Final RCRA Permit
for
Colorado River Indian Tribes
and Evoqua Water Technologies LLC
for Carbon Regeneration Facility Located at:
2523 Mutahar Street
Parker, Arizona 85344
(EPA ID # AZD982441263)

Issued by

U.S. Environmental Protection Agency, Region 9
San Francisco, California

September 2018

U.S. Environmental Protection Agency
Resource Conservation & Recovery Act Final Permit
EPA RCRA I.D. Number: AZD982441263

BENEFICIAL LANDOWNER:	COLORADO RIVER INDIAN TRIBES 26600 Mohave Road Parker, Arizona 85344	OPERATOR:	EVOQUA WATER TECHNOLOGIES, LLC 2523 Mutahar Street Parker, Arizona 85344

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Sections 6901 *et seq.*, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616 (collectively, hereafter, "RCRA"), and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), this Permit is issued to Evoqua Water Technologies, LLC and the Colorado River Indian Tribes (collectively, hereafter, the "Permittees"), for the facility located at 2523 Mutahar Street, Parker, Arizona 85344 with the EPA RCRA ID # AZD982441263.

This Permit, with all its attachments, constitutes the full RCRA Permit for this Facility. The Permittees, pursuant to this Permit, are required to investigate any unpermitted releases of hazardous waste or hazardous constituents at the Facility, regardless of the time at which waste was placed in a unit. The Permittees are required to take appropriate corrective action for any such releases.

The Permittees must comply with all the terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any appendices) and the applicable regulations contained in 40 CFR Parts 63, 124, and 260 through 270, as specified in this Permit, and the statutory requirements of RCRA. Nothing in this Permit shall preclude the Regional Administrator from reviewing and modifying the Permit at any time during its term in accordance with 40 CFR § 270.41.

This Permit is based on the premise that information and reports submitted by the Permittees prior to issuance of this Permit are complete and accurate, unless otherwise indicated in this Permit. Any inaccuracies found in this information or information submitted as required by this Permit may be grounds for termination or modification of this Permit in accordance with 40 CFR §§ 270.41, 270.42, or 270.43 and/or potential enforcement. The Permittees must inform the EPA of any deviation from or changes in the information in the application which would affect the Permittees' ability to comply with the applicable regulations or Permit conditions.

This Permit is effective thirty-five (35) days after it is signed/issued, and shall remain in effect for ten (10) years, unless revoked and reissued, or terminated under 40 CFR §§ 270.41 and/or 270.43 or continued in accordance with 40 CFR § 270.51(a). 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").

If any conditions of this Permit are appealed in accordance with 40 CFR § 124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR § 124.16 shall be determined by final agency action as specified under 40 CFR § 124.19.

9/25/2018
Date Issued

/SIGNED/
Jeff Scott
Director
Land Division

October 30, 2018 to October 30, 2028
Ten (10) Year Permit Term*

* Unless the Permit is revoked and reissued, or terminated.

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MODULE I - GENERAL PERMIT CONDITIONS

I. INTRODUCTION

This document, consisting of Modules I through VI and the Permit Attachments, Permit Exhibits, and any other documents incorporated herein, constitutes a hazardous waste permit under Subtitle C of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended, (RCRA), and the applicable regulations at Title 40 of the Code of Federal Regulations (40 CFR) Parts 260 through 270 for hazardous waste storage and treatment at a carbon regeneration facility (EPA ID Number - AZD982441263) (Permit) located on the Colorado River Indian Tribes (CRIT) Reservation near Parker, Arizona. At the Evoqua Water Technologies LLC Facility (defined below), spent carbon is treated in a regeneration furnace to purify it and make it suitable as a commercial product. [See 40 CFR §§ 264.10 and 264.11.]

I.A. EFFECT OF PERMIT

I.A.1. The Permittees Evoqua Water Technologies LLC and CRIT are allowed to store and treat hazardous waste in accordance with the conditions of this Permit. Any storage or treatment of hazardous waste at the Facility not authorized in this Permit is prohibited. Subject to 40 CFR § 270.4, compliance with this Permit during its term generally constitutes compliance, for purposes of enforcement, with RCRA, except for those requirements not included in the permit, which: (1) become effective by statute; (2) are promulgated under 40 CFR Part 268 restricting the placement of hazardous waste in or on the land; (3) are promulgated under 40 CFR Part 264 regarding the leak detection systems described at 40 CFR §270.4(a)(1)(iii); or (4) are promulgated under subparts AA, BB, or CC of 40 CFR Part 265 limiting air emissions. (40 CFR §270.4). (42 U.S.C. §§6901 et seq.). [See also Permit Conditions II.B.2. and II.B.5. and 40 CFR Part 262, §§270.1(c), and 270.4.]

I.A.2. Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege. [See 40 CFR §§270.4(b) and 270.30(g).]

I.A.3. Issuance of this Permit does not authorize any injury to persons or property, any invasion of other private rights, or any infringement of

Tribal, state or local law or regulations. [See 40 CFR §270.4(c).]

I.A.4. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(h), 3013, or 7003 of RCRA, Sections 104, 106(a) or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C. §§-9601 et seq.), or any other law providing for protection of public health or the environment. In addition, compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), solely with respect to those requirements set forth at 40 CFR § 270.4(a)(1)(i)-(iv).

I.A.5. This Permit, including its attachments, sections, and appendices, supersedes the permit application. In addition, references to RCRA's interim status requirements (40 CFR Part 265) contained in any Permit attachments, sections or appendices are superseded by the standards applicable to RCRA permitted facilities (40 CFR Part 264), as appropriate, upon the effective date of this Permit.

I.A.6. Unless set forth specifically otherwise herein, requirements of this Permit apply to both the Tribal trust landowner and the operator of the Facility, who are referred to herein collectively as the "Permittees." However, compliance with such requirements of this Permit by either the Tribe, as beneficial landowner, or the operator is regarded as sufficient for both. [See 45 Federal Register (FR) 33295/col. 3, (May 19, 1980).]

I.A.7. Where citations to regulatory authority are included at the end of a permit condition -- for example "[See 40 CFR §264.XXX.]" -- such references are solely to assist those reading the Permit with identifying the source of the requirement to which the citation applies. Such citations do not, in and of themselves, incorporate the regulatory requirement into the Permit condition. However, where regulations are referenced in the body of a permit condition – for example "Pursuant to 40 CFR § 264.XXX" or "In accordance with 40 CFR § 264.XXX," the requirements of the regulation so cited are incorporated into the Permit condition.

I.A.8. For the purposes of this Permit, any reference to a regulatory requirement (including any interim final regulation) shall refer to the version of such regulatory requirement that is in effect at the time of issuance of the

permit. With some exceptions as set forth in 40 CFR § 270.4(a)(1), where regulatory authorities affecting conditions of this Permit are issued, revised or amended after the issuance of this Permit, such new, revised or amended provisions shall only be applicable to the operations of the Facility after a permit modification incorporates such requirements or after a renewal of the Permit, incorporating or referencing such new, revised or amended regulations, is issued. [See 40 CFR 270.32(c) and 40 CFR § 270.4(a)(1).]

I.B. PERMIT ACTIONS

I.B.1. This Permit may be modified, revoked and reissued, or terminated for cause, in accordance with 40 CFR §§ 270.41, 270.42, and 270.43. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittees, does not stay the applicability or enforceability of any permit condition. [See 40 CFR §§ 270.4(a)(2), 270.30(f), 270.41, 270.42, and 270.43.]

I.B.2. This Permit may be renewed in accordance with 40 CFR § 270.30(b) and Permit Condition I.E.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [See 40 CFR § 270.30(b), RCRA Section 3005(c)(3).]

I.C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [See 40 CFR §124.16.]

I.D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in 40 CFR Parts 63, 124, 260, 264, 266, 268, and 270, as appropriate, unless this Permit specifically provides otherwise. Where terms are not defined in the regulations or this Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or

industrial meaning of the term.

AOC means Area of Concern.

CEMS means continuous emissions monitoring system.

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, (42 U.S.C. §§9601 et seq.,) as amended.

CFR means Code of Federal Regulations, latest edition.

CMS means continuous monitoring system.

CRIT or Tribe means the beneficial landowner of the land on which the Facility is located, the Colorado River Indian Tribes.

Day or days means a calendar day or days, even if the word "calendar" is absent, unless otherwise specified.

Director means the Director of the EPA Region 9 Land Division, or his or her designee or authorized representative.

Enforcement Director means the Director of the EPA Region 9 Enforcement Division, or his or her designee or authorized representative.

EPA means the United States Environmental Protection Agency.

Facility means the carbon regeneration facility located at 2523 Mutahar Street, Parker, Arizona, 85344, on land of the Colorado River Indian Tribes, (including land or appurtenances thereto), that is subject to regulation under the RCRA program.

Facility mailing list means the most recent version of the mailing list of interested parties provided to the Permittee(s) by EPA Region 9 Land Division.

HWMU means Hazardous Waste Management Unit.

Method 21 means Method 21 from Appendix A-7 of 40 CFR Part 60.

PDT means Performance Demonstration Test.

Permit Attachment(s), Permit Attachment Section(s) and Permit Attachment Appendix or Appendices mean the attachments, sections and appendices to this Permit.

Permittee means either Evoqua Water Technologies, LLC, the operator of the Facility, or the Colorado River Indian Tribes, the beneficial landowner of the tribal land on which the Facility is located. Permittees or Permit Applicants means both.

Product means the carbon that has been thermally treated and regenerated at the Facility. Product is not regulated as a solid or hazardous waste, unless it is discarded.

RCRA means the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act of 1976 and the Hazardous and Solid Waste Amendments of 1984, as amended, 42 U.S.C. §§ 6901 et seq.

Site means the land or water area where the Facility or any hazardous waste activity is physically located or conducted, including adjacent land used in connection with the Facility or activity.

SWMU means Solid Waste Management Unit.

I.E. DUTIES AND REQUIREMENTS

I.E.1. Duty to Comply

The Permittees shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any Permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [See 40 CFR §270.30(a).]

I.E.2. Duty to Reapply

If the Permittees wish to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittees shall submit a complete application for a new permit in accordance with the provisions of 40 CFR § 270.10(h). [See 40 CFR §§270.10(h) and 270.30(b).]

I.E.3. Permit Expiration

This Permit shall be effective for a fixed term not to exceed ten years. This Permit and all conditions herein will continue in force under 5 U.S.C. § 558(c) until the effective date of a new permit if: (i) the Permittee(s) has submitted a timely application under § 270.14 and the applicable sections of §§ 270.15 – 270.29, which is a complete application for a new permit, and (ii) the Director, through no fault of the Permittee(s), does not issue a new permit with an effective date on or before the expiration date of the previous permit. Permits continued under this paragraph remain fully effective and enforceable. [See U.S.C. §558(c) and 40 CFR §§ 270.10, 270.13, 270.14, 270.50, and 270.51.]

I.E.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittees in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [See 40 CFR §270.30(c).]

I.E.5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittees shall take all reasonable steps to minimize releases to the environment and shall carry out such measures as are reasonable, to prevent significant adverse impacts on human health or the environment. [See 40 CFR §270.30(d).]

I.E.6. Proper Operation and Maintenance

The Permittees shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances), which are installed or used by the Permittees to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and

training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. [See 40 CFR § 270.30(e).]

I.E.7. Duty to Provide Information

The Permittees shall furnish to the Director or the Enforcement Director, as appropriate, within a reasonable time, any relevant information which 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. The Permittees shall also furnish to the Director or the Enforcement Director, as appropriate, upon request, copies of records required to be kept by this Permit. [See 40 CFR § 270.30(h).]

I.E.8. Inspection and Entry

The Permittees shall allow the Director or the Enforcement Director, as appropriate, or an authorized representative, upon presenting credentials and other documents, as may be required by law, to:

I.E.8.a. Enter at a reasonable time upon the Facility and/or either Permittees' premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this Permit;

I.E.8.b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

I.E.8.c. Inspect at reasonable times any equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and

I.E.8.d. Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location at the Facility. [See 40 CFR § 270.30(i).]

I.E.9. Monitoring and Records

I.E.9.a. Samples and measurements taken by the Permittees for the purpose of monitoring shall be representative of the monitored activity. [See 40 CFR § 270.30(j)(1).]

I.E.9.b. Commencing with the effective date of this Permit, but including any records required to be maintained by RCRA's interim status regulations through to at least the last day of the Facility's interim status, the Permittees shall retain records of all monitoring information required by this permit (including all calibration and maintenance records and all digital and original strip chart recordings for continuous monitoring instrumentation), copies of all reports and records required by this Permit, the certification required by 40 CFR § 264.73(b)(9) and Permit Condition II.B.6., and records of all data used to complete the application for this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this Facility. The Permittees shall maintain records for all ground-water monitoring wells and associated ground-water surface elevations for the active life of the Facility. This provision does not apply to: (1) any records required to be maintained in accordance with Permit Condition V.G.1, which shall instead be subject to that requirement; or (2) to the records referenced in Permit Attachment Appendix XXI (Records Retention Requirements) that are required to be maintained solely under 40 CFR Part 61 Subpart FF, rather than under RCRA's record-keeping authorities. [See 40 CFR §§ 264.73(b)(9), 264.74(b), 264.347(d) and 270.30(j)(2). See also Permit Condition V.G.1.]

I.E.9.c. Records of monitoring information shall specify, to the extent applicable:

I.E.9.c.i. The dates, exact place, and time of sampling or measurements;

I.E.9.c.ii. The individual(s) who performed the sampling or measurements;

I.E.9.c.iii. The date(s) analyses were performed;

I.E.9.c.iv. The individual(s) who performed the analyses;

I.E.9.c.v. The analytical technique(s) or method(s) used; and

I.E.9.c.vi. The results of such analyses. [See 40 CFR §270.30(j)(3).]

I.E.10. Reporting Planned Changes

Except as otherwise provided under 40 CFR § 270.42, the Permittees shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted Facility. Any notice provided under this section shall include any necessary request for a permit modification pursuant to Permit Condition I.G.7. and 40 CFR § 270.42. [See 40 CFR §§ 270.30(l)(1) and 270.42.]

I.E.11. Reporting Anticipated Noncompliance

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. [See 40 CFR §270.30(l)(2).]

I.E.12. Transfer of Permits

This Permit is not transferable to any person, except after notice to the Director and approval as follows. The Permittees must inform the Director in writing and obtain prior written approval from the Director before transferring ownership or operational control of the Facility. (40 C.F.R. § 270.42, Appendix I.) In addition, the Permittees must inform the new owner or operator that they must submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of a Permittee and incorporate such other requirements as may be necessary in accordance with 40 CFR § 270.40. Before transferring ownership or operation of the Facility during its operating life, the Permittees shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264

and 270 and this Permit. [See 40 CFR §§ 264.12(c), 270.30(l)(3) and 270.40.]

I.E.13. Twenty-Four Hour Reporting

I.E.13.a. The Permittees shall report to the Director any noncompliance which may endanger human health or the environment. Any such information shall be reported orally to the National Response Center (800-424-8802) within 24 hours from the time whichever Permittee first becomes aware of the circumstances. The report shall include the following:

I.E.13.a.i. Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies; and

I.E.13.a.ii. Any information of a release or discharge of hazardous waste, or of a fire or explosion from the Facility which could threaten the environment or human health outside the Facility. [See 40 CFR §270.30(l)(6)(i).]; If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement.

I.E.13.b. The description of the noncompliance and its cause shall include:

I.E.13.b.i. Names, addresses, and telephone numbers of the Permittees;

I.E.13.b.ii. Name, address, and telephone number of the Facility;

I.E.13.b.iii. Date, time, and type of incident;

I.E.13.b.iv. Name and quantity of materials involved;

I.E.13.b.v. The extent of injuries, if any;

I.E.13.b.vi. An assessment of actual or potential hazards to the environment and/or human health outside the Facility, where this is applicable; and

I.E.13.b.vii. Estimated quantity and disposition of recovered material that resulted from the incident. [See 40 CFR § 270.30(l)(6)(ii).]

I.E.13.c. A written submission shall also be submitted to the Director for approval in accordance with Permit Condition I.G.4. within 5 days of the time that whichever Permittee first becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected, and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The submission shall include an assessment of potential corrective measures, whether interim or otherwise, and whether such measures may be appropriate, The Director may waive the 5-day- written notice requirement in favor of a written report within 15 days. [See 40 CFR §270.30(l)(6)(iii).]

I.E.13.d.i. If the approved written submission submitted in accordance with Permit Condition I.E.13.c. concludes that interim or other corrective measures are appropriate, the Permittees shall submit the written report required by and in accordance with Permit Condition VI.E.1.c and the permit modification request required by and in accordance with Permit Condition VI.E.2.

I.E.13.d.ii. Where such a report is appropriate, the Permittees shall also submit the 90-day Interim Corrective Measures Report in accordance with Permit Condition VI.E.3.

I.E.13.d.iii. To the extent that the approved Interim Corrective Measures Report concludes that there is a need for further investigations or implementation of corrective measures, 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.

I.E.13.d.iv. To the extent that the approved Interim Corrective

Measures Report concludes that a corrective measures study is warranted, the Permittees must also follow the process set forth in Module VI for developing and implementing a Corrective Measures Study and Corrective Measures Study Final Report in accordance with Permit Condition VI.I. and for selecting an appropriate remedy in accordance with Permit Condition VI.J.

I.E.14. Compliance Schedule Reporting

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 days following each schedule date. [See 40 CFR §270.30(l)(5).]

I.E.15. Other Noncompliance

The Permittees shall report all other instances of noncompliance not otherwise required to be reported in Permit Conditions I.E.10 through I.E.14, within 60 days, in a "Report of Non-Compliance" submitted in accordance with Permit Condition I.G. The Reports of Noncompliance shall contain the information listed in Permit Conditions I.E.13.a. and I.E.13.b. [See 40 CFR § 270.30(l)(10).]

I.E.16. Other Information

Whenever either Permittee becomes aware that either Permittee failed to submit any relevant facts in a Permit application, or submitted incorrect information in a Permit application or in any report to the Director, the Permittees shall promptly submit such facts or information. [See 40 CFR § 270.30(l)(11).]

I.F. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to or requested by the Director, the Enforcement Director, or a designee or authorized representative of the Director or the Enforcement Director, shall be signed and certified in accordance with 40 CFR §§ 270.11 and 270.30(k). [See 40 CFR §§ 270.11 and 270.30(k).]

I.G. REPORTS, NOTIFICATIONS, AND DELIVERABLES

I.G.1.a. Except as provided in Permit Condition I.G.3, all reports, correspondence, 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 be delivered by U.S. Postal Service or private courier service to:

Director, Land Division
US Environmental Protection Agency, Region IX
75 Hawthorne St. (LND-1)
San Francisco, CA 94105

I.G.1.b. 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.

I.G.2. All deliverables submitted in paper form pursuant to Permit Condition I.G.1.a. shall also be submitted in electronic format (*e.g.*, CD ROM, flash drive) to the addressee(s) identified in Permit Condition I.G.3 and/or the physical address provided in Permit Condition I.G.1.a., as appropriate.

I.G.3. In lieu of the hardcopies required by Permit Condition I.G.1.a., one copy of all reports, correspondence, 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 may be submitted by electronic mail to: R9LandSubmit@epa.gov. (Assuming this electronic submittal option is elected, additional electronic submittals in accordance with Permit Condition I.G.2. are unnecessary.)

I.G.4. For the computation of time periods set forth in this Permit, the Permittees shall comply with the following:

I.G.4.a. Any time period scheduled to begin on the occurrence of an act or event shall begin on the day after the act or event.

I.G.4.b. Any time period scheduled to begin before the occurrence of an act or event shall be computed so that the period ends on the day before the act or event.

I.G.4.c. If the final day of any time period falls on a weekend or legal holiday, the time period shall be extended to the next working day. [See, *e.g.*, 40 CFR § 124.20.]

I.G.5. Deliverables Submitted for the Director's Review and Approval

I.G.5.a. Deliverables that are explicitly required by this Permit to be submitted to the Director for review and approval must be post-marked by the due date specified in this Permit or by the specific schedules developed pursuant to the requirements of this Permit that apply to such deliverables. The Director shall review and respond to the deliverable in accordance with Permit Condition I.G.5.b. Electronic submittals in accordance with Permit Conditions I.G.2. or I.G.3. must be received prior to 11:59 p.m. Pacific Time on the due date.

I.G.5.b. Subject to the provisions of I.G.5.c., after review of any deliverable that is required to be approved by the Director pursuant to this Permit, the Director will either:

i. approve, in whole or in part, the submission;
ii. approve the submission on specified conditions;
iii. modify the submission to cure the deficiencies;
iv. disapprove, in whole or in part, the submission, directing that Permittee modify the submission; or
v. any combination of the above.

I.G.5.c. The Director will not modify or condition approval of a deliverable under Permit Condition I.G.5.b. without first providing the Permittees at least one notice (Deliverable Deficiency Notice) identifying the legal basis for each of EPA's conclusions that there are deficiencies in the deliverable, and an opportunity to cure within a reasonable period of time under the circumstances, except:

i. where the Director determines that to do so would cause serious disruption to the work required by this Permit or could present an unacceptable risk to human health or the environment; or

ii. where the Director has disapproved previous submission(s) due to material defects and the Director determines that the deficiencies in the submission under consideration indicate a bad faith lack of effort to submit an acceptable deliverable.

I.G.5.d. Upon approval of any deliverable pursuant to this Permit, including approval on conditions or modification by the Director, the Permittees may either (1) accept the approval, in which case they shall maintain a copy of the approved deliverable, in accordance with the applicable record-keeping provision(s) of this Permit, and proceed to take any action required by and in accordance with the approved deliverable, or (2) seek review of the conditions or modifications to the approval through the dispute resolution procedures in Section I.L. of this Permit, except as set forth in Permit Condition VI.H.5.

I.G.5.e. Resubmission of Deliverable: Upon receipt of a notice of disapproval, in whole or in part, pursuant to this Permit Condition, the Permittees shall either: (1) within a reasonable period of time under the circumstances, as specified by the Director in such notice, correct any deficiencies and resubmit the deliverable for approval, or (2) invoke the dispute resolution procedures in Section I.L. of this Permit.

I.G.5.f. Notwithstanding the receipt of a notice of disapproval pursuant to this Permit Condition, the Permittees shall proceed, at the direction of the Director, to take any action required by any non-deficient portion of the submission. Implementation of any non-deficient portion of a submission shall not relieve the Permittees of the obligation to address any deficient portion of the submission.

I.G.5.g. In the event that a resubmitted deliverable, or portion thereof, is disapproved by the Director, the Director may again issue a Deliverable Deficiency Notice pursuant to Section I.G.5.c,

providing the Permittees with an opportunity to correct the identified deficiencies, in accordance with this Permit Condition I.G.5., or may proceed to disapprove or revise the deliverable.

I.G.5.h. If upon resubmission, a deliverable is disapproved or modified by the Director due to a material defect, the Permittees shall be deemed to have failed to submit such deliverable in a timely or adequate manner.

I.G.6. Revisions to Previously Approved Deliverables

I.G.6.a. If at any time during the life of this Permit, the Permittees identify a need for a revision of any previously approved deliverable required by this Permit or of any deadline required by this Permit, the Permittees shall submit a memorandum documenting the need for the revision to the Director. Where appropriate, such memorandum shall be accompanied by a request for a Permit Modification pursuant to 40 CFR § 270.42. [See 40 CFR § 270.42.]

I.G.6.b. Where a Permit Modification is not requested by the Permittees, the Director will determine if the requested revision to the previously approved deliverable or to the deadline is warranted as soon as practicable after receipt of any memorandum submitted pursuant to Permit Condition I.G.6.a. and so inform the Permittees in writing that the proposed revision to the deliverable or deadline has been approved, modified or disapproved as provided in Permit Condition I.G.5.b. and subject to Permit Condition I.G.5.c. Where the memorandum is accompanied by a request for a Permit Modification under 40 CFR § 270.42, RCRA's permit modification procedures shall apply. [See 40 CFR § 270.42.]

I.G.6.c. Requests for extensions of the due dates for deliverables may be granted by the Director in accordance with either the procedures in Permit Condition I.G.6.a. of this Permit or RCRA's permit modification processes. [See 40 CFR § 270.42.]

I.G.7. Deliverables that Require a Permit Modification

I.G.7.a. Deliverables that are explicitly required by this Permit to be submitted with an accompanying request for a permit modification in accordance with this Permit Condition I.G.7. must specify the class of permit modification for which the request is being submitted in accordance with 40 CFR § 270.42 and Appendix 1 to that section. Or, if the request is for a permit modification not explicitly identified in Appendix 1 to 40 CFR § 270.42, the Permittees may submit a Class 3 modification request to the Director, or may request a determination by the Director that the modification should be reviewed and approved as a Class 1 modification with no prior Director approval, Class 1 modification with prior Director approval, or Class 2 modification. [See 40 CFR § 270.42 and Appendix 1 to 40 CFR § 270.42.]

