

# United States Environmental Protection Agency Resource Conservation & Recovery Act (RCRA) Permit Hazardous and Solid Waste Amendments (HSWA) Part II Portion of the RCRA Permit Massachusetts Hazardous Waste License Number: #31B/2024 EPA Identification Number: MAD062179890

OPERATOR: Tradebe Treatment & OWNER: Tradebe Treatment &

Recycling, Stoughton Recycling of Stoughton LLC

441R Canton St441R Canton StreetStoughton, MA 02072Stoughton, MA 02072

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq. and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified in Title 40 of the Code of Federal Regulations (CFR)), a permit is issued to Tradebe Treatment and Recycling, Stoughton (hereafter called the Permittee), who owns and operates a hazardous waste facility located in Stoughton, Massachusetts, assigned the EPA Identification Number MAD062179890.

This Permit, in conjunction with the current effective Hazardous Waste License issued by the Commonwealth of Massachusetts, constitutes the full RCRA Permit for this facility. The Permittee, pursuant to this Permit, shall be required to comply with all Organic Air Emission Standards applicable to this facility.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the Permit.

This Permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this Permit are accurate. 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, and §270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable Permit conditions.

The authority to perform all actions necessary to issue, modify, enforce, or revoke this Permit has been delegated by the Regional Administrator to the Director of the Land, Chemicals and Redevelopment Division.

This Permit is effective, and shall remain in effect for ten (10) years until, unler revoked and reissued, or terminated under 40 CFR §270.41 and §270.43 or continued in accordance with 4 CFR §270.51(a).			
Issued Date	Stephanie Carr, Director		
	Land, Chemicals, and Redevelopment Division		
	EPA Region 1		

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Appendix A Version: 3/25/2024 Appendix B Version: 2/10/2006, received 10/10/2024

#### **SECTION I - STANDARD PERMIT CONDITIONS**

#### I.A. EFFECT OF PERMIT

This Permit contains federal permit conditions. The Permittee also has a state license (license #31B/2024, effective September 30, 2024). The Permittee is hereby required to manage hazardous waste at this facility in accordance with this Permit, in addition to the current effective state license. Under this Permit, the operation of units storing and treating RCRA hazardous waste must comply with all terms and conditions in this Permit. Other aspects of the storage and management of RCRA hazardous wastes are subject to the current effective state license. Any hazardous waste activity which requires a RCRA permit and is not included either in this Permit or the current effective state license, is prohibited.

Whenever this Permit references provisions in the current effective state license or provisions in documents submitted to EPA or the state by the Permittee, the provisions are thereby incorporated by reference and made an enforceable part of this Permit except as specified in the next paragraph immediately below.

References in this Permit to regulations in 40 CFR are to the regulations as of July 1, 2024. References in this Permit to regulations in 49 CFR are to the regulations as of October 1, 2023.

Subject to 40 CFR §270.4, compliance with this RCRA Permit during its term generally constitutes compliance, for purposes of enforcement, with Subtitle C of 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 leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of the same; or (4) are promulgated under Subparts AA, BB, or CC of 40 CFR Parts 264 and 265 limiting air emissions.

This Permit does not: (1) convey any property rights or any exclusive privilege; (2) authorize any injury to persons or property, or invasion of other private rights; or (3) authorize any infringement of state or local law or regulations.

#### I.B. PERMIT ACTIONS

#### I.B.1 Permit Review, Modification, Revocation and Reissuance, and Termination

EPA may review, modify, or revoke and reissue this Permit, or terminate it for cause, as specified in 40 CFR §§270.41, 270.42, and 270.43. This Permit is subject to modification should the current effective state license be reissued or modified during the term of this Permit, in order to then update the incorporations by reference of the state license requirements made by this Permit. EPA may also review and modify this Permit, consistent with 40 CFR §270.41, to include any terms and conditions it determines are necessary to protect human health and the environment under Section 3005(c)(3) of

RCRA. The filing of a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance on the Permittee's part will not delay the applicability or enforceability of any Permit condition (40 CFR §270.30(f)).

The Permittee must not perform any construction associated with a Class 3 permit modification request until such modification request is granted and the modification becomes effective. The Permittee may perform construction associated with a Class 2 permit modification request beginning sixty (60) days after submission of the request unless the Director establishes a later date (40 CFR §270.42(b)(8)).

#### I.B.2 Permit Renewal

This Permit may be renewed as specified in 40 CFR §270.30(b) and condition I.E.2. of this Permit. In reviewing any application for a permit renewal, the EPA will consider improvements in the state of control and measurement technology, and changes in applicable regulations. (40 CFR §§270.30(b) and RCRA Section 3005(c)(3))

# I.C. SEVERABILITY

The provisions of this Permit are severable, as specified in 40 CFR §124.16 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. Invalidation of any statutory or regulatory provision which forms the basis for any condition of this Permit does not affect the validity of any other statutory or regulatory basis for said condition. (40 CFR §124.16 (a))

#### I.D. DEFINITIONS

The term "Director" means the Director of the Land, Chemicals, and Redevelopment Division, EPA Region 1. Other terms used in this Permit will have the same meaning as in 40 CFR Parts 124, 260 through 266, 268 and 270, unless this Permit specifically provides otherwise. Where neither the regulations nor the Permit define a term, the term's definition will be the standard dictionary definition or its generally accepted scientific or industrial meaning.

#### I.E. DUTIES AND REQUIREMENTS

#### **I.E.1 Duty to Comply**

The Permittee must comply with all conditions of this Permit, except that the Permittee need not comply with the conditions of this Permit to the extent and for the duration that such noncompliance is authorized in an emergency permit under 40 CFR §270.61 that explicitly authorizes any such noncompliance. Noncompliance by the Permittee with the terms of this Permit, except under the terms of an emergency permit, shall constitute a violation of this Permit and any applicable laws or regulations and is grounds for enforcement action, for Permit termination, revocation and reissuance or denial of a

permit renewal application. (40 CFR §270.30(a))

# I.E.2 Duty to Reapply

If the Permittee will continue engaging in an activity regulated by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a permit renewal per 40 CFR §§270.30(b) and 270.10(h), at least one hundred eighty (180) calendar days before this Permit expires, unless permission for a later date has been granted by the Director in accordance with 40 CFR §§124.15 and 270.51.

# **I.E.3** Permit Expiration

This Permit is effective for a fixed term not to exceed ten (10) years. This Permit and all conditions herein will continue in force under 5 USC 558(c) until the effective date of a new permit if: (i) the Permittee has submitted a timely new complete application per 40 CFR 270.10(h) and which includes information required by 40 CFR 270.13 through 270.28, and for standards in parts 260 through 268, as applicable, for a new permit, and (ii) the Director, through no fault of the Permittee, 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. (40 CFR §§270.10, 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 Permittee in an enforcement action that it would have been necessary to halt or reduce any permitted activity authorized by this Permit in order to maintain compliance with the conditions of this Permit. (40 CFR §270.30(c))

#### I.E.5 Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee must take all reasonable steps to minimize releases of hazardous waste or hazardous constituents to the environment and must carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment. (40 CFR §270.30(d))

#### I.E.6 Proper Operation and Maintenance

The Permittee must 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 Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance at a minimum include 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 backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit. (40 CFR §270.30(e))

# **I.E.7** Duty to Provide Information

The Permittee must furnish to the Director, within a reasonable time, any relevant information which the 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 Permittee must also furnish to the Director, upon request, copies of records required to be kept by this Permit. (40 CFR §270.30(h))

## **I.E.8** Inspection and Entry

The Permittee must allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

I.E.8(a)	Enter at reasonable times upon the Permittee's 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 facilities, 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, or as otherwise authorized by any applicable statute, any substances or parameters at any location. (40 CFR §270.30(i))

Notwithstanding any provision of this Permit, the Director retains the inspection and access authority which the EPA has under RCRA and other applicable laws.

## I.E.9 Monitoring and Records

I.E.9(a) Monitoring:

Samples and measurements taken by the Permittee for the purpose of monitoring must be representative of the monitored activity. (40 CFR §270.30(j)(1))

I.E.9(b) Retention of Records

The Permittee must retain records of all monitoring information required by this Permit, including all calibration and maintenance records and a record of all monitored measurements, data packages, data packages including but not limited to digital and original strip chart recordings for continuous monitoring instrumentation, copies of all reports, records, and other documents required by this Permit, and records of all data used to complete the application for this Permit, for a period of at least five (5) years from the date of the reports, records, or other documents, unless a different period is specified in Part I.I.1 (Operating Record) of this Permit, in the current effective state license, or elsewhere in this Permit. The five-year period may be extended at the request of the Director at any time and is automatically extended during the course of any unresolved enforcement action regarding this facility. (40 CFR §§270.30(j) and 270.31)

#### I.E.9(c) Records for monitoring information must include:

I.E.9(c)(i)	The date, exact location, and time of the 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) the 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.	
(40 CFR §270.30(j)(3))		

#### I.E.10 Notice and Reporting of Planned Changes

The Permittee must give advanced written notice to the Director, as soon as possible, of any planned material physical alterations or additions (excluding maintenance and repair) which impact any waste management units at the permitted facility. Any notice under this section must include any necessary request for a permit modification pursuant to 40 CFR §270.42. The Permittee shall not commence modifications or Physical alterations or additions prior to receiving a permit modification. (40 CFR §270.30(l)(1))

#### I.E.11 Anticipated Noncompliance

The Permittee must give as much advance written notice as possible to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with any requirement of this Permit. Advanced notice will not constitute a defense for any noncompliance. (40 CFR §270.30(l)(2))

#### I.E.12 Transfer of Permit

This Permit is not transferable to any person, except after notice to the Director and approval as follows:

The Permittee must inform the Director in writing and obtain prior written approval from the Director before transferring ownership or operational control of the facility. (40 CFR 270.40 and 270.42, Appendix I). Before transferring ownership or operation of the Facility during its operating life, the Permittee must notify the new owner or operator in writing of the requirements of 40 CFR Parts 264, 268, and 270 and this Permit, including the financial assurance requirements of 40 CFR §270.40(b). (40 CFR §\$264.12(c), 270.30(l)(3), and 270.40) The Director may require permit modification, or revocation and reissuance to change the name of a Permittee and incorporate such other requirements as may be necessary in accordance with 40 CFR §270.40. (40 CFR §270.40(a))

# I.E.13 Reporting

I.E.13(a) Twenty-four-hour reporting (40 CFR §270.30(1)(6))

The Permittee or his designee must report any noncompliance which may endanger human health or the environment orally within twenty-four (24) hours to the Director from the time the Permittee becomes aware of the circumstances, including: information concerning the release of any hazardous waste that may cause an endangerment to public drinking water supplies; and, any information concerning a release or discharge of hazardous waste or of a fire or explosion from the permitted facility, which could threaten human health or the environment outside the facility. (40 CFR §270.30(1)(6)(i))

The description of the occurrence and its cause must include:

e;
;

- I.E.13(a)(ii) Name, address, and telephone number of the facility:
- I.E.13(a)(iii) Date, time and type of incident;
- I.E.13(a)(iv) Name and quantity of material(s) involved;
- I.E.13(a)(v) The extent of injuries, if any;
- I.E.13(a)(vi) An assessment of actual or potential hazards to human health and the environment outside the facility, where this is applicable; and

I.E.13(a)(vii) Estimated quantity and disposition of recovered waste that resulted from the incident. (40 CFR §270.30 (l)(6)(ii))

#### I.E.13(b) Written Reports

A written submission must also be submitted to the Director within five (5) days of the time that the Permittee becomes aware of the circumstances described above. The written submission must contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times) and whether the noncompliance has been corrected, and if it has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five (5) day written notice requirement in favor of a written report within fifteen (15) days (40 CFR §270.30 (l)(6)(iii)). The Permittee must maintain in the operating record of its permitted facility a copy of all such written reports.

# **I.E.14 Other Noncompliance**

The Permittee must report all other instances of noncompliance not otherwise required to be reported by this Permit to the Director at the time any other required monitoring reports are submitted, but no later than thirty (30) days from the date the Permittee is aware, or reasonably should have been aware, of any such noncompliance. Any such report shall contain the information listed in paragraph I.E.13(a) of this Section as well as all steps taken to correct any such noncompliance.

#### I.E.15 Other Information

Whenever the Permittee becomes aware that they failed to submit any relevant facts or has submitted incorrect information in any document(s) submitted to the Director, the Permittee must promptly submit such relevant facts or correct information to the Director. (40 CFR §270.30 (l)(11))

#### **I.E.16 Additional Requirements**

Requirements not included in this Permit, which become effective by statute or regulation and are applicable to facilities with permits under 40 CFR §270.4, shall apply to the Permittee's permitted facility. In the event of any conflict between this Permit and any such requirement, the Permittee shall comply with the more stringent requirement, provided that if the Permittee does not fully comply with the more stringent requirement, EPA may enforce either requirement.

#### L.E.17 Federal and State Laws

Nothing in this Permit shall be construed to prohibit any federal, state, or political subdivision thereof from imposing any requirements to the extent authorized by law which are more stringent than those imposed by this Permit. In addition, nothing in this Permit shall relieve the Permittee of its obligation to comply with any other applicable federal, state, or local statute, regulation, or ordinance.

# I.F. SIGNATORY REQUIREMENT

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

#### I.G. CONFIDENTIAL INFORMATION

In accordance with 40 CFR §270.12, the Permittee may claim information to be submitted by this Permit as entitled to confidential treatment at the time of submittal. If the 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. (40 CFR §270.12)

#### I.H. REPORTS, NOTIFICATIONS AND SUBMITTALS TO THE DIRECTOR

All reports, correspondence, notices, or other submissions required by this Permit to be submitted to the Director must be submitted by electronic mail. Except as otherwise provided, all reports, correspondence, notices, or other submissions that require a signature and are required in this Permit to be submitted to the Director, must be delivered by U.S. Postal Service or private courier service to:

Director, LCRD EPA Region 1 (LCRD07-5) 5 Post Office Square, Suite 100 Boston, MA 02109

All deliverables submitted in paper form must also be submitted in electronic format to the Director.

#### I.I. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee must maintain at the facility a written operating record containing the following documents and all amendments, revisions, and modifications to them.

#### I.I.1 Operating Record

The Permittee must maintain in the facility's operating record the documents

required by this Permit, and by applicable portions of 40 CFR Part 264 Subparts AA, BB and CC, and of 40 CFR §264.73. These documents shall be maintained in the operating record for a minimum of five (5) years.

# **I.I.2** Copy of Permit

The Permittee must keep a copy of this Permit at the facility, including all the documents listed in any attachments, and must update it as necessary to incorporate any official permit modifications.

#### SECTION II – FACILITY-SPECIFIC CONDITIONS

# II.A. ORGANIC AIR EMISSIONS REQUIREMENTS: INTRODUCTION AND APPLICABILITY

#### **II.A.1 Introduction**

The Organic Air Emission Standards of 40 CFR Part 264, Subparts AA, BB, and CC apply to owners and operators of permitted hazardous waste treatment, storage, and disposal facilities.

# **II.A.2** Applicability

- II.A.2(a) Subpart AA contains emission standards for process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that process hazardous waste with an annual average total organic concentration of at least ten (10) parts per million (ppm) by weight. It also contains standards for closed-vent systems and control devices.
  - II.A.2(a)(i) The conditions of Subpart AA apply to the closed-vent system and control device as specified in Section II.E. of this Permit. The Closed-Vent System (CVS) and control device (Carbon Absorption Unit) are identified in the General Facility Description of the current effective state license (Section 2.3 and Figure 2.1 of license #31B/2024 or in a subsequent state license). In addition, the design specifications of the CVS and control device are identified in Appendix B of this Permit (included in the 10/10/2024 facility submission responsive to the 3007 request dated 1/24/2024, attached).
- II.A.2(b) Subpart BB contains emissions standards that address leaks from equipment (i.e. pumps, valves, compressors, etc.) that contains or contacts hazardous waste with organic concentrations of at least ten (10) percent by weight.
  - II.A.2(b)(i) The Organic Air Emissions Standards of 40 CFR Part 264 Subparts BB apply to the equipment (i.e., pumps, valves, flanges, etc.) as associated with transference/conveyance of hazardous waste from:
    - 1. Container Storage Area;
    - 2. Containment Area A (Tanks 1-11); and
    - 3. Vapor Recovery System

As identified in the current effective state license and as specified in Appendix A of this Permit (included in the 3/25/2024 facility submission responsive to the 3007 request dated 1/24/2024, attached).

- II.A.2(c) Subpart CC applies to hazardous waste treatment, storage, and disposal facilities, including certain hazardous waste generators accumulating waste on-site in RCRA permit-exempt (90-day) tanks and containers. In general, under these standards air emission controls must be used for tanks, surface impoundments, containers and miscellaneous units which contact hazardous waste containing an average volatile organic concentration greater than 500 parts per million by weight (ppmw) at the point of waste origination.
  - II.A.2(c)(i) The Organic Air Emissions Standards of 40 CFR Part 264
    Subparts CC apply to hazardous waste containers in
    Container Storage Area; Containment Area A (Tanks 111); and Vapor Recovery System, all as identified in the
    current effective state license and Appendix A of this
    Permit. The specific requirements for these units are found
    in Sections II.C. and II.D. of this Permit.

