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- H. PERSONNEL TRAINING
- I. CLOSURE PLAN AND FINANCIAL REQUIREMENTS
- J. [NOT USED]
- K. [NOT USED]
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- N. SUBPART BB EQUIPMENT LEAKS
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- P. MANIFEST SYSTEM, RECORDKEEPING AND REPORTING
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PERMIT EXHIBITS

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- B. FACILITY DESCRIPTION
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- D. PROCESS INFORMATION
- E. [NOT USED]
- F. PREPAREDNESS AND PREVENTION PLAN
- G. CONTINGENCY PLAN
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- I. CLOSURE PLAN AND FINANCIAL ASSURANCE DOCUMENTS
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- K. [NOT USED]
- L. [NOT USED]
- M. [NOT USED]
- N. SUBPART BB INFORMATION
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PART I - GENERAL PERMIT CONDITIONS

A. EFFECT OF PERMIT

The Permittee is allowed to manage hazardous waste in accordance with the conditions of this Permit. Any additional storage, treatment, and/or disposal of hazardous waste not specifically authorized in this Permit is prohibited. Subject to Arizona Administrative Code (A.A.C.) R18-8-270.A and 40 CFR § 270.4, compliance with this Permit generally constitutes compliance, for purposes of enforcement with the Arizona Hazardous Waste Management Act (AHWMA). Issuance of this Permit does not convey any property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this Permit does not constitute a defense to any order issued or any action brought under Sections 3008(a), 3008(h), 3013, or 7003 of RCRA (42 U.S.C. 6921 et seq.); Sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 et seq., commonly known as CERCLA), or any other law providing for protection of public health or the environment.

[A.A.C. R18-8-270.A (40 CFR §§ 270.4, 270.30(g))]

B. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in A.A.C. R18-8-260 et seq. (40 CFR Parts 124, 260, 264, 266, 268, and 270), unless this Permit specifically provides otherwise (see alphabetized terms below); where terms are not defined in the regulations or the Permit, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

A.A.C. and CFR means the Arizona Administrative Code (A.A.C.) Title 18, Chapter 8, Article 2 (A.A.C. R18-8-260 et seq.), effective September 5, 2015, as published at 21 Arizona Administrative Register (A.A.R.) 1246, which adopts and modifies portions of Title 40 Code of Federal Regulations Part 260 through 273 (40 CFR Part 260 -273) (See Attachment Q).

ADEQ Contact means the Arizona Department of Environmental Quality, Hazardous Waste Unit

AHWMA means Arizona Hazardous Waste Management Act.

Area of Concern or AOC is defined as:

- Hazardous product storage unit or area.
- Any area where a one-time hazardous material (product or waste) spill event occurred.
- Any hazardous material unit or area where management may have occurred, where the potential for release may have existed, but where insufficient evidence was found during the RCRA Facility Assessment (RFA) to verify the existence of a definable Solid Waste Management Unit (SWMU).

Director means the Director of ADEQ or the Director's designee or authorized representative

Example means, unless otherwise specified, that the form is a blank form that is mandatory to be used or followed. This term does not convey to the Permittee that the statements are optional to be performed or are at the user's discretion. "Example" presents, unless otherwise specified, minimum acceptable.

Facility or Activity means any HWM facility or any other facility or activity including land or appurtenances thereto) that is subject to regulation under the RCRA program.

Hazardous constituent means any constituent identified in A.A.C. R18-8-261.A (Appendix VIII of 40 CFR Part 261), or any constituent identified in A.A.C. R18-8-264 (Appendix IX of 40 CFR Part 264).

Hazard Classification means the Department of Transportation (DOT) hazard classification given to a designated material for the purpose of classifying the material for transport.

Hazardous waste means a hazardous waste as defined in R18-8-261.A (40 CFR 261.3).

Miscellaneous Unit means a hazardous waste management unit where hazardous waste is treated, stored, or disposed of and that is not a container, tank, surface impoundment, pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well, containment building, corrective action management unit, or eligible for research, development, and demonstration Permit.

Qualified means that the individual or group shall have the same reliability, expertise, integrity, competence, training, education, and other necessary skills, as required by this Permit, as the person(s) or group who normally performs that function has.

Regulated Facility or Regulated Unit means any hazardous waste management facility or unit regulated under A.A.C. R18-8-264.A and 270.A, and 40 CFR 264 and 270.

Release includes the definitions of "discharge" and "disposal" as found in A.A.C. R18-8-260.A (40 CFR 260.10) and means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes (including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

Shall, Must, Will, and factual statements denote mandatory requirements.

Should or May denotes a recommendation or permission, respectively, which is not mandatory.

Solid Waste Management Unit or SWMU means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. SWMUs include any area at a facility at which solid wastes have been

routinely and systematically released.

Permittee denotes Safety-Kleen Systems, Inc., (Safety-Kleen) Chandler facility (SKC).

C. PERMIT ACTIONS

1. Permit Modification, Revocation and Reissuance, and Termination

- (a) This Permit may be modified, revoked and reissued, or terminated for cause, as specified in A.A.C. R18-8-270.A (40 CFR §§ 270.41, 270.42, and 270.43). The Permit may be modified by the Director at any time, following procedures outlined in A.A.C. R18-8-271.D in order to ensure compliance with applicable state and federal requirements. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee, does not stay the applicability or enforceability of any permit condition.

[A.A.C. R18-8-270.A (40 CFR §§ 270.4(a) and 270.30(f))]

- (b) In accordance with Arizona Revised Statutes (A.R.S.), Title 41, Chapter 6, Article 10, a final determination regarding any Permit Modification (the approval of the Permittee's Permit Modification request, the approval of the Permittee's Permit Modification request with changes, the denial of the Permittee's Permit Modification request, or the final decision on any agency-initiated Permit Modifications) made by the Director is an appealable agency action. Such appeals shall include the appellant's right to request an informal settlement conference (see A.R.S. §41-1092.06).

[A.R.S. §41-1092 et seq.]

2. Permit Renewal

This Permit may be renewed as specified in A.A.C. R18-8-270A (40 CFR 270.30(b)) and Permit Condition I.E.3. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations.

[A.A.C. R18-8-270.A (40 CFR § 270.30(b), HSWA Sec. 212)]

D. SEVERABILITY

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

[A.A.C. R18-8-270A (40 CFR § 124.16(a))]

E. DUTIES AND REQUIREMENTS

1. Duty to Comply

The Permittee shall comply with all conditions of this Permit, except to the extent and for the duration such noncompliance is authorized by an Emergency Permit. Any Permit noncompliance, other than noncompliance authorized by an Emergency Permit, constitutes a violation of AHWMA and/or RCRA and is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of a Permit renewal application.

[A.A.C. R18-8-270.A (40 CFR § 270.30(a))]

2. Duty to Reapply

If the Permittee wishes to continue an activity allowed by this Permit after the expiration date of this Permit, the Permittee shall submit a complete application for a new Permit at least one hundred eighty (180) days prior to Permit expiration.

[A.A.C. R18-8-270.A (40 CFR § 270.10(h), 270.30(b))]

3. Permit Expiration

This Permit shall be effective for a fixed term not to exceed ten (10) years. This Permit and all conditions herein will remain in effect beyond the Permit's expiration date, if the Permittee has submitted a timely, complete permit application for renewal and through no fault of the Permittee, the Director has not issued a new Permit. For purposes of this requirement a complete application for renewal must be in accordance with requirements of A.A.C. R18-8-270.A, E, F, G, H, I, and J (40 CFR 270.10, 270.13 through 270.29)

[A.A.C.R18-8-270.A (40 CFR 270.50(a), 40 CFR 270.51)]

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 the Permitted activity in order to maintain compliance with the conditions of this Permit.

[A.A.C. R18-8-270.A (40 CFR § 270.30(c))]

5. Duty to Mitigate

In the event of noncompliance with this Permit, the Permittee shall take all reasonable steps to minimize releases to the environment and shall carry out such measures, as are reasonable, to prevent significant adverse impacts on human health or the environment.

[A.A.C. R18-8-270.A (40 CFR § 270.30(d))]

6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this Permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance/quality control procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of this Permit.

[A.A.C. R18-8-270.A (40 CFR § 270.30(e))]

7. Property Rights

This Permit does not convey any property rights of any sort, or any exclusive privilege.

[A.A.C. R18-8-270.A, 40 CFR 270.4(b) and 270.30(g)]

8. Duty to Provide Information

The Permittee shall 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 shall also furnish to the Director, upon request, copies of records required to be kept by this Permit.

[A.A.C. R18-8-264.A (40 CFR § 264.74(a)) and A.A.C. R18-8-270.A (40 CFR § 270.30(h))]

9. Inspection and Entry

Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents, as maybe required by law, to:

- (a) Enter at reasonable times upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;
- (c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Permit; and
- (d) Sample or monitor, at reasonable times, for the purposes of assuring Permit compliance or as otherwise authorized by AHWMA or RCRA, any substances or parameters at any location.

[A.A.C. R18-8-270.A (40 CFR 270.30(i))]

10. Monitoring and Records

- (a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative sample of the waste to be analyzed must be the appropriate method from A.A.C. R18-8-261.A, Appendix I of 40 CFR Part 261 or an equivalent method approved by the Director. Laboratory methods must be those specified in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846 (current edition), or an equivalent or better method, as specified in the Waste Analysis Plan (See Permit Attachment C) or as approved by the Director.
[A.A.C. R18-8-270.A (40 CFR § 270.30(j)(1))]
- (b) The Permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports and records required by this Permit, the certification required by A.A.C. R18-8-270.A (40 CFR § 264.73(b)(9)), and records of all data used to complete the application for this Permit for a period of at least three (3) years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.
[A.A.C. R18-8-264.A (40 CFR § 264.74(b)) and A.A.C. R18-8-270.A (40 CFR §270.30(j)(2))]
- (c) Pursuant to A.A.C. R18-8-270.A (40 CFR § 270.30(j)(3)), records of monitoring information shall specify:
- i. The dates, exact place, and times of sampling or measurements;
 - ii. The individuals who performed the sampling or measurements;
 - iii. The dates analyses were performed;
 - iv. The individuals who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses, including Quality Assurance/Quality Control (QA/QC) data.
- (d) Each parameter test that an in-state or out-of-state laboratory performs directly for the Permittee to comply with the requirements of the permit must be licensed by the Arizona Department of Health Services (ADHS) [A.R.S. Title 36, Chapter 4.3, Article 1, Section 36-495.01]. Additionally, if a contract laboratory is used to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the conditions set forth in this Permit.

11. Signatory and Certification Requirements

All applications, reports, or information submitted to or requested by the Director, his/her designee, or authorized representative, shall be signed and certified in accordance with A.A.C. R18-8-270.A and 40 CFR 270.11.

[A.A.C. R18-8-270.A (40 CFR 270.30(k))]

12. Reporting Requirements

(a) Planned Changes. The Permittee shall give notice to the Director, as soon as possible, of any planned physical alterations or additions to the Permitted facility.

[A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(1))]

(b) Anticipated Noncompliance. The Permittee shall give advance notice to the Director of any planned changes (e.g., physical alterations) in the permitted facility or activity which may result in noncompliance with Permit requirements.

[A.A.C. R18-8-270.A and 270.L (40 CFR 270.30(1)(2))]

(c) Transfers. This Permit is not transferable to any person or any other corporation, except after notice to the Director. The Director may require modification or revocation and reissuance of the Permit to change the name of the Permittee and incorporate such other requirements as may be necessary pursuant to A.A.C. R18-8-270.A (40 CFR § 270.40).

[A.A.C. R18-8-270.A and L (40 CFR § 270.30 (1)(3)) and A.A.C. R18-8-264.A (40 CFR § 264.12(c))]

(d) Monitoring Reports. Monitoring results shall be reported at the intervals specified elsewhere in this Permit.

[A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(4))]

(e) Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than 14 calendar days following each schedule date.

[A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(5))]

(f) Manifest Discrepancy Report. If a discrepancy in a manifest is discovered, the Permittee must attempt to reconcile the discrepancy. If not resolved within 15 calendar days, the Permittee must submit a letter report, including a copy of the manifest, to the Director.

