the purpose for which it was produced without processing." The definition of the term "sludge" at 40 CFR § 260.10 means "any solid, semi-solid, or liquid waste ***generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility*** exclusive of the treated effluent from a wastewater treatment plant." (Emphasis added.) Thus, while these materials (spent material and sludge) may come from different types of sources, there may be very little to distinguish between the variety or toxicity of the materials coming off regenerated *solid waste* carbon during treatment and the variety or toxicity of the materials coming off regenerated *hazardous waste* carbon during treatment.

[114] See "2015 03 05 EPA Response to CRIT Letter dated 20 Feb 2015.pdf."

Government to the Facility is about 10% of the total hazardous waste carbon regenerated by the Facility. Data provided by the Region to the CRIT Tribal Council shows the percentage of hazardous waste spent carbon received from federal facilities at the Facility ranging from about 1% to 9% annually from 2001 through 2013. See "2015 03 05 EPA Response to CRIT Letter dated 20 Feb 2015.pdf."[115]

Issuance of permits to commercial hazardous waste facilities by EPA is not improper as a result of federal commercial relationships with regulated entities. By law, EPA has the responsibility for permit decisions at hazardous waste management facilities – either directly through an EPA permit decision such as the one at hand or indirectly through oversight of state actions – and may not defer that responsibility. EPA ensures that RCRA permit decisions are not biased by basing the decisions on regulatory and technical reviews, and by publicly documenting the bases for permit decisions.

EPA routinely imposes federal regulations on activities conducted by the Federal government, including activities such as Superfund cleanups that EPA conducts on its own. Permitting of a RCRA hazardous waste Facility is contingent on the Facility meeting the requirements of RCRA. The Agency's permit decisions do not consider potential use of a facility by Federal entities. Where the Region may be sending Superfund waste to the Facility, such activities are under the direction of another Regional Office, the Region 9 Superfund Division, which is not involved in the RCRA permitting decision, and not the Region 9 Land Division.[116] The Region's Land Division is responsible for making an independent, scientifically sound, and protective RCRA permit decision for this Facility.

The commenter is correct that EPA has not included in fact sheets specific information about waste generators that send spent carbon to Evoqua. However, EPA has provided other basic information about wastes sent to Evoqua (Fact Sheet: An In Depth Look - Hazardous Waste at Westates, April 2001).

The commenter is correct that the Region does not provide copies of the manifests to CRIT Tribal Council members, although the Region notes that it does provide the manifests it receives from the Facility operator to the commenter on a regular basis. See, *e.g.*, "2010 06 30 Transmittal of Manifest Submittals for Apr_May_Jun_2010.pdf," "2010 10 07 Transmittal Letter Waste Manifests July - Sept 2010.pdf," "2011 07 30 Waste Manifests from May 2011 – Jul 2011.pdf," and "2012 05 01 Transmittal Letter Waste Manifests Jan-Apr 2012.pdf." The Region has no obligation to transmit the Facility manifests to the Facility owner, nor have the Tribes requested that the Region do so.

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[115] See, also "2001 07 21 ltr w_o full encl list of Westates Generators.pdf," reflecting an example of the Region transmitting generator data to CRIT EPO.

[116] Decisions as to where the EPA Superfund programs may send waste generated from work being performed at Superfund sites are generally governed by EPA's Off-Site rule, which was promulgated on September 22, 1993 (58 FR 49200). See 40 CFR § 300.440. The rule requires that Superfund wastes may only be placed in a facility operating in compliance with RCRA or other applicable Federal or State requirements. See https://www.epa.gov/superfund/site-rule.

C-18. One commenter objected to the issuance of a RCRA permit to the Facility in light of the commenter's belief that the permit process and its issuance violate Executive Order 12898, relating to environmental justice, and Title VI of the Civil Rights Act.

RESPONSE: Environmental justice is a critical component of EPA's work protecting human health and the environment.[117] Toward that end, and as envisioned by Executive Order 12898,[118] the Region incorporated environmental justice considerations into its review of the Permit application. The Region surveyed publicly available environmental and demographic data for nearby communities, and made a concerted outreach effort to inform and involve affected communities. These actions, among others, are documented in the Region's environmental justice analysis, attached as Appendix E to the Statement of Basis. See EJ Findings, pp. 477 *et seq.* at p. 485/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

Here, the Agency has conducted a comprehensive and substantive environmental justice analysis that endeavors to include and analyze data that evaluated the contemplated permitting decision in the context of environmental justice. See, *In re: Avenal Power Center, LLC*, 15 EAB 384, 402 (Aug. 18, 2011). This analysis demonstrates the Region has met the Executive Order's goals, to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." E.O. 12898 at Section 1-101, E.O. 12898, 59 FR 7629, 7629 (Feb. 11, 1994). See, also, *e.g.*, *In Re: Energy Answers Arecibo, LLC (Arecibo Puerto Rico Renewable Energy Project)*, 16 EAB 294, at 325-326 (Mar. 25, 2014).

One way in which the Region addressed the potential impacts of the Permit decision on minority and low-income populations was to require that the risk assessment performed by the applicants identify risks from Facility operations when evaluated cumulatively with other exposures and impacts. The EJ Findings, for example, state:

> "The risk assessment consisted of a scientific study of the various ways toxic or hazardous substances from the Facility might come into contact with individuals and/or the ecosystem and a calculation of how likely it would be for adverse human health

[117] See, *e.g.*, National Academy of Public Administration Report, Environmental Justice in EPA Permitting: Reducing Pollution in High Risk Communities is Integral to the Agency's Mission, December 2001, at http://earthjustice.org/sites/default/files/library/reports/a-report-by-a-panel-of.pdf.