#### **II.A.3** Notification of New Units

Prior to installing any tank, container, or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, or modifying an existing process, waste handling unit or tank or container such that the unit(s) will become subject to 40 CFR Part 264 Subpart CC, the Permittee shall apply for a permit modification under §270.42, and provide specific Part B application information required under 40 CFR §§270.14-17 and 270.27, as applicable, with the modification request.

#### II.B. ORGANIC AIR EMISSION REQUIREMENTS: EXEMPTIONS

A tank or container is exempt from the standards specified in §264.1084 through §264.1087 of 40 CFR Subpart CC, as applicable, provided that the waste management unit meets any of the requirements found in  $\S264.1082(c)(1) - (4)$  or is a container that has a design capacity less than or equal to 0.1 cubic meters (m<sup>3</sup>).

#### II.C. AIR EMISSION STANDARDS: CONTAINERS

Applicability: The Organic Air Emissions Standards of 40 CFR Part 264 Subparts CC apply to hazardous waste containers in the Container Storage Area as identified in the current effective state license and as specified in Table 4 of Appendix A of this Permit. The Permittee does not and is not being authorized to perform stabilization on wastes with a volatile organic concentration greater than 500 ppmw; therefore, the requirements for Level 3 controls are not currently applicable.

The Permittee shall control organic emission from containers in accordance with the requirements below.

#### **II.C.1 General Requirements for Container Level 1 Controls**

II.C.1(b)(i)

The Permittee shall control air pollutant emissions from each of the "Level 1" containers stored at the facility in accordance with the standards specified in Section II.C.2. of this Permit. Containers using Container Level 1 controls are described as follows:

- II.C.1(a) Containers having a design capacity greater than 0.1 m<sup>3</sup> (about 26 gallons) and less than or equal to 0.46 m<sup>3</sup> (about 119 gallons) or;
- II.C.1(b) Containers having a design capacity greater than 0.46 m<sup>3</sup> (about 119 gallons) that are not in light material service.
  - The Permittee shall maintain at the facility in accordance with Section II.C.8(a) of this Permit, a copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> or greater, which do not meet applicable U.S. Department of Transportation (DOT) regulations as specified in Sections II.C.2(a) and II.C.2(a)(i) of this Permit, are not managing hazardous waste in light material service. Containers that are "in light material service" means the container is used to manage a material for which both of the following conditions apply: The vapor pressure of one or more of the organic constituents in the material is greater than 0.3 kilopascals (kPa) at 20 °C; and the total concentration of the pure organic constituents having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight. Air pollutant emissions from these containers must be controlled in accordance with the Container Level 2 standards specified in Section II.C.4 of this Permit.

#### **II.C.2** Air Emissions Controls for Container Level 1

Containers using Level 1 controls must be one of the following:

II.C.2(a) A container that meets the applicable DOT regulations on packaging hazardous materials for transportation, as

specified in 49 CFR Part 178 - Specifications for Packaging or 49 CFR Part 179 - Specifications for Tank Cars.

- II.C.2(a)(i) The hazardous waste must be managed in the container in accordance with the applicable requirements of 49 CFR Part 107, Subpart B— Exemptions; 49 CFR Part 172 — Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR Part 173 — Shippers—General Requirements for Shipments and Packages; and 49 CFR Part 180 -Continuing Qualification and Maintenance of Packaging. No exceptions to the 49 CFR Part 178 regulations are allowed, except for lab packs managed in accordance with 49 CFR Part 178. For the purpose of complying with this requirement, the Permittee may comply with the exceptions for combination packaging specified in 49 CFR §173.12(b).
- II.C.2(b) A container that is equipped with a cover and closure devices that form a continuous barrier over the container openings such that when the cover and closure devices are secured in the closed position there are no visible holes, gaps, or other open spaces into the interior of the container. The cover may be a separate cover installed on the container (e.g., a lid on a drum or a suitably secured tarp on a roll-off box) or may be an integral part of the container structural design (e.g., a "portable tank" or bulk cargo container equipped with a screw-type cap).
- II.C.2(c) An open-top container in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container such that no hazardous waste is exposed to the atmosphere.
- II.C.2(d) A container complying with permit conditions II.C.2(b) or II.C.2(c) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity, for as long as the container is in service.

#### **II.C.3** General Requirements for Container Level 2 Controls

The Permittee shall control air emissions from each of the "Level 2" containers stored at the facility in accordance with the standards specified in Section II.C.4. of this Permit. Containers using Container Level 2 controls are described as follows:

II.C.3(a) Containers having a design capacity greater than 0.46 m<sup>3</sup> (about 119 gallons) that are in light material service.

#### **II.C.4** Air Emissions Controls for Level 2 Containers

Containers using Level 2 controls must be one of the following:

- II.C.4(a) A container that meets the applicable DOT regulations on packaging hazardous materials for transportation, as specified in 49 CFR Part 178- Specifications for Packaging or 49 CFR Part 179- Specifications for Tank Cars.
  - II.C.4(a)(i) The hazardous waste must be managed in the container in accordance with the applicable requirements of 49 CFR Part 107, Subpart B—Exemptions; 49 CFR Part 172—Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements; 49 CFR Part 173—Shippers—General Requirements for Shipments and Packages; and 49 CFR Part 180—Continuing Qualification and Maintenance of Packaging. No exceptions to the 49 CFR Part 178 regulations are allowed, except for lab packs managed in accordance with 49 CFR Part 178. For the purpose of complying with this requirement, the Permittee may comply with the exceptions for combination packaging specified in 49 CFR §173.12(b).
- II.C(4)(b) A container that operates with no detectable organic emissions as defined in 40 CFR §265.1081 and determined in accordance with the procedures specified in 40 CFR §265.1084(d) and the following:
  - II.C.4(b)(i) Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the container, its cover, and associated closure devices, as applicable to the container, shall be checked no later than when the container is accepted into the facility in accordance with the requirements specified in Section II.C.7(a) of this Permit. Potential leak interfaces that are associated with containers include but are not limited to: the interface of the cover rim and the container wall; the periphery of any opening on the

container or container cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

- II.C.4(b)(ii) The test for no detectable organic emissions shall be performed when the container is filled with a material having a volatile organic concentration representative of the range of volatile organic concentrations for the hazardous wastes expected to be managed in this type of container. During the test, the container cover and closure devices shall be secured in the closed position.
- II.C.4(c) A container that has been demonstrated within the preceding twelve (12) months to be vapor-tight by using 40 CFR Part 60, Appendix A, Method 27 in accordance with the following procedure:
  - II.C.4(c)(i) The test shall be performed in accordance with Method 27 of 40 CFR Part 60, Appendix A.
  - II.C.4(c)(ii) A pressure measurement device shall be used that has a precision of  $\pm 2.5$  millimeter (mm) of water and that is capable of measuring above the pressure at which the container is to be tested for vapor tightness.
  - II.C.4(c)(iii) If the test results determined by Method 27 indicate that the container sustains a pressure change less than or equal to 750 Pascals within 5 minutes after it is pressurized to a minimum of 4,500 Pascals, then the container is determined to be vapor tight.

#### **II.C.5** Waste Handling Requirements for Level 2 Containers

Transfer of hazardous waste in or out of a container using Container Level 2 controls shall be conducted in such a manner as to minimize exposure of the hazardous waste to the atmosphere, to the extent practical, considering the physical properties of the hazardous waste and good engineering and safety practices for handling flammable, ignitable, explosive, reactive, or other hazardous materials. Examples of container loading procedures that the EPA considers to meet the requirements of this paragraph include using any one of the following: a submerged-fill pipe or other submerged-fill method to load liquids into the container; a vapor-balancing system or a vapor-recovery system to collect and control the vapors displaced from the container during filling operations; or a fitted opening in the top of a container through which the hazardous waste is filled and subsequently purging the transfer line before removing it from the container opening.

# II.C.6 Operation of Closure Devices for Level 1 and Level 2 Controls

Whenever a hazardous waste is in a container using Container Level 1 or Level 2 controls, the Permittee shall install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as follows:

- II.C.6(a) Opening of a closure device or cover is allowed for the purpose of adding hazardous waste or other material to the container as follows:
  - II.C.6(a)(i) In the case when the container is filled to the intended final level in one continuous operation, the Permittee shall promptly secure the closure devices in the closed position and install the covers, as applicable to the container, upon conclusion of the filling operation.
  - II.C.6(a)(ii) In the case when discrete quantities or batches of material intermittently are added to the container over a period of time, the Permittee shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon either the container being filled to the intended final level; the completion of a batch loading after which no additional material will be added to the container within 15 minutes; the person performing the loading operation leaving the immediate vicinity of the container; or the shutdown of the process generating the material being added to the container, whichever condition occurs first.
- II.C.6(b) Opening of a closure device or cover is allowed for the purpose of removing hazardous waste from the container as follows:
  - II.C.6(b)(i) For the purpose of meeting the requirements of this section, an empty container as defined in 40 CFR §261.7(b) may be open to the atmosphere at any time (i.e., covers and closure devices are not required to be secured in the closed position on an empty container).
  - II.C.6(b)(ii) In the case when discrete quantities or batches of material are removed from the container but the container does not meet the conditions to be an empty container as defined in 40 CFR §261.7(b), the Permittee shall promptly secure the closure devices in the closed position and install covers, as applicable to the container, upon the completion of a batch

removal after which no additional material will be removed from the container within 15 minutes or the person performing the unloading operation leaves the immediate vicinity of the container, whichever condition occurs first.

- II.C.6(c) Opening of a closure device or cover is allowed when access inside the container is needed to perform routine activities other than transfer of hazardous waste. Following completion of the activity, the Permittee shall promptly secure the closure device in the closed position or reinstall the cover, as applicable to the container.
- II.C.6(d) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the internal pressure of the container in accordance with the container design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the internal pressure of the container is within the internal pressure operating range determined by the Permittee based on container manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, ignitable, explosive, reactive, or hazardous materials.
- II.C.6(e) Opening of a safety device, as defined in 40 CFR §265.1081, is allowed at any time conditions require doing so to avoid an unsafe condition.

#### **II.C.7** Inspections and Monitoring for Level 1 and 2 Containers

The Permittee when using Container Level 1 and Level 2 controls shall inspect the containers and their covers and closure devices as follows:

II.C.7(a) In the case when a hazardous waste already is in the container at the time the Permittee first accepts possession of the container at the facility and the container is not emptied within twenty-four (24) hours after the container is accepted at the facility (i.e., does not meet the conditions for an empty container as specified in 40 CFR §261.7(b)), the Permittee shall visually inspect the container and its cover and closure devices to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position.

The container visual inspection shall be conducted on or before the date that the container is accepted at the facility (i.e., the date the container becomes subject to the Subpart CC container standards). For purposes of this requirement, the date of acceptance is the date of signature that the Permittee enters on Item 20 of the Uniform Hazardous Waste Manifest in the Appendix to 40 CFR Part 262 (EPA Forms 8700–22 and 8700–22A), as required under Subpart E of 40 CFR Part 264 (See 40 CFR §264.71). If a defect is detected, the Permittee shall repair the defect in accordance with the requirements of paragraph C.7(c) of this section.

- II.C.7(b) Generally, hazardous waste in containers may not be stored at a facility for greater than one (1) year. If, in the rare case, a container used for managing hazardous waste remains at the facility for a period of one (1) year or more and all of the conditions specified in 40 CFR §268.50 (or analogous state requirements) have been met, the Permittee shall visually inspect the container and its cover and closure devices initially and thereafter, in accordance with the facility's current effective Inspection Plan of the state license (Section 7 of state license #31B/2024 or in a subsequent state license) to check for visible cracks, holes, gaps, or other open spaces into the interior of the container when the cover and closure devices are secured in the closed position. If a defect is detected, the Permittee shall repair the defect in accordance with the requirements of Section II.C.7(c).
- II.C.7(c) When a defect is detected for the container, cover, or closure devices, the Permittee shall first make efforts at repair of the defect no later than twenty-four (24) hours after detection and the repair shall be completed as soon as possible but no later than five (5) calendar days after detection. If repair of a defect cannot be completed within five (5) calendar days, then the hazardous waste shall be removed from the container and the container shall not be used to manage hazardous waste until the defect is repaired.

#### **II.C.8 Recordkeeping**

The Permittee shall maintain the following in the facility operating record:

- II.C.8(a) A copy of the procedure used to determine that containers with capacity of 0.46 m<sup>3</sup> or greater, which do not meet applicable DOT regulations as specified in Section II.C.1(b)(i) of this Permit, <u>are not managing hazardous waste in light material service.</u>
- II.C.8(b) Documentation of the procedures necessary to meet the requirements of Sections II.C.4(b) or II.C.4(c) of this Permit

including documentation of the maintenance and calibration records of the instrument used for the test method specified.

II.C.8(c) Documentation of the inspections and repairs required by Section II.C.7. of this Permit to be recorded in an inspection log or summary and maintained in the facility operating record in accordance with Section I.I.1 of this Permit.

#### II.D. AIR EMISSION STANDARDS: TANKS

Applicability: The Organic Air Emissions Standards of 40 CFR Part 264 Subpart CC apply to Tanks 1-11 in Containment Area A as identified in the current effective state license and as specified in Table 4 of Appendix A of this Permit. The Permittee shall control organic emission from the tank in accordance with the requirements below.

# **II.D.1** General Requirements

The Permittee shall control air emissions from each of the tanks in accordance with the applicable provisions of §264.1082, §264.1084, §264.1087, and the following requirements.

#### **II.D.2** Air Emissions Controls

- II.D.2(a) The Permittee shall control air emissions in accordance with the Tank Level 2 controls by venting the tank through the closed-vent system to the carbon adsorption system (the control device) at the facility. The tank shall be covered by a fixed roof and vented directly through the closed-vent system to the control device and shall meet the following requirements:
  - II.D.2(a)(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.
  - II.D.2(a)(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control

device is operating, the closure device shall be designed to operate with no detectable organic emissions.

- II.D.2(a)(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the hazardous waste to the atmosphere, to the extent practical, and will maintain the integrity of the fixed roof and closure devices throughout their intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: Organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.
- II.D.2(a)(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements found in Section II.E. of this Permit.
- II.D.2(a)(v) Whenever a hazardous waste is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:
  - (1) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:
    - (A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations.

      Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the Permittee shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.
    - (B) To remove accumulated sludge or other residues from the bottom of a tank.
- II.D.2(a)(vi) Opening of a safety device, as defined in 40 CFR §265.1081, is allowed at any time conditions require doing

so to avoid an unsafe condition.

# **II.D.3** Waste Handling Requirements

- II.D.3(a) The Permittee shall transfer hazardous waste to the tanks that are subject to the requirements of Section II.D. of this Permit in accordance with the following:
  - II.D.3(a)(i) Transfer of hazardous waste to the tank from another tank subject to this section shall be conducted using continuous hard-piping or another closed system that does not allow exposure of the hazardous waste to the atmosphere. For the purpose of complying with this provision, an individual drain system is considered to be a closed system when it meets the requirements of 40 CFR Part 63, Subpart RR—National Emission Standards for Individual Drain Systems. The requirements of this paragraph do not apply when transferring a hazardous waste to the tank under any of the conditions found in Section II.B. of this Permit.

#### **II.D.4** Inspections and Monitoring for Level 2 Tanks

- II.D.4(a) The Permittee shall inspect and monitor the air emission control equipment in accordance with the following procedures:
  - II.D.4(a)(i) The fixed roof and its closure devices shall be visually inspected by the Permittee initially to check for defects that could result in air pollutant emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the tank wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.
  - II.D.4(a)(ii) The closed-vent system and control device shall be inspected and monitored by the Permittee in accordance with the procedures specified in Section II.E.1(d) of this Permit.
  - II.D.4(a)(iii) The Permittee shall perform inspections of the air emission control equipment at least once every year in accordance with the facility's current effective Inspection Plan of the state license (Section 7 of state license #31B/2024 or in a subsequent state license) except for the special conditions provided for in Section II.D.4(c) of this Permit.