[A.A.C. R18-8-264.A 40 CFR § 264.72), A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(7))]

- (g) Unmanifested Waste Report. The permittee shall submit an unmanifested report to the Director within 15 days of receipt of unmanifested waste.
A.A.C. R18-8-264.A (40 CFR § 264.76)) and A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(8))
- (h) Annual Report. The Permittee must submit an annual report pursuant to and as described in A.A.C. R18-8-264.I.
- (i) Other Noncompliance. The Permittee shall report all instances of noncompliance not required under A.A.C. R18-8-270.A (40 CFR § 270.30(1)(4)(5) and (6)), at the time monitoring (including annual) reports are submitted. Reports shall contain the information listed in A.A.C. R18-8-270.A (40 CFR § 270.30(1)(6)).
[A.A.C. R18-8-270.K and L (40 CFR § 270.30(1)(10))]

13. Twenty-Four Hour Reporting

The Permittee shall immediately report to the Director any noncompliance which may endanger human health or the environment. Any such information shall be reported orally within 24 hours from the time the Permittee becomes aware of the circumstances. The report shall include the following:

- (a) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.
- (b) Any information of a release or discharge of hazardous waste or of a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility. The description of the occurrence and its cause shall include:
 - i. Name, address, and telephone number of the owner or operator;
 - ii. Name, address and telephone number of the facility;
 - iii. Date, time and type of incident;
 - iv. Name and quantity of materials involved;
 - v. The extent of injuries, if any;
 - vi. An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and
 - vii. Estimated quantity and disposition of recovered material that resulted from the incident.
- (c) A written submission of the occurrence shall also be provided within five (5) calendar days of the time the Permittee becomes aware of the circumstances. The written submission shall contain:

- i. A description of the noncompliance and its cause;
- ii. The period(s) of noncompliance (including exact dates and times);
- iii. Whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The Director may waive the five (5)-day written notice requirement in favor of a written report within fifteen 15 days.

[A.A.C. R18-8-270.A and L (40 CFR 270.30(l)(6))]

14. **Other Information**

- (a) Whenever the Permittee becomes aware that it failed to submit any relevant fact in the permit application, or submitted incorrect information in a permit application or in any report to the Director, the Permittee shall promptly submit such facts or information.

[A.A.C. R18-8-270.A and L (40 CFR § 270.30(1)(11))]

- (b) Noncompliance with terms and conditions of the Permit that result in letters of warning, compliance orders from the Director, a civil consent judgment, or criminal enforcement of environmental laws by the state of Arizona shall be used to document the reliability, expertise, integrity and competence of the Permittee, pursuant to A.A.C. R18-8-270.J, and would be considered by the Director in making future changes to the Permit, pursuant to A.A.C. R18-8-270.A (40 CFR Part 270 Subpart D); and when issuing a new Permit as set forth in A.A.C. R18-8-270.A and P. (40 CFR § 270.51)

F. CONFIDENTIAL INFORMATION

The Permittee may claim confidential any information required to be submitted by this Permit.

[A.A.C. R18-8-270.A (40 CFR 270.12)]

G. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at the facility, until closure is completed and certified by a qualified Arizona registered Professional Engineer (P.E.), the current/updated version of the following documents:

1. Waste Analysis Plan, contained in Attachment C, as required by A.A.C. R18-8-264.A (40CFR § 264.13) and this Permit.
2. Inspection schedules, contained in Attachment F, as required by A.A.C. R18-8-264.A (40 CFR § 264.15(b)(2)) and this Permit.

3. Personnel training documents and records, contained in Attachment H, as required by A.A.C. R18-8-264.A (40 CFR § 264.16(d)) and this Permit.
4. Contingency Plan, contained in Attachment G, as required by A.A.C. R18-8-264.A (40 CFR § 264.53(a)) and this Permit.
5. Operating record, contained in Attachment P (Manifesting and Record Retention), as required by A.A.C. R18-8-264.A (40 CFR § 264.73) and this Permit.
6. Closure Plan, contained in Attachment I, as required by A.A.C. R18-8-264.A (40 CFR § 264.112(a)) and this Permit.
7. Records, required by Permit Part I Condition E.10.
8. Annually-adjusted closure cost estimate, as required by A.A.C. R18-8-264.A (40 CFR § 264.142) and Permit Part II Condition O.4.
9. The names, addresses, and phone numbers of the Emergency Coordinator (EC) and all persons designated as alternate EC, as required by Permit Part II Condition I.4 and as shown in Attachment G (Contingency Plan).
10. A list of all equipment, as contained in the Permit Attachments F and G (Preparedness and Prevention Plan and Contingency Plan) which must be inspected as required by A.A.C. R18-8-264.A (40 CFR Part 264 Subparts BB and CC).
11. A signed duplicate copy of the liability policy, required under Permit Part II Condition Q.

H. PERMIT MODIFICATIONS

1. General Conditions

For Permit modifications (including re-applications), the Permittee shall follow A.A.C. R18-8-270.A and 40 CFR 270.42, and as applicable:

- (a) Permit Condition I.C.1 (Permit Modification, Reissuance, and Termination);
- (b) Permit Condition I.E.12(a) (Reporting Requirements - Planned Changes);
- (c) Permit Condition I.E.12(b) (Reporting Requirements – Anticipated Noncompliance);
- (d) Permit Condition II.A (Design and Operation of Facility);
- (e) Signatory and document liability certification requirements as described in Permit Condition I.E.11 (Signatory and Certification Requirements);
- (f) Confidentiality rules, if desired, pursuant to Permit Condition I.F. (Confidential Information); and

- (g) Fees required to be submitted with the application for Permit modification as required by A.A.C. R18-8-270.G.

2. Facility Mailing List

The Permittee shall obtain (from the ADEQ Contact) and use an updated current facility mailing list, pursuant to A.A.C. R18-8-270.A and 40 CFR 270.42 when processing all Permittee requested Permit modifications.

[A.R.S. §49-941, A.A.C. R18-8-271.I(c)]

3. Changes to Key Employees

For the following key personnel changes, the Permittee shall submit to the ADEQ Contact an ADEQ Character/Background Reference Form:

- (a) Training Director – See Permit Attachment H (Personnel Training);
- (b) Signatories – See Permit Condition I.E.11 (Signatory and Certification Requirements); and,
- (c) Emergency Coordinators – See Permit Attachment G (Contingency Plan).

[A.R.S. § 49-922.C, A.A.C. R18-8-270.J]

PART II - GENERAL FACILITY CONDITIONS

A. DESIGN AND OPERATION OF FACILITY

The Permittee shall maintain and operate the facility to minimize the possibility of a fire, explosion, or any unplanned, sudden or non-sudden release of hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

[A.A.C. R18-8-264.A (40 CFR § 264.31)]

B. REQUIRED NOTICES

1. Hazardous Waste Imports

The Permittee shall notify the Director in writing at least four weeks in advance of the date the Permittee expects to receive hazardous waste from a foreign source.

[A.A.C. R18-8-264.A (40 CFR § 264.12(a))]

2. Hazardous Waste from Off-Site Sources

When the Permittee is to receive hazardous waste from an off-site source (except where the Permittee is also the generator), the Permittee must inform the generator in writing that the Permittee has the appropriate Permit(s) for and will accept the waste the generator is shipping. The Permittee must keep a copy of this written notice as part of the operating record.

[A.A.C. R18-8-264.A (40 CFR § 264.12(b))]

C. GENERAL WASTE ANALYSIS

The Permittee shall follow the waste analysis procedures required by A.A.C. R18-8-264.A (40 CFR § 264.13), as described in the attached Waste Analysis Plan (Permit Attachment C). The Permittee shall conduct any additional sampling that the Director determines necessary to ensure that there are no significant impacts on human health or the environment.

1. Waste Stream Evaluation

The Permittee shall verify the analysis of each waste stream annually, or when a change occurs to the waste stream, in accordance with Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA Publication SW-846, or equivalent methods approved by the Director. At a minimum, the Permittee shall maintain proper functional instruments, use approved sampling and analytical methods, verify the validity of sampling and analytical procedures, and perform correct calculations. If the Permittee uses a contract laboratory to perform analyses, then the Permittee shall inform the laboratory in writing that it must operate under the waste analysis conditions set forth in this Permit.

Analysis of incoming waste streams shall be re-certified at least annually; the re-certification process must be documented and include notification to the generator that, as a minimum, annual re-certification of waste profiles is required, in accordance with 40 CFR 264.13(b)(4).
[A.A.C. R18-8-264.A (40 CFR § 264.13)]

2. ADHS Certification

All testing performed directly for the Permittee at off-site laboratories, in-state or out-of-state, must be conducted by laboratories licensed (certified) by the Arizona Department of Health Services for the applicable analytical methods in use at the offsite laboratory.
[A.R.S. Title 36, Chapter 4.3, Article I, Section 36-495.01]

D. SECURITY

The Permittee shall comply with the security provisions of A.A.C. R18-8-264.A (40 CFR § 264.14(b) and (c)) and those contained in Permit Attachment F (Preparedness and Prevention Plan).

E. GENERAL INSPECTION REQUIREMENTS

The Permittee shall follow the inspection schedule set out in the Preparedness and Prevention Plan (Permit Attachment F). The Permittee shall remedy any deterioration or malfunction discovered by an inspection, as required by A.A.C. R18-8-264.A (40 CFR § 264.15(c)). Records of inspection shall be kept, as required by A.A.C. R18-8-264.A (40 CFR § 264.15(d)).

F. PERSONNEL TRAINING

The Permittee shall conduct personnel training, as required by A.A.C. R18-8-264.A (40 CFR § 264.16). This training program shall follow the outline contained in Permit Attachment H (Personnel Training). The Permittee shall maintain training documents and records, as required by A.A.C. R18-8-264.A (40 CFR § 264.16(d) and (e)).

G. SPECIAL PROVISIONS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTE

The Permittee shall comply with the requirements of A.A.C. R18-8-264.A (40 CFR § 264.17(a)). The Permittee shall follow the procedures for handling ignitable, reactive, and incompatible wastes set forth in the Procedures to Prevent Hazards Plan (Permit Attachment F).

H. PREPAREDNESS AND PREVENTION

1. Required Equipment

At a minimum, the Permittee shall maintain at the facility the equipment set forth in Permit Attachments F (Preparedness and Prevention Plan) and G (Contingency Plan) and in Exhibit F.

[A.A.C. R18-8-264.A (40 CFR § 264.32)]

2. Testing and Maintenance of Equipment

The Permittee shall test and maintain the equipment specified in Permit Condition II.H.1, as necessary, to ensure its proper operation in time of emergency.

[A.A.C. R18-8-264.A (40 CFR § 264.33)]

3. Access to Communications or Alarm System

The Permittee shall maintain access to the communications or alarm system.

[A.A.C. R18-8-264.A (40 CFR § 264.34)]

4. Required Aisle Space

At a minimum, the Permittee shall maintain aisle space, as required by A.A.C. R18-8-264.A (40 CFR § 264.35) and the plans and specifications contained in Permit Part III.A (“Container Management Summary”), Permit Attachment D, Section D.1a(2) (“Container Management”), and Exhibit B-5 (“Warehouse Pallet Layout”)

5. Arrangements with Local Authorities

The Permittee shall maintain arrangements with state and local authorities, as required by A.A.C. R18-8-264.A (and 40 CFR § 264.37). If state or local officials refuse to enter into preparedness and prevention arrangements with the Permittee, the Permittee must document this refusal in the operating record. All correspondence related to these arrangements must be kept with the contingency plan.

[A.A.C. R18-8-264.A (40 CFR § 264.52(c))]

I. CONTINGENCY PLAN

1. Implementation of Plan

- (a) The Permittee shall immediately carry out the provisions of the Contingency Plan (Permit Attachment G) and follow the emergency procedures described in A.A.C. R18-8-264.A and C (40 CFR § 264.56) whenever there is a fire, explosion, or release of hazardous waste or constituents which could threaten human health or the environment.

[A.A.C. R18-8-264.A (40 CFR 264.51(b))]

(b) As part of remedial action taken in response to a fire, release or explosion of hazardous materials, the Permittee shall sample and analyze, to detect the extent and depth of any soil contamination. The sampling and analytical methods used must be consistent with those published in Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, EPA publication SW-846 (most current edition). A report of the sampling and analysis must be kept on file. The report shall include:

- i. The number of samples taken;
- ii. The location and size of each sample;
- iii. The depth of each sample;
- iv. The specific analytical methods used;
- v. A description of the sampling tools, containers, filling, sealing, and preservation methods; and

In addition, each parameter test that the in-state or out-of-state laboratory can perform for hazardous waste analysis must be licensed (certified) by the Arizona Department of Health Services as stated in the Contingency Plan (Permit Attachment G). [A.R.S. Title 36, Chapter 4.3, Article 1, Section 36-495.01]

If the samples indicate that there is soil contamination, then the report must also include the following information:

- vi. Description of the statistical methods used;
- vii. Soil type and permeability information;
- viii. Groundwater depth and quality information; and
- ix. Procedures for establishing background contaminant concentrations.

(c) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he/she must immediately notify the Director, and either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center in accordance with A.A.C. R18-8-264.A and F (40 CFR § 264.56(d)).

2. Copies of Plan.

The Permittee shall comply with the requirements of A.A.C. R18-8-264.A (40 CFR § 264.53).

3. Amendments to Plan

The Permittee shall request a modification to the Contingency Plan based on criteria listed in A.A.C. R18-8-264.A (40 CFR § 264.54).

4. Emergency Coordinator

(a) The emergency coordinator (EC) must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of wastes handled, the location of all records within the facility, the facility layout, and the authority to commit the resources needed to carry out the contingency plan.

(b) During operating hours of the facility, the EC shall be located on the facility premises, or may be on call, but must be able to immediately reach the facility in case of an emergency.