[118] Executive Order 12898 is not enforceable in the courts and does not create any rights, benefits, or trust responsibilities enforceable against the United States. While Executive Order 12898 is not enforceable against the United States, it is a Presidential order applicable to Federal agencies:

> "Sec. 2–2. Federal Agency Responsibilities for Federal Programs. Each Federal agency shall conduct its programs, policies, and activities that substantially affect human health or the environment, in a manner that ensures that such programs, policies, and activities do not have the effect of excluding persons … from participation in, denying persons…the benefits of, or subjecting persons…to discrimination under, such programs, policies, and activities, because of their race, color, or national origin."

February 1994, Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Section 2-2, at https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf.

> and/or ecological impacts to occur because of such toxic or hazardous substances at the Facility. The risk assessment considered a broad range of constituents, including approximately 160 compounds that have the potential to be emitted or released from the Facility. The health-based threshold for systemic health impacts in this assessment was reduced by 75% in an effort to account for cumulative exposures from any other facilities in the surrounding area."[119]

Based on the risk assessment, potential impacts of the Permit decision have been addressed in the Permit, primarily through the provisions that regulate the operation of RF-2. And, the Permit is not expected to have a significant adverse (including disproportionately high) impact on overburdened communities with respect to human health or the environment.

As part of the Permit application process, the risk assessment sought to account for cumulative exposures to those in proximity to the Facility. And, based on the EJ Analysis, the Region does not expect the Permit to have significant adverse impacts on overburdened communities. Thus, there were no specific permit terms developed to address issues identified in the EJ Findings.

The Permit does include a requirement at Permit Condition I.J. that the Permittees establish an information repository in accordance with 40 CFR § 124.33. This repository, which may be an online repository, will be useful to all members of the community, including low-income and minority residents in the area. Other outcomes of the EJ Findings outside the context of the Permit itself include the Region's continued commitment to ensure that key records relating to hazardous waste management at the Facility are available at the CRIT and Parker libraries for access by those who may not otherwise have ready access to the internet.[120]

As for the commenter's concerns that the issuance of a RCRA permit to the applicants would violate Title VI of the Civil Rights Act, the Region notes that Title VI does not apply to the Permit Decision. Title VI prohibits recipients of federal financial assistance, such as states or grantees, from discriminating based on race, color, or national origin. 42 U.S.C. § 2000d; 40 CFR § 7.30. A recipient is defined as:

> "any State or its political subdivision, any instrumentality of a State or its political subdivision, any public or private agency, institution, organization, or other entity, or any person to which Federal financial assistance is extended directly or through another recipient, including any successor, assignee, or transferee of a recipient, but excluding the ultimate beneficiary of the assistance." 40 CFR § 7.25.[121]

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[119] EJ Findings, p. 484/1064 at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf."

[120] See, e.g., "2016 11 14 Email to CRIT Librarian re revised docs.pdf."

[121] In addition, it has long been recognized by the courts that activities "wholly owned by, operated by or for the, United States, cannot be fairly described as receiving Federal 'assistance.'" *U.S. Dep't of Transportation v. Paralyzed Veterans of Am*., 477 U.S. 597, 612 (1986) (holding that because the air traffic control system is "owned and operated" by the United States, it is not "federal financial assistance and is a federally conducted program)." *See also*, as stated by then-Deputy Attorney General Nicholas deB. Katzenbach to Hon. Emanuel Celler, Chairman, Committee on the Judiciary, House of Representatives (December 2, 1963):

> Activities . . . wholly owned by, and operated by or for, the United States, cannot fairly be described as receiving Federal 'assistance.'

Therefore, Title VI does not apply to EPA's own programs or activities and does not apply to the Region's decision whether to issue a hazardous waste treatment and storage permit for this Facility.[122] Additional information on how Title VI of the Civil Rights Act relates to EPA's work may be found at: https://www.epa.gov/ogc/external-civil-rights-compliance-office-title-vi.[123]

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C-19. One commenter claimed that the EPA made false claims during the public hearing on November 1, 2016, during which the EPA claimed that the electrostatic precipitator took out the residual metals and particles. The commenter claimed that this process resulted in only partial removal of particles and metals.

RESPONSE: One of the air pollution control technologies being used at the Facility is an electrostatic precipitator. This widely used technology is used to remove residual metals and particulates. In general, pollution controls are rarely 100% effective and this is true of an electrostatic precipitator. To the extent that any EPA representatives may have suggested otherwise, they were mistaken. The Region regrets any such misstatements.[124]

However, all the pollution control devices taken together are designed and operated to ensure that the emissions from the Facility do not pose an unacceptable risk to human health or the environment. As discussed elsewhere in these responses to comments, an HHERA was performed for the Facility. The HHERA ensures that Facility emissions meet EPA's human health and environmental risk guidelines. It also enabled the Region to ensure that the control limits for the Facility that are included in this Permit provide for the continued proper operation of the electrostatic precipitator and other pollution controls. See, *e.g.,* the Region's Responses to Public Comments V-12, V-41, C-1, C-3, C-5, C-6, C-9, C-13, C-14, C-21, C-26, and C-29.

C-20. One commenter claimed that in a 1993 edition of Industry Magazine, an ad for Wheelabrator showed a picture of a Mohave man, which could falsely mislead the public into thinking it was a Tribal company.

RESPONSE: The Region strongly believes that it is important that members of the CRIT and other residents in the community around the Facility have reliably accurate and relevant information about the Facility's operations in order to form opinions and provide

110 Cong. Rec. 13380 (June 10,1964).

[122] See also the definition of "EPA assistance" at 40 C.F.R § 7.25.

