ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007
(602) 771-2300 • www.azdeq.gov

Janice K. Brewer
Governor

Benjamin H. Grumbles
Director

# ARIZONA HAZARDOUS WASTE MANAGEMENT ACT PERMIT

In accordance with the State of Arizona Administrative Code (A.A.C.), Title 18, Chapter 8, Article 2, R18-8-260 et. seq. (hereinafter called Article 2), and pursuant to the Arizona Hazardous Waste Management Act, A.R.S. § 49-921 et. seq. (hereinafter called AHWMA), this Permit is issued to the following:

| | |
|---|---|
| Facility Name & Address: | Conn-Selmer, Inc. Groundwater Remediation System<br>1310 W. Fairway Drive<br>Nogales, Arizona 85621 |
| Facility EPA I.D. No.: | AZT000612135 |
| Location: | Northeast Quarter of the Northeast Quarter of Section 36, Township 23 South, Range 13 East, Gila and Salt River Base and Meridian, Santa Cruz County, Arizona ( Latitude 31º 23' 30.70" North and Longitude 110º 57' 45.08" West ) |
| Land Owner: | AD&R Fairway L.L.C. |
| Facility Operator: | Conn-Selmer, Inc., a Delaware corporation |
| Facility Owner: | AD&R Fairway L.L.C. |

Conn-Selmer, Inc. (Permittee) operates a groundwater remediation system (GRS) at 1310 W. Fairway Drive, Nogales, Arizona. The GRS extracts groundwater and volatilizes organic contaminants resulting from the use of chlorinated solvent at a musical instrument manufacturing facility formerly located on the property. The Permittee had owned the property where the GRS is located from 2003 until 2004 when it was sold it to AD&R Fairway L.L.C.

Review of raw materials that had been used in production and environmental data indicate that four of the Permittee's former solid waste management units (SWMUs) have contaminated soil and groundwater beneath the manufacturing facility formerly operated at the 1310 W. Fairway Drive address. The SWMUs included a 1,200-gallon underground concrete wastewater treatment tank, an unlined surface impoundment, and two "land treatment areas" (two smaller, unlined surface impoundments on the east side of the manufacturing facility). The underground concrete tank had been used to elevate the pH of wastewater from plating operations to precipitate the dissolved metals. The wastewater was subsequently treated with sodium hypochlorite to destroy the cyanide and discharged to the surface impoundment. Sanitary waste from the manufacturing facility was also discharged to the surface impoundment. Excess wastewater from the surface impoundment was pumped to the two land treatment areas. The SWMUs were not used after 1985. They were certified as closed under RCRA and AHWMA by ADEQ, on February 1, 1988.

The tank and contaminated soil beneath the tank and surface impoundment were removed and disposed of off-site. Soil contaminated with volatile organic compounds (VOCs) in the two smaller surface impoundments, was roto-tilled in place to expedite VOC evaporation.

The industrial waste streams generated at the Permittee's former manufacturing facility consisted of spent halogenated solvents, wastewater treatment sludge, and spent cyanide solution from electroplating operations. Extensive investigation showed that VOCs have migrated to the groundwater beneath and down gradient of the site. VOC-contaminated groundwater associated with the former SWMUs is currently being withdrawn from an extraction well. VOCs are removed from the extracted groundwater by two air strippers in series. The remediated groundwater that meets Aquifer Water Quality Standards is transferred to a lined pond adjacent to the west side of the Palo Duro Golf Course for use by the city of Nogales under an agreement.

This post-closure permit establishes conditions for proper long-term management of the GRS to remediate contamination of affected natural resources. Post-closure care will consist of the following:

1. Groundwater monitoring and reporting - During the period of groundwater remediation, field data and groundwater samples shall be collected from specified extraction and monitoring wells, analyzed, and reported as outlined in the Post-Closure Plan Compliance Monitoring Schedule.
2. Inspection and maintenance of the GRS - Routine preventive maintenance, repair, and parts replacement will be performed following the scheduled frequency recommended by the manufacturer and outlined in the Post-Closure Plan Routine Preventive Maintenance Schedule.
3. Inspection and maintenance of GRS peripherals - Routine inspection and corrective maintenance will be performed regarding secondary containment, the perimeter fence, warning signs, and monitor and extraction wells associated with the GRS, following the scheduled frequency outlined in the Post-Closure Plan Inspection Schedule.
4. Restoration of natural resources adversely impacted by Permittee's operations - The Permittee shall ensure mitigation of present and any future contamination resulting from Permittee operations. Before final closure, the Permittee shall ensure restoration of natural resources to applicable standards regarding human health, the environment, and future land use.

The post-closure care period is for 30 years and begins on the effective date of this permit. The Director may extend this post-closure care period if the Director finds that the extended period is necessary to protect human health and the environment. The Director may also shorten the post-closure care period if the Director finds that the reduced period is sufficient to protect human health and the environment.

The Permittee must comply with all terms and conditions of this Permit. This Permit consists of the conditions contained herein (including those in the attachments) and the applicable regulations contained in Article 2 as specified in the Permit. This Permit does not in any way release the Permittee from complying with the applicable requirements of any of the provisions of Article 2, AHWMA, or any other applicable state requirement promulgated by rule or statute.

Unless modified, applicable regulations are those which are in effect on the date of issuance of this Permit pursuant to A.A.C. R18-8-264, 270 and 271, and the conditions therein are specified pursuant to A.A.C. R18-8-270.A (40 CFR §270 Subpart C), K, L, M, N, O, P, and Q. All references to 40 CFR in this Permit refer to those regulations as adopted and modified by Article 2.

This Permit is based on the assumption that the information contained in the Permit Application is accurate, and that the facility is constructed and operated as specified in the Permit Attachments. Any inaccuracies found in this information may be grounds for the termination, modification, or revocation and reissuance of this Permit pursuant to A.A.C. R18-8-270.A (40 CFR §270.41, 270.42 and 270.43) and A.A.C. R18-8-271.D and potential enforcement action.

The Permittee shall inform the Director of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

This Permit is effective as of June 22, 2009, and shall remain in effect for ten (10) years from this date, unless revoked and reissued, or terminated pursuant to A.A.C. R18-8-270.A (40 CFR §270.41 and 270.43) or continued in accordance with A.A.C. R18-8-270.A (40 CFR §270.51) and P (40 CFR §270.51(a)).