(c) A list of persons authorized to act as an EC is found in Permit Exhibit G-2 (Contingency Plan Emergency Contact List). Any change to the names, addresses, and phone numbers of all persons qualified to act as an EC shall be supplied to the Director as a Class 1 Permit Modification request, in accordance with Permit Condition II.I.3 above.

[A.A.C. R18-8-264.A (40 CFR 264.52(d) and 40 CFR 264.55)].

5. List of Learning Sites

The Permittee must maintain a contact list of Learning Sites within 1.0 mile of the facility. The list shall include the Learning Site name, address, telephone number, and the name of a primary contact at each Learning Site. Upon implementation of the emergency provisions of the Contingency Plan, Permittee shall make this information available to the fire department. This list shall also be included in the Contingency Plan.

[A.A.C. R18-8-270.A, M, N and O (40 CFR 270.32)]

J. RECORD KEEPING AND REPORTING

In addition to the record keeping and reporting requirements specified elsewhere in this Permit, A.A.C. R18-8-264.A, and 40 CFR 264.77, the Permittee shall do the following:

1. Operating Record

The Permittee shall maintain a written operating record at the facility for three years unless noted, in accordance with A.A.C. R18-8-264.A (40 CFR § 264.73), to include but not be limited to:

- (a) A description and the quantity of each hazardous waste received and the method(s) and date(s) of its treatment, storage, and/or disposal at the facility. This information must be maintained in the operating record until closure of the facility;
[A.A.C. R18-8-264.A (40 CFR § 264.73(b)(1)) (including 40 CFR Part 264 Appendix D)]
- (b) The location of each hazardous waste within the facility, the quantity at each location, and cross references to specific manifest document numbers, if the waste was accompanied by a manifest. This information must be maintained in the operating record until closure of the facility;
[A.A.C. R18-8-264.A (40 CFR § 264.73(b)(2))]
- (c) The records and results of waste analyses and waste determinations;
[A.A.C. R18-8-264.A (40 CFR § 264.73(b)(3))]
- (d) The summary reports and details of all incidents that require implementing the Contingency Plan;
[A.A.C. R18-8-264.A (40 CFR § 264.73(b)(4))]
- (e) The records and results of inspections;
[A.A.C. R18-8-264.A (40 CFR § 264.73(b)(5))]
- (f) Monitoring, testing or analytical data, and corrective action. This includes documentation demonstrating monitoring, maintenance and testing of components and equipment at the facility related to management of hazardous waste is completed at the required frequencies. A demonstration may include, but not be limited to, completed checklists, detailed maintenance records, data as a result of sampling, monitoring and testing and receipts from authorized external companies or personnel. Maintain in the operating record for three years, except for records and results pertaining to ground-water monitoring and cleanup which must be maintained in the operating record until closure of the facility.

The following equipment shall be inspected and tested at the required frequencies:

- i. Pressure relief valves – annual functionality test which follows the recommended testing procedures of the manufacturer;
 - ii. Envibro filter system – annual maintenance and system check;
 - iii. Vadose zone vapor monitoring system; monthly inspection;
 - iv. Secondary containment structures – daily inspection and repair as needed;
 - v. Any other hazardous waste management unit components and equipment.
[A.A.C. R18-8-264.A (40 CFR 264.73(b)(6))]
- (g) Notices to generators pursuant to A.A.C. R18-8-264.A (40 CFR § 264.73(b)(7));
 - (h) Copies of waste minimization documents required in Permit Condition II.T.

2. Annual Report

The Permittee shall comply with the annual reporting requirements of A.A.C. R18-8-264.I (40 CFR 264.75).

3. Inspection of Records

The Permittee shall make applicable records available to any authorized representative of the Director conducting an inspection pursuant to Permit Condition I.E.9 (Inspection and Entry).

4. Manifests

The Permittee shall comply with the manifest requirements of A.A.C. R18-8-264(H) and (J) and 40 CFR §§ 264.71, 264.72, and 264.76.

[R18-8-264.A and 270.A (40 CFR 264.17, 264.31, 270.11(b), 270.32(b)(1), 270.32(b)(2))]

K. GENERAL CLOSURE REQUIREMENTS

1. Update of Final Closure Plan Prior to Implementation of Final Closure

No later than six months prior to final Closure of the facility the Permittee shall submit a revised closure plan for ADEQ approval in accordance with the permit modification procedures of R18-8-270.A (40 CFR 270.41, 40 CFR §270.42 et seq.). The Permittee shall not commence with any of the steps (e.g., notification of closure) of final closure of the facility without having the final closure plan approved by the Director.

2. Performance Standard

The Permittee shall close the facility, as required by A.A.C. R18-8-264.A (40 CFR § 264.111) and in accordance with the Closure Plan (Permit Attachment I).

3. Amendment to Closure Plan

The Permittee shall amend the Closure Plan, in accordance with A.A.C. R18-8-264.A (40 CFR § 264.112(c)), whenever necessary.

4. Notification of Closure

The Permittee shall notify the Director in writing at least forty-five (45) days prior to the date on which he/she expects to begin partial closure of any permitted unit or units, or final closure of the facility. Partial Closure activities will follow the same steps as identified under Permit Condition II.K.1, except that partial closure plans and notifications shall be specific to the unit or units to be closed at that time.

[A.A.C. R18-8-264.A (40 CFR 264.112(d))]

5. Time Allowed For Closure

Within ninety (90) days after receiving the final volume of hazardous waste, the Permittee shall remove from the facility all hazardous waste and shall complete closure activities, in accordance with A.A.C. R18-8-264.A, 40 CFR 264.113 and the schedules specified in the Closure Plan (Permit Attachment I).

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

- (a) The Permittee shall decontaminate and/or dispose of all contaminated equipment, structures, and soils, as required by A.A.C. R18-8-264.A (40 CFR § 264.114) and the Closure Plan (Permit Attachment I).
- (b) Each parameter test that the laboratory performs for hazardous waste analysis during closure must be licensed (certified) by the Arizona Department of Health Services.
[A.R.S. Title 36, Chapter 4.3, Article 1, Section 36-495.01]

7. Closure Report

Within sixty (60) days of completion of closure of the unit(s), the Permittee shall submit a closure report that includes, at a minimum, the following information:

- (a) A summary of results, significant observations, deviations from the approved plan, and conclusions.
- (b) A detailed discussion of the closure procedures followed for each unit. Include a description of:
 - i. The procedures followed for decontamination of the hazardous waste management unit (including disposition of residues);
 - ii. The equipment used for decontamination of the hazardous waste management unit;
 - iii. The sampling procedures used;
 - iv. The equipment used for sampling;
 - v. The remedial procedures (if applicable) used;
 - vi. The equipment used for remediation (if applicable);
 - vii. The analytical procedures and methods used;
 - viii. The analytical equipment used;
 - ix. The quality assurance program used;
 - x. The procedures used to prevent hazards and protect field personnel during closure;

- xi. The equipment used to prevent hazards and protect field personnel during closure.
 - xii. Drawings and photographs where appropriate
 - xiii. Description of any deviations from the approved closure plan.
- (c) Data generated from sampling and analysis activities performed pursuant to the plan, including field notes, manifests, bills of lading, Land Disposal Restriction (LDR) forms, laboratory submittal forms, chain-of-custody forms, laboratory reports, and drilling logs.
 - (d) Risk assessment discussion (if applicable), including methodology, data, references, and assumptions.
 - (e) Certifications from the engineer and owner/operator.
 - (f) Other information requested by the Director in writing.

8. Certification of Closure

The Permittee shall certify that the facility has been closed in accordance with the specifications in the Closure Plan (Permit Attachment I)

[A.A.C. R18-8-264.A and 40 CFR § 264.115]

L. LAND DISPOSAL RESTRICTIONS

The Permittee shall comply with all the applicable LDR requirements of 40 CFR Part 268, not limited to: the required notices, use of the hazardous waste debris rule, and storage prohibitions of A.A.C. R18-8-268.A, and 40 CFR 268.7, 268.45, and 268.50.

M. TOXICITY CHARACTERISTICS

The Permittee must use the Toxicity Characteristic Leaching Procedures (TCLP) (Appendix II of 40 CFR Part 261), or use knowledge of the waste (A.A.C. R18-8-264.A and 40 CFR §264.13(a), and A.A.C. R18-8-262.A and 40 CFR §262.11) to determine whether a waste exhibits the characteristic of toxicity, as defined in A. A. C. R18-8-261.A (40 CFR § 261.24).

N. COST ESTIMATE FOR FACILITY CLOSURE

1. Cost Estimates

The Permittee's most recent closure cost estimate, prepared in accordance with A.A.C. R18-8-264.A (40 CFR §§ 264.142 and 264.197(c)(3)), is specified in Permit Attachment I and Exhibit I-1.

2. Cost Adjustments

The Permittee must adjust the closure cost estimate for inflation within 60 days prior to the anniversary of the financial instrument used to comply with A.A.C. R18-8-264.A, 40 CFR § 264.143 (40 CFR § 264.142(b)).

3. Cost Revisions.

The Permittee must revise the closure cost estimate whenever there is a change in the facility's Closure Plan, as required by A.A.C. R18-8-264.A (40 CFR § 264.142(c)).

4. Maintenance of Cost Revisions.

The Permittee shall maintain at the facility the latest closure cost estimate prepared in accordance with A.A.C. R18-8-264.A (40 CFR 264.142(a) and (c)), and, if the closure cost estimated was adjusted, the date of the adjustment in the facility operating record during the operating life of the facility as required by A.A.C. R18-8-264.A (40 CFR § 264.142(d)).

5. Submittal of Cost Revision

Any revisions made to the closure cost estimate per N.2 or N.3, above shall be submitted to the ADEQ Contact within thirty (30) days of revision. The submittal shall provide the updated and prior cost estimates and show the method and calculations used in the update. The submittal shall be made as a Class 1 permit modification request with Director approval.

O. FINANCIAL ASSURANCE FOR FACILITY CLOSURE

The Permittee shall demonstrate compliance with this Permit Condition by submitting the required documentation to the Director at least 60 days before first receiving hazardous waste for storage, and thereafter demonstrating continuous compliance with A.A.C. R18-8-264.A and M (40 CFR § 264.143 and 264.146) by providing documentation of financial assurance, as required by A.A.C. R18-8-264.A (40 CFR § 264.151), in at least the amount of the cost estimates required by Permit Condition II.O. Changes in financial assurance mechanisms must be approved by the Director pursuant to A.A.C. R18-8-264.A and M (40 CFR § 264.143) and submitted to the ADEQ Contact as a Class 1 permit modification request with Director approval. See Exhibit I-4.

P. LIABILITY REQUIREMENTS

The Permittee shall demonstrate continuous compliance with this Permit Condition by submitting the required documentation to the Director at least 60 days before first receiving hazardous waste for storage, and thereafter demonstrating continuous compliance with A.A.C. R18-8-264.A (40 CFR § 264.147(a)) to have and maintain liability coverage for sudden accidental occurrences in the amount of at least one million dollars (\$1,000,000) per occurrence, with an annual aggregate of at least two million dollars (\$2,000,000), exclusive of legal defense costs. The Permittee's liability coverage must be effective before the Permittee's first receipt of hazardous waste. Changes in financial assurance mechanisms, including new providers, must be approved by the Director pursuant to A.A.C. R18-8-264.A and L and 40 CFR 264.143 and be submitted as a Class 1 permit modification request for Director approval in accordance with 40 CFR 270.42. See Exhibit I ("Closure Plan and Financial Assurance Documents").

Q. INCAPACITY OF OWNERS OR OPERATORS, GUARANTORS, OR FINANCIAL INSTITUTIONS

The Permittee shall comply with A.A.C. R18-8-264.A (40 CFR § 264.148) whenever necessary.

R. AIR EMISSIONS STANDARDS FOR TANKS, SURFACE IMPOUNDMENTS, AND CONTAINERS

The Permittee shall comply with the requirements of A.A.C. R18-8-264.A (40 CFR Part 264, Subpart BB (for equipment leaks) and Subpart CC (for containers and tanks)).

S. TRANSPORTATION ROUTES FOR HAZARDOUS WASTE SHIPMENTS

The Permittee shall instruct each of its drivers of hazardous waste to avoid as much as is practicable the use of any routes that pass through residential areas or that pass by Learning Sites.
[A.A.C. R18-8-270.A (40 CFR 270.32(b))]

T. WASTE MINIMIZATION CERTIFICATION

1. Annual Certification

The Permittee shall annually certify:

- (a) That the Permittee has a program in place to reduce the volume and toxicity of all hazardous wastes which are generated by the facility operations to the degree, determined by the Permittee, to be economically practicable; and,

- (b) That the method of treatment, storage, or disposal is the only practicable method or combination of methods currently available to the facility which minimizes the present and future threat to human health and the environment.

[A.A.C. R18-8-264.A (40 CFR 264.73(b)(9))]

2. Signatory Requirements

This certification shall be retained with the facility's operating record and shall comply with the signatory requirement of Permit Condition I.E.11 (Signatory and Certification Requirements).