[123] See also US Department of Justice DOJ Title VI Legal Manual at https://www.justice.gov/crt/fcs/T6manual; and US Environmental Protection Agency Case Resolution Manual at https://www.epa.gov/sites/production/files/2017-01/documents/final_epa_ogc_ecrco_crm_january_11_2017.pdf.

[124] The Region points out that a public meeting was held prior to the public hearing. Statements regarding the effects of the electrostatic precipitator do not appear on the transcript of the public hearing except in the context of this comment. Statements by Regional representatives would likely have been made during the meeting part of the evening event, and would not have been transcribed. See, "2016 11 01 hearing transcript Draft RCRA Permit Public Mtg Evoqua.pdf."

informed comments on the Region's proposed Permit decision. However, the Region is skeptical that the referenced ad was responsible for significantly influencing public opinion regarding this matter.

Wheelabrator Clean Air Systems, Inc. was a prior parent company of the Facility operator's parent company, when the operator was known as Westates Carbon, Inc. and Westates Carbon-Arizona, Inc. See, *e.g.,* "1993 05 11 Westates Diagram Tree.pdf" and "1993 09 24 Intended Change Sole Shareholder.pdf." Since that time, the operator and its successors have undergone numerous corporate changes that have not altered the operator of the Facility's status as a private corporation, leasing the Facility land from the Tribe.[125] Many EPA Fact Sheets over the years have included information indicating that the Facility is located on the Tribe's land.[126] Moreover, in reviewing the various public meeting materials and meeting and hearing transcripts provided in the Administrative Record, the accurate information regarding the Tribe's status as beneficial trust landowner, and co-permit applicant, of which many in the community are well aware, did not appear to unduly influence community members' support or opposition regarding the Region's anticipated decision.[127]

With these circumstances in mind, it is hard to see how the operator's status as a private versus Tribal entity would have had a significant impact on individual community members' reactions to the proposed Permit. In addition, the Region has engaged in a robust outreach campaign over the years to provide information about the Facility and the Permit applicants to the local community, including Tribal members. See, *e.g.,* footnote 52, above, in the Region's Response to Public Comment C-2. And, the commenter's reference to a 1993 ad is not, in the Region's view, significant in terms of whether the public has had sufficient information upon which to form opinions and provide informed comments on the Region's proposed Permit decision.

C-21. One commenter objected to the presence of the Facility on Tribal land, indicating that Tribal members had been opposed when the Facility was allowed to be located by the Bureau of Indian Affairs and the CRIT Tribal Council. The commenter also indicated that the bases for these objections were concerns that the Facility is contaminating both the land and the water in the area.

RESPONSE: The CRIT Tribal Government is entitled, as a sovereign entity, to make decisions, through the Bureau of Indian Affairs, about leasing Tribal land. The Region's decision-making with respect to the RCRA permit application, on the other hand, is limited by the scope of RCRA's statutory and regulatory provisions. See the Region's Response to Public Comment C-11. In consideration of the commenter's concerns that the Facility's operations might pose unacceptable risks to land and water in the area, the Region notes that the HHERA

[125] See, *e.g.*, "1993 08 30 Request of Documents.pdf."

[126] See, *e.g.*, Fact Sheets noting that the Facility is located on the Colorado River Indian Reservation at: "2000 09 26 Email Westates Publications 2000.pdf," at p.4/9; "2001 04 Westates In Depth Look Fact Sheets.pdf," at pp. 1, 3, 5, and 7/10; and "2002 08 07 Westates Public Workshop Documents.pdf," at pp. 8, 12, 14, 16, 18, 20, 22, 24, 26 and 28/29.

[127] See, *e.g.*, "1994 10 04 Public Comments Meeting Oct 1994 w o addresses of attendees.pdf"; "2004 02 11 Public Workshop Hearing.pdf"; and "2016 11 01 Public Hearing Transcript.pdf."

-- an excerpt of which is included in the Permit as Permit Attachment Appendix XI -- was required to ensure that Facility operations do not pose an unacceptable risk to human health and the environment. The Permit also requires an update to the HHERA to continue to ensure there are no unacceptable risks – including risks to land or water -- because of the Facility's operations. See Permit Condition V.I. See, also, the Region's Response to Public Comment C-5, Permit Attachment Appendix XI, and "2016 04 RCRA Application_Appendix XI_Rev 1.pdf."

C-22. One commenter expressed concerns that financial benefits from Facility operations were not accruing to the local community, and that Tribal members are not working at the Facility. This commenter also questioned why the Region was not proposing a permit denial.

RESPONSE: The RCRA permitting process involves a decision to either issue a permit or deny a permit. A permit may only be denied in accordance with the applicable regulations. In this case, there are insufficient reasons to justify a permit denial based on the criteria established by the applicable federal regulations. For example, whether financial benefits accrue to the local community or not is not a basis for granting or denying a RCRA permit. In addition, while the Region is aware of provisions in the original lease requiring the operator to provide an employment preference to Tribal members, financial arrangements between the Facility and the Tribe are outside of the Region's purview. See, *e.g.,* "1993 08 30 Request of Documents.pdf."

C-23. One commenter asked for clarification about the two types of wastes managed at the Facility and which type had the potential to contaminate the reservation more. This commenter also asked about the trial burn and whether it evaluated the most contaminated waste. The commenter also asked whether there is a difference between emissions from the two types of wastes.