- II.D.4(a)(iv) In the event that a defect is detected, the Permittee shall repair the defect in accordance with the requirements of Section II.D.4(b) of this Permit.
- II.D.4(a)(v) The Permittee shall maintain in the facility operating record a record of the inspection in accordance with the requirements specified in Section II.D.5 of this Permit.
- II.D.4(b) The Permittee shall repair each defect detected during an inspection performed in accordance with the requirements of Section II.D.4(a) of this Permit as follows:
  - II.D.4(b)(i) The Permittee shall make first efforts at repair of the defect no later than five (5) calendar days after detection, and repair shall be completed as soon as possible but no later than forty-five (45) calendar days after detection except as provided in Section D.4(b)(ii).
  - II.D.4(b)(ii) Repair of a defect may be delayed beyond forty-five (45) calendar days if the Permittee determines that repair of the defect requires emptying or temporary removal from service of the tank and no alternative tank capacity is available at the site to accept the hazardous waste normally managed in the tank. In this case, the owner or operator shall repair the defect the next time the process or unit that is generating the hazardous waste managed in the tank stops operation. Repair of the defect shall be completed before the process or unit resumes operation.
- II.D.4(c) Following the initial inspection and monitoring of the cover as required by the applicable provisions of this Permit, subsequent inspection and monitoring may be performed at intervals longer than one (1) year under the following special conditions:
  - II.D.4(c)(i) In the case when inspecting or monitoring the cover would expose a worker to dangerous, hazardous, or other unsafe conditions, then the Permittee may designate a cover as an "unsafe to inspect and monitor cover" and comply with all of the following requirements:
    - (1) Prepare a written explanation for the cover stating the reasons why the cover is unsafe to visually inspect or monitor, if required.
    - (2) Develop and implement a written plan and schedule to inspect and monitor the cover, as frequently as

practicable during those times when a worker can safely access the cover.

# II.D.5 Tank Level 2 Recordkeeping Requirements

The Permittee shall prepare and maintain the records specified in the following paragraphs and shall maintain them in the operating record for a minimum of five (5) years.

- II.D.5(a) The Permittee shall prepare and maintain records for the tank(s) using air emission controls in accordance with the requirements of this Permit that include the following information:
  - II.D.5(a)(i) A tank identification number (or other unique identification description as selected by the owner or operator).
  - II.D.5(a)(ii) A record for each inspection required by Section II.D.4. that includes the following information:
    - (1) The date the inspection was conducted.
    - (2) The facility personnel conducting the inspection.
    - (3) For each defect detected during the inspection: The location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event, that repair of the defect is delayed in accordance with the requirements of Section II.D.4(b), the Permittee shall also record the reason for the delay and the date that completion of repair of the defect is expected.

#### II.E. AIR EMISSION STANDARDS: PROCESS VENTS AND CONTROL DEVICES

The closed-vent system and control device (the two carbon adsorption units) which are connected to the tanks (Containment Area A) at the facility are subject to 40 CFR §264.1033(k), Subpart AA, pursuant to the requirements of 40 CFR §264.1087(b)(2), Subpart CC. The facility shall be designed and operated in accordance with the following requirements:

## **II.E.1** The Closed-vent System

II.E.1(a) The closed-vent system shall route the gases, vapors, and fumes

emitted from the hazardous waste in the tanks to the carbon adsorption system that meets the requirements specified in Section II.E.2. of this Permit.

- II.E.1(b) The closed-vent system shall be designed to operate with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background as determined by the procedure in §264.1034(b), and by visual inspections.
- II.E.1(c) In the case when the closed-vent system includes bypass devices that could be used to divert the gas or vapor stream to the atmosphere before entering the control device, each bypass device shall be equipped with either a flow indicator as specified in Section II.E.1(c)(i) of this Permit or a seal or locking device as specified in Section II.E.1(c)(ii) of this Permit. For the purpose of complying with this paragraph, low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, spring loaded pressure relief valves, and other fittings used for safety purposes are not considered to be bypass devices.
  - II.E.1(c)(i) If a flow indicator is used to comply with Section II.E.1(c) of this Permit, the indicator shall be installed at the inlet to the bypass line used to divert gases and vapors from the closed-vent system to the atmosphere at a point upstream of the control device inlet. For this paragraph, a flow indicator means a device which indicates the presence of either gas or vapor flow in the bypass line.
  - II.E.1(c)(ii) If a seal or locking device is used to comply with Section II.E.1(c) of this Permit, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve. The Permittee shall visually inspect the seal or closure mechanism at least once every month to verify that the bypass mechanism is maintained in the closed position and shall record the inspections in a log or summary that is maintained in the facility operating record.
- II.E.1(d) The closed-vent system shall be inspected and monitored by the Permittee to ensure proper operation and maintenance of the system in accordance with the facility's current effective Inspection Plan of the state license (Section 7 of state license

#31B/2024 or in a subsequent state license) and with the procedures specified below:

- II.E.1(d)(i) Each closed-vent system that is used to comply with Section II.E.1(b) of this Permit shall be inspected and monitored in accordance with the following requirements:
  - (1) An initial leak detection monitoring of the closed-vent system shall be conducted by the Permittee on or before the date that the system becomes subject to this Permit. The Permittee shall monitor the closed-vent system components and connections using the procedures specified in 40 CFR §264.1034(b) to demonstrate that the closed-vent system operates with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background.
  - (2) After initial leak detection monitoring required in Section II.E.1(d)(i)(1) above, the Permittee shall inspect and monitor the closed-vent system as follows:
    - (A) Closed-vent system joints, seams, or other connections that are permanently or semipermanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air pollutant emissions. The Permittee shall monitor a component or connection using the procedures specified in 40 CFR §264.1034(b) to demonstrate that it operates with no detectable emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).
    - (B) Closed-vent system components or connections other than those specified in Section II.E.1(d)(i)(2)(A) of this Permit shall be monitored annually and at other times as requested by the Director using the

procedures specified in 40 CFR §264.1034(b) to demonstrate that the components or connections operate with no detectable emissions.

- (3) In the event that a defect or leak is detected, the Permittee shall repair the defect or leak in accordance with the requirements of Section II.E.1(d)(ii) of this Permit.
- (4) The Permittee shall maintain a record of the inspection and monitoring performed in accordance with the above requirements in the facility operating record and in accordance with the requirements specified in Section II.E.4(a)(ix) of this Permit.
- II.E.1(d)(ii) The Permittee shall repair all detected defects as follows:
  - (1) Detectable emissions, as indicated by visual inspection, or by an instrument reading greater than 500 ppmv above background, shall be controlled as soon as practicable, but not later than fifteen (15) calendar days after the emission is detected, except as provided for in Section II.E.1(d)(ii)(3) of this Permit.
  - (2) A first attempt at repair shall be made no later than five (5) calendar days after the emission is detected.
  - (3) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown, or if the Permittee determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be completed by the end of the next process unit shutdown.
  - (4) The Permittee shall maintain a record of the defect repair in accordance with the requirements specified in Section II.E.4(a)(ix) of this Permit.

II.E.1(e) The closed-vent system and control device used to comply with provisions of this Permit shall be operated at all times when emissions may be vented to it.

#### **II.E.2** The Control Device

- II.E.2(a) The carbon adsorption unit (the control device) shall be designed and operated to reduce the total organic content of the inlet vapor stream vented to the control device by at least 95 percent by weight.
- II.E.2(b) The Permittee shall operate and maintain the carbon adsorption unit in accordance with the following requirements:
  - II.E.2(b)(i) Following the initial startup of the carbon adsorption unit, all activated carbon in the system shall be replaced with fresh carbon on a regular basis by using one of the following procedures:
    - (1) Monitor the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption unit on a regular schedule and replace the existing carbon with fresh carbon within twenty-four (24) hours, as specified in the current effective Inspection Plan of the state license (Section 7 of state license #31B/2024 or in a subsequent state license), when carbon breakthrough is indicated. The monitoring frequency shall be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of Section II.E.4(a)(ii)(3)(A) of this Permit, whichever is longer.
    - (2) Replace the existing carbon with fresh carbon at a regular, predetermined time interval, following the engineering design analysis carbon replacement and record keeping requirements established as a requirement of Section II.E.4(a)(ii)(3)(A) of this Permit and detailed in Appendix B (included as part of the facility submission dated 10/10/2024, attached).
  - II.E.2(b)(ii) All carbon that is a hazardous waste and that is removed from the carbon adsorption system shall be managed in accordance with the requirements of 40 CFR §264.1033(n),

regardless of the average volatile organic concentration of the carbon.

- II.E.2(c) The Permittee shall demonstrate that the carbon adsorption system achieves the performance requirements of Section II.E.2(a) of this Permit as follows:
  - II.E.2(c)(i) The Permittee shall demonstrate within thirty (30) days of the effective date of this Permit the performance of the carbon adsorption system using either a performance test as specified in Section II.E.2(c)(i)(1) of this Permit or a design analysis as specified in Section II.E.2(c)(i)(2) of this Permit.
    - (1) For a performance test conducted to meet the requirements of Section II.E.2(c)(i), the Permittee shall use the test methods and procedures specified in §264.1034(c)(1) through (c)(4).
    - (2) For a design analysis conducted to meet the requirements of Section II.E.2(c)(i), the design analysis shall meet the requirements specified in Section II.E.4(a)(ii)(3) of this Permit.
  - II.E.2(c)(ii) If the Permittee and the Director do not agree on a demonstration of the carbon adsorption system performance using a design analysis then the disagreement shall be resolved using the results of a performance test performed by the Permittee in accordance with the requirements of Section II.E.2(c)(i)(1) of this Permit. The Director may choose to have an authorized representative observe the performance test.
  - II.E.2(c)(iii) The Permittee shall demonstrate that the carbon adsorption system achieves the performance requirements of Section II.E.2(a) of this Permit based on the total quantity of organics vented to the atmosphere from all carbon adsorption system equipment that is used for organic adsorption, organic desorption or carbon regeneration, organic recovery, and carbon disposal.
- II.E.2(d) Routine Maintenance of the Carbon Adsorption System.
  - II.E.2(d)(i) Periods of planned routine maintenance of the carbon adsorption system, during which it does not meet the

specifications of Section II.E.2(a) of this Permit shall not exceed two hundred and forty (240) hours per year.

- II.E.2(d)(ii) The specifications and requirements in Section II.E.2. of this Permit do not apply during periods of planned routine maintenance, provided that the Permittee complies with Parts II.E.2(d)(i), II.E.2(d)(iv), and II.E.2(d)(vi), of this Permit.
- II.E.2(d)(iii) The specifications and requirements in Section II.E.2 of this Permit do not apply during a malfunction of the carbon adsorption system, provided that the Permittee complies with Parts II.E.2(d)(v) and II.E.2(d)(vi) of this Permit.
- II.E.2(d)(iv) The Permittee shall demonstrate compliance with the requirements of Section II.E.2(d)(i) of this Permit (i.e., planned routine maintenance of a control device, during which the control device does not meet the specifications of Section II.E.2(a) of this Permit, as applicable, shall not exceed two hundred and forty (240) hours per year) by recording the information required in Section II.E.4(a)(x) of this Permit in the facility operating record.
- II.E.2(d)(v) The Permittee shall correct carbon adsorption system malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of air pollutants. The Permittee shall document compliance with this provision and with provision II.E.2(d)(vi) in the facility operating record.
- II.E.2(d)(vi) The Permittee shall operate the closed-vent system such that gases, vapors, or fumes are not actively vented to the carbon adsorption system during periods of planned maintenance or system malfunction (i.e., periods when the carbon adsorption system is not operating or not operating normally) except in cases when it is necessary to vent the gases, vapors, and/or fumes to avoid an unsafe condition or to implement malfunction corrective actions or planned maintenance actions.

# **II.E.3** Inspection and Monitoring of the Carbon Adsorption System (Control Device)

II.E.3(a) The carbon adsorption system shall be inspected and monitored by the Permittee in accordance with the procedures specified in Section II.E.1(d) of this Permit. Any necessary corrective measures

shall be immediately implemented to ensure the carbon adsorption system is operated in compliance with the requirements of this Permit.

II.E.3(b) The Permittee shall maintain a written plan and schedule to perform the inspections and monitoring required by Section II.E.1(d) and II.E.3(a) of this Permit and as also specified in the facility's current effective Inspection Plan (Section 7 of the state license #31B/2024 or in a subsequent state license).

# **II.E.4 Recordkeeping Requirements**

- II.E.4(a) The Permittee shall prepare and maintain records which are placed in the facility operating record that include the following documentation for the closed-vent system and carbon adsorption system (control device):
  - II.E.4(a)(i) Certification that is signed and dated by the Permittee stating that the carbon adsorption system is designed to operate at the performance level documented by a design analysis as specified in Section II.E.4(a)(ii) of this Permit or by performance tests as specified in Section II.E.4(a)(iii) of this Permit when the tank is or would be operating at capacity or the highest level reasonably expected to occur.
  - II.E.4(a)(ii) If a design analysis is used, then design documentation shall include the information as specified below:
    - (1) A list of all information references and sources used in preparing the documentation.
    - (2) Records, including the dates, of each compliance test required by Section II.E.1(b) of this Permit.
    - (3) If engineering calculations are used, a design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "APTI Course 415: Control of Gaseous Emissions" (incorporated by reference as specified in 40 CFR §260.11) or other engineering texts acceptable to the Director that present basic control device design information. Documentation provided by the control device manufacturer or vendor that describes the control device design in accordance with Section II.E.4(a)(ii)(3)(A) may be used to comply with this

requirement. The design analysis shall address the vent stream characteristics and control device operation parameters as specified below:

- (A) For a carbon adsorption system such as a carbon canister that does not regenerate the carbon bed directly onsite in the control device, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design outlet organic concentration level, capacity of carbon bed, type and working capacity of activated carbon used for the carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.
- (4) A statement signed and dated by the Permittee certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.
- (5) A statement signed and dated by the Permittee certifying that the control device is designed to operate at an efficiency of 95 percent or greater unless the total organic concentration limit of 40 CFR §264.1032(a) is achieved at an efficiency less than 95 weight percent or the total organic emission limits of 40 CFR §264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent. A statement provided by the control device manufacturer or vendor certifying that the control equipment meets the design specifications may be used to comply with this requirement.
- II.E.4(a)(iii) If performance tests are used to determine the organic removal efficiency or total organic compound concentration achieved by the control device, then the test plan must include:

- (1) A description of how it is determined that the planned test is going to be conducted when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur. This shall include the estimated or design flow rate and organic content of each vent stream and define the acceptable operating ranges of key process and control device parameters during the test program.
- (2) A detailed engineering description of the closedvent system and control device including:
  - (A) Manufacturer's name and model number of control device
  - (B) Type of control device
  - (C) Dimensions of the control device
  - (D) Capacity
  - (E) Construction materials
- (3) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, planned analytical procedures for sample analysis, and a record of the facility personnel performing the sampling and monitoring.
- II.E.4(a)(iv) The description and date of each modification that is made to the closed-vent system or control device design.
- II.E.4(a)(v) Monitoring, operating, and inspection information required by Sections II.E.1(d)(i), II.E.1(d)(ii), and II.E.2(b)(i)(1) & (2), of this Permit.
- II.E.4(a)(vi) The date when existing carbon in the control device is replaced with fresh carbon in accordance with the requirements of Section II.E.2(b)(i)(2) of this Permit.
- II.E.4(a)(vii) If the carbon adsorption system is operated in accordance with the requirements specified in Section II.E.2(b)(i)(1) of this Permit, then a log that records:
  - (1) Date and time when control device is monitored for carbon breakthrough and the monitoring device reading.

- (2) Date when existing carbon in the control device is replaced with fresh carbon.
- II.E.4(a)(viii) The date of each control device startup and shutdown.
- II.E.4(a)(ix) When each leak is detected as specified in Section II.E.1(d) of this Permit, the following information shall be recorded:
  - (1) The instrument identification number, the closedvent system component identification number, and the operator's name, initials, or identification number.
  - (2) A record of the calibration data required under 40 CFR §264.1034(b)(3).
  - (3) The date the leak was detected and the date of first attempt to repair the leak.
  - (4) The date of successful repair of the leak.
  - (5) Maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A after it is successfully repaired or determined to be non-repairable.
  - (6) "Repair delayed" and the reason for the delay if a leak is not repaired within fifteen (15) calendar days after discovery of the leak.
    - (A) The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
    - (B) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
- II.E.4(a)(x) The Permittee shall record, on a semiannual basis, the information specified in paragraphs (1) and (2) below for

those planned routine maintenance operations that would require the carbon adsorption system not to meet the requirements of Section II.E.2(a) of this Permit.

- (1) A description of the planned routine maintenance that is anticipated to be performed for the carbon adsorption system during the next six-month period. This description shall include the type of maintenance necessary, planned frequency of maintenance, and lengths of maintenance periods.
- (2) A description of the planned routine maintenance that was performed for the carbon adsorption system during the previous six-month period. This description shall include the type of maintenance performed and the total number of hours during those six (6) months that the carbon adsorption system did not meet the requirements of Section II.E.2(a) of this Permit due to planned routine maintenance.
- II.E.4(a)(xi) The Permittee shall record the information specified in paragraphs (1) through (3), below, for those unexpected carbon adsorption system malfunctions that would require the carbon adsorption system not to meet the requirements of Section II.E.2(a) of this Permit.
  - (1) The occurrence and duration of each malfunction of the carbon adsorption system.
  - (2) The duration of each period during a malfunction when gases, vapors, or fumes are vented from the waste management unit through the closed-vent system to the carbon adsorption system while the carbon adsorption system is not properly functioning.
  - (3) Actions taken during periods of malfunction to restore a malfunctioning carbon adsorption system to its normal or usual manner of operation.
- II.E.4(a)(xii) Records of the management of carbon removed from the carbon adsorption system conducted in accordance with Section II.E.2(b)(ii) of this Permit.
- II.E.4(b) Air emission control equipment design documentation shall be

maintained in the operating record until the air emission control equipment is replaced or otherwise no longer in service. All other records required by this Permit shall be maintained in the operating record for a minimum of five (5) years.