For the Arizona Department of Environmental Quality,

Signed this 22nd day of June, 2009

by _____

Amanda E. Stone, Director
Waste Programs Division
Arizona Department of Environmental Quality

# AHWMA POST-CLOSURE PERMIT

CONN-SELMER, INCORPORATED
1310 West Fairway Drive
Nogales, Arizona

EPA ID Number AZT 000 612 135

# TABLE OF CONTENTS

## ATTACHMENTS

# PART I - GENERAL PERMIT CONDITIONS

## A. EFFECT OF PERMIT

The Permittee is required to conduct post-closure care, groundwater remediation, and investigation and assurance of possible corrective action for solid waste management units (SWMUs) listed in Section VII, in accordance with the conditions of this Permit. This Permit constitutes compliance with the AHWMA and with Subtitle C of RCRA, for purposes of enforcement. 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 the Resource Conservation and Recovery Act (RCRA) or sections 106(a), 104 or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601 et seq.), 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. PERMIT ACTIONS

### 1. Permit Modification, Revocation and Reissuance, and Termination

This Permit may be modified, revoked and reissued, or terminated for cause, as specified in A.A.C. R-18-8-270A and 40 CFR 270.41, 270.42, and 270.43. This Permit may be modified by the Director at any time, following procedures outlined in A.A.C. R-18-8-271.D, in order to ensure compliance with applicable state and federal requirements. The filing of a request for a permit modification, revocation and reissuance, termination, notification 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. R18-8-270A (40 CFR 270.4(a) and 270.30(f))].

### 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.2. Review of any application for a Permit renewal shall consider improvements in the state of control and measurement technology, as well as changes in applicable regulations. [A.A.C. R18-8-270A (40 CFR 270.30(b), HSWA Sec. 212)]

## C. SEVERABILITY

The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [A.A.C. R18-8-270A (40CFR 124.16(a))]

## D. DEFINITIONS

For purposes of this Permit, terms used herein shall have the same meaning as those in A.A.C. R18-8-270A, (40 CFR Parts 124, 260, 264, 266, 268, and 270), unless this Permit specifically provides otherwise; 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. means the Arizona Administrative Code, attached to this Permit as Attachment H.

ADEQ means Arizona Department of Environmental Quality.

ADHS means the Arizona Department of Health Services.

ADWR means the Arizona Department of Water Resources.

AHWMA means Arizona Hazardous Waste Management Act.

A.R.S. means Arizona Revised Statutes.

AWQS means Aquifer Water Quality Standards.

bgs means below ground surface.

CASRN means Chemical Abstract Society Registry Number

CERCLA means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 USC §§ 9601-9675.

CFR means Code of Federal Regulations.

CMS means Corrective Measure Study under RCRA

COC means Chain of Custody

CSI means Conn-Selmer, Incorporated, the Permittee.

dba means doing business as.

DGPS means differential [corrected to ADEQ base station] global positioning system

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

EPA means U.S. Environmental Protection Agency - Region IX Hazardous Waste Management Division of the, unless otherwise specified.

Facility means all contiguous property under the control of the owner or operator of this Permit under the AHWMA and Subtitle C of RCRA.

GPS means Global Positioning System.

GRS means Groundwater Remediation System which includes extraction wells, monitoring wells, pumps, an equalization tank; two air strippers operating in series; associated piping, air blowers; a remediated water collection tank; secondary containment; security fencing, and signage.

Hazardous constituent means any constituent identified in Appendix VIII of 40 CFR Part 261 or any constituent identified in Appendix IX of 40 CFR Part 264.

Hazardous waste means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, and increase in mortality or and increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. The term hazardous waste includes hazardous constituent as defined above.

HDPE means high density polyethylene.

HSWA means the Hazardous and Solid Waste Amendments of 1984.

MCL means maximum contaminant level, micro grams per liter, µg/l

NAD means North American Datum grid system for locating a point.

Permittee means the responsible party, Conn-Selmer, Inc., the last owner of the musical instrument manufacturing facility located at 1310 West Fairway Drive, Nogales, Arizona, formerly dba C.G. Conn/Artley Flute, and United Musical Instruments (UMI).

PRG means Preliminary Remediation Goals established by Region IX of the EPA.

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

RCRA means the Resource Conservation and Recovery Act of 1976 (42 USC §§6601-6992, 1996)

Release 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).

RFA means a RCRA facility assessment is conducted where the treatment, storage, or disposal of solid wastes, including regulated hazardous wastes, has occured.

Shall, Must, Will, and factual statements denotes a mandatory requirement.

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

SWMU means Solid Waste Management Unit; 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. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

UMI (see definition of *Permittee*)

## 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 is grounds for enforcement action; for Permit termination, revocation and reissuance, or modification; or for denial of Permit renewal application. [A.A.C. R18-8-270A (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 180 days prior to Permit expiration. [A.A.C. R18-8-270A, 40 CFR 270.10(h), 270.30(b)]

### 3. Permit Expiration

Pursuant to A.A.C. R18-8-270.A (40 CFR 270.50), this Permit shall be effective for a fixed term not to exceed ten years. This Permit and all conditions herein will remain in effect beyond the Permit expiration date, if the Permittee has submitted a timely, complete application pursuant to A.A.C. R18-8-270A, E, F, G, H, and J (40 CFR 270.10, 270.13 through 270.29) and through no fault of the Permittee, the Director has not issued a new Permit, as set forth in A.A.C. R18-8-270A (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. R18-8-270A (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. R18-8-270A and 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 better systems only when necessary to achieve compliance with the conditions of this Permit. [A.A.C. R18-8270A (40 CFR 270.30(e))]

7. Property Rights

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 infringement or state or local law or regulations. [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 and 270.A (40 CFR 264.74(a), 270.30(h))]

9. Inspection and Entry

Pursuant to A.A.C. R18-8-270.A, and 40 CFR 270.30(i), the Permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents, as may be 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, any substances or parameters at any location.