RESPONSE: As an initial matter, the Region's presentation prior to the public hearing at which this comment was made included information about both the differences between vapor carbon and liquid carbon and the differences between hazardous waste carbon and non-hazardous waste carbon. It is unclear to the Region whether the commenter's request for clarification pertained to the differences between vapor and liquid carbon or between hazardous waste and non-hazardous waste carbon.

Vapor carbon is made from crushed coconut shells and is generally larger than liquid carbon, which is made with charcoal similar to what one uses to barbecue. The differences between vapor carbon and liquid carbon pertain to the materials they are made from as virgin carbon and their use in the industry. These differences are not related to the toxicity of the material, so it is unlikely that this is what the commenter was asking about. The rest of this response, therefore, focuses on the differences between the hazardous waste carbon treated at the Facility and the non-hazardous waste carbon treated at the Facility.

The Facility operator estimates that about 11% of the waste carbon treated at the Facility is regulated as RCRA hazardous waste. The other estimated 89% of the spent carbon being treated is considered non-hazardous and is not regulated by RCRA as hazardous waste. The

HHERA has demonstrated that Facility operations at the levels tested in the trial burn – which are worst case levels[128] – do not pose an unacceptable risk to human health or the environment. This conclusion holds true for whichever carbon is being treated in the carbon regeneration unit, whether it is considered hazardous waste carbon or not, because the trial burn test simulated operations in which the unit would be operated at its highest treatment capacity for a variety of contaminants. This means that, regardless of the differences between hazardous waste carbon and non-hazardous waste carbon, emissions from the carbon waste being treated will themselves be treated to levels within acceptable limits. See also the Region's Responses to Public Comments C-4, C-5, C-6, C-7, C-8, C-10, C-11, and C-12, above.

C-24. One commenter stated that there was a rumor about illegal dumping taking place south of where the plant is now, some years back. She did not know if it was still going on, but she claimed that whoever it was did not have a permit or lease from the Tribe, but dumped the waste anyway. Another commenter, similarly, wanted to know what the risk factors were regarding the waste created from illegal dumping, if it was taking place.

RESPONSE: The Region has previously heard public concern about possible illegal dumping in the area of the Facility, but has never found specific evidence to corroborate these concerns. The Region is not aware of any evidence of illegal dumping associated with the operation of the Facility or associated with any specific locations in the vicinity south of the Facility.

In February 2018, the Region performed a RCRA inspection of the Facility, the first since the Public Hearing during which this comment was made. After finishing the RCRA Inspection, the Inspector walked the area south of the Facility and found no evidence of illegal dumping. See "2018 06 12 Memo to File Regarding Tip on Abandoned or Disposed Waste.pdf."[129]

However, the Region works cooperatively with CRIT EPO regarding a variety of environmental issues and, to the extent that any such evidence is uncovered, the Region fully expects that the Region and CRIT EPO would continue to work together as regulatory partners to address any potential illegal dumping on CRIT Tribal lands.

C-25. One commenter asked about the PowerPoint presentation at the November 2016 public meeting after the draft Permit was issued. During EPA's presentation, two types of contaminated loads were mentioned; a lighter load and a more contaminated load. The commenter wanted to know how often are the more contaminated loads delivered to the Facility, and is that something that contributes to increased levels of pollution in air in the reservation. Also, was the lighter load or more contaminated load used during the test burn.

RESPONSE: As explained in the Region's Response to Public Comment C-23, above, it is estimated that about 11% of the waste carbon treated at the Facility is regulated as RCRA hazardous waste. The other estimated 89% of the spent carbon being treated is considered

[128] See, *e.g.*, the PDT Report at p. 13/120, Permit Attachment Appendix V.
[129] See also "2018 04 05 Inspection Report.pdf."

non-hazardous and is not regulated by RCRA as hazardous waste. This does not necessarily mean that the non-hazardous waste carbon is "lighter" or less contaminated than the hazardous waste carbon. However, the HHERA has demonstrated that Facility operations at the levels tested in the trial burn – which are worst case levels – do not pose an unacceptable risk to human health or the environment, whichever carbon is being treated in the carbon regeneration unit. So, whether hazardous waste carbon or not, because the trial burn test simulated operations in which the unit would be operated at its highest treatment capacity and at worst case levels for a variety of contaminants, emissions from the carbon waste being treated will be treated to levels within acceptable limits. See also the Region's Responses to Public Comments C-4, C-5, C-6, C-7, C-8, C-10, C-11, C-12 and C-24, above.

C-26. One commenter wanted to know how many gallons of water were used to cool down the scrubbers, from the year the Facility first began operations to present-day. The commenter also stated that it understood there were about 154 square miles that were studied for the HHERA. The commenter questioned whether there was any information found since this HHERA was performed and if there is a current risk. It also requested testing but was not clear about the nature of the testing requested. Another commenter asked about the amount of water used at the Facility, whether the water is contaminated and how it is treated.

RESPONSE: The Facility's wastewater treatment permit demonstrates that it is the sole industrial wastewater discharger to the Colorado Sewage System Joint Venture, which is a publicly owned treatment works that has been in operation since approximately 1974. In a June 23, 2015 Report entitled "40 CFR 403.1(e) – Periodic Reports on Continued Compliance," the Joint Venture estimated that the Facility discharges approximately 140,000 gallons of wastewater per day. See the RCRA Facility Assessment (RFA) at Appendix L, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf," at pp. 907-935/1064. Much of this water is treated onsite in the Facility's wastewater treatment process. The wastewater treatment system is not included in the RCRA hazardous waste permitting decision, as these wastewater treatment units are not regulated under RCRA. See, *e.g.*, the RFA at Section 3.3. Processes and Waste Management at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf," at pp. 533-535/1064. However, the Region's Clean Water Act program, along with CRIT EPO, oversees compliance by the Joint Venture with its CWA NPDES waste water discharge permit.[130]

In terms of the commenter's question about the area that was included in the HHERA performed as part of the permit application process, 170 chemical categories were evaluated and low levels of metals, volatile and semi-volatile organics, pesticides, and dioxins and furans were evaluated. The HHERA examined the potential for adverse health impacts to occur from Facility releases over a 154-square mile study area. The dimensions of the study area were determined by results of the air dispersion and deposition modeling.