I.G.7.b. For any permit modification not explicitly identified in Appendix 1 to 40 CFR § 270.42, if the Permittees request that the modification be classified as a Class 1 modification with no prior Director approval, Class 1 modification with prior Director approval, or Class 2 modification, the request must include the necessary information to support the requested classification in accordance with 40 CFR §270.42. [See 40 CFR § 270.42(d).]

I.G.7.c. The Director's determination that the modification should or should not be treated as a Class 1 with no prior Director approval, Class 1 with prior Director approval, or Class 2 modification shall be subject to the dispute resolution provisions of Permit Condition I.L., but any other decisions made by the Director as part of the permit modification process shall only be reviewable in accordance with 40 CFR Part 124. [See 40 CFR Part 124.]

I.G.8. Deliverables That May Trigger a Permit Modification

Where a report or other deliverable required by this Permit includes a recommendation that the Permit be modified, and the report or other deliverable is subject to approval by the Director under Permit Condition I.G.5., the request for the permit modification may be submitted after the report or other deliverable recommending the modification has been approved by the Director. However, nothing in this Permit condition is intended to

limit the Permittees' respective abilities to put into effect or request permit modifications in accordance with 40 CFR § 270.42.

I.H. CONFIDENTIAL INFORMATION

In accordance with 40 CFR § 270.12, either Permittee may claim any information required to be submitted by this Permit as confidential business information. If either Permittee asserts such a claim, the information will be treated in accordance with the procedures in 40 CFR Part 2. If no claim is made at the time of submission, the information may be made available to the public without further notice. [See 40 CFR Part 2, Subpart B, and 40 CFR § 270.12.]

I.I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

I.I.1.a. The Permittees shall maintain at the Facility, until closure is completed and certified by an independent, registered professional engineer or as otherwise specified below, the following documents and all amendments, revisions, and modifications to these documents:

i. Waste Analysis Plan, as required by 40 CFR § 264.13 and this Permit;
ii. Inspection schedules, as required by 40 CFR § 264.15(b)(2) and this Permit;
iii. Personnel training documents and records, as required by 40 CFR § 264.16(d) and this Permit, although training records on current personnel must be kept until closure of the Facility, training records on former employees must be kept for at least 3 years from the date the employee last worked at the Facility in accordance with 40 CFR § 264.16(e);
iv. Contingency Plan, as required by 40 CFR § 264.53(a) and this Permit;
v. Operating record, as required by 40 CFR § 264.73 and this Permit;
vi. Closure Plan, as required by 40 CFR § 264.112(a) and this Permit;
vii. Annually-adjusted cost estimates for Facility closure, as required by 40 CFR §§ 264.73(b) and 264.142(d) and this Permit;
viii. The Startup Shutdown and Malfunction Plan (SSMP), for the operating life of RF-2, as required by this Permit; and
ix. All other documents required to be maintained for the life of the Facility in accordance with the requirements of this Permit. (See,

e.g., Permit Condition IV.J.4.).

I.I.1.b. For the purposes of the requirement that records be maintained "at the Facility" in accordance with this Permit condition, except for the Contingency Plan, such records may be maintained in either hardcopy at the Facility or electronic format, provided they are made available to and are readily accessible to EPA, CRIT and CRIT EPO for the period that applies to the record. [See also Permit Condition II.K. (Contingency Plan.)]

I.I.2. All records, including plans, required under this Permit must be furnished upon request, and made available at all reasonable times for inspection by any officer, employee, or representative of EPA who is duly designated by the Director. [See 40 CFR § 264.74(a).]

I.J. INFORMATION REPOSITORY

I.J.1. The Permittees must establish and maintain an information repository that meets the requirements of 40 CFR § 124.33 and includes the records identified in Permit Exhibit I. The information repository shall be located and maintained at a site chosen by the Permittees and may consist of solely an electronic, internet-based site. If an electronic, internet-based site is chosen for the information repository, it must be publicly accessible, and maintained by the Permittees to allow public access to the records on as continuous a basis as is technically feasible. [See 40 CFR §§ 124.33 and 270.30(m).]

I.J.2. The Permittees must update the information repository with appropriate information when permit events take place (e.g., permit modifications, trial burn tests, etc.) and at least every five (5) years throughout the life of this Permit. Records maintained in the information repository need only be maintained for the periods of time otherwise required by this Permit. [See 40 CFR §§ 124.33(f) and 270.30(m).]

I.J.3. Notice of the location of the information repository shall be sent to all persons on the Facility mailing list in accordance with Permit Condition I.K.5. [See Permit Condition I.K.5., and 40 CFR §§ 124.33(e) and 270.30(m).]

I.K. COMPLIANCE SCHEDULE

I.K.1. 40 CFR Part 264, Subpart BB Compliance

I.K.1.a. The Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised Subpart BB Compliance Plan (Permit Attachment Appendix XIX) and, if necessary, a revised Permit Attachment Section N, within ***120 days after the final permit is effective.*** The request for a Permit Modification shall be either as a Class 1 permit modification with prior Director approval, or a Class 2 or Class 3 modification. [See 40 CFR Part 264, Subpart BB.]

I.K.1.b. If revisions to Permit Attachment Section N and the Subpart BB Compliance Plan also necessitate any changes to the Waste Analysis Plan (WAP) in order to comply with 40 CFR § 264.1063(d), the Permittees shall include a revised WAP with the Permit Modification request. [See 40 CFR § 264.1063(d).]

I.K.1.c. If the Permittees and EPA do not agree on whether a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10 percent by weight, the procedures in 40 CFR § 264.1063(d)(1) or (d)(2) shall be used to resolve the disagreement. [See 40 CFR § 264.1063(f) and Permit Attachment Appendix XIX.]

I.K.2. 40 CFR Part 264, Subpart CC Compliance

Within ***120 days after the final permit is effective,*** the Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised Subpart CC Compliance Plan (Permit Attachment Appendix XX) and, if necessary, a revised Permit Attachment Section O**.** The request for a Permit Modification shall be either as a Class 1 permit modification with prior Director approval, or a Class 2 or Class 3 modification. [See 40 CFR Part 264, Subpart CC. See also, Permit Condition IV.F.2.]

I.K.3. Waste Carbon Feed Monitoring for Sulfur.

The Permittees shall submit to the Director a notice of a Class 1 Permit Modification with prior Director approval, or Class 2 or Class 3 Permit Modification, in accordance with 40 CFR § 270.42(a)(2) and Permit Condition I.G.7., with an accompanying revised Permit Attachment Section C and a revised Permit Attachment Appendix IV (Waste Analysis Plan) within ***60 days after the final Permit is effective.***

I.K.3. a. The Waste Analysis Plan shall include sampling and analysis for sulfur at the waste carbon feed. Sampling shall be performed every 4-6 hours (at least four times daily). Samples are to be composited every 15-20 days and sent to the laboratory for analysis.

I.K.3.b. The revised Waste Analysis Plan shall include a recommendation by the Permittees for a feed rate limit for sulfur in the spent carbon so that the Permittees can use this feed rate limit to demonstrate to the Agency that they will not exceed the sulfur oxides emission standard of 30 tons per consecutive 12-month period, which is the standard expressed in Table V-1 of Module V of this Permit. The Permittees' recommended feed rate limit for sulfur in the spent carbon shall include the explanation and calculation(s) for demonstrating compliance with the 30 tons per consecutive 12-month period 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 scrubber system.

I.K.3.c. Once the revised Waste Analysis Plan is incorporated into the Permit, the Permittees are not authorized to feed in the RF-2 spent activated carbon that contains sulfur in concentrations that will cause the Permittees to exceed the emission standard set forth in Module V, Table V-1.

I.K.4. Contingency Plan.

Within 30 days of the effective date of this Permit, the Permittees shall deliver both a hard copy and an electronic copy of the Contingency Plan (Permit Attachment Appendix XIII) to the off-site response agencies and hospital identified in sections 4.1 and 4.2 of the Contingency Plan.

I.K.5. Information Repository.

I.K.5.a. ***Within 120 days of the effective date of this Permit***, the Permittees shall establish an information repository that meets the requirements of 40 CFR § 124.33 and includes the records identified in Permit Exhibit I. ***Within 150 days of the effective date of this Permit***, the Permittees shall send to the Director in accordance with Permit Condition I.G.1., notice of the location of the information repository, with sufficient postage for mailing by the Director to all persons on the Facility mailing list. [See 40 CFR §§ 124.33, 270.30(m), Permit Condition I.J. and Permit Exhibit I.]

I.K.5.b. ***Within 150 days of the effective date of this Permit,*** the Permittees shall transmit a link to the online electronic copy of the Contingency Plan (Permit Attachment Appendix XIII) to the off-site response agencies and hospital identified in sections 4.1 and 4.2 of the Contingency Plan.

I.K.6. Permit Attachment Appendix XXI and Permit Attachment Section D.

Within 60 days of the effective date of this Permit, the Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised and updated Permit Attachment Appendix XXI (Record Retention Requirements) and revised and updated Permit Attachment Section D (Process Information). The purpose of the revision/update is to update the Operating and Maintenance Manuals Maintained on Site Table, (identified in Permit Attachment Section D as Table D-2) with the most recent information about the operating and maintenance manuals that are maintained on-site. [See Permit Attachment Appendix XXI and Permit Attachment Section D.] To the extent that such update is not necessary, a statement to that effect, with an explanation, may be submitted to the Director for approval in accordance with Permit Condition I.G.5., in lieu of the request for a permit modification and revised documents.

I.K.7. Permit Table VI-1 and Permit Attachment Section J.

Within 60 days of the effective date of this Permit, the Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised and updated Permit Table VI-1 ("Table VI-1 - Hazardous Waste Management Unit Identification, New Unit Name") and revised and updated Permit Attachment Section J (Solid Waste Management Units (SWMUs), Hazardous

Waste Management Units (HWMUs), And Areas Of Concern (AOCs)). The purpose of the revision/update is to update Table VI-1, and Permit Attachment Section J with the most recent information about the hazardous waste management units that are currently at the Facility. [See Permit Table VI-1 in Module VI and Permit Attachment Section J.] To the extent that such update is not necessary, a statement to that effect, with an explanation, may be submitted to the Director for approval in accordance with Permit Condition I.G.5., in lieu of the request for a permit modification and revised documents.

I.L. DISPUTE RESOLUTION

I.L.1. Whenever either Permittee is unable, after using good faith and best efforts, to informally resolve a dispute with respect to this Permit, the following dispute resolution procedures of this Permit Condition I.L. shall apply:

I.L.1.a. The Permittee(s) may invoke the dispute resolution procedures by sending a Dispute Resolution Notice to the Director in writing in accordance with Permit Conditions I.G.1., I.G.2, and I.G.3. Within the first fourteen (14) days after receipt of any such Notice, the Permittee(s) and the EPA manager responsible for the RCRA Branch (the "RCRA manager") will attempt to resolve any disputes. If requested by either of the Permittees, a meeting will be held between the RCRA manager and the Permittee(s) and/or the representative(s) of the Permittee(s) to discuss the matter. Unless otherwise agreed to by the RCRA manager, the meeting will be held at the EPA Region 9's office in San Francisco, California, or by video or teleconference.

I.L.1.b. If agreement is not reached between the RCRA manager and the Permittee(s) within the initial fourteen (14) day period after receipt of written notice to the Director in accordance with Permit Condition I.L.1.a., and the Permittee(s) wish to continue the Dispute Resolution process, the Permittee(s) must submit written arguments and evidence to the Director. The written arguments and evidence shall be submitted to the Director within 30 days of the end of the initial 14-day period (*i.e.*, within 44 days after EPA's receipt of the Dispute Resolution Notice) at the addresses identified in Permit Conditions I.G.1. through I.G.3., as appropriate.

I.L.1.c. If written arguments and evidence are submitted by the Permittee(s) to the Director, the Director will resolve the dispute within a reasonably prompt time period. The Director's resolution of the dispute will include a written response to the evidence and arguments submitted by the Permittee(s), and will state the basis for EPA's decision. The Permittee(s) shall comply with the Director's decision regardless of whether the Permittee(s) agree with the decision.

I.L.2. Unless otherwise agreed to by the Director, invocation of dispute resolution by the Permittee(s) shall not extend, postpone, or affect in any way any obligation of the Permittee(s) under this Permit not directly in dispute.

I.L.3. Generally, during the period of the resolution of a dispute in accordance with this Permit Condition I.L. any relevant deadline or other compliance obligation or requirement that is the direct subject of the dispute shall be temporarily extended, postponed or otherwise held in abeyance unless disapproved by the Director. The length of time delay shall not exceed the length of time it takes to resolve the dispute, unless the Director specifies a longer time period for compliance as part of the resolution of the dispute. However, where the Director directs the Permittees to conduct Emergency Interim Corrective Measures in accordance with Permit Condition VI.H.5., the Permittees shall implement such Emergency Interim Corrective Measures, as instructed by the Director, simultaneously during any such invocation of the Permit's dispute resolution procedures, as set forth in Permit Condition VI.H.5.

MODULE II - GENERAL FACILITY CONDITIONS

II.A. GENERAL FACILITY DESCRIPTION

Spent carbon is trucked to the Facility in several kinds of containers (*e.g.*, drums, vessels, supersacks, roll-off bins, *etc.*) or in tanker trucks. The spent carbon typically contains benzene or other volatile organic compounds (VOCs). Only a portion of the incoming spent carbon received at the Facility is classified as a hazardous waste when received. A substantial quantity of the incoming spent carbon is not classified as hazardous waste upon receipt, typically because it does not exhibit a characteristic and is not listed, or it is a characteristic sludge destined for reclamation. See 40 CFR § 261.2(c). The spent carbon is either introduced to the carbon regeneration system at the Facility upon receipt via one of two hoppers (H-1 or H-2) or it is moved to the Container Storage Area to be put in the hoppers later. The spent carbon is transferred from the hoppers to one of four Spent Carbon Storage Tanks (T-1, T-2, T-5, or T-6). During the transfer, water is added to the spent carbon, creating a slurry, to help in pumping the spent carbon from the hoppers to the storage tanks. From the storage tanks, the spent carbon is transferred in slurry form to the furnace Feed Tank (T-18). The spent carbon in its slurry form then is sent from T-18 through a dewatering screw where the carbon is dewatered. The dewatered carbon is then fed to the weigh belt where it is weighed and sampled, before it is fed to the operating Carbon Regeneration Furnace (RF-2). The regenerated carbon is cooled in a cooling screw and is then sent to the product storage area for commercial packaging. Wastewater is processed through a wastewater treatment system and is discharged to the local publicly owned treatment works pursuant to a Clean Water Act discharge permit issued by the Colorado River Sewer Systems Joint Venture. The Facility's wastewater treatment system is excluded from this Permit pursuant to 40 CFR § 270.1(c)(2)(v).

II.B. DESIGN AND OPERATION OF FACILITY

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. [See 40 CFR § 264.31.]

II.B.2. With respect to activities for which a hazardous waste permit is required, the Permittees are only authorized to conduct such activities as described in this Permit. [See 40 CFR Parts 262, 264, 270, 273, 279 and §§ 270.1(c) and 270.4(a)(1)(i) – (iv).]

II.B.3. The Permittees shall comply with all applicable land disposal restriction requirements in 40 CFR Part 268, including the requirements of 40 CFR Part 268, Subpart E (Prohibitions on Storage). [See 40 CFR Part 268].

II.B.4. Any Permittee-initiated changes to the units designated in this Permit that require modifications to the Permit pursuant to 40 CFR § 270.42 shall be the subject of a Permit Modification in accordance with Permit Condition I.G.7., where applicable, and the permit modification procedures of 40 CFR §270.42. [See 40 CFR § 270.42.]

II.B.5. The Permittees may store hazardous waste generated on-site in accordance with the provisions of 40 CFR Part 262. Any hazardous waste generated on-site that is to be treated on-site, or disposed of or transported off-site must be stored, handled, treated, transported and otherwise managed in accordance with the regulations applicable to hazardous waste generators at 40 CFR Part 262 and any other applicable requirements, such as 40 CFR Part 265 Subpart BB or requirements listed under 40 CFR §§ 270.4(a)(1)(i)-(iv), or this Permit. [See 40 CFR Part 262, 40 CFR Part 265, Subpart BB and §§ 270.1(c) and 270.4(a)(1)(i)-(iv).]

II.B.6. No less often than annually, the Permittees must certify, in accordance with 40 CFR § 264.73(b)(9), that there is a program in place to reduce the volume and toxicity of hazardous waste that is generated on-site to the degree determined by the Permittees to be economically practicable and that the proposed method of treatment, storage or disposal is that practicable method currently available to the Permittees that minimizes the present and future threat to human health and the environment. A copy of the certification must be maintained in the Operating Record in accordance with Permit Conditions I.E.9.b and II.M.1. [See 40 CFR § 264.73(b)(9) and Permit Conditions I.E.9.b., and II.M.1.]

II.C. REQUIRED NOTICES

II.C.1. If the Permittees expect to receive hazardous waste from a foreign source, the Permittees must provide notice of such import in accordance with 40 CFR §§ 264.12(a) and 264.71. [See 40 CFR §§ 262.84, 264.12(a), and 264.71.]

II.C.2. When the Permittees are to receive hazardous waste from an off-site source (except where either Permittee is also the generator), they must inform the generator in writing that they have the appropriate hazardous waste permit, and will accept the waste the generator is shipping. The Permittees must keep a copy of this written notice as part of the Facility's Operating Record in accordance with 40 CFR § 264.73. [See 40 CFR §§ 264.12(b) and 264.73.]

II.D. GENERAL WASTE ANALYSIS

II.D.1. The Permittees shall follow the waste analysis procedures in accordance with 40 CFR § 264.13, Permit Attachment Section C, and the Waste Analysis Plan, Permit Attachment Appendix IV. [See 40 CFR §264.13.]

II.D.2. The Permittees shall review the analysis of each waste stream provided by the generator as part of their quality assurance program in accordance with the frequencies set forth in the Waste Analysis Plan, Permit Attachment Appendix IV.

II.D.3. If an on-site laboratory is used, the Permittees shall maintain proper functional laboratory instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations.

II.D.4. If the Permittees use a contract or other off-site laboratory to perform analyses, then the Permittees shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit. Any failure of the laboratory to operate under the waste analysis conditions set forth in this Permit shall constitute a violation of the Permit by the Permittees. [See 40 CFR § 264.13 and the Waste Analysis Plan, Permit Attachment Appendix IV.]

II.D.5. The Director, the Enforcement Director, or either's designee each reserve the right to audit the on-site laboratory or the off-site laboratory utilized by the Permittees at any time.

II.D.6. In addition to the authorities described in Permit Condition I.E.8 (Inspection and Entry), the Director, the Enforcement Director, or either's designee each reserve the right to sample the spent carbon feed stream at the weigh belt to ensure compliance with this Permit.

II.D.7. The Permittees shall review the Waste Analysis Plan at least every two calendar years to determine if it is in compliance with current RCRA regulations and otherwise meets the needs of the Facility in accordance with Section 7.0 of the Waste Analysis Plan, Permit Attachment Appendix IV, incorporated herein by this reference. [See Section 7.0 of the Waste Analysis Plan, Permit Attachment Appendix IV.]

II.D.8. The Permittees shall comply with the test methods and procedural requirements described in 40 CFR § 264.1063 in accordance with the RCRA Subpart BB standards, where applicable, Permit Attachment Section N and Permit Attachment Appendix XIX, incorporated herein by this reference. [See 40 CFR § 264.1063, Permit Attachment Section N and Permit Attachment Appendix XIX. See also Permit Condition I.K.1.]

II.D.9. At the request of the Director, the Permittees shall perform a waste determination for a hazardous waste managed in any tank or container exempted from using air emission controls under the provisions of 40 CFR § 264.1082. [See 40 CFR § 264.1082(d).]

II.E. SECURITY

II.E.1. The Permittees shall comply with the security provisions of 40 CFR § 264.14. The treatment process and operating areas of the Facility are surrounded by a fence as depicted on the Reactivation Facility Site Plan (D14789-08) contained in Permit Attachment Appendix III. This Reactivation Facility Site Plan also shows gates for the Facility. All gates and building entrances must be locked or monitored when open. Additional access control requirements for the Facility are contained in Permit Attachment Section F (Procedures to Prevent Hazards), incorporated herein by this reference. [See 40 CFR § 264.14.]

II.E.2. The Permittees shall prevent, and minimize the possibility for, livestock and unauthorized people entering the Facility. [See 40 CFR § 264.14(a).]

II.E.3. The Permittees shall post and maintain a sign at each entrance to the Facility, and at other prominent locations, in sufficient numbers to be seen from any approach to the Facility. The sign shall bear the legend "Danger - Unauthorized Personnel Keep Out." The legend shall be in English and in Spanish and must be legible from a distance of at least 25 feet. The Permittees may use existing signs with a legend other than "Danger-- Unauthorized Personnel Keep Out" if the legend on the sign indicates that only authorized personnel are allowed to enter the Facility, and that entry onto the Facility can be dangerous. [See 40 CFR § 264.14(c).]

II.F. GENERAL INSPECTION REQUIREMENTS

II.F.1. The Permittees shall follow the inspection schedule as per Permit Attachment Section F and Permit Attachment Appendix XII and shall comply with the requirements of 40 CFR § 264.15. [See 40 CFR § 264.15.]

II.F.2. The Permittees shall inspect the Facility in accordance with the requirements of 40 CFR § 264.15(a). [See 40 CFR § 264.15(a).]

II.F.3. Inspections shall include inspection for compliance with the requirements of 40 CFR § 264.15(b). [See 40 CFR 264.15(b). See also Table V-3 in Module V.]

II.F.4. The Permittees shall remedy any deterioration or malfunction of equipment or structures discovered by an inspection in accordance with 40 CFR §§ 264.15(c) and 264.171. [See 40 CFR §§ 264.15(c) and 264.171.]

II.F.5. The Permittees shall record all inspections in accordance with 40 CFR § 264.15(d). [See 40 CFR § 264.15(d).]

II.G. PERSONNEL TRAINING

II.G.1. The Permittees shall conduct personnel training in accordance with 40 CFR § 264.16, and in accordance with Permit Attachment Section H and Permit Attachment Appendix XIV, both of which are incorporated herein by this reference. [See 40 CFR § 264.16.]

II.G.2. The Permittees shall maintain training documents and records in accordance with 40 CFR §§ 264.16(d) and (e). [See 40 CFR §§ 264.16(d) and (e).]

II.H. SPECIAL PROVISIONS FOR CERTAIN WASTES

II.H.1. Except as otherwise provided in this Permit Condition II.H., the Permittees may manage hazardous waste with the RCRA hazardous waste codes listed at 40 CFR Part 261, Subparts C and D, that are identified in Table C-1 in Permit Attachment Section C.

II.H.2. The Permittees shall follow the procedures for handling ignitable and incompatible waste and otherwise comply with the requirements of 40 CFR § 264.17. The Permittees shall follow the procedures for handling ignitable wastes set forth in Permit Attachment Section C, incorporated herein by this reference. [See 40 CFR § 264.17 and Permit Attachment Section C, at C.2.4.]

II.H.3. Hazardous waste received from off-site may only be stored at the Facility if it is to be regenerated through thermal treatment in RF-2.

II.H.4. The Permittees shall comply with the requirements for Air Emission Standards for Equipment Leaks (40 CFR Part 264, Subpart BB) in accordance with Permit Application Appendix XIX and Permit Attachment Section N, incorporated herein by this reference. [See 40 CFR § 264.1050 *et seq.*, including 40 CFR § 264.1063(f). See also Permit Condition I.K.1.]