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 groundwater to be analyzed must be the appropriate method from 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 SW-846, Standard Methods of Wastewater Analysis, or an equivalent EPA method meeting applicable limits of detection performed by a laboratory certified by the Arizona Department of Health Services [A.A.C. R18-8-270A and 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. R18-8-270A and 40 CFR 264.73(b)(9), and records of all data used to complete the application and monitoring requirements according to this Permit for a period of at least 3 years from the date of the sample, measurement, report, record, certification, or application. These periods may be extended by request of the Director at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility. [A.A.C. R18-8-264.A and 270.A and 40 CFR 264.74(b) and 270.30(j)(2)]

(c) Each parameter test that an in-state or out-of-state laboratory can perform for hazardous waste analysis must be certified by the Arizona Department of Health Services (ADHS) [A.R.S. Title 36, Chapter 4.3, Article 11, 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. For notification and certification verification purposes, a copy of that letter will be included with the final analytical report.

11. 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 and 40 CFR 270.30(l)(1)]

(b) Transfers. This Permit is not transferable to any person or any other corporation, except after notice to the Director and sale of the property identified in this Permit. The Director may require modification or revocation and reissuance of this Permit to change the name of the Permittee and incorporate such other requirements relative to change of ownership, as may be necessary pursuant to A.A.C. R18-8-270.A and 40 CFR 270.40. [A.A.C. R18-8-270.A and L (40 CFR 270.30(l)(3) and 264.12(c))]

(c) Monitoring Reports. Monitoring results shall be reported at the intervals specified in Attachment D, Section 2.5.1 of this Permit. [A.A.C. R18-8-270.A and L (40 CFR 270.30 (1)(4))]

(d) Compliance Schedules. Reports of compliance or non-compliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Permit shall be submitted no later than fourteen calendar days following each schedule date, unless otherwise requested by the Director or otherwise specified in this Permit. [A.A.C. R18-8-270.A and L (40 CFR 270.30(1)(5))]

(e) The Permittee shall submit the annual GRS report to the Director in accordance with Attachment D, Section 2.5.2 of this Permit.

(f) Noncompliance. The Permittee shall report all instances of non-compliance not required under A.A.C. R18-8-270.A and 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))]

12. Reporting Anticipated Noncompliance

The Permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. [A.A.C. R18-8-270.A and L (40 CFR 270.30(I)(2)]

13. Twenty-Four Hour Reporting

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

(i) Information concerning release or discharge of hazardous waste that may cause an endangerment to public drinking water supplies.

(ii) Any information of a release or discharge of hazardous waste, or a fire or explosion from the hazardous waste management facility which could threaten the environment or human health outside the facility.

(b) 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 or recovered material that resulted from the incident.

(c) A written submission shall also be provided within five days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period(s) of noncompliance (including exact dates and times); whether the noncompliance has been corrected; and, if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The Director may waive the five-day written notice requirement in favor of a written report within 15 days.

14. Other Information

(a) Whenever the Permittee becomes aware that it failed to submit any relevant facts 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 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. SIGNATORY REQUIREMENTS

All applications, reports, or information submitted to or requested by the Director, his designee, or authorized representative, shall be signed and certified in accordance with A.A.C. R18-8-270.A (40 CFR 270.11 and 270.30(k)).

## G. CONFIDENTIAL INFORMATION

In accordance with A.A.C. R18-8-270.H and 40 CFR 270.12, the Permittee may claim confidential any information required to submitted by this Permit.

## H. DOCUMENTS TO BE MAINTAINED AT THE FACILITY

The Permittee shall maintain at 1310 Fairway Drive, Nogales, Arizona, the following documents and all amendments, revisions and modifications to these documents:

1. Groundwater Sampling and Analysis Plan, as required by A.A.C. R18-8-264.A (40 CFR 264.98) and this Permit.
2. Inspection and maintenance schedules, as required by A.A.C. R18-8-264.A (40 CFR 264.15(b)(2)) and this Permit.
3. Contingency plan, as required by A.A.C. R18-8-264.A (40 CFR 264.53(a)) and this Permit.
4. Post-closure plan, as required by A.A.C. R18-8-264.A (40 CFR 264.118(a)) and this Permit.
5. All other documents required by Part I, Permit Condition E.10.

All documents required to be maintained shall be controlled to ensure that the latest revision is accessible by designated user and to the regulatory compliance inspector.

I. PERMIT MODIFICATIONS

1. General Conditions

For Permit modifications (including re-application), the Permittee shall follow, as applicable:

(a) Permit Condition I.B.1 Permit Modification, Revocation, Reissuance, and Termination;
(b) Permit Condition I.E.11(a) Reporting Requirements - Planned Changes;
(c) Signatory and document liability certification requirements as described in Permit Condition I.F. Signatory Requirements;
(d) Confidentiality rules, if desired, pursuant to Permit Conditions I.G. Confidential Information; and
(e) Fee requirements in accordance with A.A.C. R18-8-270.G

2. Changes to Key Employee

For the following key personnel changes, the Permittee shall submit an ADEQ character/background reference form. [A.R.S. 49-922.C; A.A.C. R18-8-270.J (270.14(b)(23))]:

- Persons employed by the Permittee in a supervisory capacity or empowered to make discretionary decisions with respect to the operations of the facility;
- Signatories; and
- Emergency Coordinators.

3. Mailing List

The Permittee shall use a mailing list provided by ADEQ 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)]

J. WASTE MINIMIZATION CERTIFICATION

1. The Permittee shall annually certify pursuant to A.A.C. R18-8-264.A (40 CFR 264.73 (b)(9)).

(a) That the Permittee has a program in place to reduce the volume and toxicity of all hazardous waste 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.

2. This certification shall be retained with the facility's operating record and shall comply with the signatory requirement of Permit Condition I.F pursuant to A.A.C. R18-8-264.A (40 CFR 264.73 (b) (9)).”

# PART II - POST-CLOSURE

A. POST CLOSURE CARE AND USE OF PROPERTY

1. Post-Closure Care

Post-Closure Care subject to A.A.C. R18-8-264.A (40 CFR 264.117) shall consist of at least:

(a) Continuous operation, inspection and maintenance of the Groundwater Remediation System (GRS), including the equalization tank, remediated groundwater storage tank, and secondary containment (run-on and run-off control systems), with intermittent downtime due to maintenance and occasional power interruptions;

(b) Groundwater monitoring and reporting;

(c) Review of groundwater monitoring data, treatment system progress, and any modifications necessary to achieve lasting groundwater resource remediation and final closure of the GRS without compromising public health and environmental protection; and

(d) Inspections and maintenance of the surrounding fence, warning signs; monitoring wells, and extraction wells.