[130] See, *e.g.*, https://www.epa.gov/sites/production/files/2017-07/documents/az0021415-crssjv-factsheet-2015-05-01.pdf and https://www.epa.gov/sites/production/files/2017-07/documents/az0021415-crssjv-permit-2015-05-01.pdf.

The HHERA was completed in 2008 and updated in 2014 and was included in the RCRA permit application. The final Permit requires the Permittees to update the HHERA after the initial trial burn test is performed. Based on the results of the 2014 updated HHERA, Facility operations do not currently pose an unacceptable human health or ecological risk. An updated HHERA will be necessary after the first trial burn test that is performed after the Permit is issued. This is because there are updated toxicity criteria and fate and transport models that support the quantitative analysis of human health and ecological risks. See also, ***e.g.***, the Region's Responses to Public Comments C-5, C-6, C-7, C-8, C-9, C-11, C-13, and C-14, above. In addition, trial burn tests will be required on a 5-year periodic basis. To the extent that the commenter's remarks about testing pertain to soil or water sampling, please see the Region's Response to Public Comment C-37.

C-27. One commenter indicated that he had a brother that worked at the Facility that had respiratory problems when he got older. The commenter also knew several young men that went to school with the commenter's son that died of cancer, and several other people that worked at the Facility said they did not have the proper clothing that protected them from chemicals at the Facility. The commenter was concerned about the most toxic shipments arriving at the Facility late at night, and processing and burning of the most toxic waste also taking place at night rather than during the day. The toxic waste is what the Tribal members are breathing in on the reservation. The commenter indicated that the wind carries the toxic chemicals into the air as far out as Quartzsite, Blythe, and Havasu. The commenter indicated that as a result, a lot of people in town have died of cancer.

RESPONSE: Please see the Region's Response to Public Comment C-14, above, regarding the concern that Facility operations may be causing cancer among members of the community or Facility employees.

The Facility is subject to stringent OSHA requirements for worker protection, which are not part of the RCRA hazardous waste permit. However, the hazardous waste permit requires that the Facility be operated in such a manner as to minimize the possibility of a release of hazardous waste constituents that could threaten human health, including the health of workers at the Facility.[131]

As to the concern that the most contaminated deliveries of spent carbon are occurring late at night or that the operator is burning the most contaminated waste at night, the Region notes that Permit requires that Facility emissions be controlled 24 hours per day, 7 days per week. Monitoring and recording systems for the hearth and its associated pollution control equipment are always in operation, regardless of the nature of the material being treated in the system, its level of contamination, or the time of day. The trial burn that was performed as part of the permit application process demonstrated that the Facility meets the emissions limits that have been established in the Permit. These systems and their methods of monitoring and

[131] Permit Condition II.B.1.: "The Permittees shall maintain and operate the Facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment."

recording critical parameters associated with the operation of the hearth ensure that the Facility is always operating within acceptable limits.

C-28. One commenter said that he was unsure of how the contract was written in the past, but wanted assurance from the EPA that, if a Permit is issued to the Facility, the CRIT Tribal government would be able to have its own appropriate testing done at the expense of the operator, to ensure the Facility is meeting regulatory limits.

RESPONSE: The Region does not dictate or even play a role in the contractual relationship between the Facility operator and the Tribal landowner, CRIT, regarding costs that the operator may agree to pay for or reimburse to the Tribe in connection with Facility monitoring or testing. However, the Region oversees certain monitoring and testing performed by the Permittees as part of its role in ensuring that operations are in conformance with applicable limits.

To the extent that the Tribal Government, through CRIT EPO or otherwise, intends to perform its own monitoring and testing at the Facility, there is some EPA funding available for the Tribe, through the General Assistance Program (GAP), to develop its own capacity to do air monitoring. The Tribe's work on that effort is ongoing with current funding through FY19.

C-29. One commenter wanted to know if soil and water sampling would be conducted because of concerns that no bugs or other signs of life lived in the "dead" zone within the Facility.

RESPONSE: The Region has no evidence that there is an absence of animal life or that the land or environment within the Facility in fact represents any kind of "dead" zone, as was the commenter's concern.

The Region has included in the Statement of Basis its evaluation of a variety of Federal standards required of the Region as part of the RCRA permit-decision-making process. See 40 CFR § 270.3 (Considerations Under Federal Law). See also, USEPA Statement of Basis, at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." These "considerations" include the Endangered Species Act. See 40 CFR § 270.3(c). In evaluating the potential impacts of the proposed decision on listed species or critical habitat, the Region concluded that the HHERA submitted with the Part B Permit Application demonstrated that the issuance of a RCRA permit for the Facility would not be expected to jeopardize the continued existence of any such listed species or result in the destruction or adverse modification of any such designated critical habitat. See, USEPA Statement of Basis, Appendix D at "2016 11 10 Evoqua-CRIT Revised Statement of Basis.pdf." In addition, the HHERA also demonstrated, and the Region has found that, neither the environment nor human health is expected to be put at unacceptable levels of risk because of Facility operations.