U. SCHEDULE OF COMPLIANCE

The Permittee shall provide the following information to the Director for approval within the timeframes specified after the effective date of this Permit:

1. Contingency Plan

Within sixty (60) calendar days of Permit issuance, the Permittee shall submit an updated Contingency Plan as a Class 1 permit modification request with Director approval. The updated Contingency Plan shall be developed to address the following specific requirements:

- (a) Provide written information regarding waste quantities, types, and locations along with the facility layout and general locations where personnel normally work, to state and local authorities, including State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs), and first responders for the purpose of emergency preparedness and prevention. This information must be updated weekly and be readily accessible to states, local authorities, and first responders, upon request, in the event of an emergency.
- (b) Submit required emergency planning information to state and local authorities, including SERCs and LEPCs, and first responders in an electronic format so that it can be easily integrated, stored, and reviewed.
- (c) Integrate a description of the Preparedness and Prevention measures, including internal facility alarm system, as an appendix to the contingency plan.
- (d) Provide an executive summary of the Contingency Plan. In this summary, include the names and telephone numbers of all facility personnel qualified to act as emergency coordinators.

2. Leak Detection System

Within 6 months of Permit issuance, the Permittee shall install a leak-detection system, in the tank's secondary containment, which is designed and operated in such a way as to detect, and notify the facility operations, the presence of any release of hazardous waste in the secondary containment system within 24 hours of the release."

PART III - CONTAINER STORAGE

A. CONTAINER MANAGEMENT SUMMARY

The Permittee’s container storage facilities description, design and plans are described in Attachments B, “Facility Description,” and D “Process Information - Containers”, and Exhibits B-5 (“Warehouse Pallet Layout”) and B-12, (“Warehouse Containment Calculations”).

The warehouse container storage area consists of an approximately 48 feet by 80 feet area located within an 8400-square-foot building. The floor slab and collection trenches are made of steel-reinforced concrete, poured without cracks or gaps between them. The floor is 5 inches thick and the trench sump is 12 inches thick and both have a 6 mil vapor barrier. The floors and trenches are sloped to drain standing liquids away from containers to the trench in the center of the warehouse. The container storage area has a total secondary containment volume of 2,160 gallons in the form of a sloped floor with a capacity of 1,726 gallons and a 12-foot by 2-foot by 3-foot 450-gallon collection trench. The floor and trench are coated with an impervious and chemically resistant coating. The concrete trench has a stainless steel liner welded without gaps between the floor and the liner. The building construction and impervious coating details are provided in Exhibits B-8 (“Warehouse and Office Roof Framing and Foundation Plans”) and D1-8 (“ChemTec One Technical Data Sheet and Epoxy Coating Product Description”). Based on the secondary containment volume, no more than 17,160 gallons of product and waste will be stored in the container storage area at any one time.

B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

1. Permitted Hazardous Wastes

The Permittee may store the following wastes in USDOT-approved containers at the facility, subject to the terms of this Permit and as follows:

DESCRIPTION OF HAZARDOUS WASTE	EPA HAZARDOUS WASTE CODE	MAXIMUM VOLUME (GAL.)	TYPE OF CONTAINERS
Used Parts Washer Solvent 150	D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	17,160 ¹	Varies
Used Aqueous Brake Cleaner	None	Included Above	Varies
Used Aqueous Part Cleaner	None	Included Above	Varies

DESCRIPTION OF HAZARDOUS WASTE	EPA HAZARDOUS WASTE CODE	MAXIMUM VOLUME (GAL.)	TYPE OF CONTAINERS
Branch Contaminated Debris	F002, F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Included Above	Varies
Dumpster Sediment/Sludge/Mud	D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Included Above	Varies
Used Immersion Cleaner	D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Included Above	16-gallon steel
Dry Cleaning Waste (Perchloroethylene)	F002, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Included Above	15-gallon poly
Dry Cleaning Waste (Naphtha)	D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043	Included Above	15-gallon poly
Paint Waste	F003, F005, D001, D004, D005, D006, D007, D008, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027,	Included Above	Varies

DESCRIPTION OF HAZARDOUS WASTE	EPA HAZARDOUS WASTE CODE	MAXIMUM VOLUME (GAL.)	TYPE OF CONTAINERS
	D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043		
Silver-Containing Film	D011	Included Above	Varies
Used Antifreeze	None	Included Above	Varies

¹ The total amount of liquid product and waste stored in the Warehouse will not exceed 17,160 gallons. This container storage area design limit is based on ten times 2,160 gallons (1,726 gallons floor and 450 gallons trench) minus 20 percent for pallet, container, and miscellaneous equipment displacement.

2. Waste and Product Maximum Storage Volumes

The Permittee shall not store more than a combined total of 17,160 gallons of liquid products and liquid wastes in the warehouse container storage area at any time.

3. Waste Segregation, Labels, and Container Types

The Permittee shall store hazardous waste only in correct sized, lined, and treated USDOT-approved containers as shown in the Permit Conditions III.B.1 and III.D, and the Permit Exhibit D1-3. The Permittee shall not mix waste on site, and shall segregate the waste and product. All hazardous waste containers shall have a “Hazardous Waste” label to indicate their contents.

4. Container Configuration, Spacing, Stacking, Location

The Permittee shall store containers in the configurations shown on the plans contained in Exhibit B-5, and as described in Permit Attachment D, “Process Information - Containers”:

- (a) Maintain two (2) feet of aisle space (four feet between flammable and ignitable waste), and other aisle spacing considerations as required by Permit Attachment D, Section D-1a(2).
- (b) Number of containers to be stacked on pallets, number of pallets and stacking height limitations are given in Permit Attachment D, Section D-1a(2), “Container Management,” and Exhibit B-5, (“Warehouse Pallet Layout”).
- (c) Containers shall be placed on pallets and moved with hand carts, forklift trucks equipped with drum grappling tongs or forks and pallet jack in and out of containment areas.
- (d) Ignitable waste shall be stored at least 50 feet from all property boundaries.

- (e) Containers of non-permitted hazardous waste may not be stored in the warehouse container storage area unless being handled as 10-day transfer waste.

5. Further Storage and Land Disposal Prohibitions

- (a) The Permittee shall follow the prohibition on storage of hazardous waste in containers, including the storage time limitation, as listed in A.A.C. R18-8-268 (40 CFR § 268.50).
- (b) The Permittee is prohibited from storing hazardous waste that is not identified in Permit Condition III.B.1.
- (c) The Permittee is prohibited from storing the following materials:
 - i. Medical waste as defined in A.R.S. § 49-701.19 or biohazardous medical waste (see A.A.C. R18-13-1401(5));
 - ii. Mixed waste (wastes that contain both a hazardous component regulated under AHWMA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the Atomic Energy Act); and
 - iii. Polychlorinated biphenyls of a type or level regulated by the Toxic Substances Control Act (TSCA) (see 40 CFR Part 761), unless exempted, excluded or otherwise authorized pursuant to TSCA regulations. TSCA regulated PCBs may be managed at 10-day transfer storage in CSA if requirements of 40 CFR Part 761.65.b.2(i) RCRA storage are met.

C. CONDITION OF CONTAINERS

- 1. If a container holding hazardous waste is not in good condition (e.g., severe rusting, apparent structural defects) or if it begins to leak, the Permittee shall transfer the hazardous waste from such container to a container that is in good condition or otherwise manage the waste in compliance with the conditions of this Permit.

[A.A.C. R18-8-264.A (40 CFR § 264.171)]
- 2. Containers or liners that are to be disposed shall be emptied or decontaminated prior to disposal pursuant to A.A.C. R18-8-261.A (40 CFR § 261.7). Containers or liners that are not decontaminated, shall be considered by the Permittee to be a hazardous waste, and shall be managed as a hazardous waste. Disposal of containers and liners in sanitary landfills is prohibited, unless approved by the Director.

D. COMPATIBILITY OF WASTE WITH CONTAINERS

The Permittee shall assure that the ability of the container to contain the waste is not impaired, as required [A.A.C. R18-8-264.A (40 CFR § 264.172)]. Hazardous waste container and container liner information is provided in Permit Attachment D, Sections D-1a(2) and D-1a(3) and Attachment F, Section F- 5d.

E. MANAGEMENT OF CONTAINERS

The Permittee shall keep all containers closed during storage, except when it is necessary to add or remove waste, and shall not open, handle, or store containers in a manner which may rupture the container or cause it to leak.

[A.A.C. R18-8-264.A (40 CFR § 264.173)]

F. CONTAINMENT SYSTEMS

The Permittee shall maintain the containment system in accordance with the descriptions contained in Permit Attachment D, Section D-1a(3) and attached plans and specifications in Exhibits B-5 (“Warehouse Pallet Layout”), and B-8 (“Warehouse and Office Roof Framing and Foundation Plans”), D1-8 (“ChemTec One Technical Data Sheet”) and D1-9 (“Secondary Containment Crack Repair Plan”).

[A.A.C. R18-8-264.A (40 CFR § 264.175)]

G. INSPECTION SCHEDULES AND PROCEDURES

1. The Permittee shall inspect the container storage area on all work days, in accordance with the inspection schedule and procedures contained in Permit Attachment F, “Preparedness and Prevention Plan”, Section F.2 and in Exhibits F-1 (“Example Daily Inspection Form”) to detect leaking containers, and deterioration of containers and the containment system caused by corrosion and other factors. At a minimum a weekly inspection is required during non-working days.
2. The Permittee shall inspect the container storage area on all work days for visible signs of residue, and shall remove all visible signs of residue from the floor surface on a daily basis.

H. RECORD KEEPING

The Permittee shall place the results of all waste analyses and trial tests and any other documentation showing compliance with the requirements of Permit Conditions III.K.1 and III.K.2 and A.A.C. R18-8-264.A (40 CFR §§ 264.17(b) and 264.177) in the facility operating record.

[A.A.C. R18-8-264.A (40 CFR § 264.73)].

I. CLOSURE

At closure of the container area, the Permittee shall remove all hazardous waste and hazardous waste residues from the containment system, in accordance with the procedures in the Closure Plan, Permit Attachment I.

[A.A.C. R18-8-264.A (40 CFR § 264.178)]

J. SPECIAL CONTAINER PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not locate containers holding ignitable or reactive waste within 15 meters (50 feet) of the facility's property line.

[A.A.C. R18-8-264.A (40 CFR § 264.176)]

2. The Permittee shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste and follow the procedures specified in Permit Attachment F, "Preparedness and Prevention Plan," Section F-5.

[A.A.C. R18-8-264.A (40 CFR §§ 264.17(a) and 264.176)]

3. The Permittee shall locate containers holding water reactive wastes in areas not subject to water contact.

[A.A.C. R18-8-264A (40 CFR § 264.17(b))]

K. SPECIAL CONTAINER PROVISIONS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible wastes, or incompatible wastes and materials, in the same container.

[A.A.C. R18-8-264.A (40 CFR § 264.177(a))]

2. The Permittee shall not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

[A.A.C. R18-8-264.A (40 CFR § 264.177(b))]

3. The Permittee shall separate containers of incompatible wastes.

[A.A.C. R18-8-264.A (40 CFR § 264.177(c))]

PART IV - TANK STORAGE

A. TANK MANAGEMENT SUMMARY

The Permittee's tank storage facilities description, design and plans are presented in Attachments B, "Facility Description" and D, "Process Information - Tanks," and Exhibits D2-1 ("12,000 Gal. Tank Fabrication Detail"), D2-4 ("Solvent Pump Piping Installation details"), D2-5 ("Tank Farm Shelter Plan with Containment Calculations"), D2-7 ("Concrete Tank Farm Plan"), D2-8 ("High Level Alarm System Diagram"), D2-14 ("HydroRanger 200 (Ultrasonic High Level Control Example)", D2-16 ("Access Container Fabrication Details (Tanker)"), D2-18 ("Varec Tank Gauge Installation Detail"), D2-19 ("Used Solvent Tank Installation Assessment Tera 93-409-089"), D2-20 ("Tera Design Assessment Used Solvent and Used Antifreeze"), D2-21 ("HLA XPS-15 Transducer Diagram"), D2-13 ("Drum Washer Isometric"), and F-15 ("Vertical Tank Grounding Plan and Details").

The Hazardous Waste Storage Facility (HWSF) includes a tank farm with two 12,000-gallon vertical above ground storage tanks, one with hazardous waste, a 12,000 gallon horizontal tank outside the tank farm with stored product, and a loading dock with a solvent return and fill station and two drum washer units, attached to the warehouse.

The Permittee may store waste in one aboveground tank system to accumulate waste solvent. The system works as follows:

Waste Solvent (WS) Return and Fill Area Station

The return and fill area station (RAFAS) serves a dual function: (1) one for receiving and transporting waste solvent to the waste storage tank; and (2) the other for receiving product solvent from the product storage tank and dispensing it to containers for customer use.

The collected waste solvent, consisting of a sink affixed to a USDOT-approved container containing parts washing solvents, shall be initially contained in two drum washer units at the return and fill station located between the container storage area and office areas within the building.