## II.F. AIR EMISSION STANDARDS: EQUIPMENT LEAKS (Subpart BB)

# II.F.1 Applicability

- II.F.1(a) The requirements of this section (Section II.F.) of the Permit shall apply to all the equipment at the facility which contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight. The requirements currently apply to the equipment associated with identified in Table 2 of Appendix A of this Permit.
- II.F.1(b) Each piece of equipment to which this section of the Permit applies shall be marked in such a manner that it can be distinguished readily from other pieces of equipment where these standards do not apply. (40 CFR §264.1050)
- II.F.1(c) Equipment that contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for less than three hundred (300) hours per calendar year is excluded from the requirements of this section (see §§264.1052 through 264.1060 of 40 CFR Part 264, Subpart BB), if it is identified either by list or location and is recorded in a log that is kept in the facility operating record (see Section II.F.4(d) of this Permit).
- II.F.1(d) Equipment defined "in light liquid service" shall mean equipment (i.e. pumps, valves, etc.) that contains or contacts a waste stream where the vapor pressure of one or more of the organic components in the stream is greater than 0.3 kilopascals (kPa) at 20°C, the total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20°C is equal to or greater than 20 percent by weight, and the fluid is a liquid at operating conditions. (40 CFR §264.1031)

#### II.F.2 General

In addition to complying with the specific standards in Section II.F. of this Permit, the Permittee shall comply with all applicable requirements of 40 CFR Part 264, Subpart BB.

#### **II.F.3** Specific Standards

II.F.3(a) Pumps in Light Liquid Service

- II.F.3(a)(i) All pumps in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR §264.1063(b). A record of each monitoring event shall be maintained in the facility operating record.
  - (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- II.F.3(a)(ii) All pumps in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. A summary or log of each inspection shall be maintained in the facility operating record.
- II.F.3(a)(iii) If there are indications of liquids dripping from the pump seal, a leak is detected.
- II.F.3(a)(iv) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section II.F.3(d) of this Permit.
- II.F.3(a)(v) A first attempt at repair (e.g., tightening the packing gland) shall be made no later than five (5) calendar days after each leak is detected.
- II.F.3(a)(vi) All pumps at the facility that are designated, as described in 40 CFR §264.1064(g)(2), as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, are exempt from the requirements of Section II.F.3(a)(i) of this Permit if the pump meets the following requirements:
  - (1) Must have no externally actuated shaft penetrating the pump housing.
  - (2) Must operate with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR §264.1063(c).
  - (3) Must be tested for compliance with Section II.F.3(a)(vi)(2) of this Permit initially upon designation, annually, and at other times as requested by the Director.
  - (4) Shall be checked by visual inspection each calendar

week for indications of liquids dripping from the pump seal.

- (A) If there are indications of liquids dripping from the pump seal, a leak is detected.
- (5) For those pumps meeting the requirements of Section II.F.3(a)(vi) the Permittee shall keep the following information in a log that is kept in the facility operating record:
  - (A) A list of identification numbers for the pumps that are designated for no detectable emissions;
  - (B) The designation of these pumps shall be signed by the Permittee;
  - (C) The dates for each compliance test as required by Section II.F.3(a)(vi) of this Permit, the background level measured during each compliance test and the maximum instrument reading measured at the equipment during each compliance test.
  - (D) A summary or log of each weekly inspection required by Section II.F.3(a)(vi)(4).
  - (E) A record of the facility personnel performing each compliance test.

# II.F.3(b) Valve in Gas/Vapor Service or in Light Liquid Service

- II.F.3(b)(i) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR §264.1063(b). A record of each monitoring event shall be maintained in the facility operating record. Each valve shall comply with the following except as provided in 40 CFR §§264.1061 and 264.1062:
  - (1) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
  - (2) Any valve for which a leak is not detected for two successive months may be monitored the first month of every succeeding quarter, beginning with the next quarter, until a leak is detected.

- (3) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for two successive months.
- (4) When a leak is detected, it shall be repaired as soon as practicable, but no later than fifteen (15) calendar days after the leak is detected, except as provided in Section II.F.3(d) of this Permit.
- (5) A first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.
- (6) First attempts at repair include, but are not limited to, the following best practices where practicable:
  - (A) Tightening of bonnet bolts.
  - (B) Replacement of bonnet bolts
  - (C) Tightening of packing gland nuts.
  - (D) Injection of lubricant into lubricated packing.
- II.F.3(b)(ii) Any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of Section II.F.3(b)(i) of this Permit if:
  - (1) The Permittee determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with Section II.F.3(b)(i) of this Permit.
  - (2) The Permittee adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times.
  - (3) The Permittee shall keep the following information in a log that is kept in the facility operating record for those valves that are designated as unsafe-to-monitor:
    - (A) A list of identification numbers for valves that are designated as unsafe-to-monitor;
    - (B) The plan for monitoring each valve;

- (C) An explanation for each valve stating why the valve is unsafe-to-monitor.
- II.F.3(b)(iii) Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of Section II.F.3(b)(i) of this Permit if:
  - (1) The Permittee determines that the valve cannot be monitored without elevating the monitoring personnel more than two (2) meters above a support surface.
  - (2) The hazardous waste management unit within which the valve is located was in operation before June 21, 1990.
  - (3) The Permittee follows a written plan that requires monitoring of the valve at least once per calendar year.
  - (4) The Permittee shall keep the following information in a log that is kept in the facility operating record for those valves that are designated as difficult-tomonitor:
    - (A) A list of identification numbers for valves that are designated as difficult-to-monitor;
    - (B) An explanation for each valve stating why the valve is difficult-to-monitor;
    - (C) The planned schedule for monitoring each valve.

II.F.(b)(iv) In accordance with 40 CFR §265.1064(h), unsafe-to-monitor or difficult-to-monitor valves were identified in Table 3 of Appendix A. These valves are located more than two (2) meters above a support surface and require utilizing portable ladders, lifts, and/or appropriate fall protection equipment in order to monitor. As a result, the Permittee will monitor these valves in accordance with a written monitoring plan subject to Section II.F.3(b).

- II.F.3(c) Pressure Relief Devices in Light Liquid Service; Flanges and Other Connectors
  - II.F.3(c)(i) Pressure relief devices in light liquid service, flanges and other connectors shall be monitored within five (5) days by

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the method specified in 40 CFR §264.1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method.

- II.F.3(c)(ii) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- II.F.3(c)(iii) When a leak is detected, it shall be repaired as soon as practicable, but not later than fifteen (15) calendar days after it is detected, except as provided in Section II.F.3(d) of this Permit.
- II.F.3(c)(iv) The first attempt at repair shall be made no later than five (5) calendar days after each leak is detected.
- II.F.3(c)(v) First attempts at repair include, but are not limited to, the best practices described under Section II.F.3(b)(i)(6) of this Permit.
- II.F.3(c)(vi) Any connector that is inaccessible or is ceramic or ceramiclined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements of Section II.F.3(c)(i) of this Permit and from the recordkeeping requirements of Section II.F.4.

#### II.F.3(d) Delay of Repair

- II.F.3(d)(i) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a hazardous waste management unit shutdown. In such a case, repair of this equipment shall occur before the end of the next hazardous waste management unit shutdown.
- II.F.3(d)(ii) Delay of repair of equipment for which leaks have been detected will be allowed for equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with organic concentrations at least 10 percent by weight.
- II.F.3(d)(iii) Delay of repair for valves will be allowed if:
  - (1) The Permittee determines that emissions of purged material resulting from immediate repair are greater than the emissions likely to result from delay of repair.

(2) When repair procedures are affected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR §264.1060.

## II.F.3(d)(iv) Delay of repair for pumps will be allowed if:

- (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system.
- (2) Repair is completed as soon as practicable, but not later than six (6) months after the leak was detected.
- II.F.3(d)(v) Delay of repair beyond a hazardous waste management unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the hazardous waste management unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next hazardous waste management unit shutdown will not be allowed unless the next hazardous waste management unit shutdown occurs sooner than six (6) months after the first hazardous waste management unit shutdown.

### II.F.3(e) Closed-Vent Systems and Control Devices

II.F.3(e)(i) The Permittee shall comply with the requirements of Section II.E. of this Permit for the closed-vent system and control device at the facility.

#### **II.F.4** Recordkeeping Requirements

II.F.4(a) Subpart BB Equipment.

- II.F.4(a)(i) The Permittee must record the following information in the facility operating record for each piece of equipment to which Section II.F. of this Permit applies:
  - (1) Equipment identification number and hazardous waste management unit identification.
  - (2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
  - (3) Type of equipment (e.g., a pump or pipeline valve).

- (4) Percent-by-weight total organics in the hazardous waste stream at the equipment.
- (5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).
- (6) Method of compliance with the standard (e.g., "monthly leak detection and repair" or "equipped with dual mechanical seals").
- II.F.4(a)(ii) Where the Permittee chooses to use test data to demonstrate the organic removal efficiency or total organic compound concentration achieved by the control device, a performance test plan as specified in Section II.E.4(a)(iii) of this Permit shall be kept in the facility operating record.
- II.F.4(a)(iii) Documentation of compliance with Section II.F.3(i) of this Permit and §264.1033, including the detailed design documentation or performance test results specified in Section II.E.4(a)(ii) of this Permit shall be kept in the facility operating record.
- II.F.4(a)(iv) The Permittee shall record a list of identification numbers for equipment (except welded fittings) subject to the requirements of Section II.F. of the Permit in a log that is kept in the facility operating record.

#### II.F.4(b) Leak Detection

- II.F.4(b)(i) When each leak is detected as specified in Sections II.F.3(a), F.3(b), and F.3(c) of this Permit, the following requirements apply:
  - (1) A weatherproof and readily visible identification, marked with the equipment identification number, the date evidence of a potential leak was found in accordance with method specified in 40 CFR §264.1063(b), and the date the leak was detected, shall be attached to the leaking equipment.
  - (2) The identification on equipment, except on a valve, may be removed after it has been repaired.
  - (3) The identification on a valve may be removed after it has been monitored for two (2) successive months as specified in Section II.F.3(b)(i)(2) & (3) of this

Permit and no leak has been detected during those two (2) months.

- II.F.4(b)(ii) When each leak is detected as specified in Sections II.F.3(a), F.3(b), and F.3(c) of this Permit, the following information shall be recorded in an inspection log and shall be kept in the facility operating record:
  - (1) The instrument and operator identification numbers and the equipment identification number.
  - (2) The date evidence of a potential leak was found in accordance with Section II.F.3(c)(i) of this Permit.
  - (3) The date the leak was detected and the dates of each attempt to repair the leak.
  - (4) The repair methods applied in each attempt to repair the leak.
  - (5) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR §264.1063(b) after each repair attempt is equal to or greater than 10,000 ppm.
  - (6) A record of the calibration data required under 40 CFR §264.1063(b)(3).
  - (7) "Repair delayed" and the reason for the delay if a leak is not repaired within fifteen (15) calendar days after discovery of the leak.
  - (8) Documentation supporting the reason for the delay of repair of a valve in compliance with Section II.F.3(d)(iii) of this Permit.
  - (9) The signature of the Permittee (or Permittee's designated official) whose decision it was that repair could not be affected without a hazardous waste management unit shutdown.
  - (10) The expected date of successful repair of the leak if a leak is not repaired within fifteen (15) calendar days.

(11) The date of the successful repair of the leak and a description of the work performed to successfully complete the repair.

# II.F.4(c) Closed-Vent System and Control Device

II.F.4(c)(i) Design documentation and monitoring, operating, and inspection information for each closed-vent system and control device required to comply with the provisions of Section II.F.3(e) of this Permit shall be recorded and kept up to date in the facility operating record. Design documentation is specified in 40 CFR §264.1035(c)(1) and (c)(2) and monitoring, operating, and inspection information in 40 CFR §264.1035 (c)(3) – (c)(8).

## II.F.4(d) Exclusions Recordkeeping

- II.F.4(d)(i) The following information shall be recorded in a log that is kept in the facility operating record for use in determining exemptions as provided in the applicability section of this Permit, Section II.F.1(c).
  - (1) An analysis determining the design capacity of the hazardous waste management unit.
  - (2) A statement listing the hazardous waste influent to and effluent from each hazardous waste management unit subject to the requirements of Section II.F. of this Permit and an analysis determining whether these hazardous wastes are heavy liquids.
  - information and data used to determine whether or not equipment is subject to the requirements of Section II.F. of this Permit. The record shall include supporting documentation as required by 40 CFR §264.1063(d)(3) when application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced is used. If the Permittee takes any action (e.g., changing the process that produced the waste) that could result in an increase in the total organic content of the waste contained in or contacted by equipment determined not to be subject to the requirements of Section II.F. of this Permit, then a new determination is required.

## II.F.4(e) Record Retention

Records of equipment leak information required by Section II.F.4(b)(i) of this Permit and the operating information required by Section II.F.4(c) of this Permit shall be kept for a minimum of five (5) years.

## **II.F.5** Reporting Requirements

- II.F.5(a) A semiannual report shall be submitted to the Director. The first report shall be submitted six (6) months after the effective date of this Permit. The report shall include the following information:
  - II.F.5(a)(i) The Environmental Protection Agency (EPA) identification number, name, and address of the facility.
  - II.F.5(a)(ii) For each month during the semiannual reporting period:
    - (1) The equipment identification number of each valve for which a leak was not repaired as required in Section II.F.3(b)(i) 4 & 5 of this Permit.
    - (2) The equipment identification number of each pump for which a leak was not repaired as required in Section II.F.3(a)(iv) & (v) of this Permit.
  - II.F.5(a)(iii) Dates of hazardous waste management unit shutdowns that occurred within the semiannual reporting period.
  - II.F.5(a)(iv) For each month during the semiannual reporting period, dates when the control device installed as required by Section II.F.3(b) exceeded or operated outside of the design specifications as defined in Section II.F.4(c)(i) and as indicated by the control device monitoring required by 40 CFR §264.1060 and was not corrected within twenty-four (24) hours, the duration and cause of each exceedance, and any corrective measures taken.
- II.F.5(b) If, during the semiannual reporting period, leaks from valves and pumps are repaired as required in Sections II.F.3(b)(i) 4 & 5 and II.F.3(a), respectively, and the control device does not exceed or operate outside of the design specifications as defined in Section II.F.4(c)(i) for more than twenty-four (24) hours, a report to the Director is not required.

# Appendix A

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TABLE 1
SUMMARY OF PROCESS VENTS SUBJECT TO SUBPART AA

Process Vent Identification	Hazardous Waste Management Unit and Location	Description of Hazardous Waste Stream	EPA Hazardous Waste Code	Estimated Emissions (lb/hr or ton/yr)	Control Device Option
No process vents subject to Subpart AA					

<sup>\*</sup> Figure X. would be a drawing of the facility showing the locations of the affected equipment.