II.H.5. The Permittees shall not accept, store, consolidate or treat any of the following:

II.H.5.a. Radioactive or nuclear wastes regulated by the U.S. Department of Energy and U.S. Nuclear Regulatory Commission including any spent carbon contaminated with such material;

II.H.5.b. Hazardous wastes associated with dioxins and/or furans (*e.g.* F020, F021, F022, F023, F026, F027, F028, F032, K043, K099, K156, K158, K174, K178, P127, and/or P189) including any spent carbon

contaminated with such material;

II.H.5.c. Leachate from the disposal of more than one restricted waste (F039) including any spent carbon contaminated with such material if it contains wastes associated with dioxins and/or furans (*e.g.* F020, F021, F022, F023, F026, F027, F028, F032, K043, K099, K156, K158, K174, K178, P127, and/or P189), [See definition of "Dioxins and furans" in 40 CFR 260.10.];

II.H.5.d. Wastes regulated under the Toxic Substances Control Act (TSCA) that contain levels of polychlorinated biphenyls (PCBs) equal to or greater than 50 mg/kg (ppm), or where the source of the PCBs is equal to or greater than 50 ppm including any spent carbon contaminated with such material;

II.H.5.e. Medical or infectious wastes including any spent carbon contaminated with such material;

II.H.5.f. RCRA mixed waste (radioactive and hazardous waste) including any spent carbon contaminated with such material;

II.H.5.g. Any corrosive or reactive waste bearing either the hazardous waste code D002 or D003; or

II.H.5.h. Any benzidine-contaminated waste bearing the hazardous waste code U021.

II.I. LOCATION STANDARDS

The Facility is not within a 100-year floodplain. In the event of a flood, the Permittees shall remove all hazardous waste, before flood waters can reach the Facility, to a location where the wastes will not be vulnerable to the flood waters. [See 40 CFR § 264.18(b), Permit Attachment Section B and Permit Attachment Appendix II.]

II.J. PREPAREDNESS AND PREVENTION

II.J.1. Required Equipment

At a minimum, the Permittees shall maintain the following at the Facility:

- An internal communications or alarm system at or near areas of the Facility where hazardous waste is stored, treated or otherwise managed that is or are capable of providing immediate emergency instruction (voice or signal) to Facility personnel;

- A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

- Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

- Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. [See 40 CFR § 264.32.]

II.J.2. Testing and Maintenance Of Emergency Equipment

The Permittees shall test and maintain all the communications and alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required and as necessary, to assure its proper operation in time of emergency. Specific testing and maintenance procedures are included in the inspection schedule in Permit Attachment Section F and in Permit Attachment Appendix XII. [See 40 CFR § 264.33.]

II.J.3. Access to Communications or Alarm System

Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, the Permittees shall ensure that all personnel involved in the operation have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee. If there is ever just one employee on the premises while the Facility is operating, the Permittees shall ensure that he or she has immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance. [See 40 CFR § 264.34.]

II.J.4. Required Aisle Space

The Permittees shall maintain adequate aisle space at the Facility in accordance with Permit Attachment Section D, Permit Attachment Appendix III, and Permit Attachment Appendix VII. At a minimum, the Permittees shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of Facility operation in an emergency and for the purposes of conducting inspections. If the Permittees need to change the configuration of the containers from what is described in this Permit and its attachments, the Permittees shall submit a request for a Permit Modification to the Director in accordance with 40 CFR § 270.42. [See 40 CFR § 264.35.]

II.J.5. Arrangements with Local Authorities

The Permittees shall attempt to maintain arrangements with the appropriate state, local, and Colorado River Indian Tribes (CRIT) authorities in accordance with 40 CFR § 264.37. The Permittees shall periodically update the arrangements, at least every five years from the effective date of this Permit. If state, local, or CRIT officials refuse to renew the preparedness and prevention arrangements with the Permittees, the Permittees must confirm such refusal in writing, document such refusal and maintain such documentation in the Facility's Operating Record for five years or until the next attempt to make arrangements, as provided above. The Permittees shall also notify the Director of such refusal by the state, CRIT or local authority(ies). [See 40 CFR §§ 264.37, Permit Attachment Section G and Permit Appendix XIII.]

II.K. CONTINGENCY PLAN

II.K.1. Implementation of Plan

The Permittees shall comply with the requirements of 40 CFR §§ 264.50 through 264.56. The Permittees shall immediately carry out the provisions of the Contingency Plan, Permit Attachment Section G, and Permit Attachment Appendix XIII, whenever there is a fire, explosion, or release of hazardous waste or constituents that could threaten human health or the environment. [See 40 CFR §§ 264.50 through 264.56.]

II.K.2. Copies of Plan

The Permittees shall maintain both a hard copy of the Contingency Plan, Permit Attachment Section G and Permit Attachment Appendix XIII, at the Facility and an electronic copy on a publicly accessible website, including all revisions to the plan, and shall provide both a hard copy, and an electronic copy, and link to the online version (and both a hard and electronic copy of and link to all revisions) to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services. See also Permit Conditions I.K.4. and I.K.5. The Contingency Plan, Permit Attachment Section G, and Permit Attachment Appendix XIII are hereby incorporated into this Permit by this reference. [See 40 CFR § 264.53.]

II.K.3. Amendments to Plan

II.K.3.a. The Permittees shall review and immediately amend, if necessary, the Contingency Plan, whenever:

II.K.3.a.i. The Facility permit is revised;

II.K.3.a.ii. The plan fails in an emergency;

II.K.3.a.iii. The Facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;

II.K.3.a.iv. The list of emergency coordinators changes; or

II.K.3.a.v. The list of emergency equipment changes. [See 40 CFR § 264.54.]

II.K.3.b. The Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with the accompanying amended Contingency Plan. [See 40 CFR § 270.42.]

II.K.4. Emergency Coordinator

The Permittees shall ensure that a trained emergency coordinator is available at all times at the Facility or on call in case of an emergency, in accordance with 40 CFR § 264.55. [See 40 CFR §§ 264.52(d) and 264.55.]

II.L. MANIFEST SYSTEM

II.L.1. The Permittees shall comply with the manifest and fee requirements of 40 CFR §§ 260.4, 260.5, 264.70, 264.71, 264.72, 264.76, 264.1300 *et seq*. and 270.30(l)(7) and (8). [See 40 CFR §§ 264.70, 264.71, 264.72, 264.76, 264.1300 *et seq*., and 270.30(l)(7) and (8).]

II.L.1.a. If a significant difference in quantity or type of hazardous waste listed on a manifest is discovered as set forth in 40 CFR § 264.72(a)(1), the Permittees must attempt to reconcile the discrepancy. If not resolved within fifteen days, the Permittees must submit a letter report, including a copy of the manifest, to the Director as set forth in 40 CFR § 264.72(c). [See 40 CFR §§264.72 and 270.30(l)(7).]

II.L.1.b. If the Facility accepts for treatment or storage any hazardous waste from an off-site source without an accompanying manifest, an unmanifested waste report must be submitted to the Director within 15 days of receipt of the unmanifested waste. [See 40 CFR §§264.76 and 270.30(l)(8).]

II.L.1.c. Pursuant to 40 CFR § 264.71, electronic manifests that are obtained, completed, and transmitted in accordance with 40 CFR § 262.20(a)(3) and used in accordance with 40 CFR § 264.71 in lieu of the paper manifest form are the legal equivalent of paper manifest forms bearing handwritten signatures, and satisfy for all purposes any requirement to obtain, complete, sign, provide, use, or retain a manifest. [See 40 CFR §§ 262.20(a)(3) and 264.71.]

II.M. RECORDKEEPING AND REPORTING

In addition to the recordkeeping and reporting requirements specified elsewhere in this Permit, the Permittees shall do the following:

II.M.1. Operating Record

II.M.1.a. The Permittees shall maintain a written Operating Record at the Facility in accordance with 40 CFR § 264.73 and this Permit. [See 40 CFR § 264.73.]

II.M.1.b. The Permittees shall record and maintain, in the Operating Record for this Permit, in accordance with Permit condition II.M.1.a., all monitoring, inspection, and other data compiled or reported under the requirements of this Permit in accordance with 40 CFR §§ 264.73, 264.1064, and/or 264.1080, and/or Modules V or VI of this Permit. The Permittees shall also include in the Operating Record a log in which information shall be recorded for use in determining the exemptions described in the Subpart BB Compliance Plan and the Subpart CC Compliance Plan in accordance with 40 CFR §§ 264.1064(k), 264.1080 and 264.1089. The Permittees shall also maintain the test burn reports, data, calculations, and other RF 2 - related records in the Operating Record in accordance with Module V. [See Modules I, IV, V and VI, and Permit Conditions I.E.13., IV.I.1.b., IV.J.2., V.C.4.a., V.C.5.e., V.C.6.b., V.C.6.c., V.G., V.I.3. VI.D. and VI.E.1.b. and 40 CFR §§ 63.1211, 264.73 and 264.1064.]

II.M.1.c. The Permittees shall maintain, in the Operating Record for this Permit, the manuals listed in the Operating and Maintenance Manuals Maintained on Site Table identified in Permit Attachment Appendix XXI for as long as the equipment to which each manual pertains is in use. Whenever the list of manuals needs to be revised, the Permittees shall submit a request for a Permit Modification in accordance with Permit Condition I.G.7. along with the accompanying revised Table. [See 40 CFR §§ 63.8(c)(3) and 63.1209(b)(2).]

II.M.1.d. The Permittees shall maintain the required records in the Operating Record for this Permit for three years, except where the records must be maintained until closure in accordance with 40 CFR § 264.73(b), maintained for five years in accordance with Permit Conditions V.C.5.h. or V.G.1., or as otherwise required by this Permit. [See Permit Conditions I.I.1., IV.J.4., V.C.2.iv., V.C.5.h., V.G.1., and VI.B.2.].

II.M.1.e. For the purposes of the requirement that records be maintained "at the Facility" in accordance with this Permit condition, such records may be maintained in either hardcopy at the Facility or electronic format, if posted to and maintained on a publicly accessible website for the appropriate period, given the record.

II.M.2. Reporting Requirements

The Permittees shall comply with the reporting requirements of 40 CFR §§ 264.77, 264.1089 and 264.1090, as appropriate, as well as any other reporting requirements of this Permit. To the extent that the requirements call for overlapping reporting of information, the Permittees may merge the information into one or more reports and need not provide duplicative information. [See 40 CFR §§ 264.77, 264.1089 and 264.1090.]

II.M.3. Biennial Report

The Permittees shall comply with the biennial reporting requirements of 40 CFR § 264.75. [See 40 CFR §§ 264.75 and 270.30(l)(9).]

II.M.4. Subpart BB Recordkeeping and Reporting

In accordance with 40 CFR § 264.1064(m), if any "equipment" at the Facility, as defined at 40 CFR § 264.1031, contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for 300 hours or more per calendar year and is subject to regulations at 40 CFR Part 60, Part 61, or Part 63, and the Permittees elect to determine compliance with 40 CFR Part 264, Subpart BB by documentation of compliance with the regulations at 40 CFR Part 60, Part 61, or Part 63, pursuant to the relevant provisions of the regulations at 40 Part 60, Part 61, or Part 63, the documentation of compliance under the regulations at 40 CFR Part 60, Part 61, or Part 63 shall be kept with or made readily available with the Facility Operating Record. Otherwise, the

Permittees shall comply with the recordkeeping and reporting requirements described in 40 CFR §§ 264.1064 and 264.1065 in accordance with the RCRA Subpart BB standards, Permit Attachment Section N, and Permit Attachment Appendix XIX, incorporated herein by this reference. [See 40 CFR §§ 264.1031, 264.1064 and 264.1065, Permit Attachment Section N and Permit Attachment Appendix XIX. See also Permit Condition I.K.1.]

II.M.5. Application Recordkeeping

Except as provided in Permit Condition I.J., the Permittees shall comply with the recordkeeping requirements described in 40 CFR § 270.10(i). [See 40 CFR § 270.10(i).]

II.N. GENERAL CLOSURE REQUIREMENTS

II.N.1. Performance Standard

II.N.1.a. The Permittees shall close the Facility in accordance with Permit Conditions III.L., IV.M., and V.H., and 40 CFR Part 264, Subpart G, (40 CFR §§ 264.110 *et seq.*), Permit Attachment Section I, and Permit Attachment Appendices XV and XVII, each of which is incorporated herein by this reference. [See 40 CFR Part 264, Subpart G, (40 CFR §§264.110 *et seq.*), the RCRA Facility Closure Plan, Permit Attachment Section I, and Permit Attachment Appendices XV and XVII.]

II.N.1.b. The Permittees shall close RF-1 in accordance with Permit Conditions I.K, and V.H., and 40 CFR Part 264, Subpart G, (40 CFR §§ 264.110 *et seq.*), RF-1 Closure Plan, Permit Attachment Section I, and Permit Attachment Appendices XVI and XVII, each of which is incorporated herein by this reference. [See 40 CFR Part 264, Subpart G, (40 CFR §§264.110 *et seq.*), RF-1 Closure Plan, Permit Attachment Section I, and Permit Attachment Appendices XVI and XVII.]

II.N.2. Closure Plan Review

The Director reserves the right to review the closure plans at any time to ensure both the RCRA Facility Closure Plan and RF-1 Closure Plan contain all the requirements to meet

the closure requirements of 40 CFR Part 264, Subpart G, (40 CFR §§ 264.110 *et seq.*). This review may include any unusual activities, notices of violation, and inspection reports. [See 40 CFR Part 264, Subpart G.]

II.N.3. Amendment to Closure Plans

II.N.3.a. The Permittees shall amend either or both the RCRA Facility Closure Plan and the RF-1 Closure Plan, in accordance with 40 CFR § 264.112(c), whenever necessary. [See 40 CFR § 264.112.]

II.N.3.b. If the Director determines at any time that either or both closure plans require modification, the Permittees shall modify either or both closure plans as appropriate to incorporate findings identified by the Director's review in accordance with 40 CFR §§ 264.112(c)(4) and 270.42. [See 40 CFR §§ 264.112 and 270.42.]

II.N.3.c. If, prior to the time the notice of closure required by Permit Condition II.N.4. is submitted, the Permittees determine that an amendment to either or both closure plans is appropriate, the Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised closure plan or plans at least 180 days before initiation of closure activities in accordance with 40 CFR § 270.42. [See 40 CFR § 270.42.]

II.N.4. Notification of Closure

In addition to the Notice of Closure of RF-1 required by Permit Condition I.K., the Permittees shall notify the Director in writing at least 60 days prior to the date on which they expect to begin closure of any additional part of the Facility or to begin final closure of the Facility. [See 40 CFR § 264.112(d).]

II.N.5. Time Allowed for Closure

Within 90 days after receiving the final volume of hazardous waste, the Permittees shall treat, remove from the unit or Facility, or dispose of on-site all hazardous waste and shall complete closure activities, in accordance with 40 CFR § 264.113 and the schedules

specified in the Closure Plans, Permit Attachment Section I and Appendices XV and XVI. [See 40 CFR §§ 264.113 and 270.42.]

II.N.6. Disposal or Decontamination of Equipment, Structures, and Soils

The Permittees shall decontaminate and dispose of all contaminated equipment from the Facility, support structures, and soils in accordance with 40 CFR § 264.114 and the Closure Plans, Permit Attachment Section I, and Permit Attachment Appendices XV and XVI. **[**See 40 CFR § 264.114.]

II.N.7. Certification of Closure

The Permittees shall certify that the Facility has been closed in accordance with 40 CFR § 264.115 and the specifications in the Closure Plans, Permit Attachment Section I, and Permit Attachment Appendices XV and XVI. **[**See 40 CFR § 264.115.]

II.O. GENERAL POST-CLOSURE REQUIREMENTS

If waste is left in place (*e.g.* equipment, platforms, SWMUs), the Permittees shall submit a post-closure permit application in accordance with the requirements of 40 CFR Part 264, Subpart G. [See 40 CFR §§ 264.117 through 264.120.]

II.P. COST ESTIMATE FOR FACILITY CLOSURE

II.P.1. The Permittees' most recent closure cost estimates, for Facility-wide closure and RF-1 closure, respectively, are specified in Attachment 4 to the Closure Plan, Permit Attachment Section I; and Permit Attachment Appendix XV; and Attachment 4 to the RF-1 Closure Plan, Permit Attachment Section I and Permit Attachment Appendix XVI, which are each incorporated herein by this reference. [See 40 CFR §§ 264.142, 264.144, 264.197(c)(3) and (5), 264.228(c)(2), and 264.258(c)(2).]

II.P.2.

II.P.2.a. The Permittees must adjust the closure cost estimate for inflation within 60 days prior to each annual anniversary date of the establishment of the financial instrument(s) used to comply with 40 CFR § 264.143. Such adjustments will not be considered a change to this Permit and no application for Permit modification

will be required. [40 CFR § 264.142(b).]

II.P.2.b. If at any time during the operation of the Facility, the Permittees use a financial test or corporate guarantee to meet the financial responsibility requirements in accordance with 40 CFR §264.143(f), the Permittees must adjust the closure cost estimate for inflation within 30 days after the close of owner or operator's fiscal year, as appropriate, and before submission of updated information to the Director in accordance with 40 CFR § 264.142(b)**.** [See 40 CFR § 264.142(b).]

II.P.3. The Permittees must revise either or both closure cost estimates whenever there is a change in either or both of the Facility's Closure Plans in accordance with 40 CFR § 264.142(c). [See 40 CFR § 264.142(c).]

II.P.4. The Permittees must keep the latest closure cost estimates (for RF-1 and the Facility-wide closure) at the Facility in accordance with 40 CFR § 264.142(d). [See 40 CFR § 264.142(d).]

II.P.5. New, updated or revised financial assurance instruments and updated cost estimates must be submitted to the Director in accordance with 40 CFR §§ 264.142 and 264.143. [40 CFR §§ 264.142 and 264.143.]

II.Q. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittees shall demonstrate continuous compliance with the requirements of 40 CFR § 264.143 by providing documentation of financial assurance, as required by and in accordance with 40 CFR § 264.151, in at least the amount of the cost estimates required by Permit Condition II.P. Requests for changes in financial assurance mechanisms demonstrating compliance with this Permit Condition II.Q. shall be submitted to the Director for review and approval in accordance with Permit Condition I.G.5. before being implemented. Such changes will not be considered a change to this Permit and no application for Permit modification will be required. [See 40 CFR §§ 264.143 and 264.151.]

II.R. LIABILITY REQUIREMENTS

II.R.1. The Permittees shall demonstrate continuous compliance with the requirement of 40 CFR § 264.147(a) to have and maintain liability

coverage for sudden and accidental occurrences in the amount of at least $1 million per occurrence, with an annual aggregate of at least $ 2 million, exclusive of legal defense costs. [See 40 CFR § 264.147(a).]

II.R.2. Any request for a variance from the levels of financial responsibility required by Permit Condition II.R.1. will be treated as a request for a Permit modification in accordance with Permit Condition I.G.7 and 40 CFR § 124.5. Changes to the type of financial responsibility the Permittees choose to use to satisfy the requirements of Permit Condition II.R.1. will not be considered a change to this Permit and no application for a Permit modification will be required. A demonstration of "continuous compliance" with the requirement of 40 CFR § 264.147(a) within the meaning of Permit Condition II.R.1. will necessitate advance written notice of any such changes in the type of financial responsibility to the Director in accordance with Permit Condition I.G.

II.S. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittees shall comply with 40 CFR § 264.148, whenever applicable. [See 40 CFR § 264.148.]

MODULE III - CONTAINERS

III.A. APPLICABILITY

This Module provides requirements for any containers used to store or treat hazardous waste at the Facility, including those received from off-site sources. Waste analysis requirements are contained in Module II, in Permit Condition II.D., in Permit Attachment Section C, and in Permit Attachment Appendix IV, the Waste Analysis Plan. [See 40 CFR § 264.13.]

III.B. GENERAL REQUIREMENTS FOR CONTAINERS

III.B.1. The Permittees shall not manage, store, treat, and/or consolidate hazardous waste in containers other than in the designated container storage areas listed in Table III-1 below. [See 40 CFR § 264.170.]

III.B.2. The Permittees must maintain the Spent Carbon Container Storage Area with a containment capacity of at least 10,000 gallons. [See 40 CFR § 264.175(b)(3).]

III.B.3. The Permittees shall not manage, store, and/or consolidate containers of hazardous wastes in excess of the maximum capacities for each individual container storage area identified in Table III-1.

TABLE III-1
CONTAINER STORAGE AREAS
AND DESIGN CAPACITIES

Description	Location	Capacity
Spent Carbon Container Storage	Warehouse	100,000 gallons

III.B.4. The Permittees must manage all containers used to store or otherwise manage hazardous waste at the Facility in accordance with 40 CFR Part 264, Subpart I. [See 40 CFR Part 264, Subpart I.]

III.B.5. Closure requirements for containers used to store or otherwise manage hazardous waste are included in Module II, in Permit Condition II.N, in

this Module III, in Permit Condition III.L., Permit Attachment Section I and Permit Attachment Appendices XV and XVI. [See 40 CFR §§ 264.111 and 264.178.]

III.C. CONDITION OF CONTAINERS

In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall maintain containers in good condition (*e.g.*, no severe rusting, apparent structural defects, etc.). If a container holding hazardous waste is not in good condition or, if the container begins to leak, the Permittees shall repair the container or place it into another suitable container or transfer the waste from such a container into a container that is in good condition. [See 40 CFR § 264.171.]

III.D. COMPATIBILITY OF WASTE WITH CONTAINER

III.D.1. In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall use containers that are made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous wastes to be stored, so that the ability of the containers to contain the waste is not impaired. [See 40 CFR § 264.172.]

III.D.2. In meeting the obligation set forth in Permit Condition III.B.4., for all containers within a singular secondary containment system, the Permittees shall ensure that the containers are compatible with all wastes within that containment system. [See 40 CFR § 264.172.]

III.D.3. The Permittees shall assure compliance with Permit Condition III.D.1. by utilization of the procedures (*e.g.*, testing of waste and containers) and equipment specified in the Waste Analysis Plan, Permit Attachment Section C and Permit Attachment Appendix IV.

III.D.4. The Permittees shall conduct pre-acceptance characterization of waste, as specified in the Waste Analysis Plan, Permit Attachment Section C and Permit Attachment Appendix IV, and ensure proper precautions are taken so as to prevent accidental ignition or reaction of ignitable or incompatible wastes. [See 40 CFR §§ 264.172, 264.176 and 264.177.]

III.E. MANAGEMENT OF CONTAINERS

III.E.1. In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall always keep all containers holding hazardous waste

closed during storage, except when it is necessary to add or remove waste. [See 40 CFR § 264.173(a).]

III.E.2. In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall not open, handle, or store a container holding hazardous waste in a manner that may rupture the container or cause the container to leak. [See 40 CFR § 264.173(b).]

III.E.3. Storage Configuration

III.E.3.a. In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall maintain adequate aisle space between rows of containers to allow for the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of the Facility. [See 40 CFR § 264.35.]

III.E.3.b. In meeting the obligation set forth in Permit Condition III.B.4., the Permittees shall ensure that a container holding hazardous waste is not opened, handled, or stored in a manner which may rupture the container or cause it to leak. [See 40 CFR § 264.173(b).]

III.E.3.c. The Permittees shall not exceed the maximum volumes of hazardous waste for each container in each category of containers listed in Table III-2. Table III-2 represents information for the major types of containers managed at the Facility. Other containers of various volume and configuration may also be received. [See Permit Attachment Appendix VIII.]

TABLE III-2

LIST OF CONTAINER TYPES AND VOLUMES

Container Type	Volume (ft^3)	Volume (US Gallons)
VSC/ASC 200/Drums	7.9	59
VSC/ASC 400	17.5	131
VSC/ASC 1000	44.9	336
VSC/ASC 2000	82.0	614
VSC 3000	164	1228
PV1000	44.9	336
PV2000	82.0	614
"Supersack"	Up to 67	Up to 500

III.F. CONTAINMENT SYSTEMS

III.F.1. The Permittees shall provide secondary containment for all hazardous waste containers in accordance with 40 CFR § 264.175(b) except that storage areas that store containers holding only wastes that do not contain free liquids need not have such a containment system so long as the storage area meets the requirements of 40 CFR § 264.175(c). [See 40 CFR §§ 264.175(b) and (c).]

III.F.2.

III.F.2.a. The Permittees shall remove spilled or leaked waste and accumulated precipitation from the sump or collection area in as timely manner as is necessary to prevent overflow of the collection system. [See 40 CFR § 264.175(b)(5).]

III.F.2.b. If the collected material from a secondary containment system is a hazardous waste, it must be managed as a hazardous waste in accordance with all applicable requirements of this Permit and RCRA. [See 40 CFR § 264.175(b).]

III.F.2.c. The Permittees shall address any spills or leaks from the pad and, if applicable, containment system in accordance with 40 CFR §§ 264.15(c) and 264.171. [See 40 CFR §264.15(c) and 264.171.]

III.G. AIR EMISSION CONTROLS FOR CONTAINERS

III.G.1. The Permittees shall store and manage hazardous waste in containers in accordance with the requirements specified in 40 CFR Part 264, Subpart CC, Permit Attachment Section O and Permit Attachment Appendix XX. [See 40 CFR §264.179, and Part 264, Subpart CC. See also Permit Condition I.K.2.]