Each drum washer unit has a nominal total volume of 162 gallons of waste solvent. The drum washer units are constructed of 14 gauge steel with a locking lid assembly and removable filter screens. The drum washer units are connected to a 2-inch diameter steel drain line, via 2-inch diameter fiber reinforced flexible hoses that are compatible with the waste solvent. The return and fill station shall have secondary containment of containing a minimum of the total volume of the two drum washer units.

Transfer Operations of WS from RAFAS to the Waste Storage Tank

From the drain line the waste solvent flows by gravity through a basket strainer to a pump located within the return and fill station, and then is pumped from the drum washer unit(s) through schedule 40 galvanized piping that is 2 inches in diameter into a nominal 12,000-gallon above-ground storage tank. The waste solvent piping is strut supported on the wall inside the building station area and across the parking lot via a pipe bridge to the storage tank every 8 feet.

Waste Solvent Tank Design and Containment

The 12,000-gallon waste solvent storage tank, located in a tank farm with a 12,000-gallon used antifreeze tank, is a nominal 10 feet 6-inches in diameter, 19 feet high, and constructed of 1/4-inch thick carbon steel, except for the top two-thirds 5 feet of the shell and the roof, which are constructed of nominal 3/16-inch thick carbon steel. Used antifreeze is neither ignitable, corrosive, nor reactive; it is not incompatible with other wastes stored in the tank farm area. The tanks have shell and roof manways, and are painted white to reflect sunlight. Each tank bottom is a dish elevated by a perimeter ring, such that no portion of the liquid containment vessel is in contact with the secondary containment. The supporting skirt (perimeter ring) is constructed of 3/8-inch carbon steel, and has at least four 6-inch diameter viewports to facilitate inspection, and is protected by materials having a fire resistance rating of not less than 2 hours. Each tank is placed on a sheet of 10 gauge stainless steel plate, which is caulked to the underlying sealed, steel reinforced concrete slab.

The tanks are equipped with a siren and strobe light high level alarm, to indicate when the tanks are at least 95 percent full, and a pressure vacuum vent that operates at two ounces of pressure and one ounce of vacuum. To prevent overflow, the power to each tank pump is electrically disabled upon that tank reaching 95 percent of capacity as determined by the high level alarm. The tank farm has a secondary containment capacity of not less than 17,932 gallons. The containment slab is not less than 6 inches thick, and the dike wall has a thickness of not less than 8 inches. The interior dike wall is 48.67 feet long, 20.5 feet wide, and not less than 3.46 feet high. The base and wall are steel-reinforced concrete. The base, trench, and partial dike wall were poured monolithically and a key was installed to connect and seal the rest of the wall to the base wall. Additionally, the secondary containment has been coated using a chemically resistant coating (see also Permit Condition IV.C.2).

Removal of Tank Waste Solvent

Periodically a tanker truck shall be dispatched from a recycling center to transfer the accumulated waste solvent in the tank to the recycling center.

B. PERMITTED AND PROHIBITED WASTE IDENTIFICATION

1. The Permittee may store a total volume of 11,400 gallons of hazardous waste solvent (i.e., 95% of the 12,000-gallon tank) in the waste solvent storage tank and 162 gallons in each of the two drum washer units, subject to the terms of this Permit and as follows:

Tank ID	Maximum Storage Capacity (Gal)	Dimensions of Tank	Secondary Containment (Gal)	Description of Hazardous Waste	Hazardous Waste Codes
Waste Solvent Tank	11,400	10' 6" diam., 19' high	22,489	Waste Parts Washer Solvent	D001, D004, D005, D006, D007, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042 and D043
Drum Washer Units (2)	162 each	3'x5'x40" high	844	Waste Parts Washer Solvent, and Sludge	D001, D004, D005, D006, D007, D009, D010, D011, D018, D019, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042 and D043

2. The Permittee is otherwise prohibited from storing hazardous waste in the tank system that is not identified in Permit Condition IV.B.1.
3. The Permittee is prohibited from storing the following materials:
 - (a) Medical waste as defined in A.R.S. § 49-701.19) or biohazardous medical waste (see A.A.C. R18-13-1401(5));
 - (b) Mixed waste (wastes that contain both a hazardous component regulated under AHWMA and a radioactive component consisting of source, special nuclear, or byproduct material regulated under the Atomic Energy Act); and
 - (c) Polychlorinated biphenyls of a type or level regulated by the Toxic Substances Control Act (TSCA) (see 40 CFR Part 761), unless exempted, excluded or otherwise authorized pursuant to TSCA regulations

4. The Permittee shall follow the maximum timeframe and land disposal prohibitions on storage of hazardous wastes in tanks as listed in A.A.C. R18-8-268.A (40 CFR § 268.50).

C. SECONDARY CONTAINMENT AND INTEGRITY ASSESSMENTS

1. For tank systems used to store materials that are defined as hazardous waste in the future, the Permittee must obtain a written assessment of the existing tank system integrity within 12 months from the date the waste is defined as hazardous. [A.A.C. R18-8-264.A (40 CFR § 264.191(c))] The assessment shall be certified by an independent, qualified, registered professional engineer.

[A.A.C. R18-8-264.A (40 CFR § 264.191 (a) and (b))]

2. The Permittee shall design, construct, and operate the secondary containment system, in accordance with the design plans and descriptions contained in Attachment D, Section D-2d, and elsewhere in this Permit. The secondary containment areas, including berms, shall be sealed with epoxy coating specified in Attachment D, Section D-2d(1)(b), or other chemically resistant sealers as approved by ADEQ.

[A.A.C. R18-8-264.A (40 CFR §264.193(b)-(f))]

D. OPERATING REQUIREMENTS

1. The Permittee shall not place hazardous waste or treatment reagents in the tank system if they could cause the tank, its ancillary equipment, or a containment system to rupture, leak, corrode, or otherwise fail.

[A.A.C. R18-8-264.A (40 CFR § 264.194(a))]

2. The Permittee shall prevent spills and overflows from the tank or containment systems using the methods described in the Preparedness and Prevention Plan (see Permit Attachment F).

[A.A.C. R18-8-264.A (40 CFR § 264.194(b))]

E. RESPONSE TO LEAKS OR SPILLS

In the event of a leak or a spill from the tank system, from a secondary containment system, or if a system becomes unfit for continued use, the Permittee shall remove the system from service immediately and complete the following actions:

[A.A.C. R18-8-264.A (40 CFR §264.196(a) through (f))]

1. Stop the flow of hazardous waste into the system and inspect the system to determine the cause of the release.
2. Remove waste and accumulated precipitation from the system within 24 hours of the detection of the leak, to prevent further release, and to allow inspection and repair of the

system. If the Permittee finds that it will be impossible to meet this time period, the Permittee shall notify the Director, and demonstrate that the longer time period is required.

If the collected material is a RCRA hazardous waste, it must be managed in accordance with all applicable requirements of A.A.C. R18-8-262 through 264 (40 CFR §§ 262-264). The Permittee shall note that if the collected material is discharged through a point source to U.S. waters or to a POTW, it is subject to requirements of the Clean Water Act. If the collected material is released to the environment, it may be subject to reporting under 40 CFR Part 302.

3. Contain visible releases to the environment. The Permittee shall immediately conduct a visual inspection of all releases to the environment, and based on that inspection:
 - (a) Prevent further migration of the leak or spill to soils or surface water, and
 - (b) Remove and properly dispose of any visible contamination of the soil or surface water.
4. Close the system in accordance with the Closure Plan (Permit Attachment I), unless the following actions are taken:
 - (a) For a release caused by a spill that has not damaged the integrity of the system, the Permittee shall remove the released waste, and make any necessary repairs to fully restore the integrity of the system, before returning the tank system to service.
 - (b) For a release caused by a leak from the primary tank system to the secondary containment system, the Permittee shall repair the primary system prior to returning it to service
 - (c) For a release to the environment caused by a leak from the portion of the tank system component that is not readily available for visual inspection, the Permittee shall provide secondary containment that meets the requirements of A.A.C. R18-8-264.A (40 CFR §264.193), before the component can be returned to service.
 - (d) If the Permittee replaces a component of the tank system to eliminate the leak, that component must satisfy the requirements for new tank systems or components in A.A.C. R18-8-264.A (40 CFR §§264.192 and 264.193).
5. For all major repairs to eliminate leaks or restore the integrity of the tank system, the Permittee must obtain a certification by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous waste without release for the intended life of the system, before returning the system to service. Examples of major repairs are: installation of an internal liner, repair of a ruptured tank, or repair or replacement of a secondary containment vault.

F. INSPECTION SCHEDULES AND PROCEDURES

1. The Permittee shall inspect the tank systems, in accordance with the inspection schedule and procedures contained in the Preparedness and Prevention Plan (Permit Attachment F) and Exhibits F-1 and O-1, and shall complete the items in Permit Conditions IV.F.2 and IV.F.3 as part of those inspections.
2. The Permittee shall inspect the overfill controls, in accordance with the schedule and procedures contained in the Preparedness and Prevention Plan (Permit Attachment F), Section F-2b(2)(c).

[A.A.C. R18-8-264.A (40 CFR §264.195(a))]
3. The Permittee shall inspect the following components of the tank system once each operating day, and at a minimum once each week during non-working days:

[A.A.C. R18-8-264.A (40 CFR §264.195(b))]

 - (a) Aboveground portions of the tank system to detect corrosion or releases of waste;
 - (b) Data gathered from monitoring and leak detection equipment (e.g., pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design; and
 - (c) Construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system, to detect erosion or signs of releases of hazardous waste (e.g., wet spots, dead vegetation).
4. The Permittee shall document compliance with Permit Conditions IV.F.2 and IV.F.3, and place this documentation in the operating record for the facility.

[A.A.C. R18-8-264.A (40 CFR §264.195(d))]

G. RECORDKEEPING AND REPORTING

1. The Permittee shall report to the Director, within 24 hours of detection, when a leak or spill occurs from the tank system or secondary containment system to the environment. [A.A.C. R18-8-264.A (40 CFR §264.196(d)(1)) and C] (A leak or spill of one pound or less of hazardous waste, that is immediately contained and cleaned-up, need not be reported.) [A.A.C. R18-8-264.A (40 CFR §264.196(d)(2))] (Releases that are contained within a secondary containment system need not be reported). If the Permittee has reported the release pursuant to 40 CFR Part 302 and A.R.S. §49-284, this report satisfies the requirements of this Permit Condition.

[A.A.C. R18-8-264.A (40 CFR §264.196(d)(1))]

2. Within 30 days of detecting a release to the environment from the tank system or secondary containment system, the Permittee shall report the following information to the Director:
[A.A.C. R18 8 264.A (40 CFR §264.196(d)(3))]
 - (a) Likely route of migration of the release;
 - (b) Characteristics of the surrounding soil (including soil composition, geology, hydrogeology, and climate);
 - (c) Results of any monitoring or sampling conducted in connection with the release. If the Permittee finds it will be impossible to meet this time period, the Permittee should provide the Director with a schedule of when the results will be available. This schedule must be provided before the required 30-day submittal period expires;
 - (d) Proximity of down gradient drinking water, surface water, and populated areas; and,
 - (e) Description of response actions taken or planned.
3. The Permittee shall submit to the Director all certifications [see A.A.C. R18-8-264.A (40 CFR §264.192(g))] of major repairs to correct leaks within seven days from returning the tank system to use.
[A.A.C. R18-8-264.A (40 CFR §264.196(f))]
4. The Permittee shall obtain, and keep on file at the facility, the written statements by those persons required to certify the design and installation of the tank system.
[A.A.C. R18-8-264.A (40 CFR §264.192(g))]

H. CLOSURE CARE

1. At closure of the tank system, the Permittee shall follow the procedures in the Closure Plan (Permit Attachment I).
[A.A.C. R18-8-264.A (40 CFR §264.197(a))]
2. If the Permittee demonstrates that not all contaminated soils can be practically removed or decontaminated, in accordance with the Closure Plan (Permit Attachment I), then the Permittee shall close the tank system and perform post-closure care.
[A.A.C. R18-8-264.A (40 CFR § 264.197(b))]

I. SPECIAL TANK PROVISIONS FOR IGNITABLE OR REACTIVE WASTE

1. The Permittee shall not place ignitable or reactive waste in the tank system or in the secondary containment system, unless the procedures specified in the Preparedness and Prevention Plan (Permit Attachment F) are followed.

[A.A.C. R18-8-264.A (40 CFR §264.198(a))]

2. The Permittee shall comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon, as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code" (1977 or 1981).
[A.A.C. R18-8-264.A (40 CFR §264.198(b))]

J. SPECIAL TANK PROVISIONS FOR INCOMPATIBLE WASTE

1. The Permittee shall not place incompatible waste, or incompatible waste and materials, in the same tank system or the same secondary containment system, unless the procedures specified in A.A.C. R18-8-264.A (40 CFR §264.17(b)) are complied with.
[A.A.C. R18-8-264.A (40 CFR §264.199(a))]
2. The Permittee shall not place hazardous waste in a tank system that has not been decontaminated, and that previously held an incompatible waste or material, unless the requirements of Permit Condition IV.J.1 are met.
[A.A.C. R18-8-264.A (40 CFR §264.199(b))]

**PART V – CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT
UNITS – SCHEDULE OF COMPLIANCE**

A. AUTHORITY

RCRA Section 3004(u), as amended by the HSWA, and A.A.C. R18-8-264.A (40 CFR 264.101 and 40 CFR 264, Subpart S) requires that Permits issued after November 8, 1984, address corrective action for releases of hazardous waste and hazardous waste constituents from any SWMU at the facility, regardless of when the waste was placed in the unit.