In addition, the Permit calls for investigations into releases of hazardous waste or its constituents from solid or hazardous waste management units or areas of concern at or from the Facility during its operational life. See, *e.g.*, Permit Conditions I.E., IV.J., VI.B., VI.D., VI.E., VI.F., VI.G. and VI.L.

Finally, at closure, additional Facility investigations are required in accordance with Permit Attachment Appendix XV. These investigations are required to be performed before closure of the Facility will be deemed complete. See Permit Conditions II.N. and V.H.

C-30. Two commenters indicated that they protested out at the Facility and Evoqua called the police. The commenters objected to having been accused by the Facility of invading their own land, while having a ceremony.

RESPONSE: Although the Region understands the concern raised by the commenters, it is unclear how the experiences of these commenters might influence the Region's final Permit decision. The Region has no control over the private or local Tribal or municipal government's policing of activities on the reservation, whether these activities are undertaken by Tribal members or not, or regardless of whether such individuals are lawfully exercising their constitutional rights. The Region is focused on the impacts that its decision may have on the community, the environment and historic and cultural resources with respect to the issuance of this hazardous waste permit. The Region continues to appropriately engage with the CRIT government on a government-to-government basis regarding matters within EPA's jurisdiction. It also continues to consider the potential impacts of its decisions on vulnerable populations, including low-income and minority populations – including Tribal members – who may be affected by Facility operations. The Region has undertaken an extensive NHPA analysis into the potential impacts of this decision on cultural or historic resources, including the potential impacts of this decision on the religious and spiritual practices of tribal members.

C-31. One commenter indicated that many Elders were not in support of construction of the Facility in the beginning because of the chemicals and toxins that would be burned at the plant. The commenter indicated that the Elders' concerns were not taken into account. The same commenter opined that the Tribal Council was also opposed to the Facility's continuing operations.

RESPONSE: The Region has explained its role in making a RCRA permitting decision and how limited is that role in the siting of an existing interim status facility. See the Region's Response to Public Comment C-11, above.

The Region has also explained the process it undertook in evaluating the Permit decision's potential impacts on the cultural and religious practices of Tribal members within the community surrounding the Facility, including the Mohave Elders. See, *e.g.*, the Region's Responses to Public Comments C-1 and C-16, above. Additionally, the Region has taken into account the rights of the Permit applicants to obtain a permit, based on parameters outlined in applicable Federal statutes and EPA regulations. The Region has endeavored to address all the concerns about the Facility's hazardous waste management operations that have been brought to the Region's attention and that are within its purview.

Finally, the Region notes that, if the Tribal Council were opposed to the issuance of the RCRA permit to the Facility, it could withdraw its signature as the landowner on the permit application. The Region would not issue the Permit if the Tribal landowner opposed it.

C-32. One commenter stated that the Facility was supposed to give $30,000 to CRIT Fire Department for management of hazardous material in the event of an emergency so that any potential fire caused as a result of hazardous materials could be controlled properly. The Facility was supposed to issue that money to the Tribe every year, however, the CRIT Fire Department or other Tribal entities were never provided with any funding for this type of effort.

RESPONSE: Emergency and release response, notification and reporting requirements included in the Permit require a variety of immediate and short-term responses to local, State, Tribal and National emergency and release response entities, including the CRIT Fire Department. See, *e.g.*, the Facility's Contingency Plan at Permit Attachment Appendix XIII, at p. 32/59. The Contingency Plan includes specific arrangements that the Facility operator has made with the CRIT Fire Department in accordance with Permit Condition II.J.5. See also 40 CFR § 264.37.

These Contingency Plan provisions are the only regulatory provisions that apply to the Region's RCRA permit decision with respect to the relationship between the Facility operator, Tribal landowner and the CRIT Fire Department. Private financial agreements made between the Facility operator and CRIT or any Tribal entities are outside the legal scope of the Region's RCRA permit decision-making process.

CRIT COMMENTS REGARDING PROPOSED DRAFT PERMIT

C-33. One commenter requested that the Region make a Final Permit decision expeditiously.

RESPONSE: In issuing the Final Permit, the Region reviewed and considered the extensive comments received. The Region balanced the interests in moving quickly with the benefits of accuracy and thoroughness in evaluating and responding to the comments. The time taken to complete the Final Permit decision is a product of that process.

C-34. One commenter requested that the Region continue government to government consultation with the Colorado River Indian Tribes (CRIT) throughout the term of any permit, including when the final decision is issued and during all post-issuance monitoring.

RESPONSE: Consistent with EPA's letters to CRIT dated March 5, 2015 and March 7, 2016, the Region intends to continue regular consultation with CRIT after the Final Permit decision for the Facility is made. The Region expects to continue regular consultation with CRIT on a government to government basis for as long as the Facility is processing hazardous waste. This includes consultation throughout the life of any renewal of the RCRA permit that may be issued through and until closure is completed. Also, per the May 4, 2011 EPA Policy on Consultation and Coordination with Indian Tribes:

> "Tribal officials may request [at any time] consultation in addition to EPA's ability to determine what requires consultation. EPA attempts to honor the tribal government's request with consideration of the nature of the activity, past consultation efforts, available resources, timing considerations, and all other relevant factors."

When planning on-site compliance inspections or other visits to the Facility, the Region routinely gives advance notice to appropriate CRIT government officials.

C-35. One commenter requested that the Region add a provision to the Final Permit that includes the frequency of any routine inspections to be conducted at the Facility by EPA.