III. H. INSPECTION SCHEDULES AND PROCEDURES

III.H.1. The Permittees shall, upon receipt of containers of hazardous waste, inspect the containers in accordance with Permit Attachment F and Permit Appendices IV and XII and shall also ensure the container is in good condition within the meaning of 40 CFR § 264.171. Pursuant to 40 CFR § 264.171, if any container is determined to be not in good condition or begins to leak, the Permittees shall transfer the hazardous waste from the container to a container that is in good condition or manage the waste in some other way that complies with the provisions of this Permit. [See 40 CFR § 264.171.]

III.H.2. In meeting the obligation set forth in Permit Condition III.H.1., the Permittees shall conduct daily inspections of the Spent Carbon Container Storage Area and the containers stored there in accordance with Permit Attachment F and Permit Attachment Appendix XII and shall maintain daily records of inspections at the Facility.

III.H.3. The Permittees shall, at a minimum, conduct weekly inspections of all areas where hazardous waste containers are stored. The Permittees must look for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors. [See 40 CFR § 264.174.]

III.H.4. The Permittees' inspections of containers for compliance with 40 CFR Subpart CC as reflected in the Daily RCRA Inspection Checklist in Permit Attachment Appendix XII shall include inspection and monitoring of any air emission control equipment in accordance with the applicable requirements specified in 40 CFR §§ 264.1084 through 264.1087. [See 40 CFR §§ 264.1084 through 264.1088.]

III.H.5. The Permittees shall follow the procedures set forth in Permit Attachment Appendix XX and 40 CFR Part 264 Subpart CC with respect to the inspections of hazardous waste containers, including the provisions relating to repairs to and waste transfers from defective containers. [See 40 CFR Part 264 Subpart CC and Permit Attachment Appendix XX.]

III.I. RECORD KEEPING AND REPORTING

III.I.1. For hazardous waste containers subject to the requirements of 40 CFR Part 264 Subpart CC, the Permittees shall comply with the applicable recordkeeping requirements of 40 CFR §§ 264.1086 and 264.1089. For hazardous waste containers subject to one of the exemptions listed at 40 CFR § 264.1082(c), the Permittees shall comply with the applicable recordkeeping requirements of 40 CFR § 264.1089. [See 40 CFR §§ 264.1082, 264.1086 and 264.1089.]

III.I.2. For hazardous waste containers subject to the requirements of 40 CFR Part 264 Subpart CC, including those subject to one of the exemptions listed at 40 CFR § 264.1082(c), the Permittees shall comply with the applicable reporting requirements of 40 CFR § 264.1090. [See 40 CFR § 264.1090.]

III.I.3. The Permittees shall retain sketches, drawings, or data demonstrating compliance with Permit Condition III.J.1., (location of buffer zone [15 m or 50 ft] and containers holding ignitable hazardous wastes. [See 40 CFR §§ 264.176.]

III.I.4. The Permittees shall retain sketches, drawings, or data demonstrating compliance with Permit Condition III.K.3., (location of incompatible wastes in relation to each other), where applicable. [See Permit Attachment Appendix IV (Waste Analysis Plan) and 40 CFR § 264.177.]

III.I.5. The Permittees shall maintain at the Facility until closure is completed and certified by an independent, registered professional engineer, all versions, including amendments, revisions, and modifications, of documentation demonstrating compliance with the hazardous waste container storage area requirements specified in 40 CFR § 264.175. [See Permit Attachment Section D and Permit Attachment Appendix VII.]

III.I.6. When managing ignitable hazardous waste or incompatible waste at the Facility, the Permittees must document compliance with Permit

Conditions III.J. and III.K. This documentation may be based on references to published scientific or engineering literature, data from trial tests (e.g., bench scale or pilot scale tests), waste analyses (as specified in the Waste Analysis Plan), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions. [See Permit Attachment Appendix IV (Waste Analysis Plan) and 40 CFR § 264.17(c).]

III.J. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE WASTES

III.J.1. The Permittees shall not locate containers holding ignitable hazardous waste within 50 feet (15 meters) of the Facility property line. The physical location of this 50-foot boundary shall be permanently marked and maintained while the Facility is in operation. [See 40 CFR § 264.176.]

III.J.2. The Permittees shall prevent accidental ignition or reaction of ignitable hazardous waste. The Permittees shall follow the procedures specified in the Waste Analysis Plan (Permit Attachment Appendix IV) regarding the identification of ignitable wastes. [40 CFR §§ 264.177(a) and 264.176.]

III.J.3 The Permittees shall comply with the general requirements of 40 CFR § 264.17 for ignitable hazardous wastes managed or stored in containers at the Facility. [See 40 CFR § 264.17.]

III.K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

III.K.1. The Permittees shall not place incompatible hazardous wastes, or incompatible hazardous wastes and materials, in the same container unless such placement is performed in accordance with the provisions of 40 CFR § 264.17(b). [See 40 CFR §§ 264.17(b) and 264.177(a).]

III.K.2. The Permittees shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material. [See 40 CFR § 264.177(b).]

III.K.3. The Permittees shall separate containers of incompatible hazardous wastes as specified in the Waste Analysis Plan. Storage containers with incompatible hazardous wastes shall be separated from other materials or

be protected from other materials by means of a berm, dike, wall, or other device. [See 40 CFR § 264.177(c).]

III.K.4. The Permittees shall ensure that the management of any incompatible hazardous wastes at the Facility will not result in any leak, corrosion, compromise or failure of any secondary containment required by this Permit. [See 40 CFR § 264.175.]

III.L. CLOSURE

III.L.1. At closure, all hazardous waste and hazardous waste residues must be removed from the containment system. Remaining containers, liners, bases and soil containing or contaminated with hazardous waste or hazardous waste residues must be decontaminated or removed. [See 40 CFR § 264.178.]

III.L.2. At closure, the Permittees must manage any hazardous waste removed from the containment system in accordance with the requirements of this Permit. [See comment to 40 CFR § 264.178.]

MODULE IV - STORAGE IN TANKS

IV.A. APPLICABILITY

IV.A.1. Except as otherwise specifically set forth in this Permit, all hazardous waste tank systems (Tank Systems) managed at the Facility must comply with the design, installation, and other requirements for "new tank systems" at 40 CFR § 264.192, incorporated herein by this reference, as opposed to the requirements for "existing tank systems" at 40 CFR § 264.191. [See 40 CFR §§ 260.10, 264.191 and 264.192.]

IV.A.2. Except as otherwise specifically set forth in this Permit, the requirements of 40 CFR Part 264, Subpart J, are applicable to the hazardous waste tanks systems (T-1, T-2, T-5, T-6, and T-18) that are used to store or treat hazardous waste at the Facility. A map of the Tanks Systems' locations can be found in the Permit Attachment Appendix III. In addition, the requirements of 40 CFR Part 264, Subpart BB (Subpart BB) or Subpart CC (Subpart CC) are applicable to various tanks, containers, and equipment located at the Facility. Certain air emission control requirements also apply to Tank T-11, as indicated in Permit Condition IV.G.1. and Table IV-2. [See Permit Attachment Section D, Permit Attachment Appendix XIX, Permit Attachment Appendix XX, and 40 CFR Part 264, Subpart J, Subpart BB and Subpart CC.]

IV.A.3. This module also contains Permit Conditions for the Hoppers H-1 and H-2, which are ancillary equipment to Tank Systems T-1, T-2, T-5 and T-6 and are used to transport or feed hazardous waste to these Tank Systems. These Hoppers are construed as "open-ended valves or lines" under RCRA's air emissions requirements found at 40 CFR Part 264, Subpart BB, and as "individual drain systems" under the Clean Air Act's air emission control requirements for individual drain systems found at 40 CFR Part 61, Subpart FF.

IV.A.4. Table IV-1 below provides descriptions of the hazardous waste Tank Systems that are discussed in this Module and that are subject to the permit conditions of this Module. The information in Table IV-1 pertaining to Hoppers H-1 and H-2 reflects the current descriptions of the hoppers, and, in brackets, and the descriptions of the hoppers after implementation of the work described in Permit Condition IV.E.6. The

descriptions in brackets will apply only after new hopper construction is complete.

TABLE IV-1
INFORMATION ABOUT HAZARDOUS WASTE TANK SYSTEMS

Tank/Ancillary Equipment No. & Description	*Tank/Ancillary Equipment Materials of Construction*	*Tank/Ancillary Equipment Dimensions*	*Tank/Ancillary Equipment Design Capacity*	*Tank/Ancillary Equipment Maximum Allowable Design Vapor Pressure (kPa)*
T-1 spent carbon storage tank	300 Series Stainless Steel, Fixed Roof	16'-0" Straight Side 10'-0" Diameter 8'-0" 62° Bottom Cone	8,319 gal.	Atmospheric
T-2 spent carbon storage tank	300 Series Stainless Steel, Fixed Roof	16'-0" Straight Side 10'-0" Diameter 8'-0" 62° Bottom Cone	8,319 gal.	Atmospheric
T-5 spent carbon storage tank	300 Series Stainless Steel, Fixed Roof	16'-0" Straight Side 10'-0" Diameter 8'-0" 62° Bottom Cone	8,319 gal.	Atmospheric
T-6 spent carbon storage tank	300 Series Stainless Steel, Fixed Roof	16'-0" Straight Side 10'-0" Diameter 8'-0" 62° Bottom Cone	8,319 gal.	Atmospheric
T-18 RF-2 Feed Tank	300 Series Stainless Steel	7'-6" Straight Side 10'-4.5" Diameter 9'-4.75" 60° Bottom Cone	6,500 gal.	Atmospheric

(continued on next page)

Tank/Ancillary Equipment No. & Description	*Tank/Ancillary Equipment Materials of Construction*	*Tank/Ancillary Equipment Dimensions*	*Tank/Ancillary Equipment Design Capacity*	*Tank/Ancillary Equipment Maximum Allowable Design Vapor Pressure (kPa)*
H-1 Outdoor spent carbon unloading hopper	Mild Steel [Stainless Steel]*	14' length x 8' width x 7' height [14' length x 7' width x 9' height]*	5000 lb. capacity [270 cubic feet]*	Atmospheric
H-2 Indoor spent carbon unloading hopper	Mild Steel [Stainless Steel]*	4' length x 4' width x 4' height [6' length x 5' width x 5' height]*	5000 lb. capacity [50 cubic feet]*	Atmospheric

***** The descriptions in brackets will apply only after new hopper construction is complete.

IV.B. GENERAL REQUIREMENTS FOR TANK SYSTEMS

IV.B.1. Tank design capacities for the tanks and the hoppers are shown in Table IV-1. This design capacity for each tank or hopper shall not be exceeded.

IV.B.2. Prior to the installation of any new hazardous waste Tank Systems or components, the Permittees shall submit to the Director the information required in a Part B permit application for new Tank Systems or components in accordance with 40 CFR §§ 264.192, along with an accompanying request for a permit modification in accordance with Permit Condition I.G.7. (See 40 CFR §§ 264.192 and 270.42.)

IV.B.3. Hoppers H-1 and H-2, described in Table IV-1, are ancillary equipment to Tanks T-1, T-2, T-5 and T-6. In meeting the obligations set forth in Permit Condition IV.A.2., the Permittees shall ensure that H-1 and H-2 meet each of the requirements applicable to ancillary equipment that are set forth in 40 CFR Part 264, Subpart J, which is incorporated herein by this reference. (See 40 CFR § 264.190 *et seq.*)

IV.B.4. The Permittees must obtain and submit written structural integrity assessments for Hoppers H-1 and H-2 that meet the requirements of 40 CFR § 264.192(a) as follows:

IV.B.4.a. Pursuant to Permit Condition IV.E., the Permittees must obtain and submit to the Director written assessments for Hopper H-1 – and any future Hopper H-1 replacements in accordance with Permit Condition IV.E.6. -- that meet the requirements of 40 CFR § 264.192(a) and that demonstrate compliance with 40 CFR § 264.192. The Permittees must maintain a copy of these assessments on file at the Facility in accordance with 40 CFR § 264.192(g). [See 40 CFR § 264.192, including 40 CFR § 264.192(e) and Permit Condition IV.E.6.]

IV.B.4.b. Pursuant to Permit Condition IV.E., the Permittees must obtain and submit to the Director written assessments for Hopper H-2 – and any future Hopper H-2 replacements in accordance with Permit Condition IV.E.6. -- that meet the requirements of 40 CFR § 264.192(a) and that demonstrate compliance with 40 CFR § 264.192. The Permittees must maintain a copy of these assessments on file at the Facility in accordance with 40 CFR § 264.192(g). [See 40 CFR § 264.192, including 40 CFR § 264.192(e) and Permit Condition IV.E.6.]

IV.C. COMPATIBILITY OF WASTE WITH TANK SYSTEMS

IV.C.1. Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the tank's containment system to rupture, leak, corrode, or otherwise fail. [See 40 CFR § 264.194(a).]

IV.D. MANAGEMENT OF TANK SYSTEMS

IV.D.1. The Permittees must use appropriate controls and practices to prevent spills and overflows from Tank Systems or containment systems. These controls and practices. include, at a minimum: appropriate spill prevention controls (*e.g.*, check valves, dry disconnect couplings), overfill prevention controls (*e.g.*, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank), and maintenance of sufficient

freeboard in uncovered tanks to prevent overtopping by wind action or by precipitation. [See 40 CFR § 264.194(b).]

IV.D.2. The Permittees shall ensure that the unloading and feeding of hazardous waste into H-1 and H-2 are done in a manner that prevents the migration of hazardous waste from these units. The Permittees may not use units H-1 or H-2 for hazardous waste storage and are required to pump any hazardous waste fed into H-1 or H-2 into Tanks T-1, T-2, T-5 or T-6 as soon as practical, even if carbon regeneration operations at the Facility have ceased or been curtailed.

IV.E. CONTAINMENT SYSTEMS

IV.E.1. The Permittees must maintain secondary containment in accordance with the requirements of 40 CFR § 264.193. [See 40 CFR § 264.193.]

IV.E.2. The secondary containment must be designed or operated to contain 100 percent of the capacity of the largest hazardous waste tank within its boundary, and must be designed and operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. [See 40 CFR §§ 264.193(e)(1)(i), (ii), (iii) and (iv) and Permit Attachment Appendix IX.]

IV.E.3. The Permittees shall maintain the secondary containment in a manner that will prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the Tank Systems. The Permittees must ensure that the secondary containment is free from cracks or gaps by maintaining a sealant on any such areas that is compatible with the spent carbon. [See 40 CFR §§ 264.193(b)(1) and (e)(1)(iii).]

IV.E.4. The Permittees must retain the containment volume of secondary containment within the concrete pad that serves as the secondary containment for Tanks T-1, T-2, T-5 and T-6 at or above 9,847 gallons at all times that these tanks remain in service. The maximum spent carbon tank volume for each of Tanks T-1, T-2, T-5 and T-6 is 8,319 gallons and the calculated applicable rainfall volume for the secondary containment area for Tanks T-1, T-2, T-5 and T-6 is 1,528 gallons. The secondary containment volume in this area must therefore meet the total required

volume of 9,847 gallons. [See 40 CFR § 264.193(e) and Permit Attachment Appendix IX.]

IV.E.5. The Permittees shall maintain the double walled tank T-18 in accordance with 40 CFR 264.193(e)(3). [See 40 CFR § 264.193(e)(3).]

IV.E.6. Spent Carbon Unloading Hoppers

IV.E.6.a. Hopper Containment. The Permittees shall submit to EPA for approval a work plan for implementation of the requirements for the secondary containment for Hopper H-1, and, at the Permittees' option, for Hopper H-2 (Hopper Work Plan), to the Director for approval in accordance with Permit Condition I.G.5. ***within ninety (90) days after the final Permit is effective***. The Hopper Work Plan shall include a schedule for providing secondary containment for the spent carbon unloading Hopper H-1 (and H-2, if appropriate) in accordance with 40 CFR § 264.193. This schedule shall provide for completion of implementation of the requirements for the secondary containment for Hopper H-1 (and H-2, if appropriate) no later than one (1) year from the effective date of this Permit. [See 40 CFR § 264.193.]

IV.E.6.b.i. Until such time as secondary containment that meets the requirements of 40 CFR § 264.193(f) and Permit Condition IV.E.6.a. is provided for Hopper H-1, the Permittees shall have the integrity of Hopper H-1 assessed by a professional engineer ***within one hundred and eighty (180) days after the final Permit is effective*** in accordance with Permit Condition IV.E.6.b.ii. [See 40 CFR §§ 264.191, 264.193(i), and 270.11(d).]

IV.E.6.b.ii. Until such time as the secondary containment for Hopper H-1 is provided in accordance with 40 CFR § 264.193(f) and Permit Condition IV.E.6.a., the Permittees must conduct a leak test, (or other integrity assessment that meets the requirements of 40 CFR § 264.191(a) and (b)(5)(ii)), to ensure the integrity of Hopper H-1 at least annually and maintain a record of the results of each such assessment in the Operating Record at the Facility and otherwise comply with the requirements of 40 CFR § 264.193(i)(3), incorporated herein by this reference. [See

40 CFR §§ 264.191, 264.193 and 270.11(d).]

IV.E.6.b.iii. If the secondary containment for Hopper H-1 is not implemented within a year from the effective date of this Permit, as provided in accordance with Permit Condition IV.E.6.a., the Permittees shall submit to the Director a contingent closure plan and proof of financial responsibility meeting the requirements of 40 CFR § 264.197(c), incorporated herein by this reference. If the secondary containment for Hopper H-1 is not implemented within a year from the effective date of this Permit, the contingent closure plan and proof of financial responsibility requirements of 40 CFR § 264.197(c) shall be implemented. [See also 40 CFR § 264.197(c).]

IV.E.7. Until such time as any changes are completed for Hopper H-2, in accordance with Permit Condition IV.E.6., the Permittees shall maintain the secondary containment for the spent carbon unloading Hopper H-2 in the container storage warehouse in accordance with 40 CFR § 264.193. The pad under H-2 serves as a liner external to the hopper, providing secondary containment. [See 40 CFR § 264.193.]

IV.E.8. Once the Permittees have completed implementation of the requirements for secondary containment for spent carbon unloading Hopper H-1 (and H-2, if included in the approved Hopper Work Plan), in accordance with the approved Work Plan submitted pursuant to Permit Condition IV.E.6.a, the Permittees shall maintain the secondary containment for H-1 (and H-2, if included in the approved Hopper Work Plan), in accordance with 40 CFR § 264.193. [See 40 CFR § 264.193.]

IV.F. REVISIONS TO COMPLIANCE PLANS

IV.F.1. The Permittees shall submit a revised Subpart BB Compliance Plan, Permit Attachment Appendix XIX, and, if necessary, a revised Permit Attachment Section N, in accordance with Permit Conditions I.G.7 and I.K.1. [See also Permit Conditions I.G.7 and I.K.1, Permit Attachment Appendix XIX, and Permit Attachment Section N.]

IV.F.2. The Permittees shall submit a revised Subpart CC Compliance Plan, Permit Attachment Appendix XX and, if necessary, a revised Permit

Attachment Section O, in accordance with Permit Conditions I.G.7 and I.K.2. [See also Permit Conditions I.G.7 and I.K.2, Permit Attachment Appendix XX, and Permit Attachment Section O.]

IV.G. AIR EMISSION CONTROLS

IV.G.1. Tank Systems T-1, T-2, T-5, T-6, T-11 and T-18 are subject to air emission control requirements pursuant to this Permit. Tanks T-1, T-2, T-5, T-6 and T-18 and Hoppers H-1 and H-2 are equipped with closed vent systems leading to air pollution control devices. [See Permit Attachment Sections N and O, Permit Attachment Appendices XIX and XX, Permit Attachments Subpart BB Compliance Plan and Subpart FF Compliance Plan and 40 CFR Part 61 and §§ 264.1050 *et* seq., 264.1087, 264.1088, 264.1089, and 264.1090.]

IV.G.1.a. The Permittees must comply with the RCRA regulations that are identified in the column labeled "Air Emission Control Regulations Applicable to this Unit" in Table IV-2 and that relate to the emissions standards, monitoring records, reporting and management requirements for the correlating units, *i.e.*, Tanks T-1, T-2, T-5, T-6, T-11 and T-18, their associated ancillary equipment, (H-1 and H-2), and the carbon adsorbers WS-1, WS-2, and WS-3, and their associated closed vent systems (e.g. hoses/piping and connections).

IV.G.1.b. The Permittees may elect to determine compliance with the RCRA air emissions standards for equipment 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 pursuant to the relevant provisions of the regulations at 40 CFR Parts 60, 61, or 63. The documentation of compliance under regulations at 40 CFR Parts 60, 61, or 63 shall be kept with or made readily available with the Facility Operating Record. [The Subpart FF Compliance Plan is attached for informational purposes only and is not considered a part of this Permit.]

IV.G.1.c. The requirements of 40 CFR Part 264 Subpart CC do not apply to any tank that the Permittees certify is equipped with and operating air emission controls in accordance with the requirements of an applicable Clean Air Act regulation codified under 40 CFR Parts

60, 61, or 63. Information relating to this deferral from the RCRA Subpart CC standards to applicable CAA standards must be kept in the Facility Operating Record for as long as the deferral is being invoked for the unit in accordance with 40 CFR §§ 264.1089(a) and (j). [See also 40 CFR § 264.1080(b)(7) and Permit Conditions I.K.2. and II.M.1.]

IV.G.2.

IV.G.2.a. If sampling and analysis or operator knowledge of the waste entering Tank T-11 demonstrates that the average annual Volatile Organic concentration of the waste entering the unit is greater than or equal to 500 parts per million by weight, the Permittees shall ensure that tank T-11 complies with the "Air Emission Control Regulations Applicable to this Unit" in Table IV-2.

IV.G.2.b. The Permittees must ensure that Hoppers H-1 and H-2 are at all times in compliance with 40 CFR Part 264, Subpart BB requirements for open ended valves or lines, or alternatively, Permittees may elect to comply with 40 CFR Part 61, Subpart FF requirements for individual drain systems, as set forth in the column labeled "Air Emission Control Regulations Applicable to this Unit" in Table IV-2. Permittees are authorized to open the hoppers during spent carbon feed operations, including those involving hazardous and/or non-hazardous waste streams, and for maintenance and/or repair activities. [See 40 CFR §§ 264.1050 *et seq.*, and §§ 61.340 *et seq.* See also Permit Condition I.K.1.]

IV.G.2.c. For carbon adsorber WS-2 and the piping, connections, and any flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to WS-2, the Permittees must ensure that WS-2, and any such piping, connections and devices, are at all times in compliance with either 40 CFR Part 264, Subpart BB requirements for closed-vent systems and control devices, or alternatively, Permittees may elect to comply with 40 CFR Part 61, Subpart FF requirements for closed vent systems and control devices, as set forth in the column labeled "Air Emission Control Regulations Applicable to this Unit" in Table IV-2. [See 40 CFR §§ 264.1050 *et seq.*, and §§ 61.340 *et seq.* See also Permit Condition I.K.1.]

IV.G.3. In accordance with Permit Attachment Section N and Permit Attachment Appendix XIX, the Permittees must comply with the applicable requirements of 40 CFR Part 264, Subpart BB. **[**See 40 CFR Part 264, Subpart BB. See also Permit Condition I.K.1.]

IV.G.4. In accordance with Permit Attachment Section O and Permit Attachment Appendix XX, the Permittees must comply with the record-keeping and reporting requirements of 40 CFR §§ 264.1089(f)(1) and 264.1090(a) when operating Tank T-11. [See Permit Attachment Section O, Permit Attachment Appendix XX, and 40 CFR §§ 264.1089(f)(1) and 264.1090(a).]

TABLE IV-2
MANAGEMENT OF EACH TANK SYSTEM, HOPPERS AND THE AIR POLLUTION CONTROL DEVICES

Tank or Unit No.	**Description**	**Air Emission Control Requirements Applicable to this Unit**
T-1	Spent Carbon Storage Tank. Tank T-1 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-1).	40 CFR Part 61, Subparts A and FF and 40 CFR §264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC.
T-2	Spent Carbon Storage Tank. Tank T-2 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-1).	40 CFR Part 61, Subparts A and FF and 40 CFR §264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC.
T-5	Spent Carbon Storage Tank. Tank T-5 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-1).	40 CFR Part 61, Subparts A and FF and 40 CFR §264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC.
T-6	Spent Carbon Storage Tank. Tank T-6 vapors are controlled by a closed vent system leading to carbon adsorber (WS-1).	40 CFR Part 61, Subparts A and FF and 40 CFR §264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC.