When the Permittee discovers a new SWMU or an AOC at the facility, or determines a release has occurred, the facility will be governed by the conditions of this Permit Part (hereinafter referred to as the “Corrective Action Schedule of Compliance” or “CASOC”).

B. SUMMARY OF RCRA FACILITY ASSESSMENT FINDINGS/RESULTS

Over the life of the original permit there has neither been evidence of releases of hazardous waste nor any evidence of a significant exposure potential from any solid waste management unit at the facility.

C. SPECIFIC CORRECTIVE ACTION REQUIREMENTS

There are no specific corrective action requirements.

[A.A.C. R18-8-264.A (40 CFR 264.101), A.A.C. R18-8-270.A, M, N, and O (40 CFR 270.32), and A.A.C. R18-8-270.A (40 CFR 270.33)]

D. GENERAL CORRECTIVE ACTION REQUIREMENTS

1. Record Keeping

In accordance with Permit Condition I.E.10 (Monitoring and Records), all raw data, such as laboratory reports, drilling logs, bench-scale or pilot-scale data, and other supporting information gathered or generated during activities undertaken pursuant to this CASOC shall be maintained at the facility during the term of this Permit.

2. Reporting, Notifications and Submittals

(a) The Permittee shall submit to the Director signed annual progress reports of all activities (i.e., SWMU Assessment, Interim Corrective Measures, RCRA Facility Investigation, Corrective Measures Study, Corrective Measures Implementation) conducted pursuant to the provisions of this CASOC, beginning no later than (90) calendar days after the Permittee is first required to begin implementation of any requirement herein. These reports shall contain:

- i. A description of the work completed;

- ii. Summaries of all problems or potential problems encountered during the reporting period and actions taken to correct the problems;
 - iii. Projected work for the next reporting period with a detailed schedule for this work.
- (b) Copies of other reports (e.g., inspection reports), drilling logs and laboratory data shall be made available to the Director upon request.
- (c) The Director may require the Permittee to conduct new or more extensive assessments, investigations, or studies, as needed, based on information provided in these progress reports or other supporting information. These assessments, investigations or studies may be required following review of the Permittee's RCRA Facility Investigation Reports, Corrective Measures Study Work Plan (see V.I.3), or Corrective Measures Study Report (see V.I.6), or Corrective Measures Implementation Program Plan (See V.K), which will be submitted as Class 1 Permit Modification requests requiring Director approval.
- (d) The Permittee shall ensure that all plans, reports, notifications, and other submissions to the Director required by this Permit are signed, certified, and submitted in accordance with Permit Condition I.C (Permit Actions), I.E.11 (Signatory and Certification Requirements), and other applicable conditions. Technical work submitted to the Director shall be stamped by a professional Geologist and/or Engineer, as appropriate, registered in the State of Arizona.

3. Contamination that has Migrated Beyond the Facility Boundary, if Applicable

The Permittee shall implement corrective actions beyond the Facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Director that, despite the Permittee's best efforts, as determined by the Director, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the Facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of off-site corrective action will be required. Any determination by the Director requiring the Permittee to address such releases, including any associated financial responsibility requirements, will be made as a Permit Modification request, requiring the Director's approval.

4. Quality Assurance and Control

When performing Corrective Action, the Permittee shall follow the guidance specified below for any sampling and sampling testing:

(a) Sample Collection and Management:

A sampling plan submitted by the Permittee shall include all elements of EPA SW-846, and A.A.C.R18-8-260 et seq. (40 CFR Part 260 et seq.), not limited to:

- i. Specifying the sampler and sampler procedure for use;
- ii. Specifying sampling points based on a statistical basis, logic and strategy;
- iii. Trip blanks, duplicates, spikes, splits, and other field control samples; and,
- iv. Sample management procedures for the field notebook, collection form, preservatives and capping, and other chain-of-custody components.

(b) Laboratory Analysis and Chain-of-Custody:

Throughout all sample analysis activities, the Permittee shall ensure the use of Director-approved quality assurance, quality control, and chain-of-custody procedures. In addition, the Permittee shall:

- i. Inform the Director's Project Coordinator which laboratories will be used by the Permittee.
- ii. Ensure that all laboratories used by the Permittee for its analyses participate in a quality assurance/quality control program equivalent to that described in EPA SW-846. As part of such a program, and upon request by the Director, such laboratories shall perform analyses of a reasonable number of known samples provided by the Director to demonstrate the quality of the analytical data.
- iii. Ensure that the laboratory used is licensed by the Arizona Department of Health Services (ADHS) to perform the specific analyses for the specific analyte(s) of concern.

(c) Evaluation of Sampling Data:

The Permittee shall ensure that sampling plans contain provisions for review of all field and laboratory QA/QC notes and results, and shall use EPA SW-846 to evaluate all data developed in compliance with this Permit. Sampling plans must demonstrate the use of representative samples and must include parameters sufficient to identify migration of hazardous waste and hazardous constituents to the environment.

5. Project Coordinator

The Permittee will assign a Project Coordinator within 30 days of a written request by ADEQ. The Permittee's Project Coordinator shall be responsible for overseeing the implementing of corrective action at the Facility in accordance with this Part of the Permit

and for designating a person to act in his/her absence. ADEQ will also designate a Project Coordinator. All communications between the Permittee and ADEQ, and all documents, reports, approvals, and other correspondence concerning the activities performed pursuant to this Permit shall be directed through the Project Coordinators. The Permittee must provide at least seven (7) calendar days written notice to ADEQ prior to changing the Project Coordinator.

E. NOTIFICATION AND ASSESSMENT OF NEWLY IDENTIFIED SWMU(S) OR AOC(S)

1. Notification of Newly Identified SWMU(s) or AOC(s)

The Permittee shall notify the Director in writing of any newly identified SWMUs or AOCs (i.e., a unit not specifically identified during the RFA), discovered during the course of field investigations, environmental audits, or other means, no later than fifteen (15) calendar days after its discovery. The notification shall include, at a minimum, the location of the SWMU or AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release).

2. Request for SWMU Assessment Plan (SAP)

After such notification, the Director may require that the Permittee prepare a written SWMU Assessment Plan (SAP) and a proposed schedule of implementation and completion of the SAP for any additional SWMU(s) or AOC(s) discovered subsequent to the issuance of this Permit. This plan will be submitted as a Class 1 Permit Modification request requiring Director approval.

3. Content and Submittal of SWMU Assessment Plan

Within sixty (60) calendar days after receipt of the Director's request for a SAP, the Permittee shall prepare and submit a SAP for determining past and present operations at the unit, as well as any sampling and analysis of groundwater, land surface and subsurface strata, and surface water or air, as necessary to determine whether a release of hazardous waste including hazardous constituents from such unit(s) occurred, is likely to have occurred, or is likely to occur. The SAP must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative sampling and must include parameters sufficient to identify migration of hazardous waste including hazardous constituents from the newly discovered SWMU(s) to the environment.

4. Review and Approval or Disapproval of SWMU Assessment Plan

After the Permittee submits the SAP, the Director shall either approve or disapprove the SAP in writing. If the Director disapproves of the SAP, the Director shall either:

- (a) Notify the Permittee in writing of the SAP deficiencies and specify a due date for submittal of a revised SAP, or
- (b) Revise the SAP and notify the Permittee of the revisions. The Director-revised SAP becomes the approved SAP, and constitutes the approval of the Class 1 Permit Modification request specified in Condition E.2 above.
- (c) The approved SAP shall be incorporated into a Permit Attachment (CASOC - Approved Work Plans and Reports).

5. Implementation of the SWMU Assessment Plan

The Permittee shall implement the SAP within fifteen (15) calendar days of receiving written approval.

6. Content and Submittal of SWMU Assessment Report (SAR)

The Permittee shall submit a SWMU Assessment Report (SAR) to the Director no later than forty-five (45) calendar days from completion of work specified in the approved SAP. The Report will be submitted as Class 1 Permit Modification request, requiring the Director's approval. The SAR shall describe all results obtained from the implementation of the approved SAP. At a minimum, the SAR shall provide the following information for each newly identified SWMU:

- (a) The location of the newly identified SWMU in relation to other SWMUs;
- (b) The type and function of the unit;
- (c) The general dimensions, capacities, and structural description of the unit, including any available drawings;
- (d) The period during which the unit was operated;
- (e) The specifics on all wastes that have been or are being managed at the SWMU, to the extent available; and
- (f) The results of any sampling and analysis required for the purpose of determining whether releases of hazardous waste including hazardous constituents have occurred, are occurring, or are likely to occur from the unit.

7. SAR Approval and Determination of Further RFI Action

- (a) Based on the results of the SAR, the Director shall determine the need for further investigations at specified unit(s) covered in the SWMU Assessment, and may require the Permittee to prepare an RFI Work Plan or a Site Assessment Plan (SP) [see Condition V.L (Site Assessment and Remedy) of this Permit part] for such investigations. If the Director determines that investigations are needed, the Director shall incorporate his determination into the SAR approval. The SAP and SAR Approval shall constitute approval of the Permittee's Class 1 Permit Modification request. The final approved SAR shall then be incorporated into a Permit Attachment (CASOC - Approved Work Plans and Reports).
- (b) The RFI Work Plan or SP described in Condition V.E.7.(a) will be reviewed for approval pursuant to Condition V.H (RCRA Facility Investigation Work Plan and Reports) or Condition V.L (Site Assessment and Remedy) of this Permit Part, as specified by the Director. The RFI Work Plan will be submitted to the Director as a Class 1 Permit Modification request, requiring the Director's approval.

F. NEWLY DISCOVERED RELEASES AND THREATS TO HEALTH AND THE ENVIRONMENT

1. Notification Requirements

The Permittee shall notify the Director, in writing, of any release(s) of hazardous waste, including hazardous constituents, discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken after commencement of the RFI or the SP [see Condition L (Site Assessment and Remedy) of this Permit part], no later than fifteen (15) calendar days after their discovery. Such newly discovered releases may be from newly identified units, from units for which, based on the findings of the RFA, the Director had previously determined that no further investigation was necessary, or from units investigated as part of RFI or the SP.

In the event the Permittee identifies a current and/or potential threat to human health or the environment, the Permittee shall immediately notify the Director orally, and in writing within seven (7) calendar days, summarizing immediacy and magnitude of these threats.

2. Interim Measures for Current or Potential Threats

Within forty-five (45) calendar days of notifying the Director, the Permittee shall submit to the Director for approval an Interim Measures (IM) Work Plan, pursuant to Condition V.G of this Permit Part (Interim Measures) that identifies interim measures which mitigate this threat and are consistent with, and integrated into, any long term solution at the facility. The Work Plan shall be submitted as a Class 1 request, requiring the Director's approval. The approved

IM Work Plan constitutes approval of the Permit Modification request. The approved IM Work Plan shall be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports).

3. Further Investigations

The Director may require further investigation of newly identified release(s). A plan for such investigation will be submitted by the Permittee as a Class 1 Permit Modification request, requiring the Director's approval. The Plan shall be reviewed pursuant to Condition V.H (RCRA Facility Investigation Work Plan and Report) or Condition V.L (Site Assessment and Remedy) of this Permit, as specified by the Director.

G. INTERIM MEASURES

1. Determination that Interim Measures are Needed

If during the course of any activity initiated under this CASOC, the Director or Permittee determines that a release or potential release of hazardous waste, including hazardous constituents from a SWMU poses an actual, imminent, or potential threat to human health or the environment, the Director and Permittee may determine that interim measures are necessary. Interim stabilization measures consistent with final remedy may be deployed during ongoing investigations. The following factors should be considered in this determination:

- (a) Time required to develop and implement a final remedy;
- (b) Actual and potential exposure to the environment (e.g., animals, ecosystems) and/or human receptors;
- (c) Actual and potential contamination of drinking water supplies and sensitive ecosystems;
- (d) Potential for further degradation of the medium absent interim measures;
- (e) Presence of hazardous waste in containers that may pose a threat of release;
- (f) Presence and concentration of hazardous waste (including hazardous constituents, in soils having potential to migrate to ground or surface water);
- (g) Weather conditions that may affect the current levels of contamination;
- (h) Risks of fire, explosions, or accident; and
- (i) Other situations that may pose threats to human health and the environment.