RESPONSE: EPA inspection schedules are not included in RCRA permits. The Final Permit includes inspection requirements applicable to the Permittees. EPA's inspection activities are determined based upon law, guidance and resources. RCRA requires RCRA-permitted Treatment, Storage and Disposal Facilities like the Facility to be inspected at least once every two years. See RCRA Section 3007(e)(1), 42 USC § 6927. The Region has this inspection obligation for the Facility, which is the only required EPA-inspection for this Facility. The Region has the discretion to periodically inspect the Facility for compliance with other federal environmental statutes such as the Clean Water Act, Clean Air Act, and Toxic Release Inventory Act.

C-36. One commenter requested that the Region notify CRIT in a timely manner of any and all inspections and allow CRIT EPO to be present at any and all inspections or testing performed at the Facility by EPA.

RESPONSE: EPA inspection procedures are not part of a RCRA permit. No EPA inspection procedures are included in the Final Permit. In general, the Region's enforcement personnel invite appropriate tribal environmental staff to accompany them on all routine on-site compliance inspections, including those that involve testing.

C-37. One commenter requested that the Region include a Permit condition requiring that EPA or the operator conduct soil sampling for "semi-volatile, volatile, organochlorine pesticides and [PCBs]." The commenter is requesting this to establish a baseline that can be used for comparison at the time of closure. The commenter further requested that, after such testing, the Region engage in government to government consultation with CRIT to discuss such results. The commenter further suggested that the Region engage in additional government to government consultations with CRIT when certain things, such as testing, closure, or trial burns, are triggered.

RESPONSE: The Region has already required the Facility operator, Evoqua, to take background samples at the time of closure as described in Section 6.2.4 of Permit Attachment Appendix XV, "RCRA Facility Closure Plan", and in Section 3.0 and Table 5-2 of Permit Attachment Appendix XVII, "Closure Activities Sampling and Analysis Plan and Closure Activities Quality Assurance Project Plan."

> "Background samples will also be collected from three separate locations according to the SAP. The locations are shown in the SAP, and have been selected outside of the facility's operational areas and will represent constituent concentrations that have not been impacted by site operations. The results of these soil samples will be used in the development of metals closure performance standards for the site." See Section 6.2.4 of Permit Attachment Appendix XV.

> "Background soil samples will also be collected from three separate locations (at 3 depths each) as shown on Figure 3-2. The locations are outside of the facility's operational areas and will represent constituent concentrations that have not been impacted by site operations. The results of these soil samples will be used in the development of metals closure performance standards for the site." See Section 3.0 and Table 5-2 (copied below) of Permit Attachment Appendix XVII.

The Region declines to include permit conditions applicable to the Agency as opposed to the Permittees. This Permit does not preclude CRIT from doing its own soil sampling to establish a background baseline at any time.

See also the Region's Response to Public Comment C-34, above.

C-38. One commenter requested that the Region provide documentation on the known effects on human health and the environment of the toxins emitted at the Facility.

RESPONSE: To evaluate the multiple adverse health impacts associated with long-term or chronic human exposures to toxic chemicals, EPA has established a peer-reviewed toxicological database that details the wide-range of chemical-specific adverse health impacts. This database includes detailed information on each constituent's ability to elicit cancer

(carcinogenic substances), as well as the type and nature of non-carcinogenic, or systemically toxic adverse health impacts (*e.g.*, hepatic toxicity, renal toxicity, developmental toxicity, neurotoxicity, etc.). To access detailed scientific data and the supporting peer-reviewed literature regarding the potential health impacts associated with specific chemicals emitted from the Facility, please visit EPA's Integrated Risk Information System (IRIS) website: https://www.epa.gov/iris.

This EPA database was used in part in the 2008 risk assessment prepared by the Facility operator to characterize potential health impacts associated with the Facility's emissions. This information is found in the Risk Characterization Section (4.4) of that document.

Potential ecological impacts were evaluated by comparing calculated concentrations or exposures to toxicity reference values (TRVs) derived to be protective of these receptor groups. The TRVs are an indirect measure of the toxicity or potency of chemical constituents in the eco system. Constituent-specific TRVs and their ecological health endpoints can be located or obtained from a variety of sources, including the USEPA, the States of Arizona and California, ecological databases and the published literature.[132]

C-39. One commenter requested that the Region add a provision to the Permit that would require the Permittees to copy CRIT on all submittals sent to EPA. The commenter also