2. Integrity of the Groundwater Remediation System

Post-closure use of the portion of property on or in which contaminated groundwater is stored and treated shall not be disturbed in such a manner that would compromise the integrity of corrective actions and pose a threat to the public or the environment. Future uses must be reviewed and approved by ADEQ and must not adversely impact the integrity or function of the GRS.

3. Post-Closure Care Period

As specified in A.A.C. R18-8-264.A and 40 CFR 264.117 through 264.120, the owner and/or operator shall provide care in accordance with the Post-Closure Plan for 30 years after the date of issuance of this Permit.

(a) The Permittee may petition ADEQ to allow some or all of the requirements for post-closure care to be discontinued or altered before the end of the 30-year period. The petition shall include evidence demonstrating the secure nature of the facility that makes continuing the specified post-closure requirement(s) unnecessary (e.g., no detected leaks and none likely to occur, characteristics of the waste, application of advanced technology, or alternative treatment, reuse techniques, or statistical evidence compliance with applicable maximum contaminant levels);

(b) ADEQ may require the Permittee to continue one or more of the post-closure care and maintenance requirements contained in the facility Post-Closure Plan and this Permit for a specified period of time. ADEQ may do this if they find

there has been noncompliance with any applicable standards or requirements, or that such continuation is necessary to protect human health or the environment. At the end of the specified period of time, ADEQ will determine whether to continue or terminate post-closure care and maintenance at the facility. The Permittee may petition ADEQ for an extension or reduction of the post-closure care period based on cause. These petitions will be considered by ADEQ at the time the Post-Closure Plan is submitted and at five year intervals after the completion of closure.

4. Facility Security

Facility security measures described in this Permit, including Permit Attachments A, C, and F shall be maintained throughout post-closure care and revised as necessary to ensure compliance with A.A.C. R18-8-264.A and 40 CFR 264.14.

B. POST CLOSURE PLAN AND MODIFICATION OF PLAN

1. By the issuance of this Permit, the Permittee's Post-Closure Plan (Attachment F) is approved. Any subsequent revisions are subject to ADEQ approval, according to the terms of this Permit.

2. As specified in A.A.C. R18-8-264.A (40 CFR 264.118(d)), the Permittee may request approval from ADEQ to amend the Post-Closure Plan, Permit, or apply for final closure, at any time. Any amendments to the plans listed above must be submitted to ADEQ for review and approval 60-days prior to implementing changes. Modifications shall be made according to Permit Condition I.B.1. of this Permit.

C. NOTICE TO LOCAL LAND AUTHORITY

The Permittee has submitted to the local zoning authority and to ADEQ a survey plat, as required in A.A.C. R18-8-264.A (40 CFR 264.119(a)), indicating the location and dimensions of the Solid Waste Management Unit (SWMU) with respect to a permanently surveyed benchmark.

D. NOTICE IN DEED TO PROPERTY

1. As required in A.A.C. R18-8-264.A (40 CFR 264.119(b)), the Permittee has recorded in accordance with state law, a notation on the deed to the facility property that will, in perpetuity, notify any potential purchaser of the property that:

(a) The land has been used to manage hazardous wastes;

(b) Its use is restricted under A.A.C. R18-8-264.A (40 CFR subpart G).

The survey plat and record of the type, location, and quantity of hazardous wastes disposed of within the facility and managed at SWMUs on the facility property have been included in the notice to Deed and their status as required by A.A.C. R18-8-264.A, 264.115, and 264.119(a) and have been filed with the local zoning authority.

2. If at any time the owner of the land upon which the groundwater remediation system is located, removes or remediates the hazardous waste residues contaminating the groundwater underlying and surrounding the property, to the satisfaction of ADEQ, the owner may remove the notation on the deed to the property or other instrument normally examined during title search or the owner may add a notation to the deed or instrument indicating the removal of the contamination.

3. To the extent that the Facility or any other property to which access is required for the implementation of this Permit is owned or controlled by persons other than the Permittee, the Permittee shall use "best efforts" to secure access, in the form of a use easement, from such persons or companies, as well as for the State of Arizona, ADEQ, to effectuate this Permit. The easements shall be to access the identified areas, for monitoring, maintenance and service of both; the Facility at 1310 W. Fairway Drive, Nogales, Arizona, and the parking lot area in which the monitoring wells are located, adjacent to the Facility. "Best Efforts" shall include, but not be limited to the payment of reasonable sums of money in consideration of the access easement.

## E. CERTIFICATION OF COMPLETION OF POST-CLOSURE CARE

No later than 60 days after completion of the established post-closure care period for the GRS and any subsequent releases of hazardous waste, the Permittee must submit to ADEQ, by registered mail, and as required by A.A.C. R18-8-264.A, (40 CFR 264.120), a certification that the post-closure care period for the remediation of contaminated soil and groundwater was performed in accordance with the specifications in this Permit. The certification must be signed by the Permittee and a registered professional engineer registered in the State of Arizona. Documentation supporting the registered professional engineer's certification must be furnished to ADEQ, upon request.

## F. COST ESTIMATE FOR POST-CLOSURE

The Permittee's most recent post-closure cost estimate, prepared in accordance with A.A.C. R18-8-264.A (40 CFR §§264.142 and 264.197(c)(3)), is contained in Permit Attachment G. The cost estimate for post-closure care and final closure shall be updated annually and submitted to the ADEQ. Updates shall be calculated in accordance with A.A.C. R18-8-264.A (40 CFR §264.142(a)(b). For purposes of these financial assurance

requirements, the "active life of the facility" is considered to be the post-closure care period specified in this Permit.

G. FINANCIAL ASSURANCE FOR POST-CLOSURE

1. Each year, within sixty (60) days of the anniversary date of the financial assurance mechanism, the Permittee shall demonstrate compliance with the financial assurance requirements of A.A.C. R18-8-264.A (40 CFR §§264.145 and 264.146) by providing to ADEQ 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 estimate required by Permit Condition II.F.

2. The amount provided in the financial assurance mechanism of the Permittee shall be adjusted annually to meet the annual post-closure care and final closure cost estimate submitted by the Permittee under Permit Condition II.F.