TABLE 2

ALL EQUIPMENT SUBJECT TO ORGANIC EMISSION STANDARDS

Equip. ID. No.	Equip. Type	Hazardous Waste Management Unit and Equipment Location	EPA Hazardous Waste Number	Brief Waste Description	Physical State	Percent by Weight Total Organics	Method of Compliance
583	2" valve	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
538	2" valve	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
660	2" pump	Pump attached to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	8
663	3/8 sample port	Sample port attached to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
111	2" valve	Outbound from pump in heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
595	2" valve	in bound line to pump	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
219	3" valve	Inbound line to pump back side of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
344	3" valve	Outbound line to pump top of heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U

353	¾ sample port	Sample port right side of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
355	3" valve	left front side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
644	3" valve	From tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
104	3" valve	From tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
599	3" valve	From tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
598	3" valve	From tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
361	¾" sample port	Sample port left side of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
661	3" valve	Right front side of the manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
107	3" valve	To tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
108	3" valve	To tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

545	3" valve	To tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
110	3" valve	To tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
124	3" valve	Left from side of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
403	3" valve	Right front side of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
397	4" valve	Connector for pump piping 1 and 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
540	¾" sample port	Pump piping 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
468	4" valve	Pump piping 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
543	4" valve	Pump piping 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
669	4" valve	Rotary Pump	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	8
396	4" valve	Backflow valve pump piping 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

394	4" valve	Backflow valve pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
672	¾" sample port	Pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
546	3" Centrifugal Pump	Centrifugal pump	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	8
667	4" valve	Pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
292	4" valve	Pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
665	4" valve	Backflow valve pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
578	3" valve	Pump piping 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
552	4" valve	Backflow valve pump piping 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
673	¾ sample port	Pump piping 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
668	4" Rotary Pump	Rotary Pump 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	8

674	1/2" valve	Valve on cover 1	All permitted	Contaminated oils and	Liquids	>10%	1
074	1/2 valve	valve officover 1	waste codes	waters with D listed	Liquius	(footnote 2)	1
			(footnote 1)	solvents and metals		,	
670	1/2" valve	Valve on cover 2	All permitted	Contaminated oils and	Liquids	>10%	1
0.0	1,2 10.10	1 4 1 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2	waste codes	waters with D listed	2.90.00	(footnote 2)	_
			(footnote 1)	solvents and metals		, ,	
675	25" Access	Filter basket 1	All permitted	Contaminated oils and	Liquids	>10%	24
	cover	1	waste codes	waters with D listed		(footnote 2)	
			(footnote 1)	solvents and metals			
671	25" Access	Filter basket 2	All permitted	Contaminated oils and	Liquids	>10%	24
	Cover		waste codes	waters with D listed		(footnote 2)	
			(footnote 1)	solvents and metals			
580	3" valve	Main outbound Line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed	,	(footnote 2)	
			(footnote 1)	solvents and metals			
451	3"valve	Main outbound line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed	·	(footnote 2)	
			(footnote 1)	solvents and metals			
212	3" valve	Tank 2 outbound line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed	·	(footnote 2)	
			(footnote 1)	solvents and metals			
211	3" valve	Tank 1 outbound line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed	·	(footnote 2)	
			(footnote 1)	solvents and metals			
210	3" valve	Main inbound line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed	<u>'</u>	(footnote 2)	
			(footnote 1)	solvents and metals			
207	2" valve	Tank 3 2" in/out line	All permitted	Contaminated oils and	Liquids	>10%	1
			waste codes	waters with D listed		(footnote 2)	
			(footnote 1)	solvents and metals			

205	3" valve	Tank 1 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
204	3" valve	Tank 2 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
203	3"valve	Tank 4 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
202	3" valve	Tank 3 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
585	3" valve	Tank 3 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
586	3" valve	Tank 4 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
103	3" valve	Main inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
195	3" valve	Main outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
194	3" valve	Tank 8 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
392	3" valve	Tank 5 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

190	3" valve	Tank 8 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
189	3" valve	Tank 6 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
188	3" valve	Tank 5 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
187	3" valve	Tank 6 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
186	3" valve	Tank 7 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
179	3" valve	Tank 7 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
184	3" valve	Tank 10 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
182	3" valve	Tank 11 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
180	3" valve	Tank 9 inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
178	3"valve	Tank 11 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

177	3" valve	Tank 9 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
176	3" valve	Tank 10 outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
483	3" valve	Main inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
484	3' valve	Main outbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
200	3" valve	Main inbound line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
590	3" valve	Out valve bottom of tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
251	3" valve	Out valve above cone on side of tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
527	3" valve	Out valve bottom of tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
248	3" valve	Out valve above cone on tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
526	3" valve	Out valve bottom of tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

253	3" valve	Out valve above cone on tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
173	2" valve	In/out valve -1/2 way up tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U
174	2" valve	In/out valve 1/4 way up tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U
525	3" valve	Out valve bottom on tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
405	3" valve	Out valve above cone on tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
172	3" valve	Out valve top of front of tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U
524	3" valve	Out valve bottom of tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
429	3" valve	Out valve bottom of tank 7	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
158	3" valve	Out vale top front of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
231	2" valve	Out valve side of cone tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

523	3" valve	Out valve bottom of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
424	3" valve	Out valve side of cone tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
346	3" valve	Out valve bottom of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
485	3"flange for vent	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
2	4"flange for high level alarm	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
3	2" Blank Flange	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
4	2" Coupling for High Level Alarm	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
5	8" blank flange	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
6	20" manway/co ver	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
7	20 manway/co ver	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

8	4"flange	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
9	4" flange 3"pipe inbound line	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
10	3" flange 3"pipe	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
11	3" Tee	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
12	3" flange inbound line	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
13	2" flange mixer shaft	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
14	11/4 coupling holds float guide wire	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
15	11/2 coupling pipe for float	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
16	11/4 coupling holds float guide wire	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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17	34" threaded pipe feed for tee	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
18	1/4'" coupling for tee	Top of Tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
486	4" flange to 11/	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
487	½" pipe with cap for float guide wire	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
21	½" pipe with cap for float guide wire	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
22	24" manway cover	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
488	4" flange 34" coupling for high level alarm	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
489	4" flange with 2 ½" copper lines feeds to tee	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
490	4" flange for vent	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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491	4" flange to 3" pipe	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
492	3' flange to 3' pipe	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
492	3" flange to inbound line	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
30	1/2" pipe with cap for feed tee	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
31	3" 90 Elbow	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
32	¾" plug	Top of Tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
33	4" flange for high level alarm	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
34	¾" plug	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
35	½" pipe with cap for float guide wire	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
36	½" pipe with cap for float guide wire	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

494	4" flange connected to 3"vent	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
41	3" flange connected to 3" inbound line	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
42	3' elbow inbound line	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
43	3' flange inbound line	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
44	½" pipe and cap	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
45	4" flange to 11/2" pipe for gauge tape	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
46	24" Manway cover	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
497	4" flange connected to 3" pipe	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
48	3" Flange to vitalic Thd pipe	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
49	3" elbow to inbound line	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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50	3" Flange to inbound line	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
51	½" pipe with cap	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
496	3" coupling inbound line	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
498	4" flange with plug	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
499	4" flange connected to 3" vent	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
500	4" Flange connected to high level alarm	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
56	½" plug	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
57	24" manway cover	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
58	½" pipe with cap for float guide wire	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
571	½" pipe with cap for float guide wire	Top of Tank 3	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

501	4" flange to 11'2 pipe for gauge tape	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
502	4" flange for 3" vent	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
62	4" flange for high level alarm	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
63	8" flange with cover	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
64	"4 flange with cover	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
503	4" flange to 11/2" pipe for gauge wire	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
66	1" pipe with cap for float guide wire	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
67	1" pipe with cap for float guide wire	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
68	24"manwa y with cover	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

504	4" flange with 2 ¼" plug	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
70	3" elbow to inbound line	Top of tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
71	½" plug	Top of tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
72	3" flange to inbound line	Top of tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
505	4" flange to 3" inbound pipe	Top of tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
74	3" flange to 3" inbound pipe	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
507	4" flange to 11/2" pipe for gauge tape	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
76	¾" plug	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
535	4" flange for high level alarm	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
513	4' flange to 11/2" pipe to gauge tape	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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79	4" flange to %"coupling for high level alarm	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
508	4" flange to %" coupling for high level alarm	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
509	4" flange 3" pipe for vent	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
82	8" Flange with cover	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
83	4" flange with cover	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
511	4" flange to 11/2" pipe for gauge tape	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
85	1" pipe with cap for float guide wire	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
86	1" pipe with cap for float guide wire	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
87	24" manway cover	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

510	3/4" plug	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
512	4" flange w 2 %" coupling for feed for T	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
90	½" pipe *1/2" cap	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
92	3" flange for inbound line	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
93	3" flange * 3" thd Pipe for inbound pipe	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
94	4" flange- 3" pipe for inbound line	Top of Tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
95	4" flange with 21/4" plugs	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
96	½" plug	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
97	3" flange	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

98	3" flange * 3" thd pipe	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
100	4" flange * 3" pipe for inbound line	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
514	4" flange * 3" pipe for vent	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
515	4"flange *3/4 coupling for high level alarm	Top of Tank of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
128	2" Blank Flange	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
129	1" pipe with cap for float guide wire	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
130	1" pipe with cap for float guide wire	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
516	4" flange to 11"2 pipe for gauge wire	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
132	¾" plug	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

133	24" manway cover	Top of Tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
134	4" flange "3/4 coupling for high level alarms	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
135	4" flange * 11/2" pipe for gauge tape	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
136	4"flange * %"coupling for high level alarm	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
137	4'Flange with 2 ¼" plugs	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
517	24" manway with cover	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
139	¾' plug	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
140	1" pipe with cap for float guide wire	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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141	1" pipe with cap for float guide wire	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
518	4" flange * 11/2" pipe for gauge tape	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
143	4" flange with cover	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
519	8" flange with cover	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
520	4" flange w 2 ¼" coupling	Top of tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
146	4" flange with 3" thd pipe for inbound line	Top of tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
113	2" union for inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
114	2" 90 Elbow inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

115	3" Blank	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
116	3" Flange on the inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
117	3" Flange on inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
118	3" Flange on inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
119	3' Flange to 2" thread	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
120	2" TEE inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
121	2" 90 elbow inbound line to pump	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
122	3" flange	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

123	3" flange	Back side of manifold inside dike	All permitted	Contaminated oils and	Liquids	>10%	24
			waste codes (footnote 1)	waters with D listed solvents and metals	·	(footnote 2)	
147	3'Flange to 3"thd pipe for inbound line	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
521	½" pipe with plug	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
150	4" flange with cover	South side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
151	4"flange with 2 %" coupling-feeds for 90% tee	South side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
152	¾" pipe for glycol line	South side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
153	¾" pipe for glycol line	South side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
154	24" manway with cover	South side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
155	4" Flange with temp gauge	Top of tank 9 Front Side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
156	8" Flange	Top of tank 9 Front Side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

157	4" flange *	Bottom of Tank 10 Front side	All permitted	Contaminated oils and	Liquids	>10%	24
	3" pipe to outbound line		waste codes (footnote 1)	waters with D listed solvents and metals		(footnote 2)	
159	1/4" coupling feed for 90% tee	North side Top of Tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
160	¼" coupling feed for 90% tee	North side Top of Tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
161	4" Flange * 3" pipe for inbound line	North side Top of Tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
162	4" Flange * 3" pipe for inbound line	North side Top of Tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
163	24" Manway with cover	South Side of Tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
164	4"flange * 3" pipe inbound line	South Side of Tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
165	3" Flange * 3 thd pipe for inbound line	South Side of Tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
166	3" flange* 3"thd pipe for inbound pipe	South Side of Tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

167	1/4" coupling	South Side of Tank 5	All permitted	Contaminated oils and	Liquids	>10%	24
	for feed 90% tee		waste codes (footnote 1)	waters with D listed solvents and metals		(footnote 2)	
168	¼" coupling for feed 90% tee	South Side of Tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
169	4" flange w 2 %" coupling for temp gauge	Top of Tank 5 south side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
170	4" Flange with temp gauge	Bottom of Tank 6 Front side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
171	8"flange with cover	Top of Tank 5 Front Side	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
175	4" flange with temp gauge	¼ up the Front side of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
191	4" flange with temp gauge	Bottom of Tank 5/6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
192	2" camlock with cap	Bottom front of 5/6 along dike wall	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
201	4" flange with temp gauge	Bottom front of tank 3 along dike wall	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
206	2" camlock with cap on in/out line for tank 3	Bottom of tank 1 along dike wall	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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208	1/2" pipe to temp gauge	Bottom front of tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
209	¾" coupling with plug	Bottom front of tank 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
213	3" elbow inbound line	Top of tank 6	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
215	3" elbow inbound line	Top of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
216	3" elbow inbound line	Top of tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
116	3" flange on inbound line to pump	Backside of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
117	3" flange on inbound line to pump	Backside of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
221	24" manway with cover	Bottom of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
222	½" pipe to temp gauge	Bottom of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
223	24" manway with cover	Bottom backside of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

224	¾" pipe- glycol line	Bottom backside of tank 9 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
225	¾" pipe- glycol line	Bottom backside of tank 9 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
227	¾" pipe- glycol line	Bottom front of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
228	¾" pipe- glycol line	Bottom front of tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
229	¾" pipe to temp gauge	Backside of manifold	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
230	3/4" pipe glycol line	Bottom of tank 7 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
232	2" camlock with cap	Bottom of Northside of tank 9	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
233	%" pipe for glycol line	Bottom backside of tank 5 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
234	¾" pipe for glycol line	Bottom backside of tank 5 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
237	24"manwa y with cover	Bottom southside of tank 7	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

238	24"manwa y with cover	Bottom backside of tank 5	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
239	%" pipe for glycol line	Bottom backside of tank 7 on manway	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
240	4" flange with temp gauge	Bottom northside of tank 7	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
241	4" flange	Bottom southside of tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
245	¾" pipe to temp gauge	Bottom Northside of tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
246	24" manway with cover	Bottom front of tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
247	¾" pipe	Bottom Northside of tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
249	4" Flange * 3" pipe	Bottom Northside of tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
250	3" Flange	Bottom Northside of tank 2	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
254	3" Flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

463	3" Flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
462	4"flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
257	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
452	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
453	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
262	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
263	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
470	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
471	4" camlock with plug	Left side of pump 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
467	4" flange from filter basket 1	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

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469	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
472	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
474	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
475	4" female coupling to off load hose	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
386	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
279	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
478	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
283	4" female coupling with plug	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
284	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
480	4" female coupling to off load hose	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

287	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
482	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
290	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
291	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
294	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
295	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
547	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
298	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
548	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
301	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

477	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
476	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
304	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
454	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
456	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
457	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
455	3*4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
458	3" flange with 3" coupling with plug	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
311	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
450	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

314	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
316	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
317	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
318	3" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
322	4" flange	Offloading pumping area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
442	4"*2" flange	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
114	2" thd elbow	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
440	2" thd elbow	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
445	2" thd union	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
329	2" thd tee	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

447	2"*3/4" bushing	Inbound line to heat exchanger	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
441	2" thd elbow	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
113	3" to 3" male adapter	Back side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
341	18" flange	Top of heat exchanger inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
342	4" flange	Top of heat exchanger inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
343	3" flange	Top of heat exchanger inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
345	4" flange	Top of heat exchanger inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
354	3" flange	Left front side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
356	3" flange	Left front side of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
122	3" flange	right front side manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

	1	1		1		1	1
123	3" flange	right front side manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
369	8" flange with cover	North side of tanks 7/8 half way up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
370	4" flange with temp gauge	North side of tanks 7/8 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
371	24" Manway with cover	Front side of tanks 7/8 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
372	4" flange	Front side of tank 7/8 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
373	3" vent- 4" flange * 3" pipe	Backside of tanks 5/6 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
374	24" manway with cover	Backside of tanks 5/6 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
375	24" manway with cover	Southside left of tanks 7/8 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
376	3" vent- 4" flange * 3" pipe	Southside left of tanks 7/8 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
377	3" vent- 4" flange * 3" pipe	Backside of tanks 9/10 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

378	24" manway with cover	Backside of tanks 9/10 halfway up	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
384	2*3" flange	Backside of manifold inside dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
531	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
532	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
550	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
460	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
461	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
549	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
465	4" flange	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
544	4"plug- 4" camlock w/plug	Left side of pumping 1	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

542	4" female camlock to off load hose	Off loading pumping	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
495	4"*3" flange for inbound line	Top of Tank 4	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
506	4" flange for level alarm	Top of Tank 8	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
522	3" flange inbound line to tk10	Top of Tank 10	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
528	3" male coupling with cap or hose	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
529	2"thd elbow outbound line	Back side of manifold inside of dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
530	2"thd elbow outbound line	Back side of manifold inside of dike	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
533	3" flange outbound line	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
534	3" flange outbound line	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

551	4" flange	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
553	4" flange* 4 thd vitalic fitting	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
555	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
556	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
557	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
558	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
559	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
560	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
562	4" flange* 4 thd vitalic fitting	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
564	4" flange* 4 thd vitalic fitting	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24

565	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
566	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
567	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
568	4" vitalic coupling	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
569	4" flange* 4 thd vitalic fitting	Off loading pump area	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	24
1000	2" valve	In/out valve -1/4 way up tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U
1001	2" valve	In/out valve -1/4 way up tank 11	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	5U
1002	3' valve	Outbound line by offloading pumps	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
1003	¾ sampling valve	Outbound line by offloading pumps	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1
1004	3" valve	Inbound main line	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	Liquids	>10% (footnote 2)	1

P1	Pressure Release Valve	Pressure Release Valve on top of Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P2	Pressure Release Valve	Pressure Release Valve on top of Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P3	Pressure Release Valve	Pressure Release Valve on top of Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P4	Pressure Release Valve	Pressure Release Valve on top of Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P5	Pressure Release Valve	Pressure Release Valve on top of Tank 5	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P6	Pressure Release Valve	Pressure Release Valve on top of Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P7	Pressure Release Valve	Pressure Release Valve on top of Tank 7	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P8	Pressure Release Valve	Pressure Release Valve on top of Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P9	Pressure Release Valve	Pressure Release Valve on top of Tank 9	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
P10	Pressure Release Valve	Pressure Release Valve on top of Tank 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17

P11	Pressure Release Valve	Pressure Release Valve on top of Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	17
C1	4" Flange	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C2	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C3	4" Flange	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C4	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C5	4" Flange	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C6	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C7	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C8	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
С9	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C10	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C11	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C12	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C12	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C13	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C14	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C15	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C16	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C17	3" connector	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C18	4" valve	To Carbon Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1