2. Specifying Interim Measures and Actions

- (a) When it is determined that interim measures are needed, an Interim Measures (IM) Work Plan shall be developed that will include, but not be limited to, the following elements:
 - i. What interim measures need to be taken;
 - ii. Specific action(s) that must be taken to implement the interim measure;
 - iii. Schedule for their implementation; and
 - iv. Parameters or measurements by which to judge the completion of the measures.
- (b) Either the Director or the Permittee shall develop the IM Work Plan as follows:
 - i. The Director may notify the Permittee in writing of the requirement to perform specific interim measures. If the Permittee concurs, The Permittee shall begin to implement the interim actions within fifteen (15) calendar days after receiving notification. The Director shall modify the CASOC according to Permit Part I.H (Permit Modifications). Interim Measures do not require a public comment period until the measures are incorporated into the Corrective Measures Study (CMS) Work Plan and Report described in Condition V.I of this Permit.
 - ii. The Director may notify the Permittee in writing that the Permittee is required to develop an IM Work Plan. In this event, the Permittee shall submit the IM Work Plan within thirty (30) calendar days after request. The IM Work Plan shall be submitted as a Class 1 Permit Modification request, requiring the Director's approval.

3. Review and Approval or Disapproval of IM Work Plan

After the Permittee submits the IM work plan, the Director shall either approve or disapprove the IM Work Plan in writing. If the Director disapproves the IM Work Plan, the Director shall either:

- (a) Notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submittal of a revised Plan, or
- (b) Revise the IM Work Plan (this revised Work Plan becomes the approved IM Work Plan) and notify the Permittee of the revisions. The approved IM Work Plan constitutes approval of the Class 1 Permit Modification request specified in

Condition V.G.2(b)(ii). The final approved IM Work Plan shall then be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports).

4. Implementation of the IM Work Plan

The Permittee shall implement interim actions within fifteen (15) calendar days after receiving approval or notification of any revisions requested by the Director.

H. RCRA FACILITY INVESTIGATION (RFI) WORK PLAN AND REPORTS

1. Submittal of RFI Work Plan

RFI Work Plans may be required at future times in order to determine potential or actual impacts on human health and the environment.

2. Content and Submittal of RFI Work Plan

Within sixty (60) days after receiving a request from the Director, the Permittee shall submit a complete RFI Work Plan to the Director. The RFI Work Plan shall be submitted as a Class 1 Permit Modification request, requiring the Director's approval. The Work Plan shall address in detail SWMUs, releases of hazardous waste, hazardous constituents, and media of concern which require further investigations.

(a) The Work Plan shall describe the objectives of the investigation and the overall technical and analytical approach to completing all actions necessary to characterize the nature, direction, rate, movement, and concentration of releases of hazardous waste (including hazardous constituents) from specific units or groups of units, and their actual or potential receptors. The Work Plan shall detail all proposed activities and procedures to be conducted at the facility, the schedule for implementation and completing such investigations, the qualifications of personnel performing or directing the investigations, including contractor personnel, and the overall management of the RFI.

(b) The Plan shall discuss sampling and data collection quality assurance and data management procedures listed in Condition D.4 of this Permit Part (Quality Assurance and Control), including formats for documenting and tracking data and other results of investigation, and health and safety procedures.

3. Review and Approval or Disapproval of RFI Work Plan

The Director shall review the RFI Work Plan for proper content and those RFI Work Plan elements applicable to the facility. After review, the Director will either approve or

disapprove the RFI Work Plan in writing. If the Director disapproves the RFI Work Plan, the Director shall either:

- (a) Notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submittal of a revised RFI Work Plan; or
- (b) Revise the RFI Work Plan and notify the Permittee of the revisions. This modified RFI Work Plan becomes the approved RFI Work Plan and constitutes approval of the Class 1 Permit Modification request in V.H.2.

The Director shall also review for approval as part of the RFI Work Plan any plans developed addressing further investigations of newly identified SWMUs (Condition F of this Permit Part).

If approved, the RFI Work Plan will be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports). If the Director approves the RFI Work Plan, the Permittee shall, within ninety (90) calendar days of receipt of approval, send a Class 1 Permit Modification notice to all individuals on the facility mailing list maintained by the Director in accordance with R18-8-270.A and 270.I(c)(1)(ix) and (x) [40 CFR 124.10(c)(1)(ix) and (x)]. The notice shall include a summary of the approved RFI Work Plan and describe the change made to a Permit Attachment (CASOC – Approved Work Plans and Reports).

4. Implementation of RFI Work Plan

No later than thirty (30) calendar days after the Permittee has received written approval from the Director for the RFI Work Plan, the Permittee shall begin implementing the RCRA Facility Investigation according to the schedules and procedures specified in the RFI Work Plan.

5. Content and Submittal of RFI Interim or Final Report

Within sixty (60) calendar days after the completion of the RFI Work Plan or other schedule approved by the Director, the Permittee shall submit:

(a) An RFI Interim or Final Report

The RFI Interim or Final Report shall be submitted as a Class 1 Permit Modification request, requiring the Director's approval. The RFI Interim or Final Report shall describe the procedures, methods, and results of all facility investigations of SWMUs and their releases, including information on the type and extent of contamination at the facility, sources and migration pathways, and actual or potential receptors. The RFI Interim or Final Report shall present all information gathered under the approved RFI Work Plan. The RFI Interim or Final Report must contain adequate information to support further corrective action decisions at the facility.

(b) Determination of No Further Actions with Modification

Based on the results of the RFI and other relevant information, the Permittee may submit an RFI-Based Determination of No Further Action (NFA) with a proposed Class 3 Permit modification to the Director requesting termination of any Corrective Action Required. The NFA Determination and proposed Class 3 Permit modification, will be processed pursuant to requirements of Permit Part I and must contain Information demonstrating that there are no releases of hazardous wastes (including hazardous constituents) from SWMUs at the facility that pose a threat to human health and the environment. It must also include information required in A.A.C. R18-8-270.A (40 CFR 270.42(c), which incorporates by reference 40 CFR 270.13 through 270.21, 270.62, and 270.63), and state if:

- i. Contamination is found to be non-existent;
- ii. Contaminant levels and subsequent risks are insignificant compared to existing background levels (i.e. levels are naturally occurring);
- iii. Contamination results from releases originating from outside the facility;
- iv. Contamination is located adjacent to industrialized, non-residential areas.

6. Review and Approval or Disapproval of RFI Interim or Final Report

The Director shall review the RFI Interim or Final Report submittal (and NFA Determination, if applicable), and either approve or disapprove the Report and NFA Determination in writing.

- (a) If the Director disapproves the RFI Report, the Director shall notify the Permittee in writing of the Report's deficiencies and specify a due date for submittal of the revised Report.
- (b) RFI Interim or Final Report without NFA Determination: If the Director approves the Report, the approval constitutes approval of the Permit Modification request of Condition V.H.5(a). The Permittee shall, within ninety (90) calendar days of receipt of approval, send a Class 1 Permit Modification notice to all individuals on the facility mailing list maintained by the Director in accordance with A.A.C. R18-8-271.A and 271.I(c)(1)(ix) and (x) [40 CFR 124.10(c)(1)(ix) and (x)]. The notice shall include a summary of the approved RFI Interim or Final Report and describe the change made to a Permit Attachment (CASOC – Approved Work Plans and Reports).
- (c) RFI Interim or Final Report with NFA Determination: If, based upon review of the Permittee's NFA Determination and proposed Class 3 Permit Modification request, the results of the RFI, and other information (including comments received during the public comment period), the Director determines that releases or suspected releases which were investigated either are non-existent or do not pose a threat to human health and the environment, the Director may grant the requested

modification. However, the NFA approval does not preclude the Director from initiating other modifications to the CASOC according to procedures in 40 CFR 270.41 (Director-initiated Permit Modifications) that may rescind the determination or require the Permittee to perform:

- i. Continued or periodic monitoring of air, soil, groundwater, or surface water, when site-specific circumstances indicate that releases of hazardous wastes (including hazardous constituents) are likely to occur, if necessary to protect human health and the environment;
- ii. Further investigations, studies, or remediation at a later date, if new information or subsequent analysis indicates a release or likelihood of a release from a SWMU is likely to pose a threat to human health or the environment.

Upon approval of the RFI Interim or Final Report with NFA Determination and Class 3 Permit Modification request, the RFI Interim or Final Report and NFA Determination will be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports).

I. CORRECTIVE MEASURES STUDY (CMS) PLAN AND REPORT

1. Call-in of the Corrective Measures Study

If the Director has reason to believe, after review of the RFI Final Report, that a SWMU has released concentrations of hazardous constituents in excess of any action level, or determines that contamination present at levels below those action levels pose a threat to human health and the environment given site specific exposure conditions, the Director may require a Class 1 Permit Modification, for a Corrective Measures Study (CMS), and shall so notify the Permittee in writing.

2. Content and Submittal of CMS Plan

The Permittee shall submit a Class 1 Permit Modification request requiring the Director's approval and a CMS Work Plan to the Director within forty-five (45) calendar days after notification of the requirement to conduct a CMS. The CMS Plan shall provide the following information:

- (a) Description of general approach to investigate and evaluate potential remedies;
- (b) Definition of the overall study objectives;
- (c) The specific plans and factors for evaluating remedies to ensure compliance with remedy standards, as stated in Permit Condition V.J (Remedy Selection);

- (d) The schedules for conducting the study; and
- (e) Proposed format for presentation of the information.

3. Review and Approval or Disapproval of CMS Plan

The Director should review the CMS Plan to ensure it contains all necessary contents.

- (a) If the Director disapproves the CMS Plan, the director shall either:
 - i. Notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan, or
 - ii. Revise the CMS Plan and notify the Permittee of the revisions. This modified CMS Plan becomes the approved CMS Plan.
- (b) If the Director approves the CMS Work Plan, the Permittee shall, within ninety (90) calendar days of receipt of approval, send a Class 1 Permit Modification notice to all individuals on the facility mailing list maintained by the Director in accordance with R18-8-270.A and 270.I(c)(1)(ix) and (x) [40 CFR 124.10(c)(1)(ix) and (x)]. The notice shall include a summary of the approved CMS Work Plan and describe the change made to a Permit Attachment (CASOC – Approved Work Plans and Reports).

4. Implementation of CMS Plan

No later than fifteen (15) calendar days after the Permittee has received written approval from the Director for the CMS Work Plan, the Permittee shall implement the CMS Work Plan according to the schedules and procedures specified in the CMS Work Plan.

5. Content and Submittal of CMS Final Report

Within sixty (60) calendar days after the completion of the CMS tasks, the Permittee shall submit a Class 1 Permit Modification request requiring the Director's approval and the CMS Report. The CMS Report must contain adequate information to support the Director in the remedy selection decision-making process and shall include, at a minimum:

- (a) A summary of results of investigations, and any bench-scale or pilot tests conducted for each remedy studied;
- (b) A description and evaluation of each remedial alternative which passed through the initial screening of corrective measure technologies;
- (c) All information gathered under the approved CMS Plan with Performance standards streamlined;

- (d) The recommended corrective measure(s), and a justification for selection of the recommended corrective measure(s).

6. Review and Approval or Disapproval of CMS Final Report and Remedy

The Director shall approve, approve with modifications, or disapprove the draft CMS Report and will advise the Permittee of the determination in writing. The Director shall select the remedy according to Condition V.J (Remedy Selection). In all cases, the Director may require the Permittee to evaluate additional remedies or particular elements of the proposed remedies.

- (a) If the Director disapproves the CMS Report, the Director shall notify the Permittee in writing of deficiencies in the CMS Report and specify a due date for submittal of a revised CMS Report.
- (b) If the Director approves or approves with modifications the CMS Report, the approved CMS Report constitutes approval of the Permit Modification request of Condition V.I.5). The CMS Report will be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports). If the Director approves the CMS Report, the Permittee shall, within ninety (90) calendar days of receipt of approval, send the Class 1 Permit Modification notice to all individuals on the facility mailing list maintained by the Director in accordance with R18-8-270.A and 270.I(c)(1)(ix) and (x) [40 CFR 124.10(c)(1)(ix) and (x)]. The notice shall include a summary of the approved CMS Report and describe the change made to a Permit Attachment (CASOC – Approved Work Plans and Reports).
- (c) Within forty-five (45) calendar days of receipt of the Director’s approval, or approval with modifications, of the proposed corrective measure(s), the Permittee shall submit a Corrective Measures Implementation (CMI) Program Plan for the remedy selected pursuant to Condition V.K (Corrective Measures Implementation).

J. REMEDY SELECTION

1. Remedy Standards

Based on results of the CMS and any further evaluations of additional remedies, the Director shall select a remedy from the remedial alternatives evaluated in the CMS that will protect human health and the environment; meet the concentration levels of hazardous constituents in each medium that the remedy must achieve to be protective of human health and the environment; control the course(s) of release(s) so as to reduce or eliminate, to the maximum extent practicable, further releases that might pose a threat to human health and the environment; and meet all applicable waste management requirements.