3. The Permittee may request reimbursement of funds in the trust at any time during the post-closure care period, in accordance with R18-8-264.A (40 CFR 264.145(a)(10)and (11)

4. Changes in financial assurance mechanisms must be approved by the Director pursuant to A.A.C. R18-8-264.A (40 CFR §264.144).

# PART III - GROUNDWATER MONITORING AND REMEDIATION

## A. GROUNDWATER REMEDIATION SYSTEM SUMMARY

The Permittee's groundwater remediation system (GRS) used to treat contaminated groundwater, and associated peripherals are described in Attachment B.

### 1. Summary

To mitigate the contamination of groundwater attributed to operation of a musical instrument manufacturing facility in Nogales, Arizona, the Permittee installed two commercial air strippers that have operated, in series, continuously, since 1998 to remove volatile organic compounds (VOCs) from the extracted groundwater. The water meeting Aquifer Water Quality Standards (AWQS) for groundwater protection is transferred to a high-density polyethylene-lined containment pond at the Palo Duro Golf Course. Distribution of the water is managed by the City of Nogales. Water from the pond is non-potable. It may be used for irrigation without threat to the public or the environment.

Groundwater remediation activities occur inside a concrete-walled secondary containment with chemical-resistant coating. The capacity of the secondary containment is 8150 gallons. The pump and treat system is secured by a chain-link fence and lock. Warning signs prohibiting unauthorized access are posted.

### 2. Inspection Schedules and Procedures

Inspection schedules and procedures are addressed in Part IV of this Permit.

### 3. Record Keeping

Record keeping requirements are addressed in Part VI.A and VI.B of this Permit. [A.A.C. R18-8-264.A (40 CFR § 264.73)].

### 4. Final Closure

At final closure of the GRS, the Permittee shall remove all groundwater treatment equipment, ancillary piping, hazardous waste and hazardous waste residues from the groundwater treatment system area, in accordance with the procedures in the Post-Closure Plan (Permit Attachment F). All wells shall be closed and abandoned in accordance with ADWR requirements. [A.A.C. R18-8-264.A (40 CFR § 264.178)]

## B. GROUNDWATER MONITORING

The Permittee shall conduct groundwater monitoring, well field measurements, sampling, analysis, and reporting according to parameters and frequencies specified in Attachment D. The

Permittee shall use this plan until a new plan is approved by ADEQ as necessary to comply with the requirements of A.A.C. R18-8-264.A, 40 CFR 264.97 and 264.99 [see R18-8-264.A (40 CFR 264.100(d)].

1. Groundwater Monitoring Plan Revisions

   (a) The Permittee shall review monitoring results, and based on changes (e.g., seasonal data, table elevation fluctuations, changes in concentration of constituents of concern [Attachment D, Exhibit D-1], plume migration) shall evaluate the status and potential need for revision of the monitoring and remediation programs. The Permittee shall submit data-supported concerns and recommendations with appropriate signatures of a professional geologist or professional engineer, and the Permittee, with signatory authority, to request revision of the Groundwater Remediation System (Attachment B) and the Groundwater Monitoring Plan (Attachment D) of this Permit.

   (b) The Permittee is responsible for control of contaminant plume migration and the remediation of all contaminants attributed to the Permittee, within and outside property boundaries, and shall revise the groundwater monitoring plan and remediation methodology as needed, to comply.

   (c) Based on data collected from groundwater monitoring or other investigation results required by this Permit, the Permittee shall make changes to the Groundwater Monitoring Plan as necessary in order to protect human health and the environment. Such changes may include the addition of monitoring and/or extraction wells or change to monitoring frequency.
   [A.A.C. R18-8-101 (40 CFR 264.101)]

2. Groundwater Sampling Locations, Frequency, and Analytical Requirements

   Until modified as described in Part III(B)(1), the schedule in Permit Attachment D shall be maintained by the Permittee.

3. If the Permittee believes his monitoring or corrective action program no longer satisfies the requirements of the regulations, the Permittee shall, within 90 days of the determination, submit an application for a Permit Modification to make any appropriate changes to the program that will satisfy the regulations. The Permit Modification request shall be submitted in accordance with Permit Condition I.I. [A.A.C. R18-8-264.A (40 CFR 264.99(h) – (j))]

C. ASSURANCE OF COMPLIANCE

The Assurance of Compliance demonstration can be found in Attachment D of this Permit. [A.A.C. R18-8-264.A (40 CFR §§264.92 and 264.100)]

# PART IV - INSPECTIONS

## A. FREQUENCY

The Permittee shall inspect the Groundwater Remediation System (GRS) for operational integrity, deterioration, and discharges which may cause or lead to a release of hazardous constituents to the environment or pose a threat to human health. The Permittee shall conduct these inspections in accordance with the schedule and frequency specified in Attachment C, Exhibits C-1 through C-6. The facility may request a longer interval between inspections for ADEQ's approval. All requests shall be accompanied with data or records of past inspections demonstrating that a longer interval of inspection will not be detrimental to the remedial system and the environment. Accordingly, ADEQ may require more frequent inspections if past records or data so warrant. In accordance with A.A.C. R18-8-270.A (40 CFR 270.42), any request to change the frequency or content of inspections at the facility shall be considered a Class 2 permit modification, in accordance with Part I.I of this Permit.

Inspection type and frequency required by this Permit shall not supersede other obligations or other permit compliance requirements pertaining to this facility (e.g., City of Nogales, APP P-100311, ADWR Permit No. 59-518472).

## B. PROCEDURE

The Permittee shall follow the procedures identified in Attachment C of this Permit.

## C. REMEDIATION

1. The Permittee shall remedy any deterioration or malfunction of equipment or structures which have been identified during an inspection. All remedies shall start and be completed as soon as practicable and without unnecessary delay.
2. Remedies shall be designed to ensure that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedies shall be implemented as soon as possible, with written notification provided to ADEQ within five business days of implementation of the remedy.

## D. RECORDS

The Permittee shall keep records of inspections in an inspections log or summary. The Permittee shall keep these records for at least three years from the date of inspection, at a minimum. These records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other actions taken.