C19	3" connector	In between carbon Tank 2 and Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C20	3" connector	In between carbon Tank 2 and Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C21	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C22	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C23	3" valve	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C24	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1
C25	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C26	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C27	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C28	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C29	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C30	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C31	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C32	4" flange	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C33	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C34	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C35	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C36	4" flange	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C37	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C38	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C39	3" connector	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C40	4" flange	To carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C41	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C42	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C43	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C44	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C45	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C46	6" flange	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C47	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C48	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C49	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C50	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C51	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C52	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C53	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C54	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C55	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C56	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C57	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C58	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C59	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C60	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C61	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C62	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C63	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C64	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C65	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C66	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C67	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C68	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

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C69	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C70	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C71	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C72	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C73	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C74	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C75	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C76	3" connector	Closed vent line to Tank 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C77	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C78	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C79	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C80	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C81	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C82	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C83	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C84	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C85	3" connector	Closed vent line to Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C86	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C87	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C88	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C89	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C90	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C91	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C92	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C93	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C94	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C95	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C96	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C97	3" connector	Closed vent line to Tank 3	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C98	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

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C99	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C100	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C101	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C102	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C103	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C104	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C105	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C106	3" connector	Closed vent line to Tank 4	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C107	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C108	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C109	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C110	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C111	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C112	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C113	3" connector	Closed vent line to Tanks 5 and 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C114	3" connector	Closed vent line to Tank 5	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C115	3" connector	Closed vent line to Tank 5	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C116	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C117	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C118	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

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C119	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C120	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C121	3" connector	Closed vent line to Tank 6	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C122	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C123	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C124	3" connector	Closed vent line to Tanks 7, 8, and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C125	3" connector	Closed vent line to Tanks 7, 8, and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C126	3" connector	Closed vent line to Tanks 7, 8, and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C127	3" connector	Closed vent line to Tanks 7, 8, and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C128	3" connector	Closed vent line to Tank 7	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C129	3" connector	Closed vent line to Tanks 8 and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C130	3" connector	Closed vent line to Tanks 8 and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C131	3" connector	Closed vent line to Tanks 8 and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C132	3" connector	Closed vent line to Tanks 8 and 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C133	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C134	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C135	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C136	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C137	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C138	3" connector	Closed vent line to Tank 8	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C139	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C140	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C141	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C142	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C143	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C144	3" connector	Closed vent line to Tank 11	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C145	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C146	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C147	3" connector	Closed vent line to Tanks 9 and 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C148	3" connector	Closed vent line to Tanks 9 and 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C149	3" connector	Closed vent line to Tank 9	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C150	3" connector	Closed vent line to Tank 9	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C151	3" connector	Closed vent line to Tank 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C152	3" connector	Closed vent line to Tank 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C153	3" connector	Closed vent line to Tank 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C154	3" connector	Closed vent line to Tank 10	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C155	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C156	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C157	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C158	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C159	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C160	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C161	3" connector	Main closed vent line to Tanks	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C162	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C163	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C164	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C165	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C166	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C167	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C168	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C169	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C170	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C171	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C172	4" valve	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1
C173	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C174	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C175	4" flange	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C176	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C177	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C178	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

C179	4" valve	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1
C180	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C181	3" connector	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
C182	4" flange	Closed Vent line in-between Carbon Tank 1 and 2	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT1-1	24" Manway/ Cover	Manway cover on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT1-2	3" flange	Connector on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT1-3	2" Valve	On bottom of Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1
CT1-4	2" cap	On bottom of Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT1-5	2" flange/ cover	On top on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT1-6	2" flange/ cover	On top on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18

CT2-1	24" Manway/ Cover	Manway cover on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT2-2	3" flange	Connector on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT2-3	2" Valve	On bottom of Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	1
CT2-4	2" cap	On bottom of Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT2-5	2" flange/ cover	On top on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CT2-6	2" flange/ cover	On top on Carbon Tank 1	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	18
CP-1	Pump	Pump for Close vent system	All permitted waste codes (footnote 1)	Vapors from tanks	Gas	>10% (footnote 2)	8

<sup>\*</sup> Site drawing. would be a drawing of the facility showing the locations of the affected equipment. Footnote 1- see list of waste codes: D001, D004 – D011, D018 – D019, D021-D029, D035-D037, D039-D043 Footnote 2- assumed over 10% Average Volatile Organic Concentration of the Hazardous Waste

Note: This table may also be re-created in an electronic spreadsheet or data, with the advantage of having the ability to sort the data according to equipment type or method of compliance. The sorted data will be useful to create a list of equipment that must be inspected on a monthly, quarterly or annual basis.

#### ATTACHMENT I

#### METHOD OF COMPLIANCE FOR SUBPART BB

Valves

- 1. These valves shall be monitored monthly using Reference Method 21, and must maintain a reading of less than 10,000 ppm. Any valve for which a leak is not detected for two successive months may be monitored the first month of each succeeding quarter until a leak is detected. If a leak is detected, the Permittee must resume monitoring the valve monthly until a leak is not detected for two successive months. All leaks must be repaired and in compliance no later than 15 calendar days after leak detection, and a first attempt at repair must be made no later than 5 calendar days after leak detection [40 C.F.R. 264.1057(a)-(e)].
- 2. These valves are considered leakless and achieve a no-detectable emissions limit (<500 ppm above background as measured by Reference Method 21) and must have performance tests conducted initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1057(f)].
- 3. These valves are considered to meet a performance level of 2 percent of all valves leaking for a single hazardous waste management unit and must comply with the required notification, monitoring, and repair program [40 C.F.R. 264.1061].
- 4. The Permittee must comply with a skip-period leak detection and repair program for these valves [40 C.F.R. 264.1062].
- 5. These valves are designated unsafe to monitor or difficult to monitor [40 C.F.R. 264.1057(g)-(h)]. Use 5U for unsafe and 5D for difficult. These valves shall be monitored at the frequencies specified in Table 2 and the Permittee must attach an additional written monitoring plan to meet the requirements of 40 C.F.R. 264.1057(g)-(h).
- 6. These open-ended valves or lines shall comply with the requirements in 40 C.F.R 264.1056.
- 7. These valves shall be considered in heavy liquid service and shall be monitored visually, audibly, by olfactory methods, or other detection methods at least monthly, and shall comply with the required repair program if evidence of a leak is found [40 C.F.R. 264.1058]

#### **Pumps**

- 8. This method applies if the pump is in light liquid service and does not fall under one of the three categories in numbers 8, 9, and 10.
  - These pumps shall be inspected weekly and monitored monthly using Reference Method 21, and must maintain a reading less than 10,000 ppm and must comply with the leak repair program as specified in 40 C.F.R. 264.1052.
- 9. These pumps have a dual mechanical seal system that includes a barrier fluid between two seals, and they must comply with the inspection and repair requirements of 40 C.F.R. 264.1052(d). The Permittee must attach detailed design, installation, and maintenance specifications and standard operating procedures for these pumps.
- 10. These pumps are designated for no-detectable emissions limit (<500 ppm above background as measured by Reference Method 21) and must be monitored initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1052(e)].
- 11. These pumps are equipped with closed vent systems capable of transporting any leakage from the seal or seals to a control device and must comply with the monitoring and inspection requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1052(f)].
- 12. This method applies if the pump is in heavy liquid service. These pumps shall be monitored visually, audibly, by olfactory methods or other detection methods and comply with the

required repair program if evidence of a leak is found [40 C.F.R. 264.1058].

#### Compressors

- 13. This method applies only if the compressor does not fall under one of the two categories in numbers 13 or 14.
  - These compressors must be equipped with a sensor that detects failure of the seal system, barrier fluid system, or both, where the sensor is checked daily or has an audible alarm that is checked monthly, and the Permittee complies with the specified leak repair program [40 C.F.R. 264.1053(a)-(g)].
- 14. These compressors shall be equipped with closed vent systems and control devices that comply with the monitoring requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1053(h)].
- 15. These compressors operate with no detectable emissions. They shall be tested for compliance using Reference Method 21 initially upon designation, annually, and as requested by the Regional Administrator [40 C.F.R. 264.1053(I)].

#### **Pressure Relief Devices**

- 16. This method applies only if the pressure relief device does not fall under the category in number 17.
  - These pressure relief devices must be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21) and must be monitored initially upon designation, annually, and at other times as requested by the Regional Administrator [40 C.F.R. 264.1053(I)].
- 17. These pressure relief devices shall be equipped with a closed vent system capable of capturing and transporting leakage to a control device that meets the monitoring requirements of 40 C.F.R. 264.1060 [40 C.F.R. 264.1054(c)].

#### **Closed Vent Systems and Control Devices**

The Permittee shall monitor these closed vent systems and control devices in accordance with a monitoring schedule specified in a specific monitoring plan that the Permittee shall attach [40 C.F.R. 264.1060 and 264.1033]. The following options for inspection and monitoring are available:

- 18. These closed vent systems that are designed to be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21), which have joints, seams or other connections that are permanently or semi-permanently sealed shall be visually inspected at least once per year to check for defects [40 C.F.R. 264.1060 and 264.1033(I)(1)].
- 19. These closed vent systems that are designed to be operated with no detectable emissions (<500 ppm above background, as measured by Reference Method 21) shall be monitored annually and at other times request by the Regional Administrator using Method 21 [40 C.F.R. 264.1060 and 264.1033(I)(1)].
- 20. These closed vent systems that are designed to operate below atmospheric pressure shall be visually inspected initially and at least once per year [40 C.F.R. 264.1060 and

264.1033(I)(2)].

- 21. These closed vent systems have been designated as unsafe to monitor and are exempt from the inspection and monitoring requirements except that all components are required to be monitored as frequently as possible during safe-to-monitor times [40 C.F.R. 264.1060 and 264.1033(o)].
- 22. Each control device's monitor readings shall be inspected at least daily [40 C.F.R. 264.1060 and 264.1033(f)(3)].

#### Sampling Connection Systems

23. All sampling connection systems shall comply with the standards in 40 C.F.R. 264.1055.

#### **Flanges and Other Connectors**

- 24. These flanges and connectors shall be monitored visually, audibly, by olfactory methods or other detection methods at least monthly and shall comply with the required repair program if evidence of a leak is found [40 C.F.R. 264.1058].
- 25. These connectors are inaccessible or are ceramic or ceramic lined and are exempt from monitoring and recordkeeping requirements [40 C.F.R. 264.1058(e)].

#### **Exempt Equipment**

26. This equipment which contains or contacts hazardous waste with an organic concentration of at least 10 percent by weight for a period of less than 300 hours per year is exempt from the requirements of 264.1052 through 264.1060 [40 C.F.R. 264.1050(f)].

TABLE 3

#### MONITORING FREQUENCY FOR UNSAFE OR DIFFICULT TO MONITOR VALVES

These valves are classified as unsafe to monitor or difficult to monitor [40 C.F.R. 264.1057(g)-(h)] and correspond to Method of Compliance Number 5 in Attachment 1. These valves shall be monitored at the frequencies specified below.

Equip. (Valve) ID. No.	Hazardous Waste Management Unit	Equipment Location	Unsafe (U) Difficult (D)	Frequency of Monitoring
344	3" valve	Outbound line to pump top of heat exchanger	U	Annual
172	3" valve	Out valve top of front of tank 5	U	Annual
173	2" valve	In/out valve -1/2 way up tank 3	U	Annual
174	2" valve	In/out valve 1/4 way up tank 3	U	Annual
1000	2" valve	In/out valve -1/4 way up tank 11	U	Annual
1001	2" valve	In/out valve 1/2 way up tank 11	U	Annual

<sup>\*</sup> Site drawing. would be a drawing of the facility showing the locations of the affected equipment.

TABLE 4
SUMMARY OF HAZARDOUS WASTE MANAGEMENT UNITS SUBJECT TO SUBPART CC

Hazardous Waste Management Unit Type and I.D. No.	Location of Hazardous Waste Management Unit	EPA Hazardous Waste Code	Brief Waste Description	Average Volatile Organic Concentration of the Hazardous Waste	Organic claim, DOT Concentration of Performance the Hazardous Packaging Std ID		Method of Compliance	Container Type (when applicable)
Tank 1 (heated tank)	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 2 (heated tank)	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 3 (heated tank)	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 4 (heated tank)	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 5	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a

Tank 6	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 7	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 8	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 9	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 10	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a
Tank 11	Tank Farm see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	N/a	Subject to Tank Level 2 controls per 264.1084(g)	4	N/a

Up to 40 55- gallons drums	Drum storage see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	1A1, 1A2, 1B2, 1H1, 1H2	Subject to Container Level 1 standards per [40 C.F.R. 264.1086(b)( 1)(I) & (c)(1)(I)]	11	Up to 55 gallons
Totes	Drum storage see figure	All permitted waste codes (footnote 1)	Contaminated oils and waters with D listed solvents and metals	>10% (footnote 2)	11A, 13H3, 31H1, 31HA1	Subject to Container Level 2 standards per [40 C.F.R. 264.1086(b)( 1)(III) & (d)(1)(I)]	17	Up to 375 gallons

<sup>1</sup> Site Drawing. would be a drawing of the facility (or portion of the facility) showing the location of the hazardous waste management unit. Footnote 1- see list of waste codes: D001, D004 – D011, D018 – D019, D021-D029, D035-D037, D039-D043

Footnote 2- assumed over 10% Average Volatile Organic Concentration of the Hazardous Waste

#### ATTACHMENT II

#### METHODS OF COMPLIANCE WITH SUBPART CC STANDARDS

#### Tanks

- 1. These tanks shall comply with Level 1 controls which require tanks to have a fixed roof with no visible cracks, holes, gaps, or other spaces in accordance with 264.1084(c). The tank shall be visually inspected for defects initially prior to the tank becoming subject to the requirements and at least once every year thereafter. [40 C.F.R. 264.1084(c)].
- 2. These tanks are fixed-roof tanks equipped with an internal floating roof and shall comply with Tank Level 2 controls in accordance with 264.1084(e). The internal floating roof shall be visually inspected for defects at least once every 12 months after initial fill unless complying with the alternative inspection procedures in 40 C.F.R. 264.1084(e)(3)(iii). [40 C.F.R. 264.1084(d)(1)]
- 3. These tanks are equipped with an external floating roof and shall comply with Tank Level 2 controls in accordance with 264.1084(f). The external floating roof seal gaps shall be measured in accordance with the procedures contained in 264.1084(f)(3)(I) within 60 days and at least once every 5 years thereafter. The external floating roof shall be visually inspected for defects at least once every 12 months after initial fill. [40 C.F.R. 264.1084(d)(2)]
- 4. These tanks are vented through a closed-vent system to a control device and shall comply with Tank Level 2 controls in accordance with 264.1084(g). The tank shall be equipped with a fixed roof and closure devices which shall be visually inspected for defects initially and at least once every year. The closed-vent system and control device shall be inspected and monitored in accordance with 264.1087. [40 C.F.R. 264.1084(d)(3)]
- 5. These tanks are pressure tanks which shall comply with Tank Level 2 controls in accordance with 264.1084(h). [40 C.F.R. 264.1084(d)(4)]
- 6. These tanks are located inside an enclosure that is vented through a closed-vent system to an enclosed combustion control device and shall comply with Tank Level 2 controls in accordance with 264.1084(I). The closed-vent system and control device shall be inspected and monitored in accordance with 264.1087. [40 C.F.R. 264.1084(d)(5)]
- 7. These tanks have covers which have been specified as "unsafe to inspect and monitor" and shall comply with the requirements of 264.1084(I)(1). [40 C.F.R. 264.1084(f) & (g)]