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Tank or Unit No.	Description	Air Emission Control Requirements Applicable to this Unit
T-11	Scrubber/ Recycle/ Boiler and Cooling Tower Blow-Down Water Storage Tank	40 CFR §§ 264.1082(c)(1), 264.1089(f)(1) and 264.1090(a). Tank T-11 is subject to monitoring and recordkeeping requirements of 40 CFR Part 264, Subpart CC. If sampling and analysis or operator knowledge of the waste entering Tank T-11 demonstrates that the average annual Volatile Organic concentration of the hazardous waste entering the unit is greater than or equal to 500 parts per million by weight, the Permittees shall at such time ensure that tank T-11 meets the additional requirements of 40 CFR §§ 264.13(b)(8), 264.1082, 264.1084 and 264.1087.
T-18	Hearth feed tank or spent carbon feed tank. Tank T-18 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-3).	40 CFR Part 61, Subparts A and FF and 40 CFR §264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC.
H-1	Outdoor spent carbon unloading hopper (open ended line; individual drain system). Hopper H-1 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-2).	40 CFR §§ 61.01 through 61.19, 61.346 (or alternatively, 40 CFR Part 264, Subpart BB), and Permit Conditions I.K.1., II.H.4. and IV.G.3.
H-2	Indoor spent carbon unloading hopper (open ended line; individual drain system). Hopper H-2 vapors are controlled by a closed vent system leading to a carbon adsorber (WS-2).	40 CFR §§ 61.01 through 61.19, 61.346 and 264.1064(m) (or 40 CFR Part 264, Subpart BB), and Permit Conditions I.K.1., II.H.4. and IV.G.3.
WS-1	Carbon Adsorber No.1 and associated Closed Vent System (e.g. connections and hoses/piping) for tanks T-1, T-2, T-5, and T-6. WS-1, and the piping, connections, and any flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to WS-1, is an air pollution control device.	40 CFR §§ 61.01 through 61.19, 61.349, 61.354(d), 264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC, and Permit Conditions II.H.4. and IV.G.3.

Tank or Unit No.	Description	Air Emission Control Requirements Applicable to this Unit
WS-2	Carbon Adsorber No.2 and associated Closed Vent System (e.g. connections and hoses/piping) for hoppers H-1 and H-2. WS-2, and the piping, connections, and any flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to WS-2, is an air pollution control device.	40 CFR §§ 61.01 through 61.19, 61.349, 61.354(d), and 264.1064(m) (or alternatively, 40 CFR Part 264, Subpart BB, for closed vent systems and control devices) and Permit Conditions I.K.1., II.H.4. and IV.G.3.
WS-3	Carbon Adsorber No.3 and associated Closed Vent System (e.g. connections and hoses/piping) for tank T-18. WS-3, and the piping, connections, and any flow-inducing devices that transport gas or vapor from a piece or pieces of equipment to WS-3, is an air pollution control device.	40 CFR §§ 61.01 through 61.19, 61.349, 61.354(d), 264.1089(j), or alternatively, 40 CFR Part 264, Subpart CC, and Permit Conditions II.H.4. and IV.G.3.
Closed Vent Systems Connected to WS-1 and WS-3	Hoses/piping and connections leading from tanks to adsorbers. The piping, connections, and any flow-inducing devices that transport gas or vapor from the hazardous waste tanks to air pollution control devices, such as WS-1, and WS-3, are closed vent systems.	40 CFR §§ 61.01 through 61.19, 61.349, 61.354(d), 264.1089(j), or alternatively,40 CFR Part 264, Subpart CC, and Permit Conditions II.H.4. and IV.G.3.
Closed Vent Systems Connected to WS-2	Hoses/piping and connections leading from hoppers to adsorbers. The piping, connections, and any flow-inducing devices that transport gas or vapor from the hoppers to an air pollution control device, such as WS-2, are closed vent systems.	40 CFR §§ 61.01 through 61.19, 61.349, 61.354(d), 264.1064(m), (or alternatively, 40 CFR Part 264, Subpart BB, for closed vent systems) and Permit Conditions I.K.1., II.H.4. and IV.G.3.

IV.G.6. For hazardous waste managed and/or stored on site in any Tank Systems that are not equipped with air pollution control devices installed prior to December 6, 1996, the Permittees shall determine the average volatile organic concentration of the waste at the point of waste origination, in accordance with the procedures specified in 40 CFR § 264.1083(a). The

average shall be determined over an annual timeframe, as specified in 40 CFR § 264.1083(a). In accordance with 40 CFR § 264.1082(c)(1), the Permittees shall review and update, as necessary, this determination at least once every twelve (12) months following the date of the initial determination for the hazardous waste streams managed and/or stored in such containers. [See 40 CFR §§ 264.1082 and 264.1083.]

IV.G.7. Certain hazardous wastes or volumes of hazardous wastes managed at the Facility trigger air emission control requirements under either the RCRA air emission control provisions at 40 CFR Part 264, Subpart CC, or the Clean Air Act air emission control provisions at 40 CFR Part 61, Subpart FF, or both. For hazardous wastes managed in Tank Systems at the Facility that are subject to the requirements of RCRA Subpart CC, and that are not subject to the partial exemption listed at 40 CFR § 264.1082(c)(1), in addition to the requirements in Permit Condition III.G.1, the following conditions shall apply:

IV.G.7.a. This Permit Condition IV.G.7.a. applies to any hazardous waste tank that meets all of the conditions specified in 40 CFR § 264.1084(b)(1)(i) through (iii), which is not equipped with a carbon canister meeting the requirements of 40 CFR § 61, Subpart FF. The Permittees must control air pollutant emissions from such tanks in accordance with the Tank Level 1 controls specified in 40 CFR § 264.1084(c) or the Tank Level 2 controls specified in 40 CFR § 264.1084(d). If Tank Level 1 or Tank Level 2 controls apply, the Permittees must perform inspections, recordkeeping and reporting required for tanks subject to Tank Level 1 or Tank Level 2 controls, as applicable. [See 40 CFR §§ 264.1084(b)(1), (c) and (d).]

IV.G.7.b. This Permit Condition IV.G.7.b. applies to any hazardous waste tank that does not meet all of the conditions specified in 40 CFR § 264.1084(b)(1)(i) through (iii), and which is not equipped with a carbon canister meeting the requirements of 40 CFR § 61, Subpart FF. The Permittees must control air pollutant emissions from such tanks in accordance with the Tank Level 2 controls specified in 40 CFR § 264.1084(d). If Tank Level 2 controls apply, the Permittees must perform inspections, recordkeeping and reporting required for tanks subject to Tank Level 2 controls. [See 40 CFR §§ 264.1084(b)(2), and (d).]

IV.G.7.c. This Permit Condition IV.G.7.c. applies to any hazardous waste tank for which air pollution emissions are controlled by venting the tank to a control device, other than those tanks equipped with a carbon canister meeting the requirements of 40 CFR § 61, Subpart FF. The Permittees shall control air emissions from such tanks in accordance with the requirements set forth at 40 CFR § 264.1084(g)(1) through (g)(3). If the requirements of 40 CFR § 264.1084(g)(1) through (g)(3) apply, the Permittees must perform inspections, recordkeeping and reporting required for tanks subject to 40 CFR 264.1084(g). [See 40 CFR §§ 264.1084(g).]

IV.G.7.d. This Permit Condition IV.G.7.d. applies to the transfer of hazardous waste to any hazardous waste tank where the average volatile organic concentration is above the standard set forth at 40 CFR 264.1082(c)(1) (*i.e.*, 500 ppmw) other than to a tank equipped with a carbon canister meeting the requirements of 40 CFR § 61, Subpart FF. The Permittees shall transfer hazardous waste to any such tank in accordance with the requirements of 40 CFR § 264.1084(j). [See 40 CFR § 264.1084(j).]

IV.G.8. The Permittees shall change-out the carbon in WS-1, WS-2 and WS-3, respectively, in accordance with the schedule set forth in the Permit Attachment Appendix XXIII, Section 4.5 and the engineering calculations in Appendix C thereto to ensure control of emissions from volatile organic compounds (VOCs) into ambient air.

IV.G.9. The Permittees shall comply with the recordkeeping requirements of 40 CFR §§ 264.1064(m) and 264.1089(j) for any tank or equipment equipped with and operating air emission controls in accordance with CAA requirements set forth in 40 CFR Parts 60, 61, or 63, which are deemed in compliance with 40 CFR Part 264 Subpart BB or Subpart CC, as appropriate. [See 40 CFR §§ 264.1064(m) and 264.1089(j). See also Permit Condition I.K.1.]

IV.H. INSPECTION SCHEDULES AND PROCEDURES

IV.H.1. The Permittees shall inspect the Tank Systems, in accordance with the Inspection Schedule in Permit Attachment Section F and Permit Attachment Appendix XII. [See 40 CFR § 264.195, Permit Attachment

Section F and Permit Attachment Appendix XII.]

IV.H.2. The Permittees shall visually inspect the spent carbon storage Tank Systems, (T-1, T-2, T-5, T-6 and T-18), at least once each operating day or as provided in 40 CFR § 264.195(d). This inspection shall include, at a minimum:

IV.H.2.a. A visual inspection of the above-ground portions of the Tank Systems to detect corrosion or releases of waste in accordance with 40 CFR § 264.195(c)(1);

IV.H.2.b. A visual inspection of the construction materials and the area immediately surrounding the externally accessible portion of each Tank System, including the secondary containment systems (e.g., dikes), to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation) in accordance with 40 CFR § 264.195(c)(2); and

IV.H.2.c. A visual inspection of ancillary equipment that is not provided with secondary containment, as described in 40 CFR § 264.193(f)(1) through (4), in accordance with 40 CFR § 264.195(f).

IV.H.3. At least once each operating day, the Permittees shall conduct reviews of the data gathered from monitoring and leak detection equipment (*e.g.*, pressure or temperature gauges, monitoring wells) to ensure that the Tank Systems are being operated according to their designs. [See 40 CFR § 264.195(b).]

IV.H.4. For any hazardous waste tank for which the Permittees elect to comply with 40 CFR Part 264, Subpart CC, the Permittees shall perform inspections of the air emission control equipment in accordance with 40 CFR § 264.1084(c). [See 40 CFR § 264.1084(c).]

IV.H.5. <u>Ultrasonic Thickness Testing</u>

IV.H.5.a. The Permittees shall conduct annual ultrasonic thickness testing at the bottom of the cylinder wall above the cone-cylinder intersection and at the previous locations of minimum shell thickness readings (as recommended in the tank assessment in the

Permit Attachment Appendix IX) for each major component (top head, cylinder wall, bottom cone and support skirt) on each of Tanks T-1, T-2, T-5, T-6 and T-18. [See Permit Attachment Section F and Permit Attachment Appendix IX.]

IV.H.5.b. In addition, the Permittees shall conduct comprehensive ultrasonic thickness testing every five (5) years for each major component (top head, cylinder wall, bottom cone, and support skirt) on each of Tanks T-1, T-2, T-5, T-6 and T-18 as recommended in the tank assessment in the Permit Attachment Appendix IX. [See Permit Attachment Section F and Permit Attachment Appendix IX.]

IV.H.5.c. The Permittees shall remove from service and repair or replace any tank with cylindrical wall thickness that is less than or equal to 0.157 inches. [See Permit Attachment Section F and Permit Attachment Appendix IX.]

IV.H.5.d. The Permittees shall ensure that all carbon steel components and fittings of any hazardous waste tank system that are in direct contact with spent carbon and recycle water slurry with 300 series stainless steel components and fittings have been replaced prior to performing the next set of comprehensive ultrasonic thickness test measurements. [See Permit Attachment Section F and Permit Attachment Appendix IX.]

IV.H.6. In meeting the obligation set forth in Permit Condition II.F.1., the Permittees shall visually inspect the air emission control equipment in accordance with the following requirements, Permit Attachment Section F and Permit Attachment Appendix XII. The Permittees shall visually inspect the carbon adsorption systems (WS-1, WS-2, and WS-3) and their closed vent systems on a daily basis to ensure there are no leaks from these devices and that they are properly operated. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. [See Permit Attachment Section F and Permit Attachment Appendix XII.]

IV.H.7. The Permittees shall maintain the paint coating on exterior surfaces of all Tank System components that are carbon steel by repainting if visual observation indicates that 20% or greater of the component's paint coating

is damaged. [See Permit Attachment Section F and Permit Attachment Appendix IX.]

IV.I. RESPONSE TO LEAKS, SPILLS OR DEFECTS

IV.I.1. In the event of: (1) a leak or a spill from a Tank System, (2) a leak or spill from a secondary containment system, (3) a system becoming unfit for continued use due to defects or a state of disrepair, or (4) a tank system or component is found to be leaking or unfit for use as a result of a leak test or assessment that is required for all Tank Systems until such time as secondary containment that meets the requirements of this Permit is provided, the Permittees shall remove the system from service immediately and complete the following actions:

IV.I.1.a. Immediately stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release. [See 40 CFR §§ 264.193(i)(5) and 264.196(a).]

IV.I.1.b. Remove waste and accumulated precipitation from the system within twenty-four (24) hours of the detection of the leak to prevent further release and to allow inspection and repair of the system. [See 40 CFR § 264.196(b).]

IV.I.1.b.i. If the Permittees find that it will be impossible to meet this time period, the Permittees shall, at the earliest practicable time, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the system to be performed and in as timely a manner as is possible to prevent harm to human health or the environment. In such event, the Permittees shall also provide prompt notification (*i.e.*, within 24 hours of detection of the leak) to the Director regarding any additional time that may be required to complete removal of waste and accumulated precipitation from the system.

IV.I.1.b.ii. If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of this Permit. If the collected material is discharged through a point source to U.S. waters or to a

Publicly Owned Treatment Works (POTW), such discharge is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to additional reporting requirements pursuant to 40 CFR Part 302.

IV.I.1.c. Contain visible releases to the environment. The Permittees shall immediately conduct a visual inspection of all releases to the environment and based on that inspection:

IV.I.1.c.i. Prevent further migration of the leak or spill to soils or surface water; and

IV.I.1.c.ii. Remove and properly dispose of any visible contamination of the soil or surface water. [See 40 CFR § 264.196(c).]

IV.I.1.d. Following a leak or spill from a Tank System, unless the Permittees satisfy the requirements of this Permit Condition IV.I.1.d, the Tank System must be closed in accordance with the Closure Plan, Permit Attachment Section I:

IV.I.1.d.i. For a release caused by a spill that has not damaged the integrity of the system, the Permittees may return the system to service as soon as the released waste is removed and repairs, if necessary, are made. [See 40 CFR § 264.196(e)(2).]

IV.I.1.d.ii. For a release caused by a leak from a primary Tank System to a secondary containment system, the Permittees shall repair the Tank System prior to returning it to service. [See 40 CFR § 264.196(e)(3).]

IV.I.1.d.iii. If the source of a release was a leak to the environment from a component of a Tank System that does not have secondary containment, the Permittees shall repair the tank system in accordance with 40 CFR § 264.196(e)(4) before returning it to service. [See 40 CFR § 264.196(e)(4).]

IV.I.1.e. For all major repairs conducted pursuant to 40 CFR § 264.196(e), where the repairs have been extensive (*e.g.*, installation of an

internal liner, or repair of a ruptured primary tank or secondary containment vault), the Permittees must obtain a certification by a qualified Professional Engineer in accordance with 40 CFR § 270.11(d) that the repaired system is capable of handling hazardous wastes without release for the intended life of the system before returning the system to service. [See 40 CFR § 264.196.]

IV.I.2. For any hazardous waste tank for which the Permittees elect to comply with 40 CFR Part 264, Subpart CC, the Permittees shall, in the event a defect in the air emission control equipment associated with a tank that is subject to 40 CFR 264.1084 is detected during any of the inspections required under Permit Condition IV.H.8., repair each defect detected in accordance with 40 CFR §§ 264.1084(k)(1) and (2). [See 40 CFR §§ 264.1084(k)(1) and (2).]

IV.J. RECORDKEEPING AND REPORTING

IV.J.1. For any Tank System, including its ancillary equipment, that does not have secondary containment meeting the requirements of 40 CFR § 264.193, the Permittees must maintain and keep on file at the Facility written assessments in accordance with Permit Condition IV.B.4.a., IV.B.4.b., and IV.E.6.b.ii. [See 40 CFR §§ 264.192(g) and 264.193(i)(4).]

IV.J.2. Unless a leak or spill of hazardous waste is exempted from the reporting requirements in accordance with 40 CFR § 264.196(d)(2), the Permittees shall report to the Director, within 24 hours of detection, regarding any leak or spill of hazardous waste from a Tank System to the environment. If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement. [See 40 CFR §§ 264.196(d)(1) and (2).]

IV.J.3. Within thirty (30) days of detecting a release to the environment from a Tank System or secondary containment system, the Permittees shall include the following information in a Report submitted to the Director for approval in accordance with Permit Condition I.G.5.:

IV.J.3.a. Likely route of migration of the release;

IV.J.3.b. Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);

IV.J.3.c. Results of any monitoring or sampling conducted in connection with the release, if available. (If sampling or monitoring data relating to the release are not available within thirty (30) days, these data must be submitted to the Director as soon as they become available.);

IV.J.3.d. Proximity of down gradient drinking water, surface water, and populated areas; and

IV.J.3.e. Description of response actions taken or planned, including whether any corrective measures (interim or otherwise) may be appropriate. [See 40 CFR § 264.196(d)(3).]

IV.J.4. If the Permittees have repaired a Tank System in accordance with Permit Condition IV.I.1.e., the Permittees shall maintain the required Professional Engineer certification in the Operating Record at the Facility until closure of the Facility is completed. [See 40 CFR § 264.196(f).]

IV.J.5. The Permittees shall maintain at the Facility a record of the most recent results of leak tests and integrity tests for each Tank System or secondary containment system conducted in accordance with this Permit. [See 40 CFR §§ 264.193(i)(4).]

IV.J.6. The Permittees shall document compliance with Permit Conditions IV.H.1. through IV.H.6 and IV.H.8. and place this documentation in the Operating Record for the Facility for at least three (3) years from the date such inspection or test occurs. The Permittees shall maintain records of the Ultrasonic Thickness testing for at least five (5) years from the date such testing occurs. [See 40 CFR §§ 264.73 and 264.195(h).]

IV.J.7. Permit Attachment Appendix XXIII, the Subpart FF Compliance Plan, applies only to those Subpart FF-regulated tanks that are also subject to regulation under 40 CFR Part 264 Subpart CC. [See Permit Attachment Appendix XX and Permit Attachment Appendix XXIII.]

IV.J.8. In accordance with 40 CFR § 264.1064, the Permittees shall maintain documentation pertaining to WS-1, WS-2 and WS-3 as required by either 40 CFR § 61.355 or 40 CFR §§ 264.1060 and 264.1064, as elected in the [revised] Subpart BB Compliance Plan, Permit Attachment Appendix

XIX, pursuant to Permit Condition I.K.1. [See 40 CFR § 61.355 and 40 CFR §§ 264.1060 and 264.1064. See also Permit Condition I.K.1.]

IV.J.9. If the approved report submitted in accordance with Permit Condition IV.J.3. concludes that interim or other corrective measures are appropriate, the Permittees shall submit the written report required by and in accordance with Permit Condition VI.E.1.c. and the permit modification request required by and in accordance with Permit Condition VI.E.2. Where such a report is appropriate, the Permittees shall also submit the 90-day Interim Corrective Measures Report in accordance with Permit Condition VI.E.3. To the extent that the approved Interim Corrective Measures Report concludes that there is a need for further investigations or implementation of corrective measures, the Director may require the Permittees to prepare a RCRA Facility Investigation (RFI) Work Plan in accordance with Permit Conditions VI.E.4. and VI.F. To the extent that the approved Interim Corrective Measures Report concludes that a corrective measures study is warranted, the Permittees shall also follow the process set forth in Module VI for developing and implementing a Corrective Measures Study and Corrective Measures Study Final Report in accordance with Permit Condition VI.I. and for selecting an appropriate remedy in accordance with Permit Condition VI.J.

IV.K. SPECIAL TANK PROVISIONS FOR IGNITABLE WASTES

IV.K.1. The Permittees shall not place ignitable hazardous waste in a Tank System unless one of the following conditions is met:

IV.K.1.a. The waste is treated, rendered, or mixed before or immediately after placement in the tank system so that it meets the requirements of 40 CFR § 264.198(a)(1)(i) and (ii);

IV.K.1.b. The waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite; or

IV.K.1.c. The Tank System is used solely for emergencies. [See 40 CFR § 264.198(a). See also Permit Condition II.H.2.]

IV.K.2. If ignitable hazardous waste is stored or treated in a Tank System at the Facility, the Permittees must comply with the requirements for the

maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981). [See 40 CFR § 264.198(b). See also Permit Condition II.H.2.]

IV.L. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTES

IV.L.1. The Permittees shall not place incompatible wastes, or incompatible wastes and materials, in the same Tank System unless they are doing so in compliance with 40 CFR § 264.17(b) and Permit Condition II.H.2. [See 40 CFR §§ 264.17(b) and 264.199(a).]

IV.L.2. The Permittees shall not place hazardous waste in a Tank System that has not been decontaminated and that previously held an incompatible waste or material, unless they are doing so in compliance with 40 CFR § 264.17(b) and Permit Condition II.H.2. [See 40 CFR §§ 264.17(b) and 264.199(b).]

IV.M. CLOSURE AND POST-CLOSURE CARE

IV.M.1. At closure of each Tank System, the Permittees shall follow the procedures in the Closure Plan in Permit Attachment Section I and Permit Attachment Appendix XV. [See 40 CFR § 264.197(a). See also Permit Attachment Section I and Permit Attachment Appendix XV.]

IV.M.2. If the Permittees demonstrate that not all contaminated soils can be practicably removed or decontaminated in accordance with the Closure Plan, then the Permittees shall close such Tank System(s) and perform post-closure care following the contingent procedures in the Closure Plan (Permit Attachment Section I and Permit Attachment Appendix XV) and in Permit Condition II.N. [See 40 CFR § 264.197(b). See also Permit Attachment Section I and Permit Attachment Appendix XV.]

MODULE V

THERMAL TREATMENT UNIT/CARBON REGENERATION FURNACE

V.A. APPLICABILITY

V.A.1. This module contains Permit Conditions for the operating Carbon Regeneration Furnace (RF-2), which consists of a five-hearth furnace and the Afterburner (AB-2), and is classified as a miscellaneous unit, as defined in 40 CFR § 260.10. RF-2 and AB-2 are subject to the requirements set forth at 40 CFR Part 264, Subpart X. The RF-2 unit is used to regenerate spent activated carbon via thermal treatment. Process flow diagrams and a description of the carbon reactivation process are included in Permit Attachment Appendix VI. [See 40 CFR §§ 260.10, 264.600 to 264.603, and 270.23.]

V.A.2. This module also includes Permit Conditions for the Air Pollution Control Equipment (APCE) for RF-2, AB-2, ancillary equipment of RF-2 and AB-2, and the feed system from Tank T-18. The APCEs are the Quench (Gas Cooling)/Venturi Scrubber (SC-11), Caustic Packed Bed Scrubber (SC-12), Wet Electrostatic Precipitator (W-11), Induced Draft Fan, and Stack. The five-hearth furnace (RF-2), AB-2, and all their associated components (ancillary equipment [*e.g.*, piping, weigh belt] and the APCEs) are collectively referred to herein as the "RF-2." [See 40 CFR §§ 264.600 to 264.603, and 270.23.]

V.A.3. RF-2 is subject to the conditions and requirements set forth in this Module. Based on the authority contained in the regulations at 40 CFR §§ 264.600 *et seq.*, additional requirements are included in this Module to ensure protection of human health and the environment. [See 40 CFR §§ 63.1200 *et seq.*, 260.10, 264.600 to 264.603, and 270.23.]

V.B. GENERAL REQUIREMENTS FOR RF-2

V.B.1. Waste Processing and Handling Requirements

V.B.1.a. The Permittees receive spent activated carbon from different off-site generators for treatment in RF-2. Some of this spent carbon constitutes a hazardous waste and some does not constitute a

hazardous waste. The Permittees also generate spent activated carbon onsite, some of which constitutes a hazardous waste. The Permittees shall abide by the requirements established in Permit Condition V.B.2. for all hazardous wastes permitted for treatment in RF-2. Nothing in this Permit should be interpreted as prohibiting the Permittees from treating spent carbon that is not a hazardous waste in RF-2.

V.B.1.b. The Permittees shall ensure that the residence time for the spent carbon in RF-2 is a minimum of 38 minutes. This limit is based on a calculation of an assumed shaft speed of 1 rotation approximately every 54 seconds.