# PART V - EMERGENCY RESPONSE

## A. MAINTENANCE AND OPERATION OF THE FACILITY

The Groundwater Remediation system (GRS) shall be maintained and operated to minimize the possibility of an unplanned release of contaminated groundwater to soil or surface water that could threaten human health or the environment. [A.A.C. R18-8-264.A (40 CFR 264.31)]

## B. ARRANGEMENT WITH LOCAL AUTHORITIES

1. From the effective date of this Permit, according to A.A.C. R18-8-264.A (40 CFR 264.37), the Permittee shall attempt to make and maintain the following arrangements, as appropriate, for the GRS and peripherals to ensure safe operation and minimize potential adverse impact to public health and the environment:

   (a) Arrangements to familiarize police, fire department, and emergency response team personnel with the layout of the facility, properties, associated hazards, places where facility personnel would normally be working, access roads to the facility, and possible evacuation routes;

   (b) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

   (c) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

   (d) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the GRS and the types of injuries or illnesses which could result from fires, explosions, or releases at the GRS.

2. Where State or local authorities decline to enter into such arrangements, the Permittee must document the refusal in the operating record.

## C. PURPOSES AND IMPLEMENTATION OF CONTINGENCY PLAN

1. As described in A.A.C. R18-8-264.A and 40 CFR 264.51 through 264.55, upon completion of closure activities, the Permittee shall have a contingency plan for the facility. The contingency plan, as included in Attachment E of this Permit, shall be designed to minimize hazard to human health or the environment from

any unplanned events or acts of nature (e.g., earthquakes, floods, failure of drainage systems, equipment malfunction) or other cause of release of contaminated groundwater to the soil, or surface water.

2. The provisions of this plan shall be carried out immediately wherever there is a release of a hazardous waste or contaminated groundwater that could threaten human health or the environment.

## D. AMENDMENT OF THE CONTINGENCY PLAN

The Contingency Plan is contained in Attachment E of this Permit. As specified in A.A.C. R18-8-264.A (40 CFR 264.54), the contingency plan shall be reviewed, and immediately amended, whenever:

1. The plan fails in an emergency;
2. The list of emergency coordinators changes; or
3. The list of emergency equipment changes.

## E. EMERGENCY COORDINATOR

At all times, there shall be at least one CSI employee or designated contractor either on the premises or on call (i.e., available to respond to an emergency by reaching the facility within two hours), with the responsibility for coordinating all emergency response measures. This emergency coordinator shall be thoroughly familiar with all aspects of the facility contingency plan, all operations and activities at the facility and GRS, the location and characteristics of waste disposed, the location of all records for the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the post- closure contingency plan [A.A.C. R18-8-264.A and 40 CFR 264.55].

## F. EMERGENCY PROCEDURES

According to A.A.C. R18-8-264.A and F, and 40 CFR 264.56, the Permittee shall do the following:

1. Whenever there is an imminent or actual emergency, the emergency coordinator (or his designee when the emergency coordinator is on call) shall:
   (a) Immediately notify appropriate State or local agencies with designated response roles if their help is needed; and
   (b) Notify ADEQ by telephone within 24 hours of the occurrence.
2. Whenever there is a release of hazardous material, the emergency coordinator shall immediately identify the exact source, the hazardous characteristics, the amount, and extent of any released materials. This may be done by observation or review of facility records or manifests and, if necessary, by chemical analysis.

3. Concurrently, the emergency coordinator shall assess possible hazards to human health or the environment that may result from the release. This assessment shall consider both direct and indirect effects of the release.

4. If the emergency coordinator determines that the facility has had a release which could threaten human health or the environment, the findings shall be reported as follows:

   (a) The emergency coordinator shall immediately notify the ADEQ at 602-771-2330 or 800-234-5677, extension 771-2330 and notify either the government official designated as the on-scene coordinator for that geographical area (in the applicable regional contingency plan under 40 CFR 1510, or the National Response Center (using their 24-hour toll free number: (800) 424-8802). The report shall include:

      i. Name and telephone number of the reporter;

      ii. Name and address of facility;

      iii. Time and type of incident (e.g., release);

      iv. Name and quantity of materials (s) involved, to the extent known;

      v. The extent of injuries, if any; and

      vi. The possible hazards to human health, or the environment, outside the facility.

   (b) If this assessment indicates that evacuation of local areas may be advisable, appropriate local authorities shall be notified immediately. The emergency coordinator shall be available to help appropriate officials decide whether local areas should be evacuated.

5. During an emergency the emergency coordinator shall take all reasonable measures necessary to ensure that additional releases do not occur.

6. Immediately after an emergency, the emergency coordinator shall provide for containing and mitigating spread of contaminated groundwater.

7. The emergency coordinator shall ensure that, in the affected area(s) of the facility, all emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

8. The Permittee shall notify ADEQ and local authorities that the facility is in compliance before the public is allowed into the affected area (s) of the facility.

9. As required in A.A.C. R18-8-264.A and F and 40 CFR 264.56 (j), the Permittee shall note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, the Permittee shall submit a written report on the incident to ADEQ. The report shall include:

   (a) Name, address, and telephone number of the Owner/Operator;

   (b) Name and address, and telephone number of the facility;

   (c) Date, time and type of incident;

   (d) Name and quantity of material(s) involved;

   (e) The extent of injuries, if any;

   (f) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

   (g) Estimated volume released during the incident

# PART VI - RECORD KEEPING AND REPORTING

A. OPERATING RECORD

1. The Permittee shall maintain a written operating record at 1310 West Fairway Drive, Nogales, Arizona (see also Permit Condition I.H).

2. The following information shall be recorded as it becomes available and maintained in the operating record of the facility as until completion of post-closure care period:

   (a) Summary reports and details of all incidents that require implementing the contingency plan;

   (b) Records and results of inspections (except these data need be kept only three years);

   (c) Monitoring, testing or analytical data where required by statute, regulation or Permit Conditions I.E.9 and I.E.10; and

   (d) Waste minimization certification, as required by Permit Condition I.J.

B. AVAILABILITY, RETENTION, AND DISPOSITION OF RECORDS

The retention period of all records required in this Permit is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by ADEQ.

C. SUBMITTING OF REQUIRED REPORTS

1. The Permittee shall submit groundwater monitoring reports in accordance with Permit Attachment D, Section 2.5.1.

2. The Permittee shall submit an annual GRS Report by April 15 of each year following the year being reported. At a minimum, the GRS Report shall include the information required by Permit Attachment D, Section 2.5.2.