#### **Surface Impoundments**

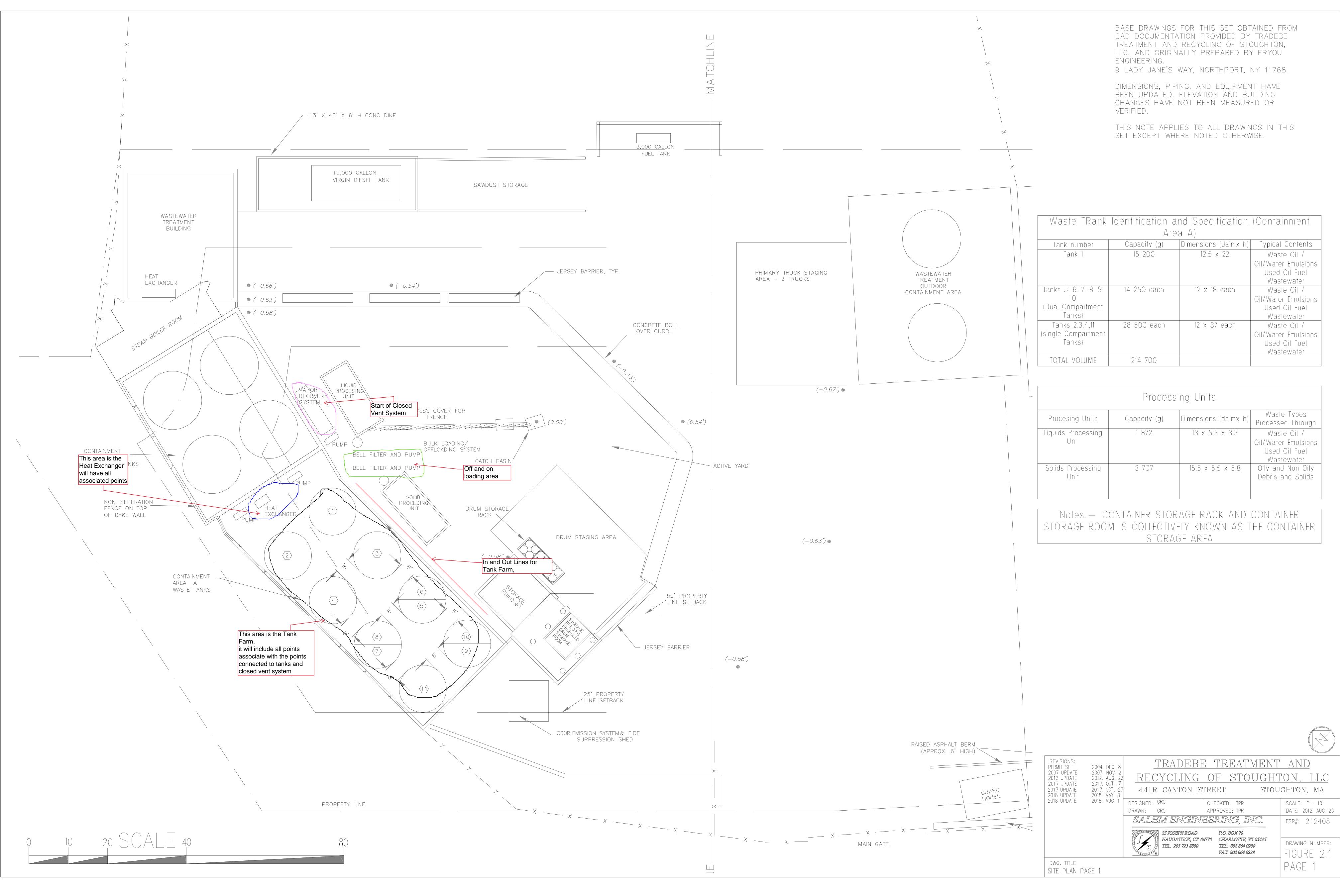
- 8. These surface impoundments shall have a floating membrane cover in accordance with 264.1085(c). The floating membrane cover shall be visually inspected for defects initially and at least once each year. [40 C.F.R. 264.1085(b)(1)]
- 9. These surface impoundments shall have a cover that is vented through a closed-vent system to a control device in accordance with 264.1085(d). The surface impoundment cover and its closure devices shall be visually inspected for defects initially and at least once each year. The closed-vent system and control device shall be inspected and monitored in accordance with 264.1087. [40 C.F.R. 264.1085(b)(2)]

10. These surface impoundments have covers which have been designated as "unsafe to inspect and monitor" and shall comply with the requirements of 264.1085(g). [40 C.F.R. 264.1085(c) & (d)]

#### Containers

- 11. These containers have a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³ and meet the applicable U.S. DOT regulations under the Container Level 1 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(I)]
- 12. These containers have a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³ and are equipped with a cover and closure devices which form a continuous barrier over container openings. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(I) & (c)(1)(II)]
- 13. These containers have a design capacity greater than 0.1 m³ and less than or equal to 0.46 m³ and are open-top containers in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(i) & c(I)(iii)]
- 14. These containers have a design capacity greater than 0.46 m³, are not in light material service and meet the applicable U.S. DOT regulations under the Container Level 1 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(ii) & (c)(1)(l)]
- These containers have a design capacity greater than 0.46 m³, are not in light material service and are equipped with a cover and closure devices which form a continuous barrier over container openings. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(ii) & (c)(1)(ii)]
- These containers have a design capacity greater than 0.46 m³, are not in light material service and are open-top containers in which an organic-vapor suppressing barrier is placed on or over the hazardous waste in the container. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(iii) & c(1)(iii)]
- These containers have a design capacity greater than 0.46 m³, are in light material service and meet the applicable U.S. DOT regulations under the Container Level 2 standards. The container shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(iii) & (d)(1)(I)]
- 18. These containers have a design capacity greater than 0.46 m<sup>3</sup>, are in light material service and operate with no detectable organic emissions as defined in 40 C.F.R. 265.1081. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container

- remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(iii) & (d)(1)(ii)]
- These containers have a design capacity greater than 0.46 m³, are in light material service and that have been demonstrated within the preceding 12 months to be vapor-tight using 40 C.F.R. Part 60, Appendix A, Method 27. The container and its cover and closure devices shall be visually inspected for defects at the time the container first manages hazardous waste or is accepted at a facility. If a container remains at a facility for 1 year or more, it shall be visually inspected for defects at least once every 12 months. [40 C.F.R. 264.1086(b)(1)(iii) & (d)(1)(iii)]
- 20. These containers have a design capacity greater than 0.1 m³ that are used for treatment of a hazardous waste by a waste stabilization process and are vented directly through a closed-vent system to a control device in accordance with 264.1086(e)(2)(ii). The closed-vent system and control devices shall be inspected and monitored as specified in 264.1087. [40 C.F.R. 264.1086(b)(2) & (e)(1)(I)]
- These containers have a design capacity greater than 0.1 m³ that are used for treatment of a hazardous waste by a waste stabilization process and are vented inside an enclosure which is exhausted through a closed-vent system to a control device in accordance with 264.1086(e)(2)(I) & (ii). The closed-vent system and control devices shall be inspected and monitored as specified in 264.1087. [40 C.F.R. 264.1086(b)(2) & (e)(1)(ii)]



## Appendix B

Tradebe Stoughton EPA ID: MAD062179890

## **DESIGN ANALYSIS**

## **FOR**

## **VAPOR RECOVERY SYSTEM**

## **LOCATED AT**

ENVIRONMENTAL COMPLIANCE CORPORATION 441R Canton Street, Stoughton, MA 02072

**February 10, 2006** 

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### 1.0 Introduction

Environmental Compliance Corporation (ECC) operates a waste treatment and storage facility at 441R Canton Street in Stoughton, MA. Environmental Compliance Corporation proposes to collect and control any potential organic vapors generated during processing in on-site tanks by venting the collected vapors through a vessel filled with activated carbon. A second vessel is proposed to be located on-site to be put on-line when carbon change-out occurs in the first vessel.

The purpose of this Design Analysis is to determine the amount of time the carbon bed will remain effective in controlling organic vapor emissions, assuming maximum potential loading to the carbon bed due to the maximum potential throughput of wastes and processing conditions through the storage and treatment tanks.

## 2.0 Description of Facility Operations

Environmental Compliance Corporation is a licensed hazardous and non-hazardous waste treatment and storage facility located in Stoughton, Massachusetts. One of the main functions that ECC performs on-site is the removal of water and solids from waste oils and other petroleum products. The water is transferred from the waste tanks to a wastewater treatment system located adjacent to the waste tanks on-site. The resultant oil/fuel is blended to produce used oil fuel. Oils or other wastes that do not meet the requirements for use as a fuel are transported to an authorized treatment or disposal facility.

ECC has tank and container storage. The facility generally receives wastes from generators in Massachusetts and New England, although other states are accepted. ECC accepts several different types of waste streams, but the majority of these fall into the categories of waste oil, oily and non-oily wastewaters, and oily and non-oily solids. While no reclamation or disposal of material takes place at the facility, ECC does recover and market waste oil that it has blended to used oil standards. Properly characterized waste materials are received, usually in bulk tankers or 55-gallon drums; verified analytically according to a Waste Analysis Plan; and off-loaded into on-site tanks or a solidification area (solids). Oil is recovered and shipped out as a used oil fuel to be burned as an alternative to virgin fuel oil. Wastewater is processed through an on-site wastewater treatment system prior to being discharged to a treatment plant as permitted by the Massachusetts Water Resources Authority. Solids are further solidified, stored on-site, and shipped to an off-site disposal or recovery facility.

This Design Analysis is concerned with the liquids that are processed in the on-site storage/treatment tanks. Listed in Table 1 below are the eleven storage and treatment tanks located at ECC that are piped to the Vapor Recovery System. Each tank has a 4 inch vapor line near its top. The 4 inch lines all join together to form a 6 inch line prior to being routed to the carbon adsorption system. The lines and associated equipment into

the carbon system form a "closed vent system" as defined by the EPA in 40 CFR 264 Subparts AA-CC.

Table 1
Environmental Compliance Corporation
Waste Tank Identifications

Tank Number	Capacity (gallons)	Dimensions- Diameter x Height (feet)	Typical Contents		
Tank 1	15,200	12.5 x 22	Waste Oil, Oil/Water Emulsions, Used Oil Fuel, Wastewater		
Tanks 5, 6, 7, 8, 9, & 10 (Dual Compartment Tanks)	14,250 each 6 TANK TOTAL: 85,500	12 x 18 each	Waste Oil, Oil/Water Emulsions, Used Oil Fuel, Wastewater		
Tanks 2, 3, 4, & 11 (Single Compartment Tanks)	28,500 each 4 TANK TOTAL: 114,000	12 x 37 each	Waste Oil, Oil/Water Emulsions, Used Oil Fuel, Wastewater		
TOTAL VOLUME FOR TANK STORAGE	214,700 gallons				

### 3.0 Vapor Recovery System Description

When liquids are transferred from a truck in the unloading area to any of the tanks located in the tank farm, internal tank vapors are displaced from the tank farm to the carbon adsorption Vapor Recovery System. Each tank in the tank farm has a single vent which directs vapors to the system. This same displacement occurs when trucks are filled from tanks, or when tanks generate vapors while being heated or are simply standing (breathing vapors).

The carbon adsorption system is a dual tank system which adsorbs hydrocarbon vapors onto a bed of activated carbon in the "on-line" tank. When the "on-line" tank has reached its adsorptive capacity (based on this Design Analysis), the second clean carbon tank is brought "on-line" and the spent carbon in the original tank is changed with fresh carbon. Each vessel will hold 1,500 pounds of activated carbon. An MSDS for the activated carbon is included as Appendix A. The vessels are constructed of carbon steel with a phenolic lining on their interiors. Both vessels are identical in design with a diameter of 48 inches and a height of 92 inches (including legs). The vessels are connected to the inlet piping through a 4 inch diameter PVC pipe. The exhaust to the atmosphere from the in-service vessel will be 10-15 feet above grade.

Appendix B includes two drawings of the Vapor Recovery System; a line drawing of the system layout, and a side and top view dimensional drawing.

Determination of when a carbon bed has reached its adsorptive capacity is made by calculating the holding capacity of an individual carbon bed based on maximum potential organic mass loading into the carbon adsorber. As per 40 CFR Part 265.1088 Paragraph (c)(5)(i), ECC has elected to complete a Design Analysis of the closed vent control system.

Listed in Table 2 are the design specifications of the Vapor Recovery System.

# Table 2 Design Specifications ECC Vapor Recovery System

Maximum Design Flow Rate	500 cfm
Relative Humidity	40% - 60%
Inlet Gas Stream Temperature	50° F - 100° F
Number of Carbon Beds	2 (1 "on-line" at a time)
Capacity of Carbon Beds	1,500 pounds per bed
Type of Activated Carbon	VPR Pellet, 4-10 mesh
Vent Stream Composition	See page 2 of TANKS model entitled
_	"Liquid Contents of Storage Tank" in
	Appendix C
Constituent Concentrations	See page 2 of TANKS model entitled
	"Liquid Contents of Storage Tank" in
	Appendix C
Working Capacity of Activated Carbon	Approximately 750 pounds per bed
Design Carbon Replacement Interval	8.1 months or
(see Section 4.0)	246.8 days maximum
Design Outlet Organic Concentration Level	51 ppm (as methane) @ 50 CFM
(to achieve 95% removal efficiency as required by 40	102 ppm (as methane) @ 25 CFM
CFR 264 Subparts AA-CC)	

Several calculations and assumptions were used to determine the absorptive capacity of the carbon beds. These are listed below.

1. A waste stream composition of 98% oil and 2% gasoline. This is considered a worst-case waste stream to process and one that would impact the vapor recovery system the most for the following reasons. ECC is permitted to accept D001 hazardous wastes with a flash point of greater than 100° F. ECC has done research to determine that 2% gasoline in 98% oil would provide a flash point of about 100°F. ECC is not permitted to accept any listed hazardous wastes, including F-listed solvents. F and other listed hazardous wastes, especially solvents, would create more organic vapors than other types of hazardous and non-hazardous wastes. ECC can handle low levels of solvents if they are present in wastewaters or oils, but not above hazardous wastes levels. Such halogenated hydrocarbons would have to be below 1000 ppm total. ECC assumes that the

- 98% oil and 2% gasoline (20,000 ppm gasoline) mixture would impact the vapor recovery system more than the low-level solvent mixtures.
- 2. A waste stream total throughput of 10 million gallons per year through the tanks. This includes inbound and outbound from the tanks. Actual throughput numbers for ECC's tanks for the last four years are 7.2 million gallons, 5.2 million gallons, 6.6 million gallons, and 8.4 million gallons. To be conservative, ECC added approximately 2 million gallons to the highest annual total over the last four years.
- 3. Based on the last two Biennial Reports (2001 and 2003), ECC has actually processed only 25,841 gallons (2001) and 24,312 gallons (2003) of federally D-coded hazardous wastes. These equate to 0.4% of the inbound waste streams. Of these D-coded wastes, the majority (60% in 2001 and 93% in 2003) were benzene contaminated wastewaters that would not contain light-end organics. The rest were typically wastewaters contaminated with enough gasoline to yield a D001 and D018 code. This data helps establish the fact that ECC rarely processes waste with light-end organics present. In general these waste streams are 90% oily wastewaters or straight oils and 10% straight wastewaters. The oil and gas waste stream modeled in this Design Analysis, although possible, does not actually occur.
- 4. ECC typically receives wastes into one of four on-site tanks. This is an operational choice that ECC makes, since the license allows receipt into any of the eleven tanks. In performing this Design Analysis, ECC utilized EPA's TANKS 4.0.9d emissions model to achieve emissions in on-site tanks. The TANKS program is based on "AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point & Area Sources, Chapter 7 Liquid Storage Tanks". ECC modeled the 10 million gallons volume and 98% oil to 2% gasoline mixture through the site as if the largest on-site tank was receiving and

- processing the full volume. The TANKS modeling is present in Appendix C of this Design Analysis.
- 5. The TANKS model assumes that the tanks and waste stream is heated. ECC is permitted to heat only four of its tanks at one time up to 180° F maximum. ECC will typically heat only one tank at a time and temperature rarely exceeds 120° F. A majority of the time, the wastes in the tanks are ambient temperature. ECC has assumed that the average daily liquid surface temperature is 50° F, with a minimum of 30° F, and a maximum of 180° F; and the average liquid bulk temperature was assumed to be 70° F. For the 100° F stream modeled, the tank would not be heated because of the low flash point. To heat the product near or over its flash point would be dangerous. Nonetheless, a heated tank and higher temperatures than would be encountered were assumed to present a worst case emissions scenario.
- 6. Manufacturers of activated carbon provide what is known as working or holding capacities of an amount of carbon based on the constituent to which it is exposed. For example, virgin solvents in a tank that is vented to a carbon adsorption system have been shown to provide 30% holding capacities. This means that for each 100 pounds of fresh carbon in a bed exposed to virgin solvents, the carbon is effective when exposed to a maximum of 30 pounds of solvent. Since carbon adsorption is not typically used for oil or oil with small amounts of gasoline present, holding capacities are not established. Since the majority of the modeled waste stream is oil, ECC has assumed that the holding capacity of the fresh carbon will be 50%. This is a very conservative number since oil does not contain the light-end organics that would impact carbon. Gasoline would, but the small percentage present in this modeled stream should not impact this assumption. When changing carbon on the predetermined schedule for the first two times, ECC will have the manufacturer of the virgin carbon check the spent carbon to determine impact and percent life left on the carbon. This will provide us with

data on how the processing of actual waste streams over a set time period truly affected the carbon.

## 4.0 Calculation of Organic Emissions and Control System Effectiveness/Carbon Change-Out Schedule

#### Calculation of Organic Emissions

Determination of when an activated carbon control system has reached its adsorptive or holding capacity is dependant on the mass transfer of volatile material to the bed. For the purposes of this Design Analysis, worst-case operating parameters have been established in Section 3.0. Actual operations are several orders of magnitude lower than the mass transfer rates calculated here. Nonetheless, the TANKS modeling shows that ECC will generate 1,109.11 pounds of emissions per year; (Appendix C).

### Control System Effectiveness/Carbon Change-Out Schedule

The carbon vessels contain 1,500 pounds of carbon. At a 50% working/holding capacity, they provide 750 pounds of effectiveness. The formula to calculate when to change out the carbon is presented below

The activated carbon system proposed for ECC is sufficient to control organic emissions from the treatment and processing of 10,000,000 gallons of worst case organic wastes per year for 8.11 months or 246.8 days.