V.B.2. Permitted Wastes for Treatment in RF-2

V.B.2.a. When engaged in the treatment of any hazardous waste spent carbon, with respect to such hazardous waste spent carbon, the Permittees shall only treat in RF-2 hazardous waste spent carbon identified as acceptable for treatment in accordance with Permit Condition II.H. Mixtures of such hazardous waste spent carbon with any spent activated carbon that is not classified as a hazardous waste under 40 CFR Part 261 may also be treated.

V.B.2.b. Subject to the provisions of Permit Conditions II.H. and V.B.2.a., the Permittees are not prohibited from treating 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 (for example, carbon from the adsorbers used to control emissions from Tanks T-1, T-2, T-5,T-6 and T-18; and H-1 and H-2). [See Permit Attachment Appendix IV.]

V.C. OPERATION OF RF-2

V.C.1. General Operating Conditions

V.C.1.a. The applicable permissible feed rate limits for low volatile metals, semi volatile metals, chlorine/chloride, and mercury are set forth in Permit Condition Table V-1. The Permittees shall only feed spent carbon at or below the feed rate limits shown in Tables V-1 and V-2. The Permittees are not authorized to feed into RF-2 spent activated carbon in excess of the permissible feed rate limits set forth in Permit Condition Tables V-1 and V-2.

V.C.1.b. The Permittees are not authorized to treat or feed spent activated carbon in concentrations that would cause exceedances of permissible emission limits or other operating parameter limits shown in Column 3 of Table V-1 for each of the parameters listed. Except for the parameters listed in Column 3 of Table V-1 for SO2 and NOx, the emission standards and operating requirements set forth in this Module V shall not apply during periods of startup, shutdown and malfunction, and when spent carbon is not in the reactivation furnace (RF-2). [See 40 CFR §§ 63.1206(b) and 63.1209.]

Table V-1- PERFORMANCE STANDARDS AND OPERATING PARAMETER LIMITS

Parameter	**Performance Standards for the Purposes of PDT Testing**	**Operating Parameter Limits[1]**
Destruction and Removal Efficiency (DRE)/ To limit organic emissions.	99.99 percent	Demonstrate 99.99 percent - DRE during periodic Performance Demonstration Tests (PDTs).
Low Volatile Metals[2]/ To limit As, Be and Cr emissions.	Emission Limit: 92 µg[3]/dscm[4] as corrected to 7 percent oxygen	Feed Rate Limit: 1.5 lbs/hr[5] (12 hour rolling average). Demonstrate emission limit of 97 µg/dscm during periodic PDTs.
Semi Volatile Metals[6]/ To limit Pb and Cd emissions.	Emission Limit: 230 µg/dscm as corrected to 7 percent oxygen	Feed Rate Limit: 0.1 lbs/hr (12 hour rolling average). Demonstrate emission limit of 240 µg/dscm during periodic PDTs.
Carbon Monoxide/ To ensure good combustion.	Emission Limit: 100 ppmdv,[7] as corrected to 7 percent oxygen	Demonstrate compliance with emission limit of 100 ppmdv, as corrected to 7 percent oxygen through operation of the CEMS[8] at the stack. Demonstrate emission limit of 100 ppmdv as corrected to 7 percent oxygen during periodic PDTs.

[1] Additional operating parameters limits are set forth elsewhere in this Permit. See, e.g., Table V-2.
[2] Low volatile metal feed rate limits apply to arsenic (As), beryllium (Be), and chromium (Cr), combined.
[3] µg – micrograms.
[4] dscm - dry standard cubic meter of stack gas.
[5] lbs/hr – pounds per hour.
[6] Semi-volatile metal feed rate limits apply to lead (Pb) and cadmium (Cd), combined.
[7] ppmdv - parts per million on a dry gas volumetric basis using a one hour rolling average.
[8] CEMS – Continuous Emissions Monitoring System.

Parameter	**Performance Standards for the Purposes of PDT Testing**	**Operating Parameter Limits[1]**
Total Hydrocarbons/ To limit organic emissions.	Emission Limit:10 ppmdv, as corrected to 7 percent oxygen	Demonstrate emission limit of 100 ppmdv as corrected to 7 percent oxygen during periodic PDTs.[9]
Hydrogen Chloride and Chlorine gas (total Chlorine)/ To limit hydrogen Chloride /chlorine combined emissions.	Emission Limit: 32 ppmdv as corrected to 7 percent oxygen	Feed Rate Limit: 60 lbs/hr (12 hour rolling average). Demonstrate emission limit of 77 ppmdv as corrected to 7 percent oxygen during periodic PDTs.
Mercury[10]/ To limit mercury emissions.	Emission Limit: 130 µg/dscm as corrected to 7 percent oxygen	Feed Rate Limit: 1.8E-3 lbs/hr (12 hour rolling average). Demonstrate emission limit of 130 µg/dscm as corrected to 7 percent oxygen during periodic PDTs.
Particulate Matter/ To limit particulate matter emissions.	Emission Limit: 0.013 gr/dscf,[11] as corrected to 7 percent oxygen.	Demonstrate emission limit of 0.015 gr/dscf as corrected to 7 percent oxygen during periodic PDTs.
Dioxins and Furans/ To limit dioxin and furan emissions.	Emission Limit: 0.40 ηg[12] TEQ[13]/dscm, as corrected to 7 percent oxygen	Demonstrate emission limit of 0.40 ηg TEQ/dscm as corrected to 7 percent oxygen during periodic PDTs.

[9] The rate of emissions below the applicable emission limit will be demonstrated during the PDTs.
[10] The mercury feed rate to be calculated per 40 CFR § 264.1209(1)(l)(i).
[11] gr/dscf – grains per dry standard cubic foot
[12] ηg – nanograms.
[13] 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.

Parameter	**Performance Standards for the Purposes of PDT Testing**	**Operating Parameter Limits[1]**
Sulfur Oxides/ To limit SO_2 emissions.	Emission Limit: 30 tpy[14]	30 tons per consecutive 12-month period,[15] demonstrated 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.[16] Demonstrate emission limit of 30 tpy during periodic PDTs.
Nitrogen Oxides/ To limit NOx emissions	Emission Limit: 22 tpy[17]	22 tons per consecutive 12-month period,[18] demonstrated in accordance with Permit Condition V.C.6.c. Demonstrate emission limit of 22 tpy during periodic PDTs.

V.C.1.c. Throughout operation, the Permittees shall conduct analysis in accordance with the Waste Analysis Plan, Permit Attachment C and Permit Attachment Appendix IV and Permit Condition II.D. to verify that spent carbon fed to RF-2 is within the physical and chemical composition limits specified in this Permit. [See 40 CFR §§ 264.341(b) and 270.23.]

V.C.1.d. The Permittees are required to inspect, operate, and monitor RF-2 in accordance with the conditions of this Permit to protect human

[14] tpy – tons per year. This standard is based on a voluntary limit proposed in the September 19, 2016 letter from Evoqua Water Technologies LLC (Mr. Monte McCue) to USEPA Region 9 (Mr. Gerardo Rios).
[15] *I.e.*, on a 12-month rolling sum basis.
[16] *Ibid.* The Waste Analysis Plan (WAP) shall be modified in accordance with Permit Condition I.K.3. The emission limit is in effect upon the effective date of this Permit. However, monitoring of the sulfur feed rate in accordance with this Permit shall be required upon approval of the modified WAP.
[17] See footnote 14, above.
[18] See footnote 15, above.

health and the environment during operation, maintenance, start-up, shut-down and malfunction of RF-2.

V.C.1.e. The Permittees shall maintain RF-2 in accordance with the design plans, design specifications, stack layout drawing, and maintenance procedures contained in Permit Attachment Section B and Permit Attachment Appendices VI and X.

V.C.1.f. The operating parameters are grouped into the following categories: Groups A1, A2, B and C; and are categorized as defined in EPA guidance document: Handbook: Guidance on Setting Permit Conditions and Reporting Trial Burn Results, (EPA/625/6-89/019), Table 2-1.

V.C.1.f.i. Group A1 parameters shall be continuously monitored and recorded, and shall be interlocked with the automatic waste feed cutoff system. Group A1 parameter limits were established from test operating data, and are used to ensure that system operating conditions are equal to or are more rigorous than those demonstrated during the test.

V.C.1.f.ii. Group A2 parameters shall be continuously monitored and recorded, and shall be interlocked with the automatic waste feed cutoff system. Group A2 parameter limits have been established based on regulatory requirements rather than on the test operating conditions, e.g., the maximum stack CO concentration.

V.C.1.f.iii. Group B parameters shall be continuously monitored and recorded, but are not required to be interlocked with the automatic waste feed cutoff system. Operating records are required to ensure that established limits for these parameters are not exceeded. The Group B parameter limits were established based on the operation of the system during the performance test.

V.C.1.f.iv. Group C parameters shall be continuously monitored and recorded, but are not required to be interlocked with the

automatic waste feed cutoff system. Group C parameter limits are based on manufacturer's recommendations, operational safety, and good operating practice considerations rather than on the test operating conditions, e.g., the minimum packed bed scrubber pressure differential.

V.C.1.g. The following Table V-2 includes critical operating conditions. The term "AWFCO" in the comments column indicates that the operating parameter shall be interlocked with the automatic waste feed cutoff system. The Permittees shall comply with the Operating Limits in Table V-2.

Table V-2 - OPERATING LIMITS AND PARAMETERS

Control Parameters[19]	**Permit Limit**	**Comments**
GROUP A1 PARAMETERS		
Maximum spent carbon feed rate limit (lbs/hr)	3049	Block hour AWFCO
Minimum afterburner temperature (^{o}F)	1760	Hourly rolling average AWFCO
Minimum hearth #5 temperature (^{o}F)	1350	Hourly rolling average AWFCO
Minimum venturi scrubber pressure differential (in. w.c.)	18	Hourly rolling average AWFCO
Minimum quench/venturi scrubber total liquid flow rate (gpm)	75	Hourly rolling average AWFCO
Minimum packed bed scrubber pH	4.4	Hourly rolling average AWFCO
Minimum packed bed scrubber liquid flow rate (gpm)	63	Hourly rolling average AWFCO
Minimum wet scrubber blowdown flow rate (gpm)	58	Hourly rolling average AWFCO
Minimum WESP secondary voltage (kVDC)	22	Hourly rolling average AWFCO
(continued on next page)		

[19] Groups A1, A2, B, and C Parameters are explained in detail in Permit Condition V.C.1.f.

Control Parameters[19]	Permit Limit	Comments
GROUP A1 PARAMETERS		
Maximum stack gas flow rate (acfm)	9,550	Hourly rolling average AWFCO
GROUP A2 PARAMETERS		
Maximum stack gas carbon monoxide (ppmdv, @7% oxygen)[20]	100	Hourly rolling average AWFCO
GROUP B PARAMETERS		
Allowable hazardous constituents	All except wastes identified in Permit Condition II.H.5	Class 1 POHC demonstrated to meet the 99.99% Destruction Removal Efficiency per Permit Attachment Appendix V
Maximum total chlorine and chloride feed rate limit (lbs/hr)	60	12-hour rolling average
Maximum mercury feed rate limit (lbs/hr)	1.8E-3[21]	12-hour rolling average
Maximum semivolatile metal (Cd + Pb) feed rate limit (lbs/hr)	1.0E-01	12-hour rolling average
Maximum low volatility metal (As + Be + Cr) feed rate limit (lbs/hr)	1.5E+00	12-hour rolling average
GROUP C PARAMETERS		
Minimum packed bed scrubber pressure differential (in. w.c.)	0.1	Hourly rolling average

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As = Arsenic
AWFCO = Automatic Waste Feed Cutoff
Be = Beryllium
Cd = Cadmium
Cr = Chromium
lbs/hr = pounds per hour
WESP = Wet electrostatic precipitator
Pb = Lead
POHC = Principal organic hazardous constituent
TSCA = Toxic Substances Control Act
PCBs = Polychlorinated Biphenyls

[20] The AWFCO interlock is not active during the daily continuous emission monitoring system (CEMS) calibration period.
[21] 1.8E-3 = 1.8 x 10-3.
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(Table notes continued on next page)
in. w.c. = inches of water column
kVDC = kilovolts Direct Current
gpm = gallons per minute
acfm = actual cubic feet per minute
ppmdv = parts per million on a dry volumetric basis in the stack gas
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V.C.1.h. All monitoring must be conducted in accordance with the requirements of Permit Attachment Section D. [See Permit Attachment Section D, (Process Information).]

V.C.2. Start Up, Shutdown, and Malfunction Plan

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. This includes ceasing feeding spent carbon to RF-2, to the extent required by the SSMP, if any of the continuous monitoring instruments malfunction or otherwise fail to operate properly. [See Permit Attachment Appendix XXII, (Start-up, Shutdown, and Malfunction Plan).]

V.C.2.b. The Permittees shall implement the SSMP, whenever RF-2 is in a start-up, shutdown or malfunction event (as described in the SSMP) to avoid or minimize the effects of such events.

V.C.2.c. The Permittees shall submit to the Director a request for a Permit Modification in accordance with Permit Condition I.G.7., with an accompanying revised SSMP, whenever they determine that one or more changes to the SSMP are appropriate.

V.C.2.d. The Permittees must maintain a copy of the SSMP in the Operating Record at the Facility for the operating life of RF-2.

V.C.3. Monitoring Equipment

The Permittees shall maintain, calibrate, and operate monitoring equipment and record the data required by this Permit while processing spent carbon.
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V.C.4. Regulatory Compliance Instrumentation

V.C.4.a. The Permittees shall operate RF-2 and calibrate the RF-2-related instrumentation listed in Table V-3 pursuant to the parameters – including the frequencies -- set forth in Table V-3. Quality assurance and quality control shall be done in accordance with 40 CFR Part 60 Appendix F QA/QC requirements and the Permittees shall document such activities in the Operating Record. [See Permit Conditions V.G.5. and V.I.1.c.vi.]

TABLE V-3 - REGULATORY COMPLIANCE INSTRUMENTATION

Parameter	***Identification Number of Sensor/ Transmitter***[22]	***Instru-ment Type***	***Units***	***Range***	***Operating Point or Range***	***Calibration Frequency***	***Averaging***	***AWFCO (Y/N)***
Feed rate of spent activated carbon	WE/WT-427	Weigh cell (Weigh belt)	lbs/hr	0-6000	Less than or equal to 3049	Semi-annually	1-hr Block	Y
Total feed rate of mercury	Computer	Calcu-lated	lbs/hr	NA	0 – Less than or equal to 1.8E-03	NA	12-hr RA	N
Total feed rate of SVM	Computer	Calcu-lated	lbs/hr	NA	Less than or equal to 0 – 1.0	NA	12-hr RA	N
Total feed rate of LVM	Computer	Calcu-lated	lbs/hr	NA	Less than or equal to 0 – Less than or equal to 1.5	NA	12-hr RA	N

[22] Instrument identification from P&IDs.

Parameter	***Identification Number of Sensor/ Transmitter[22]***	***Instru-ment Type***	***Units***	***Range***	***Operating Point or Range***	***Calibration Frequency***	***Averaging***	***AWFCO (Y/N)***
Afterburner gas temperature	TE-464A/B	Thermo-couple	^{o}F	0-2400	Greater than or equal to 1760	Semi-annually	1-hr RA	Y
Venturi scrubber pressure differential	PDIT-556	Pressure sensor	in. w.c.	0-50	Greater than or equal to 18	Annually	1-hr RA	Y
Venturi / Quench scrubber recycle liquid flow rate (Total Flow)	FI-562 (Total of FE/FIT-553, 554, & 555)	Sum of Magnetic flow meters (Dynac Function)	gpm	0-656	Greater than or equal to 75	Annually	1-hr RA	Y
Packed bed scrubber pH	AE/AIT-590	pH probe	pH	0-14	Greater than or equal to 4.4	Quarterly	1-hr RA	Y
Packed bed scrubber recycle liquid flow rate	FE/FIT-552	Magnetic flow meter	gpm	0-200	Greater than 63	Annually	1-hr RA	Y
Packed bed scrubber pressure differential	PDIT-560	Pressure sensors	in. w.c.	0-10	Greater than 0.1	Annually	1-hr RA	N
Scrubber blowdown flow rate	FE/FIT-605	Magnetic flow meter	gpm	0-691	Greater than 58	Annually	1-hr RA	Y
WESP secondary DC voltage	EI-558	Voltmeter	kV DC	0-80	14-22	NA	1-hr RA	Y

Parameter	***Identification Number of Sensor/ Transmitter[22]***	***Instru-ment Type***	***Units***	***Range***	***Operating Point or Range***	***Calibration Frequency***	***Averaging***	***AWFCO (Y/N)***
Stack gas flow rate	FE/FIT-700	Ultrasonic meter	acfm	Not avail-able	Less than or equal to 9,550	Semi-annually	1-hr RA	Y
Stack gas carbon monoxide[23]	AE-575	Non-dispersive infrared CEMS	ppmdv @7% O_2	0-100 0-1000	Less than 100	Daily/ Quarterly/ Annually	1-hr RA	Y
Stack gas oxygen[24]	AE-576	Para-magnetic CEMS	vol%, dry	0-25	7	Daily/ Quarterly/ Annually	None	N

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RA = Rolling average as defined in 40 CFR § 63.1209(a)(6).
AWFCO = Automatic Waste Feed Cutoff.
SVM = Semi-Volatile Metals
LVM = Low-Volatile Metals
in. w.c. = inches of water column
kVDC = kilovolts Direct Current
gpm = gallons per minute
acfm = actual cubic feet per minute
ppmdv @ 7% O_2 = parts per million on a dry volumetric basis in the stack gas as corrected to 7% oxygen

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V.C.4.b. The Permittees shall conduct daily calibrations of the oxygen and carbon monoxide monitoring instrumentation for every day the Facility treats spent carbon in RF-2.

[23] Continuous Emissions Monitoring System (CEMS) calibrations shall include daily zero and span check, quarterly cylinder gas audit, and annual performance specification test.
[24] Continuous Emissions Monitoring System (CEMS) calibrations shall include daily zero and span check, quarterly cylinder gas audit, and annual performance specification test.

V.C.5. Automated Waste Feed Cutoff Requirements

V.C.5.a. The Permittees shall operate RF-2 with an automatic waste feed cutoff (AWFCO) system that immediately and automatically cuts off the feed to RF-2 in accordance with this Permit. [See 40 CFR § 63.1206(c)(3).]

V.C.5.b. The Permittees shall set the automatic waste feed cutoff system to stop the feed to RF-2 if any of the following occurs:

V.C.5.b.i. The emission limit for Carbon Monoxide listed in Table V-1, the limit for the maximum spent carbon feed rate, or the maximum stack gas flow rate listed in Table V-2 are exceeded, or any of the other Group A-1 or Group A-2 parameters specified in Table V-2 are not met.

V.C.5.b.ii. When the span value of any continuous monitoring system (CMS)detector, except a continuous emissions monitoring system (CEMS), is met or exceeded; [See 40 CFR § 63.1206(c)(3)(i)(B).]

[Note: Parameter CMSs are process instruments that continuously monitor and record parameter data from the operation of the carbon reactivation process. The instruments consist of weigh belts, flow meters, pressure transducers, thermocouples and other devices that collect process information on key regulatory parameters.]

V.C.5.b.iii. Upon malfunction of a CMS; [See 40 CFR § 63.1206(c)(3)(i)(C).] or

V.C.5.b.iv. When any component of the AWFCO system fails. [See 40 CFR § 63.1206(c)(3) (i)(D).]

V.C.5.c. During an AWFCO event, the Permittees must continue to duct combustion gases to the air pollution control equipment while spent carbon remains in RF-2 (*i.e.*, if the residence time has not transpired since the AWFCO system was activated). After an AWFCO event, the remainder of the system shall continue to

operate until the residence time has transpired to ensure all spent carbon remaining in the system has been processed with the APCE still operational. [See 40 CFR § 63.1206(c)(3)(ii).]

V.C.5.d. In the event of an AWFCO event, the Permittees shall implement the SSMP and operate RF-2 under the provisions of the SSMP. [See 40 CFR §§ 63.1206(c)(2) and (c)(3).]

V.C.5.e. During malfunctions, the Permittees shall comply with the AWFCO requirements of the SSMP and this Permit. [See 40 CFR § 63.1206(c)(2)(v)(A)*(1)* and Permit Attachment Appendix XXII.]

V.C.5.e.i. The AWFCO requirements continue to apply during a malfunction. If the Permittees exceed the emission limit for Carbon Monoxide listed in Table V-1, the limit for the maximum spent carbon feed rate or the maximum stack gas flow rate listed in Table V-2, or fail to meet any of the other Group A-1 or Group A-2 parameters specified in Table V-2, the Permittees shall undertake the corrective measures prescribed in the SSMP. [See 40 CFR § 63.1206(c)(2)(v)(A)*(2)*.]

V.C.5.e.ii. For the purposes of determining the duration of an exceedance as a result of a malfunction (including power outages), the exceedance will begin once an emission standard or operating limit is exceeded while spent carbon is in RF-2. The exceedance will end once the spent activated carbon has cleared RF-2 or once the emissions and operating parameters are reestablished within their respective permit limits, whichever occurs sooner. Thus, one incident may constitute one exceedance, which may include multiple emissions or operating parameters not being met.

V.C.5.e.iii. For each set of 10 exceedances of an emission standard or operating requirement while spent carbon remains in the combustion chamber (*i.e.*, when the residence time has not transpired since the feed was cut off) during a 60-day block period, the Permittees must:

V.C.5.e.iii.(1). Within 45 days of the 10th exceedance, (1) complete an investigation of the cause of each exceedance; (2) complete an evaluation, to include approaches to minimize the frequency, duration, and severity of each exceedance, and whether any revisions to the SSMP are warranted to minimize the frequency, duration, and severity of such exceedances; and (3) record the results of the investigation and evaluation in the Operating Record. [See 40 CFR § 63.1206(c)(2)(v)(A)*(3)(i) and (ii)*.]

V.C.5.e.iii.(2). Within 60 days after each 10th exceedance, include a summary of the investigation and evaluation, and any recommended changes to the SSMP in an excess emissions report submitted to the Director for approval in accordance with Permit Condition I.G.5. [See 40 CFR § 63.1206(c)(2)(v)(A)*(3)(ii)*.]

V.C.5.e.iv. If, after any AWFCO event, there is an exceedance of a parameter in Table V-2 required to be interlocked with the AWFCO system, or when an exceedance of a Group A-1 or Group A-2 parameter specified in Table V-2 occurs, irrespective of whether the exceedance occurred while spent carbon remained in the combustion chamber (*i.e.*, whether the residence time has transpired since the AWFCO system was activated), the Permittees must investigate the cause of the AWFCO event, take appropriate corrective measures to minimize future AWFCO events, and record the findings and corrective measures in the Facility's operating record. [See 40 CFR§ 63.1206(c)(3)(v).]

V.C.5.f. The Permittees shall not feed spent carbon during startups and shutdowns. [See 40 CFR § 63.1206(c)(2)(v)(B).]

V.C.5.g. Restarting Feed

The Permittees must not start feeding spent carbon until the operating parameters specified in Table V-2 and the CEMS have returned to within the operating limits. [See 40 CFR § 63.1206(c)(3)(iii).]

V.C.5.h. Testing the AWFCO System

The Permittees must test the AWFCO system in accordance with Permit Attachment Section F. The Permittees must document and record AWFCO system operability test results in the Facility's Operating Record and maintain such records for 5 years. [See 40 CFR §§ 63.1206(c)(3)(vii) and 264.347(c) and (d).]

V.C.6. Burning of Natural Gas

V.C.6.a. RF-2 (including all its APCE and ancillary equipment) shall be powered by natural gas only. Alternative fuel cannot be used unless this Permit is modified. Any such modification request may require additional performance testing and/or an updated risk analysis.

V.C.6.b. The amount of natural gas burned in RF-2 (including all its APCE and ancillary equipment) shall be recorded monthly in the Operating Record. Such monthly records shall be maintained in accordance with this provision, even for months when startup, shutdown, or malfunction events occur.

V.C.6.c. Each month, the Permittees shall calculate and record in the Operating Record, the 12-month rolling sum in tons per year of nitrogen oxides (NOx) emissions from RF-2 (including all its APCE and ancillary equipment), based on: (1) the amount of natural gas burned; (2) the emission factor in accordance with this Permit Condition; (3) flow rate out the stack; and (4) the hours of operation of RF-2. Prior to the first PDT to be performed in accordance with this Permit, the Permittees shall use the most recent available emission factor for NOx to calculate the 12-month rolling sum of NOx in tons per year. After approval of the first

PDT Report, the Permittees shall use the NOx emission factor from the most recent approved PDT Report.