3. All reports submitted to ADEQ shall be certified in accordance with R18-8-270.A (40 CFR 270.11(b)).

4. In addition to submittal of written groundwater monitoring reports, Permittee shall submit groundwater monitoring data in accordance with the ADEQ Groundwater Data Submittal Guidance Document, Version 3.3.

# PART VII - CORRECTIVE ACTION FOR SOLID WASTE MANAGEMENT UNITS

## A. SPECIFIC CORRECTIVE ACTION CONDITIONS

### 1. 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 264.552) require that Permits issued after November 8, 1984, address corrective action for releases of hazardous waste, including hazardous waste constituents, from any Solid Waste Management Unit (SWMU) at the facility, regardless of when the waste was placed in the unit.

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

### 2. Noncompliance, Delayed, or Inadequate Information

This CASOC contains requirements for plans, reports, schedules, duties, and other information submittals applicable to the Permittee. Any noncompliance with approved plans and schedules, failure to submit required information, delayed or inadequate performance of duties, or falsification of any submitted information, shall be termed noncompliance with this Permit. Noncompliance by the Permittee is grounds for termination pursuant to Permit Condition I.E.1 (Duty to Comply). To avoid noncompliance with established schedules, extensions of due dates for submittals may be granted by the Director upon written request in accordance with the modification processes established in Permit Condition VII.A.3 (Document Approval and Permit Modification).

### 3. Document Approval and Permit Modification

(a) All plans and schedules required by the conditions of this CASOC are, upon approval of the Director, incorporated herein by reference and become an enforceable part of this Permit.

(b) If the Director determines that further actions beyond those provided in this CASOC, or changes to that which is stated herein, are warranted, the Director shall modify this Permit according to the process described in Permit Condition I.B (Permit Actions).

(c) Modifications that are initiated and finalized by the Director according to this procedure shall not be subject to administrative appeal. Modifications to this CASOC do not constitute a reissuance of the Permit.

4. Record keeping

As stated in 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.

5. Reporting, Notifications and Submittals

(a) The Permittee shall submit to the Director signed quarterly or monthly progress reports, as specified by the Director, of all activities (i.e., SWMU Assessment, Interim Corrective Measures, RCRA Facility Investigation, Corrective Measures Study) 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, and shall contain:

i. A description of the work completed;
ii. Summaries of all findings, including summaries of laboratory data;
iii. Summaries of all problems or potential problems encountered during the reporting period and actions taken to correct the problems; and
iv. Projected work for the next reporting period.

(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.

(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.B (Permit Actions), I.F (Signatory 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.

6. On-Site and Off-Site Access

The Permittee shall demonstrate good faith and best efforts towards gaining access to off-site property not owned by the Permittee.

7. Quality Assurance and Control

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

(a) Sample Collection and Management

The Permittee shall submit a Sampling Plan that includes all elements of EPA SW-846, and A.A.C. R18-8-260 et seq. (40 CFR 260 et seq.), not limited to:

- Specifying the Sampler and Sampler Procedure for Use;
- Specifying Sampling Points based on a Statistical Basis, Logic, and Strategy;
- Trip Blanks, Duplicates, Spikes, Splits, and Other Field Control Samples;
- Including Sample Management Procedures for the Field Notebook, Collection Form, Preservatives and Capping, and other Chain-of-Custody components;
- Guidance in the EPA Technical Enforcement Guidance Document (TEGD - 09/86)
- Guidance in the ADEQ Quality Assurance Program Plan (QAPP), dated May 24, 2000;
- A.A.C. R18-8-261.A (40 CFR 261.4(d)) “Samples”; and
- A.A.C. R18-8-268.A (40 CFR 268) “Land Disposal Restrictions.”

(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 contained in the:

- EPA Technical Enforcement Guidance Document (TEGD - 09/86); and
- ADEQ QAPP, current revision.

In addition, the Permittee shall:

- Inform the Director's Project Coordinator (See Permit Condition VII.D), in advance, which laboratories will be used by the Permittee, and ensure that the Director's personnel and authorized representatives have reasonable access to the laboratories used for analysis.

- Ensure that laboratories used by Permittee for 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.

- Ensure that the laboratory used is certified 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 the Sampling Plan contains 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. The Sampling Plan must demonstrate that the sampling and analysis program, if applicable, is capable of yielding representative samples and must include parameters sufficient to identify migration of hazardous waste (including hazardous constituents) to the environment.

## B. STATEMENT OF PURPOSE

The corrective action objectives contained in this Part of the Permit are to perform a RCRA Facility Investigation (RFI) to determine fully the nature and extent of any release of hazardous waste (including hazardous constituents) at or from the facility and to perform any activities necessary to correct actual or potential threats to human health and /or the environment resulting from the past or current release or potential release of hazardous waste (including hazardous constituents) at the facility.

## C. SUMMARY OF RFA FINDINGS and RESULTS

A Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) was conducted, in 1987, at the Permittee's musical instrument manufacturing facility at 1310 West Fairway Drive, Nogales, Arizona by the U.S. Environmental Protection Agency (EPA), Region 9. A final report was issued October 23, 1987. A second RFA was conducted at the same facility, in 1996, by EPA Region 9 and a preliminary report was issued. The 1996 RFA identified the following

nine (9) Solid Waste Management Units (SWMUs) at the Permittee's property (see Attachment A of this Permit for details, Exhibits A-4 and A-5):

| SWMU NUMBER | IDENTITY OF THE SOLID WASTE MANAGEMENT UNIT (SWMU) | RCRA HAZARDOUS WASTE UNIT | START-UP DATE | STATUS |
|---|---|---|---|---|
| 1 | pH Adjustment Tank and Piping (former wastewater treatment tank and piping) | YES | 1967 | CLOSED |
| 2 | Surface Impoundment (unlined) | YES | 1966 | CLOSED |
| 3 | Groundwater Contaminant Plume | YES | 1993 | ACTIVE |
| 4 | Land Treatment Areas | YES | 1980 | CLOSED |
| 5 | Wastewater Treatment Plant | NO | 1986 | CLOSED |
| 6 | Copper and Nickel Filter Press | NO | 1986 | CLOSED |
| 7 | Hazardous Waste Storage Area | YES | 1982 | CLOSED |
| 8 | Satellite Accumulation Area | YES | 1982 | CLOSED |
| 9 | Septic Tank System | UNKNOWN | 1986 | CLOSED |

Both RFAs were performed according to EPA/530-86-053. SWMUs 1, 2, and 4, which contained hazardous constituents that had leaked and seeped into the soil from the late 1960s through the mid 1980s were removed in 1985 and certified as closed by ADEQ, in February 1988. Several of the contaminants from these SWMUs leached into the groundwater.