Therefore, ECC needs to change its carbon at the pre-determined time interval of 8.11 months or 246.8 days.

## 5.0 Certification by Owner/Operator

I hereby certify that the operating parameters presented in this Design Analysis reasonably represent conditions that could exist when the hazardous waste management tanks at Environmental Compliance Corporation are operating at the highest load or capacity level reasonably expected to occur.

~	or capacity level reasonably expected to occur when es less than the conditions presented in this report.
David J. Carabetta	Date
President, Environmental Comp	oliance Corporation
an efficiency of 95 percent or gr	adsorption units located at ECC are designed to operate at reater when controlling organic emissions from hazardous tent with Environmental Compliance Corporation's

David J. Carabetta

Date

President, Environmental Compliance Corporation

## APPENDIX A MSDS FOR CARBON

## Material Safety Data Sheet



Date: 01/22/2003

Product: 28351030 - DSR-A 8X40 Customer: UNITED OIL RECOVERY

**Delivery No.**: 80139186

#### SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manufacturer: Calgon Carbon Corporation

P.O. Box 717

Pittsburgh, PA 15230-0717 Emergency Phone Number: (412) 787-6700

Date Prepared: 6/24/2002 Prepared By: S. Liller

Chemical Name and Synonyms: Carbon

Formula: C

#### SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Nonhazardous components are listed at 3% or greater; acute hazards are listed when present at 1% or greater and chronic hazards are listed when present at 0.01% or greater. This is not intended to be a complete compositional disclosure.

INGREDIENT CARBON % (BY WEIGHT)

100

<u>CAS#</u> 7440-44-0

SECTION III - HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Black particulate solid, pellet or powder. Contact may cause eye irritation. Dust may be slightly irritating to eyes and respiratory tract.

CAUTION!! Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all local, state and federal regulations.

#### POTENTIAL HEALTH EFFECTS:

Effects and Hazards of Eye Contact: The physical nature of the product may produce eye irritation. Effects and Hazards of Skin Contact: The product is not a primary skin irritant. The primary skin irritation index (Rabbit) is 0.

Effects and Hazards of Inhalation (Breathing): The product is practically non-toxic through inhalation. The acute inhalation LC<sub>20</sub> (Rat) is >64.4 mg/l (nominal concentration) for activated carbon.

Effects and Hazards of Ingestion (Swallowing): The product is non-toxic through ingestion. The acute oral  $LD_{50}$  (RAT) is >10g/kg.

Primary Routes of Entry: Inhalation, ingestion, skin contact, eye contact.

Chronic Effects: The effects of long-term, low-level exposures to this product have not been determined. Safe handling of this material on a long-term basis should emphasize the avoidance of all effects from repetitive acute exposures.

CARCINOGENICITY:

NTP: N/A

IARC: N/A

OSHA REGULATED: NO

#### SECTION IV - FIRST AID MEASURES

Treatment for Eye Contact: Flush with plenty of water for at least 15 minutes.

Treatment for Skin Contact: Wash with soap and water.

Treatment for Inhalation (Breathing): N/A
Treatment for Ingestion (Swallowing): N/A

## **Material Safety Data Sheet**



#### SECTION V - FIRE FIGHTING MEASURES

Flash Point: N/A Limits Lel: N/A

Uel: N/A

Extinguishing Media: FLOOD WITH PLENTY OF WATER.

Special Firefighting Procedures: NONE

Unusual Fire and Explosion Hazards: Contact with strong oxidizers such as ozone, liquid oxygen,

chlorine, permanganate, etc., may result in fire.

**NFPA RATING:** HEALTH = 0

REACTIVITY = 0

FLAMMABILITY = 1

#### SECTION VI - ACCIDENTAL RELEASE MEASURES

Steps to be Taken in Case Material is Released or Spilled: Sweep up unused carbon and discard in refuse container or repackage.

Waste Disposal Method: Dispose of unused carbon in refuse container. Dispose of in accordance with local, state, and federal regulations.

#### SECTION VII - HANDLING AND STORAGE

Precautions for Handling and Storage: CAUTION!! Wet activated carbon removes oxygen from air causing a severe hazard to workers inside carbon vessels and enclosed or confined spaces. Before entering such an area, sampling and work procedures for low oxygen levels should be taken to ensure ample oxygen availability, observing all local, state, and federal or national regulations.

Other Precautions: Wash thoroughly after handling. Exercise caution in the storage and handling of all chemical substances.

#### SECTION VIII - EXPOSURE CONTROLS, PERSONAL PROTECTION

**Exposure Guidelines:** 

OSHA PEL\* 5 mg/M³ (Respirable) ACGIH TLV\* 10 mg/M³ (Total)

\*PELs and TLVs are 8-hour TWAs unless otherwise noted.

Respiratory Protection: A NIOSH approved particulate filter respirator is recommended if excessive dust

is generated.

Ventilation: Local Exhaust Ventilation: Recommended

Mechanical Ventilation: Recommended Protective Gloves: Recommended

Eye Protection: Safety Glasses or Goggles Recommended

Other Protective Equipment: Not Required

#### SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A

Specific Gravity: 2.3 g/cc real density

Vapor Pressure: N/A
Melting Point: N/A
Vapor Density: N/A
Evaporation Rate: N/A

Solubility in Water: NEGLIGIBLE Packing Density: 0.4 to 0.7 g/cc

Appearance and Odor: Black particulate solid, pellet, or powder

## Material Safety Data Sheet



#### SECTION X - STABILITY AND REACTIVITY

Stability: STABLE

Conditions to avoid: NONE

Incompatibility (Materials to avoid): Strong oxidizers such as ozone, liquid oxygen, chlorine,

permanganate, etc.

Hazardous Decomposition Products: Carbon monoxide may be generated in the event of a fire.

Polymerizing Conditions to Avoid: NONE

### SECTION XI - TOXICOLOGICAL INFORMATION

See HEALTH EFFECTS SECTION III

#### SECTION XII - ECOLOGICAL INFORMATION

Not determined

#### SECTION XIII - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of unused carbon in refuse container. Dispose of in accordance with local, state, and federal or national regulations.

#### SECTION XIV - TRANSPORT INFORMATION

Proper Shipping Name: NOT REGULATED

Hazard Class: N/A

Identification Number: N/A

Packing Group: N/A

This product has been tested according to the United Nations *Transport of Dangerous Goods* test protocol for spontaneously combustible materials. It has been specifically determined that this product does not meet the definition of a self heating substance or any hazard class, and therefore is not a hazardous material and not regulated.

#### SECTION XV - REGULATORY INFORMATION

SARA TITLE III: N/A

TSCA: The ingredients of this product are on the TSCA Inventory List.

OSHA: Nonhazardous according to definitions of health hazard and physical hazard provided in the

Hazard Communication Standard (29 CFR 1910.1200)

**CANADA** 

WHMIS CLASSIFICATION: Not Classified

**DSL#**: 6798

EEC Council Directives relating to the classification, packaging and labeling of dangerous substances and preparations.

Risk (R) and Safety (S) phrases: May be irritating to eyes (R36).

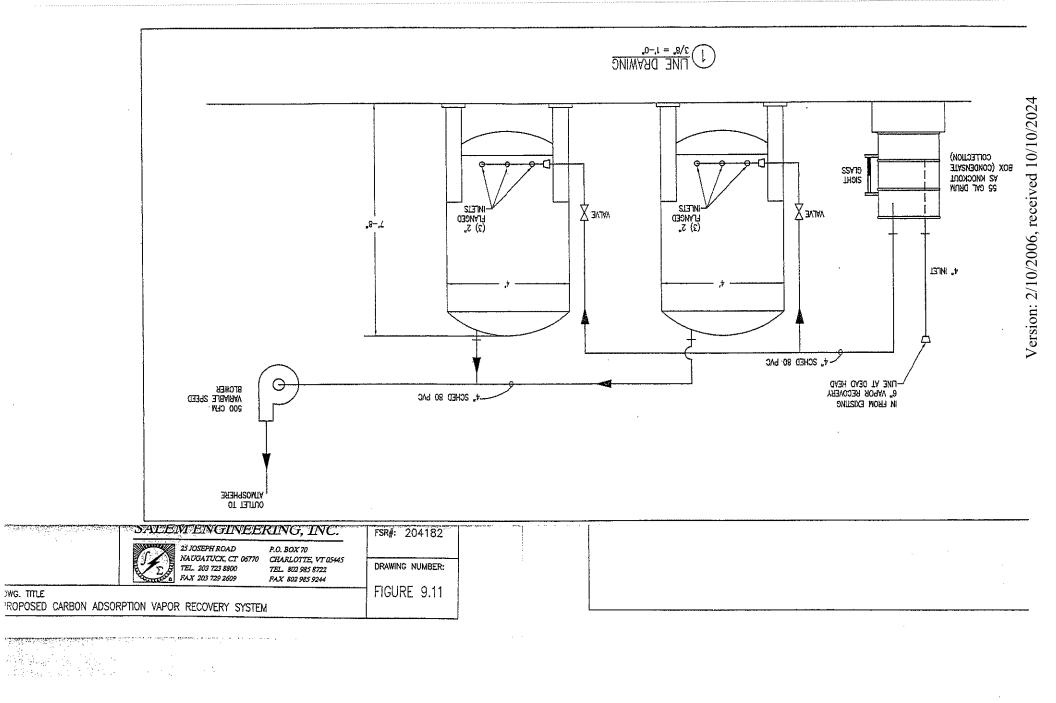
#### SECTION XVI - OTHER INFORMATION

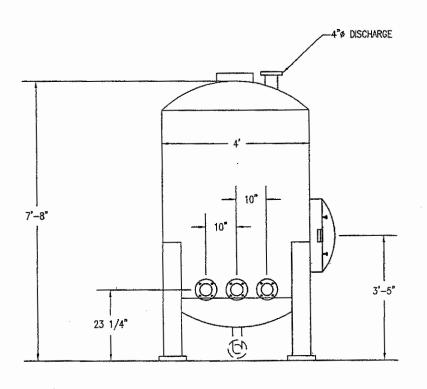
Intended Use: Generally used for treatment of liquids and gases.

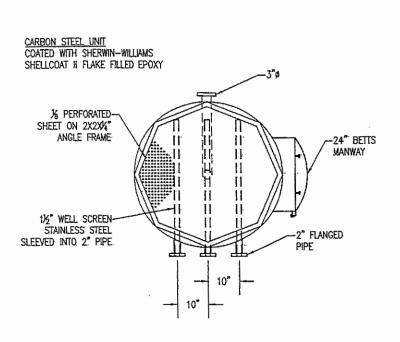
While this information and recommendations set forth herein are believed to be accurate as of the date hereof, CALGON CARBON CORPORATION MAKES NO WARRANTY WITH RESPECT AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.

#### \*\*\* END OF MATERIAL SAFETY DATA SHEET \*\*\*

## APPENDIX B VAPOR RECOVERY SYSTEM DRAWINGS







2 CARBON UNIT-SIDE AND TOP VIEWS WITH DIMENSIONS

## APPENDIX C TANKS MODEL

#### **TANKS 4.0.9d**

## **Emissions Report - Detail Format** Tank Indentification and Physical Characteristics

Identification

User Identification:

**ECC Tanks** Boston

City:

Massachusetts

State: Company:

**Environmental Compliance Corporation** 

Type of Tank:

Vertical Fixed Roof Tank

Description:

Tanks for Design Analysis

**Tank Dimensions** 

Shell Height (ft):

37.00

Diameter (ft):

12.00

Liquid Height (ft):

35.00

Avg. Liquid Height (ft):

25.00

Volume (gallons):

28,500.00

Turnovers:

338.00

Net Throughput(gal/yr):

10,008,530.44

Is Tank Heated (y/n):

Paint Characteristics

Shell Color/Shade:

Gray/Medium

Shell Condition

Good

Roof Color/Shade:

Gray/Medium

Roof Condition:

Good

**Roof Characteristics** 

Type:

Dome

0,00

Height (ft) Radius (ft) (Dome Roof)

12.00

**Breather Vent Settings** 

Vacuum Settings (psig):

0.00

Pressure Settings (psig)

0.00

Meterological Data used in Emissions Calculations: Boston, Massachusetts (Avg Atmospheric Pressure = 14.72 psia)

## TANKS 4.0.9d Emissions Report - Detail Format Liquid Contents of Storage Tank

ECC Tanks - Vertical Fixed Roof Tank Boston, Massachusetts

amtuarianeaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenaniamenan						HARAITA MANAGAR MANAGA	Angelian Hereign (1941)	**********	retarion in item side in and second spiro				mendagement describe had the factor of the f
			aily Liquid S perature (d	eg F)	Liquid Bulk Temp	Vapo	or Pressure		Vapor Mol.	Liquid Mass	Vapor Mass	Mol.	Basis for Vapor Pressure
Mixture/Component	Month	Avg.	Min.	Max.	(deg F)	Avg.	Min.	Max.	Weight.	Fract.	Fract.	Weight	Calculations
98% oil, 2% gasoline Distillate fuel oil no. 2 Gasoline (RVP 10)	All	50,00	30.00	180.00	70.00	0.1747 0.0045 4.2553	0.1149 0.0031 2.7968	1.3962 0.0220 34.3473	67.5827 130.0000 66.0000	0.9800 0.0200	0,0476 0.9524	184.16 188.00 92.00	Option 1: VP40 = .0031 VP50 = .0045 Option 4: RVP=10, ASTM Slope=3

## TANKS 4.0.9d Emissions Report - Detail Format Detail Calculations (AP-42)

### ECC Tanks - Vertical Fixed Roof Tank Boston, Massachusetts

Annual Emission Calcaulations	
Standing Losses (lb): Vapor Space Volume (cu ft): Vapor Density (lb/cu ft): Vapor Space Expansion Factor: Vented Vapor Saturation Factor:	390,5636 1,450,2568 0,0022 0,3824 0,8939
Tank Vapor Space Volume: Vapor Space Volume (cu ft): Tank Diameter (ft): Vapor Space Outage (ft): Tank Shell Height (ft): Average Liquid Height (ft): Roof Outage (ft):	1,450.2568 12,0000 12,8231 37,0000 25,0000 0,8231
Roof Outage (Dome Roof) Roof Outage (ft): Dome Radius (ft): Shell Radius (ft):	0.8231 12.0000 6.0000
Vapor Density Vapor Density (ib/cu ft): Vapor Molecular Weight (ib/ib-mole): Vapor Pressure at Daily Average Liquid	0.0022 67.5827
Surface Temperature (psia): Daily Avg. Liquid Surface Temp. (deg. R): Daily Average Ambient Temp. (deg. F): Ideal Gas Constant R	0.1747 509.6700 51.2625
(psia cuft / (lb-mol-deg R)): Liquid Bulk Temperature (deg. R): Tank Paint Solar Absorptance (Shell): Tank Paint Solar Absorptance (Roof): Daily Total Solar Insulation	10,731 529,6700 0,6800 0,6800
Factor (Btu/sqft day):	1,238.9394
Vapor Space Expansion Factor Vapor Space Expansion Factor: Daily Vapor Temperature Range (deg. R): Daily Vapor Pressure Range (psia): Breather Vent Press. Setting Range(psia): Vapor Pressure at Daily Average Liquid	0.3824 150.0000 1.2812 0,0000
Surface Temperature (psia): Vapor Pressure at Daily Minimum Liquid	0.1747 0.1149
Surface Temperature (psia): Vapor Pressure at Daily Maximum Liquid Surface Temperature (psia): Daily Avg. Liquid Surface Temp. (deg R): Daily Min. Liquid Surface Temp. (deg R): Daily Max. Liquid Surface Temp. (deg R): Daily Max. Liquid Surface Temp. (deg R): Daily Amblent Temp. Range (deg. R):	1,3962 509,6700 489,6700 639,6700 15,3917
Vented Vapor Saturation Factor Vented Vapor Saturation Factor:	0.8939
Vapor Pressure at Daily Average Liquid: Surface Temperature (psia); Vapor Space Outage (ft):	0.1747 12.8231

Working Losses (lb):	718.5505
Vapor Molecular Weight (lb/lb-mole):	67.5827
Vapor Pressure at Daily Average Liquid	
Surface Temperature (psia);	0.1747
Annual Net Throughput (gal/yr.):	10,008,530.4398
Annual Turnovers:	338.0000
Turnover Factor:	0,2554
Maximum Liquid Volume (gal):	28,500,0000
Maximum Liquid Height (ft):	35,0000
Tank Diameter (ft):	12,0000
Working Loss Product Factor:	1,0000

Total Losses (ib):

1,109.1141

## TANKS 4.0.9d Emissions Report - Detail Format Individual Tank Emission Totals

**Emissions Report for: Annual** 

ECC Tanks - Vertical Fixed Roof Tank Boston, Massachusetts

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
98% oil, 2% gasoline	718.55	390.56	1,109.11
Distillate fuel oil no. 2	34.18	18.58	52.76
Gasoline (RVP 10)	684.37	371.98	1,056.35