2. Technical Evaluation Factors of Remedy

In approving the recommended remedy(s) which meets the standards for remedies established above, the Director shall consider the following evaluation factors, as appropriate:

(a) Long-term reliability and effectiveness

To establish the degree of certainty that the remedy will prove successful, evaluate the:

- i. Magnitude of residual risks in terms of amounts and concentrations of waste remaining following remedy implementation, considering the persistence, toxicity, mobility and propensity to bio-accumulate of such hazardous wastes including hazardous constituents;
- ii. Type and degree of long-term management required, including monitoring, operation and maintenance;
- iii. Exposure potential of humans and environmental receptors to remaining wastes, considering potential threats to human health/environment associated with excavation, transportation, re-disposal or containment;
- iv. Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated wastes and residuals;
- v. Potential need for replacement of the remedy.

(b) Reduction of toxicity, mobility, and volume

The degree to which a potential remedy employs treatment that reduces toxicity, mobility, or volume of hazardous wastes (including hazardous constituents) that shall be considered include:

- i. The treatment processes the remedy(s) employs and materials it would treat;
- ii. Amount of hazardous wastes (including hazardous constituents) that would be destroyed or treated;
- iii. The degree to which the treatment is irreversible; and
- iv. The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bio-accumulate of such hazardous wastes (including hazardous constituents).

(c) Short-term effectiveness.

Assess potential remedy(s) for short-term effectiveness considering:

- i. Magnitude of reduction of existing risks;
- ii. Short-term risks that might be posed on the community, workers, or environment during implementation of such remedy, including potential

threats to human health and the environment associated with excavation, transportation, re-disposal or containment; and

iii. Time until full protection is achieved.

(d) Implementability.

The ease or difficulty of implementing a potential remedy(s) may be assessed by considering the following types of factors:

- i. Degree of difficulty associated with constructing the technology;
- ii. Expected operational reliability of the technologies;
- iii. Need to coordinate/obtain necessary approvals and permits from other agencies;
- iv. Availability of necessary equipment and specialists; and
- v. Available capacity, location of needed treatment, storage and disposal services.

(e) Cost.

The types of costs assessed include:

- i. Capital, and Operation and Maintenance costs;
- ii. Net present value of capital and operation and maintenance costs; and
- iii. Potential future remedial action costs.

K. CORRECTIVE MEASURES IMPLEMENTATION PROGRAM PLAN

1. Content and Submittal of CMI Program Plan

Within forty-five (45) calendar days after receipt of the Director's Remedy Selection, the Permittee shall submit a Class 1 Permit Modification request, requiring Director's approval and a draft Corrective Measures Implementation (CMI) Program Plan. All Corrective Action requirements of 40 CFR 264.99(h) and 264.100 shall be addressed, not limited to:

- (a) Details of specific remedies (i.e. remove-and-treat or treat-in-place) to be taken which achieve compliance with the standards, and a description of remedy's technical features that are necessary to achieve the standards, not limited to:
 - i. Requirements for quality sampling and analysis; including a plan for CMI groundwater monitoring that demonstrates an effective post-closure compliance or assessment monitoring program;
 - ii. Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures used to implement remedy;
 - iii. Requirements for achieving compliance with concentration limits and levels;

- (b) Basic standards including, but not limited to:
 - i. Hazardous constituents list;
 - ii. A concentration levels or limits of hazardous constituents in each medium (i.e. soil, groundwater) that the remedy must achieve to protect human health and environment;
 - iii. Compliance points and compliance period;
 - iv. Management of hazardous waste.
- (c) A schedule for initiating and completing all major technical features and milestones of remedy, and required length of Corrective Actions taken, including when CMI groundwater monitoring is initiated in lieu of post-closure groundwater compliance or assessment monitoring;
- (d) Requirements for submission of semi-annual reports, other information, and modifications if above regulations cannot be met.

2. Review and Approval or Disapproval of CMI Program Plan

The Director shall approve, approve with modifications, or disapprove the draft CMI Plan and will advise the Permittee of its determination in writing.

- (a) If the Director disapproves of the CMI Program Plan, the Director shall notify the Permittee in writing of deficiencies in the CMI Program Plan and specify a due date for submittal of a revised CMI Program Plan thirty (30) calendar days after notification.
- (b) If the Director approves (or approves with modifications) the CMI Program Plan, the CMI Program Plan will be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports). If the Director approves the CMI Program Plan, the Permittee shall, within ninety (90) calendar days of receipt of approval, send the Class 1 Permit Modification notice to all individuals on the facility mailing list maintained by the Director in accordance with R18-8-270.A and 270.I(c)(1)(ix) and (x) [40 CFR 124.10(c)(1)(ix) and (x)]. The notice shall include a summary of the approved CMI Program Plan and describe the change made to a Permit Attachment (CASOC – Approved Work Plans and Reports). The Director’s approval of the CMI Program Plan constitutes approval of the Permit Modification request.
- (c) Within forty-five (45) calendar days of receipt of Director’s approval, or approval with modifications, of the proposed corrective measure(s), the Permittee shall submit to the Director a final CMI Program Plan consistent with the Director’s written notification.

3. Implementation of CMI Program Plan

No later than fifteen (15) calendar days after the Permittee has received written approval from the Director for the CMI Program Plan, the Permittee shall begin to implement the CMI Program Plan according to the schedules and procedures specified in the CMI Program Plan.

L. SITE ASSESSMENT AND REMEDY

Site Assessment and Remedy may be required to assess and possibly remedy sites consisting of suspected historic releases of small area extent and for which no groundwater contamination has occurred or threatens to occur. Site Assessment and Remedy shall consist of a Site Assessment Plan (SP) and, if necessary, a Remedial Plan (RP). At the Director's discretion the Permittee may be required to follow the provisions of the RFI, CMS, and CMI processes (Permit Sections V.H through V.K of this Permit Part) if, during performance of the SP or RP, extensive contamination is found, or if it is found that groundwater may be impacted by the historic release.

1. Site Assessment Plan

Any SP submitted by the Permitted in accordance with V.L shall be submitted as a Class 1 Permit Modification request requiring the Director's approval. The SP shall contain the following:

- (a) A description of the purpose for the SP
- (b) A general description of the site including a site diagram or drawing. Identify as applicable:
 - i. Property boundaries;
 - ii. Buildings and fences;
 - iii. Process and maintenance areas;
 - iv. Active and inactive waste generation, handling treatment, storage, disposal, and spill areas;
 - v. Water wells, dry wells, sumps, storm sewers, industrial and sanitary sewers, septic tanks, surface waters (including intermittent washes, discharges or irrigation ditches, canals, etc);
 - vi. depth to ground water;
 - vii. Soil coverings (asphalt, concrete, vegetation, etc);
 - viii. Topography and drainage patterns;

- (c) Identity of each waste which has been stored, treated, or disposed at the site, and the identity of each hazardous constituent present in that waste.
- (d) The method(s) used to determine sample locations and depths (random, systematic, biased, or combination) and a rationale for the number of samples taken.
- (e) A diagram showing the number, type, and location of samples
- (f) Detailed sampling procedures describing:
 - i. Contents of the field notebook;
 - ii. Sampling equipment used;
 - iii. Sample sizes;
 - iv. Use of any sample compositing;
 - v. Sample containers, labels, and seals;
 - vi. Field and trip blanks;
 - vii. Sample preservatives;
 - viii. Quality assurance procedures (blind field duplicates, use of a check lab, and chain of custody);
 - ix. Sample packaging and shipment;
 - x. Reserved samples (samples to be taken but not immediately analyzed);
 - xi. Backfilling and grouting of sample borings;
 - xii. Equipment decontamination procedures, including disposal of spent solutions;
- (g) Analytical parameters and the rationale for choosing such parameters
- (h) Provision for expanding the SP if contamination is found to have migrated
- (i) Provision for the submittal of a Site Assessment Report within 90 days of performance of the SP, providing the following information:
 - i. A summary of results, significant observations, and conclusions;
 - ii. A discussion of the sampling followed for each site, including a description of:
 - a. The sampling procedures used;
 - b. The equipment used for sampling;
 - c. The analytical procedures and methods used;
 - d. The analytical equipment used; and
 - e. The quality assurance procedures used.

- iii. The procedures used to prevent hazards and protect field personnel;
 - iv. The equipment used to prevent hazards and protect field personnel;
 - v. Drawings and photographs where appropriate;
 - vi. Description of any deviations from the approved SP;
 - vii. Data generated from sampling and analysis activities performed pursuant to the plan, including field notes, manifests, bills of lading, LDR forms, laboratory submittal forms, chain-of-custody forms, laboratory reports, and drilling logs.
- (j) Provision for the submittal of a Remedial Plan, if any hazardous constituents are found above the applicable soil remediation standards of Title 18, Chapter 7, Article 2 or if any hazardous constituents may be expected to migrate to ground water.
- (k) Provision for a request of a Finding of No Further Action from the Director, if no hazardous constituents are found above the applicable soil remediation standards of Title 18, Chapter 7, Article 2, or if no hazardous constituents may be expected to migrate to ground water.
- (l) The final approved SP shall be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports).

2. Remedial Plan

Any Remedial Plan (RP) submitted by the Permittee in accordance with V.L shall be submitted as a Class 1 Permit Modification Request requiring the Director's approval. The RP shall contain the following:

- (a) A description of the process to be used in the removal of all hazardous waste, hazardous waste constituents, and/or soils determined to be contaminated with hazardous waste or hazardous waste constituents;
- (b) An estimate of the amount of waste or soils to be generated, including a site map indicating the location and vertical and horizontal extent of the area to be remediated;
- (c) Identification of the personnel to be used during the remediation, including the name of the project officer who will be responsible for managing the site;
- (d) A provision for a site safety plan which will be enforced during the remediation. At a minimum, the site safety plan should specify the precautions to be taken and monitoring to be performed which ensures the safety of the site workers and the surrounding community;
- (e) The method(s) used to determine sample locations and depths (random, systematic, biased, or combination) and a rationale for the number of samples taken;

- (f) A diagram showing the number, type, and location of samples to be taken;
- (g) Detailed sampling procedures describing:
 - i. Contents of the field notebook;
 - ii. Sampling equipment used
 - iii. Sample sizes
 - iv. Use of any sample compositing;
 - v. Sample containers, labels, and seals;
 - vi. Field and trip blanks;
 - vii. Sample preservatives;
 - viii. Quality assurance procedures (blind field duplicates, use of a check lab, chain of custody);
 - ix. Sample packaging and shipment;
 - x. Reserved samples (samples to be taken but not immediately analyzed);
 - xi. Backfilling and grouting of sample borings;
 - xii. Equipment decontamination procedures, including disposal of spent solutions;
- (h) Analytical parameters and the rationale for choosing such parameters;
- (i) The chain of custody procedures to be followed;
- (j) If the remediation may be expected to include the storage of hazardous waste or soils contaminated with hazardous constituents on-site, the storage method, location, and expected duration must be detailed. The description must specify the precautions to be taken to protect the facility and surrounding community from exposure to the waste or soils contaminated with hazardous constituents;
- (k) If the remediation entails excavation, the steps which will be taken to limit access to the excavated area must be described;
- (l) If the remediation entails the use of imported back-fill, provisions for documenting that the back-fill is clean;
- (m) The decontamination procedures and disposal techniques to be employed for all decontaminated solutions and personal protective equipment;
- (n) The disposal method and identification of the disposal site(s) of all hazardous wastes and contaminated soils generated during the remediation;
- (o) A schedule for performance of the remedy, including provision for prior ADEQ notification (5 days);

- (p) Provisions for amendment of the RP should confirmatory sampling indicate the presence of hazardous waste or hazardous waste constituents, are found above the applicable soil remediation standards of Title 18, Chapter 7, Article 2 or if any hazardous constituents may be expected to migrate to ground water;
- (q) Documentation that the site has been flagged prior to remediation;
- (r) Provisions for the submittal of a Remedial Report within 90 days of completion of the remedy providing:
 - i. A summary of results, significant observations, and conclusions;
 - ii. A discussion of the sampling followed for each site, including a description of:
 - a. The sampling procedures used;
 - b. The equipment used for sampling;
 - c. The analytical procedures and methods used;
 - d. The analytical equipment used; and
 - e. The quality assurance procedures used.
 - iii. The procedures used to prevent hazards and protect field personnel;
 - iv. The equipment used to prevent hazards and protect field personnel;
 - v. Drawings and photographs where appropriate;
 - vi. Description of any deviations from the approved RP;
 - vii. Data generated from the remedy and confirmatory sampling and analysis activities performed pursuant to the RP, including field notes, manifests, bills of lading, LDR forms, laboratory submittal forms, chain-of-custody forms, laboratory reports, and drilling logs;
- (s) Provision for a request of a Finding of No Further Action from the Director, through a Class 1 Permit Modification request, if no hazardous constituents remain above the applicable soil remediation standards of Title 18, Chapter 7, Article 2, and if no hazardous constituents may be expected to migrate to ground water;
- (t) The final approved RP shall be incorporated into a Permit Attachment (CASOC – Approved Work Plans and Reports).

2. Notification

Within thirty (30) calendar days of submittal of the RP to the Director, the Permittee shall send a notice of the RP to all persons on the facility mailing list maintained by the Director in accordance with R18-8-270.I (40 CFR 124.10) and to appropriate units of state and local government. The notice shall briefly describe the RP and provide facility and ADEQ contacts.