V.D. AIR POLLUTION CONTROL EQUIPMENT

V.D.1. The Permittees shall continuously operate, and maintain in good working order, the hearth, Afterburner (AB-2), Quench (Gas Cooling)/Venturi Scrubber (SC-11), Caustic Packed Bed Scrubber (SC-12), Wet Electrostatic Precipitator (W-11), Induced Draft Fan, and Stack at all times that the RF-2 is in operation treating spent carbon.

V.D.2. The Permittees shall maintain the APCE in accordance with the design plans and specifications contained in Permit Attachment Appendices VI (Process Flow Diagrams and Piping and Instrumentation Diagrams) and X (Equipment Drawings).

V.E. FUGITIVE EMISSIONS CONTROLS

The Permittees shall control fugitive emissions from the combustion zone by maintaining the combustion chamber as a sealed system in accordance with 40 CFR § 63.1206(c)(5), and Permit Attachment Section D. [See 40 CFR § 63.1206(c)(5), and Permit Attachment Section D .]

V.F. INSPECTION REQUIREMENTS

The Permittees shall inspect RF-2 in accordance with the Inspection Schedule and Checklist, Permit Attachment Section F, Permit Attachment Appendix XII, and Permit Condition II.F. [See 40 CFR § 264.15]

V.G. RECORDKEEPING AND REPORTING

V.G.1. The monitoring, inspection, and testing data required by this Module V, including the PDT Reports required under Permit Condition V.I., must be recorded and the records must be placed in the Operating Record required by Permit Condition II.M.1.a. This monitoring, inspection, and testing data shall be maintained in the Operating Record for 3 years except for the following records, which shall be maintained in the Operating Record for 5 years:

V.G.1.a. Continuous monitoring records of combustion temperature, spent carbon feed rate, the indicator of combustion gas velocity and carbon monoxide;

V.G.1.b. 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

V.G.1.c. The records required to be maintained in accordance with Permit Condition V.C.5.h. (regarding testing of the AWFCO system). [See 40 CFR §§ 264.73(b), 264.347(d), and 265.73(b).]

V.G.2. The Permittees shall record in the Operating Record for this Permit the date and time of all automatic waste feed cutoff events, including the triggering parameters, reason for the event, and corrective actions taken. The Permittees shall also record all failures of the automatic waste feed cutoff system to function properly and corrective actions taken. [See 40 CFR §§ 63.10 and 63.1211.]

V.G.3. The Permittees shall record in the Operating Record for this Permit the date and time of all shutdowns or malfunctions, the reason(s) for the shut-down or malfunction, and corrective actions taken. [See Permit Attachment Appendix XXII, (Start-up, Shutdown, and Malfunction Plan).]

V.G.4. In addition to the excess emissions report(s) required by Permit Condition V.C.5.e.iii.(2)., if an action taken by the Permittees during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the SSMP, and an exceedance of an emission standard or operating limit occurs while spent activated carbon is in RF-2, the Permittees shall record the actions taken for that event and report such actions to the Director within 7 working days after the end of the event, and shall include any recommendations regarding changes that may be necessary to the Permit Attachment Appendix XXII (SSMP), as appropriate, in accordance with Permit Condition I.G. [See Permit Attachment Appendix XXII and 40 CFR §§ 63.6(e)(3)(iv) and 63.10(d)(5).]

V.G.5. The Permittees shall maintain in the Operating Record for the Facility, for 3 years, the documentation for the CMS quality assurance and quality

control program referred to in Permit Condition V.I.1.c.vi. [See Permit Condition V.I.1.c.vi.]

V.H. CLOSURE

V.H.1. At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from RF-2. [See 40 CFR § 264.351.]

V.H.2. The Permittees shall follow the procedures in Permit Attachment Section I and in the RCRA Facility Closure Plan for the Closure of RF-2 in Permit Attachment Appendices XV and XVII.

V.H.3. The Permittees shall follow the procedures in Permit Attachment Section I and in the Closure Plan for the Closure of RF-1 in Permit Attachment Appendices XVI and XVII. The Permittees shall initiate closure of RF-1 in accordance with the Closure Schedule contained in the RF-1 Closure Plan contained in Permit Attachment Appendix XVI and the Compliance Schedule set forth in Permit Condition I.K. [See 40 CFR § 264.112(d).]

V.H.4. The Permittees shall submit a post-closure plan with a schedule to EPA for approval if, after implementation of either the Closure Plan for Closure of RF-1 or the Closure Plan for Closure of RF-2, soil contamination is present and the Permittees are unable to adequately remediate that contamination. Upon approval by EPA, the Permittees shall implement the Post-Closure Plan as approved.

V.H.5. RF-1 Closure. Within 90 days after this Permit is effective, the Permittees shall submit to EPA a closure activity notification designating the start date for the implementation of the schedule as specified in Section 9.0 of the Permit Attachment Appendix XVI. This closure activity notification, which will trigger the closure and dismantling of the non-operational reactivation furnace (RF-1) in accordance with the schedule set forth in Section 8.0 of the Permit Attachment Appendix XVI, shall include a start date that allows for completion of RF-1's closure no later than one (1) year from the effective date of this Permit. [See Sections 8.0 and 9.0 in Permit Attachment Appendix XVI.]

V.I. PERFORMANCE DEMONSTRATION TESTS

V.I.1. The Permittees shall perform periodic trial burns, performance testing, or "Performance Demonstration Tests" (PDTs) in accordance with the following requirements. [See 40 CFR Part 264, Subpart X, and Part 270, Subparts B and C. See also RCRA Sections 3004 and 3005(c)(3).]

V.I.1.a. The Permittees shall submit a PDT Work Plan (that includes a Quality Assurance Project Plan and Sampling and Analysis Plan with Data Quality Objectives) meeting the requirements of Permit Condition V.I.1.c. to the Director for approval in accordance with Permit Condition I.G.5. ***within 120 days after the final Permit is effective***.

V.I.1.b. As for future PDTs, the Permittees shall conduct testing periodically in accordance with this Permit Condition V.I. The date of commencement of each PDT is the basis for establishing the deadline to submit the PDT Work Plan for the subsequent PDT. Except as provided in Permit Condition V.I.1.a., the Permittees shall submit PDT Work Plans to the Director for approval ***no later than 49 months after the start date of each previous PDT***. The Permittees shall conduct testing within 6 months following receipt of the Director's approval of each PDT Work Plan. [See 40 CFR Part 60 and §§ 63.8(d) and (e), 63.9(g), 63.1206(c)(5)(ii), 63.1207, 63.1208, 264.344(a)(1) and 270.62.]

V.I.1.c. The Permittees shall submit PDT Work Plans to the Director for approval in accordance with Permit Condition I.G.5. PDT Work Plans must include a proposed schedule for performance of the PDT. The Permittees shall not undertake the performance of the PDT less than 60 days after the public notice required under Permit Condition V.I.1.d. nor prior to the time the PDT Work Plan is approved by the Director. The PDT Work Plans should be consistent with good scientific principles.

V.I.1.c.i. The PDT Work Plans shall address each performance standard and operating parameter limit set forth in Table V-1 of this Permit.

V.I.1.c.ii. The PDT Work Plans shall address each operating parameter and limit set forth in Table V-2 of this Permit.

V.I.1.c.iii. The PDT Work Plans shall use the most recently approved previous PDT Work Plan as a guide. The Work Plans shall address each of the following requirements as applied to RF-2: 40 CFR §§ 270.62(b)(2)(i)(C) and (D), 270.62(b)(2)(iii), (iv), (v), (vi), and (vii).

V.I.1.c.iv. The PDT Work Plans shall include provisions for testing for SOx and NOx emissions, and shall reference EPA Test Method 6, 6C, or 8 for SOx (as SO2) and EPA Test Method 7 or 7E for NOx as provided in Appendix A of 40 CFR Part 60. The Permittees shall follow and meet the quality assurance requirements of the appropriate method. [See Appendix A of 40 CFR Part 60.]

V.I.1.c.v. The PDT Work Plans shall include procedures and processes for CMS (including CEMS) performance testing and address the requirements at 40 CFR §§ 63.7(c)(2)(i)-(iii), 63.8 and 63.9(g)(1). [40 CFR §§ 63.7(c)(2)(i)-(iii), 63.8 and 63.9(g)(1).]

V.I.1.c.vi. The initial PDT Workplan shall include a proposed CMS quality control program that includes the items listed at 40 CFR § 63.8(d)(2)(i)-(vi). This proposed program shall include a proposed schedule for implementation of the CMS quality control program separate from the proposed trial burn schedule. Subsequent PDT Workplans shall include an evaluation regarding whether or not any updates or revisions to the approved CMS quality control program are appropriate. [See 40 CFR § 63.8(d)(2)(i)-(vi).]

V.I.1.d. The Permittees shall make the PDT Work Plans available to the public for review no later than 60 calendar days before initiation of the test. The Permittees shall provide a public notice in a local newspaper announcing the availability of the PDT Work Plan and the location where the PDT Work Plan is available for review. The PDT Work Plans must be accessible to the public for 60 calendar days, beginning on the date of the public notice. The location must

be unrestricted and provide access to the public during reasonable hours and provide a means for the public to obtain copies. In addition, the Permittees shall, no later than the date of the public notice, post the PDT Work Plan to the Information Repository required in accordance with Permit Condition I.J. The notification must, at a minimum, include the information identified at 40 CFR § 63.1207(e)(2)(i)-(v). [See 40 CFR § 63.1207(e).]

V.I.1.e. Where appropriate, the Permittees shall incorporate into PDT Work Plans appropriate methods and/or performance specifications, as set forth in specifically applicable requirements and/or in the Appendices in 40 CFR Part 60. [See 40 CFR Part 60.]

V.I.2. The Permittees shall complete performance testing ***within 60 days*** after the date of commencement of each of the PDTs in accordance with the approved PDT Work Plans. [See 40 CFR § 63.1207(d)(3).]

V.I.3. The Permittees shall submit to the Director for review and approval, in accordance with Permit Condition I.G.5., a PDT Report regarding the performance of the PDT ***within 90 days*** of the completion of each PDT.

V.I.3.a. PDT Reports shall 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 performance standards and operating parameter limits set forth in Module V of this Permit at Table V-I – Performance Standards and Operating Parameter Limits.

V.I.3.b. PDT Reports shall 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 this Permit at Table V-2 – Operating Limits and Parameters.

V.I.3.c. The PDT Reports shall also include: (i) the results of the required CMS and CEMS Performance Tests; (ii) the analysis of the parameters evaluated in accordance with Permit Condition V.I.1; (iii) confirmation that the methods and performance specifications identified in the PDT Work Plan were employed during performance testing; and (iv) the results of any opacity or visible emission observations, and/or other monitoring procedures or methods that were conducted. [See 40 CFR § 63.9(h)(2)(i).]

V.I.3.d. The PDT Reports shall also include the Permittees' recommendations, if any, regarding any appropriate modifications to permit conditions based on the results of one or more PDTs in accordance with Permit Condition I.G.8. and 40 CFR Part 270.

V.I.4. Human Health and Ecological Risk Assessment

V.I.4.a. Within 90 days after the approval of the initial PDT Report submitted in accordance with this Permit, the Permittees shall submit a Human Health and Ecological Risk Assessment Work Plan to the Director for review and approval in accordance with Permit Condition I.G.5. The Work Plan should be consistent with good scientific principles. For example, the Permittees should consider EPA's current risk assessment guidance for combustion facilities and proposing the use of the latest air dispersion modeling software. The Risk Assessment Work Plan shall include a proposed schedule for performance and completion of an updated Human Health and Ecological Risk Assessment. [See 40 CFR Part 264, Subpart X, and Part 270, Subparts B and C. See also RCRA Sections 3004 and 3005(c)(3).]

V.I.4.b. In accordance with the schedule set forth in the approved Human Health and Ecological Risk Assessment Work Plan, the Permittees shall submit a draft updated Human Health and Ecological Risk Assessment to the Director for approval in accordance with Permit Condition I.G.5.

V.I.4.c. If the approved Human Health and Ecological Risk Assessment includes a recommendation for a modification of this Permit, the Permittees shall submit a request for such modification in accordance with Permit Condition I.G.8. and 40 CFR § 270.42. [See 40 CFR § 270.42.]

MODULE VI
CORRECTIVE ACTION

VI.A. Standard Conditions

VI.A.1. The Permittees must take corrective action as necessary to protect human health and the environment from all releases of hazardous waste and/or constituents from any Hazardous Waste Management Unit (HWMU), Solid Waste Management Unit (SWMU) and/or Area of Concern (AOC) at the Facility, regardless of the time at which waste was placed in such unit or area, in accordance with §3004(u) of RCRA, 42 USC Section 6924(u), 40 CFR §§ 264.90(a) and 264.101. [See RCRA Section 3004(u) and 40 CFR §§ 264.90(a) and 264.101. See also 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.]

VI.A.2. The Permittees must take corrective action beyond the Facility property boundary where necessary to protect human health and the environment, in accordance with §3004(v) of RCRA, 42 USC Section 6924(v), and 40 CFR §264.101. [See 40 CFR §264.101.]

VI.A.3. Any noncompliance with approved plans or schedules required in accordance with this Permit shall be deemed noncompliance with this Permit.

VI.A.4. If the Director determines that further corrective action beyond the requirements of this Permit is warranted, then the Director may modify this Permit according to the permit modification processes under 40 CFR § 270.41. [See 40 CFR §§ 264.100(e)(2) and 270.41. See also Permit Conditions I.B.1. and VI.M.]

VI.A.5. All work performed pursuant to this Corrective Action Module shall be under the direction and supervision of qualified personnel. At least fifteen (15) days prior to initiating any phase of work pursuant to this Module, the Permittees shall notify the Director in writing of the following:

VI.A.5.a. The names of the Corrective Action Coordinator and the prime contractors to be used in carrying out such work; and

VI.A.5.b. The name, address, phone number, electronic mail address and qualifications of the Corrective Action Project Coordinator.

VI.A.5.b.i. The Permittees have the right to change their Corrective Action Project Coordinator. Notification of a change in the Permittees' Corrective Action Project Coordinator must be provided to EPA in writing at least ten (10) days prior to the change.

VI.A.5.b.ii. EPA may disapprove of Permittees' Corrective Action Project Coordinator (original or replacement) at any time if it determines in the exercise of reasonable discretion that the person's qualifications and ability are inadequate to effectively perform the role. In making such a determination, EPA will evaluate the experience of a person against minimum necessary technical background and experience requirements. All persons under the direction and supervision of the Permittees' Corrective Action Project Coordinator must possess all necessary professional licenses required by federal law and any applicable state or tribal law.

VI.A.5.c. In those circumstances where Permittees must take action in less than the fifteen (15) day period referenced in Permit Condition VI.A.5., the information required by Permit Conditions VI.A.5.a. and VI.A.5.b. must be provided to EPA as soon as practicable. (See, *e.g.*, Permit Condition VI.E.1.)

VI.A.6. Any activities performed pursuant to this Corrective Action Module shall be conducted in compliance with this Permit, and are subject to EPA approval as set forth herein. The Permittees should perform Corrective Action consistent with good scientific principles. For example, the Permittees should consider taking into account appropriate EPA guidance including, but not limited to, the following:

- "RCRA Corrective Action Plan" (OSWER Directive 9902.3-2A, May 1994);
- "Handbook of Groundwater Protection and Cleanup Policies for RCRA Corrective Action" (EPA, EPA530-R-04-030, April 2004);

- "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (EPA, SW-846), available at http://www.epa.gov/epawaste/hazard/testmethods/sw846/online/index.htm;
- Advance Notice of Proposed Rulemaking, "Corrective Action for Releases from Solid Waste Management Units at Hazardous Waste Management Facilities" (EPA, 61 FR 19432 dated May 1, 1996), available at https://www.gpo.gov/fdsys/pkg/FR-1996-05-01/pdf/96-9707.pdf;
- "RCRA Public Participation Manual" (EPA, EPA/530/R-96/007, 1996), available at http://www.epa.gov/epawaste/hazard/tsd/permit/pubpart/manual.htm;
- "A Systematic Approach for Evaluation of Capture Zones at Pump and Treat Systems, Final Project Report" (EPA, EPA/600/R-08/003, January 2008), available at http://www.epa.gov/ada/pbs/reports/600R08003.html; and
- "RCRA Groundwater Monitoring Technical Enforcement Guidance Document" (OSWER Directive 9950.1, September 1986).

VI.B. Reporting and Recordkeeping Requirements

VI.B.1. When requested by the Director, the Permittees shall submit to the Director for approval in accordance with Permit Condition I.G.5. signed and certified corrective action progress reports on a semi-annual basis in accordance with the deadlines specified in the Director's request. Such corrective action progress reports shall contain:

VI.B.1.a. A discussion and summary of all corrective action-related activities undertaken during the time period;

VI.B.1.b. Summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify these problems;

VI.B.1.c. Summaries of all findings made during the time period including summaries of laboratory data; and

VI.B.1.d. Projected work for the next reporting period.

VI.B.2. The Permittees shall maintain until the closure of the Facility is complete, and shall make available to the Director upon request, copies of: (a) other corrective action reports (e.g. inspection reports); (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.1., IV.J.2., VI.D. and/or VI.E.1.a.; (c) geological and hydrogeological investigations; (d) records of groundwater monitoring wells, including boring logs, and associated groundwater surface elevations; and (e) all laboratory data, including raw data.

VI.B.3. Where authorized by this Permit, RCRA, or its implementing regulations, the Director may require the Permittees to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in these progress reports or other supporting information.

VI.C. Identification of Hazardous Waste Management Units, Solid Waste Management Units and Areas of Concern

VI.C.1. The HWMUs, SWMUs, and AOCs are identified in Tables VI-1, VI-2, and VI-3.

VI.D. Newly-Identified, Newly-Discovered, or Newly-Created AOCs, SWMUs and/or HWMUs

VI.D.1.a. The Permittees shall notify the Director in writing of any newly-identified, newly-discovered, or newly created AOC(s), SWMU(s) and/or HWMU(s). This initial notice shall be provided no later than fifteen (15) calendar days after discovery of the newly-identified, newly-discovered, or newly-created AOC, SWMU and/or HWMU.

VI.D.1.b. No later than sixty (60) days after identifying, discovering or creating any new AOC(s), SWMU(s), and/or HWMU(s), the Permittees shall initiate a permit modification in accordance with Permit Condition I.G.7. and 40 CFR § 270.42 to update Tables VI-1, VI-2, and/or VI-3 and Permit Attachment Section J, as appropriate, to add the new AOC(s), SWMU(s), and/or HWMU(s) to the table(s).

VI.D.2. Within ninety (90) days after identifying, discovering or creating any new AOC(s), SWMU(s), and/or HWMU(s), the Permittees shall submit an Assessment Report for any newly-identified, newly-discovered or newly

created AOC, SWMU and/or HWMU to the Director for approval in accordance with Permit Condition I.G.5. At a minimum, the Report shall provide the following information for each newly-identified, newly-discovered, or newly-created AOC, SWMU and/or HWMU:

VI.D.2.a. The location of each such AOC, SWMU and/or HWMU in relation to other AOCs, SWMUs, HWMUs, building numbers, or other descriptive landmarks;

VI.D.2.b. The type and function of the AOC, SWMU and/or HWMU;

VI.D.2.c. The general dimensions, capacities, and structural description of the AOC, SWMU and/or HWMU (supply all available drawings);

VI.D.2.d. The period during which the AOC, SWMU and/or HWMU was operated;

VI.D.2.e. Waste characterization information for all wastes that have been or are being managed at the AOC, SWMU and/or HWMU;

VI.D.2.f. A description of any release (or suspected release) of hazardous waste and/or constituents originating from the AOC, SWMU, and/or HWMU including planned or unplanned releases to the air and any other media. Include information on the date of release, type of hazardous waste and/or constituents, quantity released, nature of the release, extent of release migration, and cause of release (e.g., overflow, broken pipe, tank leak). Also provide any available data which characterizes the nature and extent of environmental contamination, including the results of air, soil and/or groundwater sampling and analysis efforts and any existing monitoring information that shows that a release of hazardous waste and/or constituents has not occurred or is not occurring; and

VI.D.2.g. A recommendation whether or not any further Permit Modification(s) to incorporate additional information about the newly-discovered AOC, SWMU and/or HWMU(s) into the Permit is appropriate. The Permittees shall submit a Permit Modification request in accordance with Permit Condition I.G.8. if the approved Assessment Report determines that such modification is warranted.

VI.D.3. Based on the results of the approved Assessment Report, the Director may determine that there is a need for further investigations at specific unit(s) or areas covered in the Assessment Report. If the Director determines that such investigations are needed, the Director may require the Permittees to prepare a RCRA Facility Investigation (RFI) Work Plan in accordance with Permit Condition VI.F. (RCRA Facility Investigation [RFI] Work Plan).

VI.E. Newly-Discovered Releases

VI.E.1. The Permittees shall notify the Director, in writing, of any newly-discovered spills or unpermitted releases of hazardous waste to the environment. This notification shall be submitted in three parts as set forth in Permit Conditions VI.E.1.a., VI.E.1.b. and VI.E.1.c. Releases that are less than or equal to a quantity of one (1) pound and immediately contained and cleaned up are not subject to this Permit Condition VI.E.1. The Permittees shall investigate and, if necessary, remediate the discovered spill(s) or release(s). Such spills or releases may be from newly-identified or newly-created AOCs, SWMUs and/or HWMUs, from AOCs, SWMUs and/or HWMUs at which the Director had previously determined that no further investigation was necessary, or from AOCs, SWMUs and/or HWMUs investigated as part of this Permit or otherwise identified in Tables VI-1, VI-2, or VI-3.

VI.E.1.a. The Permittees must follow the process for responding to leaks or spills as described in Module IV for leaks or spills from Tank Systems or secondary containment systems and, specifically, 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 twenty-four (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. In addition, the Permittees shall, unless a leak or spill of hazardous waste is exempted from the reporting requirements in accordance

with 40 CFR § 264.196(d)(2), report to the Director, within twenty-four (24) hours of detection, any leak or spill of hazardous waste to the environment (*i.e.*, outside any RCRA-required containment). If the release has been reported pursuant to 40 CFR Part 302, that report will satisfy this requirement.

VI.E.1.b. Within fifteen (15) calendar days of discovery of the release, the Permittees shall submit a written notification of the discovery. This notification shall alert the Director to the magnitude of the threat to human health and/or the environment.

VI.E.1.c. Within sixty (60) days of discovery of the release, the Permittees shall submit a written report. The report shall discuss the Permittees' efforts to investigate and/or remediate the discovered release and shall specifically include:

- the concentrations and estimated quantities of any hazardous waste and/or constituents released;
- the known, or expected, pathway(s) through which the contamination is migrating (or may migrate), and the extent, rate, and direction of that migration;
- the projected fate and transport of the release;
- the likely exposure pathway(s) for potential receptors, and the consequences of exposure to these receptors; and
- an outline of proposed Interim Corrective Measures to control the release, as well as a schedule for implementing the Interim Corrective Measures. The schedule must be justified by a discussion of possible consequences arising from any delay in implementing Interim Corrective Measures.

VI.E.2. Within sixty (60) days of discovery of a spill or release, the Permittees shall initiate a Permit modification in accordance with Permit Condition I.G.7. and 40 CFR § 270.42 to update Tables VI-1, VI-2 and/or VI-3 and Permit Attachment Section J, as appropriate, to add the spill or release to the table(s). The Permittees shall include the hazardous waste constituents that were released and the actions taken to clean up or mitigate the spill or release in the revised Permit Attachment Section J.

VI.E.3. Within ninety (90) days of discovery of a release, the Permittees shall submit to the Director for approval in accordance with Permit Condition I.G.5. a Report describing the Interim Corrective Measures activities taken to date and whether or not additional investigation and/or implementation of corrective measures are warranted. This Report shall include the reporting requirements specified in Permit Condition VI.B. If the approved Interim Corrective Measures Report concludes that additional investigation and/or corrective measures are required, the Permittees shall submit a request for a permit modification to investigate and/or perform additional Interim Corrective Measures in accordance with Permit Condition I.G.8.

VI.E.4. If the approved Interim Corrective Measures Report concludes that there is a need for further investigations, the Director may require the Permittees to prepare a RCRA Facility Investigation (RFI) Work Plan in accordance with Permit Condition VI.F. If the approved Interim Corrective Measures Report concludes that there is a need for implementation of corrective measures, the Director may require the Permittees to prepare a Corrective Measures Study in accordance with Permit Condition VI.I. [See Permit Conditions VI.F. and VI.I. See also Permit Condition IV.J.9.]