[132] See, California Environmental Protection Agency (CEPA), 2002, California Wildlife Exposure Factor and Toxicity Database (CalTox), Office of Environmental Health Hazard Assessment, at http://www.oehha.org/cal_ecotox/default.htm; Chrostowski, P .C. and Durda, J., 1991, Effects of air pollution on the desert tortoise: An ecological risk assessment, Paper presented at 12th Annual Meeting of the Society of Environmental Toxicology & Chemistry, November 3- 7, Seattle, Washington; Craig, D. and P. L. Williams, 1998, Willow Flycatcher (Empidonax traillii), In The Riparian Bird Conservation Plan: a strategy for reversing the decline of riparian-associated birds in California, California Partners in Flight at http://www.prbo.org/calpif/htmldocs/riparian_v-2.html; Efroymson, R., Will, M., and Suter, G., 1997, Toxicological Benchmarks for Screening Contaminants of Potential Concern for Effects on Terrestrial Plants, 1997 Revision, ES/ER/TM-85/R3; Environment Canada (EC), 2000, RATL: A Database of Reptile and Amphibian Toxicology Literature, B.D. Pauli, J.A. Perrault and S.L. Money, National Wildlife Research Centre, Canadian Wildlife Service, Environment Canada Technical Report Series No. 357, Headquarters 2000, Canadian Wildlife Service; Mayer, F.L. and Ellersieck, M.R., 1986, Manual of Acute Toxicity: Interpretation and Data Base for 410 Chemicals and 66 Species of Freshwater Animals. US Fish and Wildlife Service, Washington, DC, Resource Publication 160; National Oceanic and Atmospheric Administration (NOAA), 2006, Screening Quick Reference Table (SQuiRTs), Hazmat Report 99-1; Sample, B., Opresko, D., Suter, G., 1996, Toxicological Benchmarks for Wildlife, 1996 Revision, ES/ER/TM-86/R3; Schafer, E.W., and Bowles, W.A., 1985, Acute oral toxicity and repellency of 933 chemicals to house mice and deer mice, Arch. Environ. Contam. Toxicol. 14(1):111-129; Schafer, E.W., Bowles, W.A., and Hurlbut, J., 1983, The acute oral toxicity, repellency, and hazard potential of 998 chemicals to one or more species of wild and domestic birds, Arch. Envriron. Contam. Toxicol. 12:355-382; U.S. Environmental Protection Agency (USEPA), 1996b, Eco Update, Ecotox Thresholds, Office of Solid Waste and Emergency Response, EPA 540/F-95/038; USEPA, 1999, Screening Level Ecological Risk Assessment Protocol for Hazardous Waste Combustion Facilities, EPA 530-D-99-001A; USEPA, 2003c, Technical Summary of Information Available on the Bioaccumulation of Arsenic in Aquatic Organisms, EPA-822-R-03-032, December 2003; USEPA, 2003d, Region 5, RCRA Ecological Screening Levels, August 22, 2003; USEPA, 2004c, Draft Aquatic Life Water Quality Criteria for Selenium – 2004, Office of Water, EPA-822-D-04-001, November; USEPA, 2007b, EcoTox Database at http://www.epa.gov/ecotox; and World Health Organization (WHO), 1998, WHO toxic equivalency factors (TEFs) for dioxin-like compounds for humans and wildlife, Prepared by Younes, M., Summary of WHO meeting in Stockholm, Sweden on June 15-18, 1998, International Programme on Chemical Safety.

requested that EPA advise the CRIT EPO immediately of any notices required by draft Permit conditions I.E.11. (regarding changes in operations that could result in non-compliance) and I.E.13. (regarding non-compliance that could endanger human health or the environment).

RESPONSE: As Permittees, the submittals required by the Permit are the joint responsibility of Evoqua (as operator) and CRIT (as owner). However, the Region recognizes that, as a practical matter, most, if not all, the submittals under the Permit are likely to be sent by the operator, Evoqua. The Region has added Permit condition I.G.1.b. to require that CRIT Environmental Protection Office (EPO) be copied on all submittals.

As far as notice from the operator required by Permit Condition I.E.11., that requirement, as revised, states:

> "The Permittees shall give advance notice to the Director of any planned changes in the permitted Facility or activity which may result in noncompliance with Permit requirements." Permit Condition I.E.11.

New Permit Condition I.G.1.b. now requires:

> "All reports, correspondence, notices, including emergency notices, or other deliverables required by this Permit, or required to be submitted to EPA or the Regional Administrator under regulatory provisions cited in this Permit, shall also be delivered to the Director of the CRIT Environmental Protection Office or his or her designee." Permit Condition I.G.1.b.

Thus, CRIT EPO will have notice of any such instances of anticipated non-compliance. See also the Region's Response to Public Comment C-40, below.

The commenter's other concern related to Permit Condition I.E.13's requirement that notice be provided to the National Response Center[133] where non-compliance could result in harm to human health or the environment. The language in new Permit Condition I.G.1.b. specifically includes the requirement that emergency notices be provided to CRIT EPO, which would include notices required under I.E.13. (See also the Region's Responses to Public Comment I-23 and I-25 and Permit Condition I.E.13.a.)

C-40. One commenter requested EPA to immediately notify CRIT EPO, CRIT Fire Department, and CRIT Homeland Security (with follow-up written notice to the CRIT Tribal Council and CRIT AG's Office) of any leaks or spills and include substances, potential health effects and remedial measures taken or planned.

[133] In the draft permit, the 24-hour notice required under this provision was simply required to be provided "to the Director," without further instruction as to how to accomplish providing such notice on weekends, or after hours.

RESPONSE: RCRA permits govern obligations of treatment, storage and disposal Facility owners and operators and not EPA; therefore, it would be inappropriate for the Region to impose a notification requirement on itself in the Permit. Thus, the Region declines to add the notification requirement requested by the commenter.

The Region notes that the Permit does include requirements for the Permittees to follow in the event of spills, leaks or other unpermitted releases. These include notification and reporting requirements. Because the Final Permit requires that all submittals under the Permit, including emergency notifications, also be delivered to the Director of the CRIT EPO or his or her designee, any written notifications and reporting to EPA relating to leaks, spills or other releases would also be submitted to CRIT EPO. See Permit Condition I.G.1.b. See also the Region's Responses to Public Comments I-23 and I-25.

The Final Permit also requires that the Facility coordinate with local CRIT authorities on preparedness and prevention matters, and on contingency planning. Section II.J.5 requires the Permittees to coordinate with local CRIT authorities on preparedness and prevention. The Permit also requires that the Permittees maintain a Contingency Plan. That plan identifies the CRIT Fire Department as the "primary responding agency" during an emergency situation. See Permit Conditions II.J and II.K. See also Section 4 of Permit Attachment Appendix XIII (Contingency Plan).