VI.E.5. If the Director requires preparation of an RFI Work Plan for a specific spill or release incident, the Permittee shall initiate a Permit modification in accordance with Permit Condition I.G.7. and 40 CFR § 270.42 to update Tables VI-1, VI-2 and/or VI-3 and Permit Attachment Section J, as appropriate, to add the spill or release to the table(s). The Permittee shall include the hazardous waste constituents that were released and the actions taken to clean up or mitigate the spill or release in the revised Permit Attachment Section J.

VI.F. <u>RCRA Facility Investigation (RFI) Work Plan</u>

VI.F.1. If, under Permit Conditions VI.D.3. or VI.E.4., the Director determines that an RFI is necessary for any newly-discovered or newly-created AOC, SWMU or HWMU or for a newly discovered release, or to further investigate an existing AOC, SWMU, or HWMU, the Permittees shall submit an RFI Work Plan, within the time period specified by the Director, to the Director for approval in accordance with Permit Condition I.G.5.

VI.F.2. The RFI Work Plan must identify the AOCs, SWMUs, and/or HWMUs, releases of hazardous waste and/or constituents, and media of concern, which require corrective action. The RFI Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, direction, rate, movement, and concentration of releases of hazardous waste and/or constituents from specific AOCs, SWMUs, HWMUs or groups of AOCs, SWMUs, or HWMUs and their actual or potential receptors. The RFI Work Plan shall detail all proposed activities and procedures to be conducted at the area and/or unit, the schedule for implementing and completing such investigations, an outline of the RFI Report required in Permit Condition VI.G.1., and the overall management of the RFI. The RFI Work Plan should be consistent with good scientific principles. For example, the Permittees should consider taking into account screening levels consistent with the EPA's health and ecological based guidance effective at the time of implementation, and EPA's current corrective action guidance, including RCRA Facility Investigation (RFI) Guidance, OSWER Directive 9502.00-6C, dated May 1989.

VI.F.3. The RFI Work Plan shall discuss sampling and data collection quality assurance and data management procedures, including formats for documenting and tracking data and other results of investigations, and health and safety procedures for conducting the field work.

VI.F.4. The Director may review for approval as part of the RFI Work Plan any plans, reports or other material developed pursuant to Permit Conditions VI.D. and/or VI.E.

VI.G. RCRA Facility Investigation (RFI) Final Report

VI.G.1. The Permittees shall develop and submit an RFI Final Report if the Director determines that an RFI is necessary as described in VI.F.1. The Permittees should conduct the RCRA Facility Investigation and prepare the RFI Final Report consistent with good scientific principles. For example, the Permittees should consider taking into account appropriate EPA guidance including, but not limited to, EPA's RCRA Facility Investigation Guidance, OSWER Directive 9502.00-6C, dated May 1989.

VI.G.2. Within the time period specified in the schedule included in the approved RFI Work Plan, the Permittees shall submit an RFI Final Report to the Director for approval in accordance with Permit Condition I.G.5.

VI.G.3. The RFI Final Report shall describe the procedures, methods, and results of all Facility investigations of AOCs, SWMUs and/or HWMUs and their releases, including information on the type and extent of contamination at the Facility, sources and migration pathways, and actual or potential receptors. The RFI Final Report shall present all information necessary to support further corrective action decisions at the area(s) and/or unit(s).

VI.G.4. The RFI Final Report shall also include the Permittees' recommendations, if any, regarding any appropriate modifications to the conditions of this Permit, based on the results of the RFI in accordance with Permit Condition I.G.8. and 40 CFR Part 270.

VI.H. Interim Corrective Measures Implementation at the Direction of EPA

VI.H.1. If, at any time, the Director determines that a release or potential release of hazardous waste and/or constituents at the Facility poses or may present a threat to human health or the environment, the Director may notify the Permittees that they must submit to the Director, for approval in accordance with Permit Condition I.G.5., an Interim Corrective Measures Work Plan, for conducting Interim Corrective Measures designed to minimize the threat to human health and the environment. The Director will provide direction to the Permittees regarding the appropriate time frame for submittal of such Interim Corrective Measures Work Plan. Implementation by the Permittees of treatment or containment activities during "immediate response," as defined in 40 CFR § 264.1(g)(2), to a discharge of hazardous waste and/or constituents, or an imminent and substantial threat of a discharge of hazardous waste and/or constituents, or a discharge of material which, when discharged, becomes a hazardous waste, is not subject to this Permit. Actions taken to address the discharge after the immediate response is completed are subject to this Permit.

VI.H.1.a. The Interim Corrective Measures Work Plan shall include a schedule for implementation of Interim Corrective Measures and the submittal of an Interim Corrective Measures Report.

VI.H.2. The following factors may be considered by the Director in determining the need for additional Interim Corrective Measures:

VI.H.2.a. Time required to develop and implement a final remedy;

VI.H.2.b. Actual and potential exposure of human and environmental receptors;

VI.H.2.c. Actual and potential contamination of drinking water supplies and sensitive ecosystems;

VI.H.2.d. Potential for further degradation of the medium absent the additional Interim Corrective Measures;

VI.H.2.e. Presence of hazardous waste in containers or tanks that may pose a threat of release;

VI.H.2.f. Presence and concentration of hazardous waste and/or constituents in soils, ground water, surface water, or air;

VI.H.2.g. Weather conditions that may affect the current levels of contamination or potential for exposure;

VI.H.2.h. Risks of fire, explosion, or accident; and

VI.H.2.i. Other situations that may pose a threat to human health or the environment.

VI.H.3. Upon the Director's approval of the Interim Corrective Measures Work Plan, the Permittees shall implement the Interim Corrective Measures according to the approved schedule.

VI.H.4. Within the time period set forth in the schedule in the approved Interim Corrective Measures Work Plan, the Permittees shall submit to the Director for approval in accordance with Permit Condition I.G.5. a Report describing the Interim Corrective Measures activities taken to date and whether or not additional investigation and/or implementation of corrective measures are warranted. This Report shall include the reporting requirements specified in Permit Condition VI.B. If the approved Interim Corrective Measures Report concludes that additional investigation is required, and/or that there is a need for further investigations, the Director

may require the Permittees to prepare a RCRA Facility Investigation (RFI) Work Plan in accordance with Permit Condition VI.F. If the approved Interim Corrective Measures Report concludes that additional corrective measures are required and/or that there is a need for implementation of corrective measures, the Director may require the Permittees to prepare a Corrective Measure Study in accordance with Permit Condition VI.I. [See Permit Conditions VI.F. and VI.I.]

VI.H.5. If, at any time, the Director determines that a release or potential release of hazardous waste and/or constituents at the Facility poses or may present an imminent or emergency threat to human health or the environment, the Director may notify the Permittees that they must conduct Emergency Interim Corrective Measures as instructed by the Director. Such Emergency Interim Corrective Measures shall be limited to those necessary to address or resolve the urgency associated with and/or emergency nature of any such threat to human health or the environment. The Director's decision to require such Emergency Interim Corrective Measures may be subject to the dispute resolution procedures of Permit Condition I.L., but the Permittees shall implement such Emergency Interim Corrective Measures, as instructed by the Director, simultaneously during any such invocation of dispute resolution under this Permit.

VI.I. Corrective Measures Study

VI.I.1. If the Director has reason to believe that an AOC, SWMU and/or HWMU has released concentrations of hazardous constituents in excess of the EPA's current health- and ecological-based levels, or if the Director determines that contaminants present at levels below the EPA's current health-based levels pose a threat to human health or the environment given site-specific exposure conditions, or if an approved Interim Corrective Measures Report concludes that additional corrective measures are required and/or that there is a need for implementation of corrective measures, the Director may require a Corrective Measures Study (CMS) and, if so, will notify the Permittees in writing. This notice will cite the approved Interim Corrective Measures Report conclusions and/or identify the hazardous constituents(s) that have exceeded action levels as well as those that have been determined to present a potential threat to human health or the environment given site-specific exposure conditions.

VI.I.2. No later than sixty (60) calendar days after the Permittees have received notification from the Director, under Permit Condition VI.I.1., of the need for a CMS, the Permittees shall submit to the Director for approval in accordance with Permit Condition I.G.5., a Work Plan, with a schedule, for conducting a CMS. Upon the Director's approval of the CMS Work Plan, the Permittees shall implement the CMS according to the approved schedule. The CMS should be consistent with the EPA's guidance.

VI.I.3. The Permittees shall submit a CMS Final Report to the Director for approval in accordance with Permit Condition I.G.5. and according to the schedule approved by the Director pursuant to Permit Condition VI.I.2. The CMS Final Report shall summarize the results of the investigations for each remedy, and of any bench-scale or pilot tests conducted. The CMS Final Report shall include an evaluation of each remedial alternative, and a proposal for corrective measures implementation. The CMS Final Report shall contain adequate information to support the Director in the remedy selection decision-making process, described in Permit Condition VI.J.

VI.J. Remedy Selection

If, based on the results contained in the RFI Final Report, CMS Final Report, or any further evaluations of additional remedies, the Director determines that it is appropriate to select a corrective action remedy for the Facility, the Director will propose to select a remedy that will: (1) be protective of human health and the environment; (2) meet the concentration levels of hazardous constituents in each medium that the remedy must achieve to be protective of human health and the environment; (3) control the source(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases that might pose a threat or potential threat to human health and the environment; and (4) meet all applicable waste management requirements.

VI.K. Permit Modification

Based on information the Permittees submit in the RFI Final Report, the CMS Final Report, or other information, the Permittees or the Director may initiate a modification to this Permit for selection and implementation of the remedy, pursuant to 40 CFR §§ 270.41 or 270.42, and/or to create or make changes to a Corrective Action Schedule of Compliance for this Permit. Any modification relating to selection and implementation of a remedy may include conditions that require submittal by the Permittees of corrective measures design, implementation, and monitoring plans.

VI.L. No Further Action

VI.L.1. Based on the results of any investigation, study, assessment, interim measure and/or corrective action and any other relevant information, the Permittees may submit an application to the Director for a Permit modification in accordance with 40 CFR § 270.42(c) to terminate all or a portion of a Corrective Action Schedule of Compliance. This Permit modification application must contain information demonstrating that there are no releases of hazardous wastes or hazardous constituents from HWMU(s), SWMU(s) and/or AOC(s) at the Facility that pose a threat to human health or the environment, as well as information required in 40 CFR § 270.42(c), which incorporates by reference 40 CFR §§270.13 through 270.21, 270.62, and 270.63. Relevant information to be included in the application shall include, at a minimum:

- Depth of Released Contamination into Soil.
- Impact on Groundwater or Surface Water
- Constituents Sampled
- Data Quality Objectives
- Sampling Method
- Laboratory Results of Analysis
- Data Quality
- Results of Cleanup Verification Sampling

VI.L.2. If, based on review of the Permittees' request for a Permit modification, any investigation, study, assessment, interim measure and/or corrective action and any other relevant information, including comments received during any relevant public comment period, the Director determines that releases or suspected releases that were investigated are either non-existent or do not pose a threat to either human health or the environment, the Director will grant the requested modification.

VI.L.3. A determination to grant the requested modification shall not preclude the Director from requiring further investigations, studies, or remediation at a

later date, if new information or subsequent analysis indicates a release or likelihood of a release from a HWMU, SWMU and/or AOC or that the Facility is likely to pose a threat to human health or the environment. In such a case, the Director will initiate a modification according to the procedures set forth in 40 CFR § 270.41, to rescind the determination made in accordance with this Permit Condition VI.L.

VI.M. Corrective Action Beyond the Facility Boundary

If the Director determines that further actions beyond those provided in a Corrective Action Schedule of Compliance, or changes to that which is stated herein, are warranted, the Director will create or modify such Schedule of Compliance and/or other Permit Condition(s) in accordance with the permit modification processes set forth in 40 CFR § 270.41. [See 40 CFR § 270.41.]

VI.N. Financial Assurance for Corrective Action

VI.N.1. A proposal for establishing a financial assurance mechanism for either performance of any of the work described in a Corrective Action Schedule of Compliance or implementation of any other remedy in accordance with this Permit, including construction of such corrective action or remedy, shall be submitted to the Director for approval in accordance with Permit Condition I.G.5., simultaneously with the request for a Permit modification required under Permit Condition VI.K. The proposal shall contain, at a minimum:

- A cost estimate for construction, operation, maintenance, and monitoring of the selected corrective action or remedy for a period of 20 years including assumptions used to make the cost estimate;

- A description of the financial assurance mechanism that will be used; and

- A schedule for establishing the mechanism.

VI.N.2. The mechanism by which financial assurance is secured -- for either performance of any of the work described in a Corrective Action Schedule of Compliance or implementation of any other remedy in accordance with this Permit -- may include surety bonds, insurance policies (issued by an

independent commercial insurer), letters of credit, or any other mechanism acceptable to the Director as described in any Permit modification undertaken in accordance with Permit Condition VI.K. The mechanism shall be established to allow the U.S. Environmental Protection Agency to direct the funds to ensure construction, operation, maintenance and/or monitoring occur as required by this Permit.

VI.O. Quality Assurance and Quality Control

VI.O.1. As part of any work plan(s) required by this Module, the Permittees shall include a Quality Assurance Project Plan ("QAPP"), for the Director's review and approval in accordance with Permit Condition I.G.5. The QAPP shall address quality assurance, quality control, and chain of custody procedures for any sampling, monitoring and analytical activities. The Permittees shall follow "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001 (Reissued May 2006)), "Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/240/R-02/009, December 2002), and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/b-01/002, March 2001) as well as other applicable documents identified by the Director.

VI.O.2. As part of any work plan(s), the Permittees shall include Data Quality Objectives for any data collection activity to ensure that data of known and appropriate quality are obtained and that data are sufficient to support their intended use as required by this Module.

VI.O.3. The Permittees shall ensure that laboratories used by the Permittees for analysis perform such analysis according to the latest approved edition of "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (also known as SW-846) or other methods approved by EPA. If methods other than EPA methods are to be used, the Permittees shall specify all such protocols in the appropriate work plan(s). In accordance with the procedures set forth in Permit Condition I.G.5., the Director may reject any data that does not meet the requirements of the approved work plan(s) and EPA analytical methods and may require resampling and additional analysis.

VI.O.4. The Permittees shall ensure that all laboratories employed for analyses participate in a quality assurance/quality control ("QA/QC") program

equivalent to the program that EPA follows. The Permittees shall, upon the Director's request, make arrangements for EPA to conduct a performance and QA/QC audit of the laboratories chosen by the Permittees, whether before, during, or after sample analyses. Upon the Director's request, the Permittees shall have the laboratories perform analyses of samples provided by EPA to demonstrate laboratory QA/QC and performance. If the audit reveals deficiencies in a laboratory's performance or QA/QC, the Permittees shall submit a plan to address the deficiencies and the Director may require resampling and additional analysis.

VI.O.5. The Director may require the Permittees to change laboratories for reasons including, but not limited to: QA/QC, performance, conflict of interest, or confidential agency audit information. In the event the Director requires a laboratory change, the Permittees shall propose two alternative laboratories within thirty (30) calendar days. Once the Director approves of the laboratory change, the Permittees shall ensure that laboratory service shall be made available within fifteen (15) calendar days.

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
1	Spent carbon reactivation furnace - RF-1 and Associated Equipment (Dewater screw)	South of RF-2	Furnace shell – carbon steel; internal firebrick lining and block insulation; hearths and furnace roof constructed with firebrick; furnace roof is comprised of firebrick backed with block insulation and castable insulation; bottom hearth is insulated with block insulation and castable insulation	August 1992; Shut down in 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
2	Spent carbon reactivation furnace RF-2 and Associated Equipment (Dewater Screw, Weigh Belt)	East of warehouse	Furnace shell – carbon steel; internally lined with firebrick and block insulation; hearths and furnace roof constructed with firebrick; furnace roof is comprised of firebrick backed with block insulation and castable insulation; bottom hearth is insulated with block insulation and castable insulation; Continuously seal welded internally to assure an air-tight assembly. Dewatering screw length 17 ft; diameter 8 in.	July 1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
3	RF–1 Air pollution control equipment					
	Afterburner	RF-1 structure	Refractory lined steel	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Venturi scrubber	RF-1 structure	Hastelloy C	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Packed bed scrubber	RF-1 structure	Fiberglass	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Emissions stack	RF-1 structure	Mild steel	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
4	RF–2 Air pollution control equipment					
	Afterburner	RF-2 structure	Refractory lined steel cylinder chamber	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
	Venturi scrubber	RF-2 structure	Hastelloy C	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Packed bed scrubber	RF-2 structure	Fiberglass	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Wet electrostatic precipitator	RF-2 structure	Fiberglass/AL6XN	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Induced draft fan	RF-2 structure	300-series SS	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
	Emissions stack	RF-2 structure	Fiberglass surrounded by a mild steel shell	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	HWMU Type/Designation	Location	General Dimensions and Structural Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
5	Spent carbon unloading hopper H-1	North end of Facility on containment	5000 lb capacity; mild steel	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
6	Spent carbon unloading hopper H-2	Inside warehouse facing east wall	500 lb capacity; mild steel	August 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
7	Hopper air pollution control equipment piping and baghouse	North end of Facility on containment	Ducting, baghouse and fan are mild steel	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
8	Spent carbon slurry and recycle water transfer system	Inside warehouse on containment	4” pipes hopper to tank; 3” pipes T-tank to furnace feed tank; 300-series SS	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
9	Spent carbon storage warehouse	Inside warehouse	80 ft by 80 ft concrete/ metal	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
10	Spent carbon slurry storage tank, T–1	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
11	Spent carbon slurry storage tank, T–2	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
12	Spent carbon slurry storage tank, T–5	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
13	Spent carbon slurry storage tank, T–6	East of warehouse within containment	8319 gal design capacity	Used tank (1956); 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
14	Furnace Feed System Tank T-8 and Ancillary Equipment	RF–1 Structure	905 gal 300 series SS	August 1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
15	T-18 and Ancillary Equipment	RF-2 structure	6500 gal 300-series SS	July 1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
16	Wastewater conveyance piping to wastewater treatment tank	East of RF-2 structure	3" PVC piping	August 1992	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
17	Spent carbon storage warehouse barrel washer	Next to H-2 in warehouse	2 ft by 3 ft 300 series stainless steel	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
18	Carbon adsorber - PV1000	North of Containment Pad for Storage Tanks	1000 lb carbon capacity; mild steel.	August 1992	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
19	Carbon adsorber WS-1	Beside spent carbon storage tank	2 x 2000 lb carbon capacity. Mild steel	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
20	Carbon adsorber WS-2	Beside H-1	5000 lb carbon capacity Fiberglass	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
21	Carbon adsorber WS-3	Beside RF–2	1000 lb carbon capacity Mild steel	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	See Section J.2 of Permit Attachment Section J
22	Slurry transfer inclined plate settler tank	Adjacent to the venturi scrubber	Mild steel	1992 to 1994	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	See Section J.2 of Permit Attachment Section J
23	Scrubber recycle tank T-17	Beside RF-1	Mild steel	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
24	Filter press	Next to scrubber system for RF-1	Mild steel with polypropylene plates	1992 to 1994	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-1 - HAZARDOUS WASTE MANAGEMENT UNIT IDENTIFICATION, NEW UNIT NAME

No.	**HWMU Type/Designation**	**Location**	**General Dimensions and Structural Description**	**Date Unit was First Operated**	**Identification of Wastes Managed in Unit**	**Releases from Unit**
25	New Facility Discharge Piping System	New piping bypasses Lift Station to POTW	6" PVC	February 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Dimensions and Structural Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
1	Bermed containment area	East of Warehouse	Approx. 180' x 55'; concrete	August 1992	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
2	Sump by H-1	South of H-1	3'-4" square; concrete	July 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
3	Sump by storage tank, T–9	East of warehouse in between T-9 and RF-2	3'-4" square sump; U-drain 30' long x 16" wide; concrete	August 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
4	Recycled motive water storage tank, T–9	East of warehouse on containment	10,500 gal 316 series stainless steel	1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
5	Rainwater and motive water storage tank, T–12	East of warehouse on containment	25,080 gal Mild steel	1992. Removed from service in 2002.	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Dimensions and Structural Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
6	Wastewater storage tank, T–11 System	East of the warehouse and south of RF -2	10' Dia x 20' H; Approx 12,000 gal fiberglass	August 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
7	Sump by cooling screw under Venturi scrubber tank	East of warehouse beside RF-2	3'-4" square; concrete	July 1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
8	RF–2 scrubber water equalization tank, T-19	Under RF-2 Structure	Approx. 1000 gal Fiberglass	July 1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
9	Hazardous waste debris bin	North of warehouse on asphalt pavement	20 - 40 cubic yards Mild steel	August 1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
10	Spent carbon storage warehouse grated trenches and sump	Warehouse in containment area	Trench 3 ft, 4 in square sump U-drain 50 ft long, 16 in wide; cross drain sections 40 ft long 16 in wide Concrete	1992 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None

TABLE VI-2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Dimensions and Structural Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
11	Hopper concrete pad	Outside H-1 structure	Approx 60' x 44'; concrete	July 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
12	WWTP	Inside warehouse	Fiberglass, mild steel modular water treatment system. Separate containment.	October 2003 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
13	Wastewater lift station and piping system (old)	At the end of access road to plant. Old piping from Tank T-11 to the Lift Station	Approx. height 15 ft; outside diameter 5 ft Lift Station: mild steel/concrete/fiberglass Old piping system PVC.	1992 to 1996	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
14	Spent carbon unloading and transfer area asphalt pad	North area of Facility	Approx. 44 ft by 80 ft	August 1996 to present	Spent activated carbon. See Permit condition II.H. for acceptable waste codes.	None
15	Satellite Accumulation Area	North side of warehouse	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None
16	Satellite Accumulation Area	South side of drum containment	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None

TABLE VI-2 - SOLID WASTE MANAGEMENT UNIT IDENTIFICATION

No.	SWMU Type/Designation	Location	General Dimensions and Structural Description	Date Unit was First Operated	Identification of Wastes Managed in Unit	Releases from Unit
17	Satellite Accumulation Area	East of Control Room	≤ 55 gallons (metal or plastic)	August 1992 to present	Various Debris	None
18	Satellite Accumulation Area	Laboratory in Admin Building	≤ 55 gallons (metal or plastic)	August 1996 to present	Laboratory Debris and laboratory Testing	None
(continued on next page)						
19	Satellite Accumulation Area	Underneath Spent Carbon Baghouse	≤ 55 gallons (metal or plastic)	August 1992 to present	Spent Carbon Dust from Baghouse	None

TABLE VI-3 - AREAS OF CONCERN (AOC) IDENTIFICATION TABLE, NEW UNIT NAME

No.	Description of AOC	Location	Management Requirements at Closure
1	Spent carbon unloading and transfer area.	AOC 1 is entirely contained within SWMU14.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 5 & 7.
2	Tank area concrete containment pad	AOC 2 is entirely contained within SWMU 1.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 3.
3	Receiving area/pad	AOC 3 is entirely contained within SWMU14.	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 8.
4	Hopper H-1 loading/unloading area	See HWMU 5 for more detail on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 4 & 5.
5	Hopper H-2 loading/unloading area	See HWMU 6 for more detail on this unit	Sampling. See Closure Plan Container Area Sample Locations 1 & 2.
6	Spent carbon storage warehouse	See HWMU 9 for more detail on this unit	Sampling. See Closure Plan Container Area Sample Locations 1, 2, & 3.
7	Furnace feed systems	See HWMUs 14 and 15 for more details on these units	Sampling. See Closure Plan RF-1 and RF-2 Process Area Sample Locations 1 & 2
8	Recycled motive water tank T-9	See SWMU 4 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 6.
9	Rainwater, Dewatering Screw, and Motive Water Storage Tank T-12	See SWMU 5 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 2.

TABLE VI-3 - AREAS OF CONCERN (AOC) IDENTIFICATION TABLE, NEW UNIT NAME

No.	Description of AOC	Location	Management Requirements at Closure
10	Spent carbon storage warehouse barrel washer	See HWMU 17 for more details on this unit	Sampling. See Closure Plan Container Area Sample Locations 1, 2, & 3.
11	Bermed concrete pad in process area	AOC 2 is entirely contained within SWMU 1. See SWMU 1 for more detail on this unit	Sampling. See Closure Plan RF-1 and RF-2 Process Area Sample Locations 1, 2, & 3.
12	Sump by unloading hopper H-1	See SWMU 2 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 4.
13	Sump by storage tank T-9	See SWMU 3 for more details on this unit	Sampling. See Closure Plan Tank Area and Unloading Area Sample Location 6.
14	Spent carbon storage tanks and carbon adsorbers	Please see HWMUs 10, 11, 12, & 13 and HWMUs 19, 20, & 21 for more details on these units	Sampling. See Closure Plan Tank Area and Unloading Area Sample Locations 1, 2, & 3.