The Permittee conducted an extensive investigation of site contamination beginning in the 1980s through the early 1990s. During that time-period, corrective measure studies (CMSs) were also conducted based on site characterization. The following VOCs were found in the soil and groundwater on and beneath the Permittee's property. After review of the Permittee's chemical inventory and degradation products in an anerobic environment, the source of the VOCs was confirmed. Concentrations of the VOCs listed below, were above regulatory limits for groundwater; however, the concentrations detected in the soil were below remedial action levels (AAC R. 18-7, Appendix A).

| CONSTITUENT OF CONCERN[1] | CASRN | MCL/PRG[2] (µg/L)[3] |
|---|---|---|
| Trichloroethene (TCE) | 78-01-6 | 5 |
| 1,1,1-Trichloroethane (1,1,1-TCA) | 71-55-61 | 200 |
| 1,1-Dichloroethene (1,1-DCE) | 75-35-4 | 7 |
| cis-1,2-Dichloroethene (cis-1,2-DCE) | 156-59-2 | 70 |
| trans-1,2-Dichloroethene (trans-1,2-DCE) | 156-60-5 | 100 |
| 1,1-Dichloroethane (1,1-DCA) | 75-34-3 | * |
| Vinyl Chloride (Chloroethene) | 75-01-4 | 2 |

* Submitted by EPA in 2004 for consideration for establishing MCL.

[1] Constituents of concern include chemicals listed in the inventory and degradation products.

[2] Maximum Contaminant Level and Preliminary Remediation Goal, EPA R. IX.

[3] Micrograms per liter or parts per billion.

The Permittee submitted a CMS report to ADEQ in 1989. The corrective action proposed was based on Best Available Technology (BAT). It involved the use of air-stripping to remove the VOCs, identified above, from the groundwater. The proposed corrective action was accepted by ADEQ. Two air strippers in series, were installed in 1993 in response to an ADEQ Consent Order D-47-93. Continuous operation of the Groundwater Remediation System (GRS) began in 1998, with approval from ADEQ.

D. PROJECT COORDINATOR

Within ninety (90) calendar days of the effective date of this Permit, the Permittee shall designate a Project Coordinator and shall notify the Department in writing of the Project Coordinator it has selected. The Permittee's Project Coordinator shall be responsible for overseeing the implementation 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. The Department will also designate a Project Coordinator. All communications between the Permittee and the Department, 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 written notice to ADEQ within seven (7) calendar days of changing Project Coordinator.

E. NOTIFICATION AND ASSESSMENT OF NEWLY-IDENTIFIED SWMU(s)

1. Notification of Newly-Identified SWMU(s)

The Permittee shall notify the Director in writing of any newly-identified Solid Waste Management Units (i.e., a unit not specifically identified during the RFA), discovered during the course of groundwater monitoring, field investigations,

environmental audits, or other means, no later than fifteen (15) calendar days after discovery.

2. Request for SWMU Assessment Plan (SAP)

After such notification, the Director may request, in writing, that the Permittee prepare a SWMU Assessment Plan (SAP) and a proposed schedule of implementation and completion of the SAP for any additional SWMU(s) discovered subsequent to the issuance of this Permit.

3. Content and Submittal of SWMU Assessment Plan

Within ninety (90) calendar days after receipt of the Director's request for a SAP, the Permittee shall prepare and submit the SAP that addresses the following methods and objectives:

(a) Objectives of a SWMU Assessment

The SWMU Assessment shall meet the objectives:

i. Identifies all SWMUs that have operated (or are currently operating) at the facility, including past and present unit operations of:

- Location of all SWMUs on a topographic map;
- Type and function of the unit;
- General unit dimensions, structures described, capacities, any drawings;
- Period during which the unit was or is operating;
- Specifics on all wastes that have been or are being managed at the SWMU to the extent available;
- Migration pathways (e.g., hydrogeologic and geologic setting, atmospheric conditions); and
- Exposure potential to human health and the environment.

ii. Screens out SWMUs not a current/potential threat to human health and the environment.

iii. Collects all existing information on releases including sampling and analysis of groundwater, land surface/subsurface strata, surface water or air, and any other evidence as necessary to determine whether a release of hazardous waste (including hazardous constituents) from such unit(s) has occurred, is likely to have occurred, or is likely to occur. Any sampling and analysis

must meet Permit Condition VII.A.7 (Quality Assurance and Control).

iv. Identifies which SWMUs, releases and suspected releases of hazardous wastes (including hazardous constituents), and media of concern need further investigation and interim corrective action.

v. In addition, the SWMU Assessment must discuss:

- Facility operations (e.g., wastes generated, and treatment, storage, and/or disposal methods);
- Any emission controls in place;
- Any actions taken (both investigatory and remedial) at the site related to corrective action; and
- Relevant communications with regulating agencies.

(b) Phases of the SWMU Assessment

The SWMU Assessment Plan shall address the 3 phases that accomplish these objectives:

i. Preliminary Review (PR) - The gathering and evaluation of existing file and other information available.

ii. Visual Site Inspection (VSI) - On-site collection of visual data to obtain potential or actual release information.

iii. Sampling Visit (SV) - If PR/VSI is not adequate after its completion, the Sampling Visit fills in all data gaps remaining.

4. Review and Approval/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. This Director-revised SAP becomes the approved SAP.

5. Implementation of the SWMU Assessment Plan

The Permittee shall implement the SAP within (15) calendar days of receiving written approval or in compliance with an alternate schedule in the Director approved SAP.

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

The Permittee shall submit a SWMU Assessment Report (SAR) to the Director no later than twenty-five (25) calendar days from completion of work specified in the approved SAP or in compliance with an alternate schedule in the Director approved SAP. The SAR shall describe all results obtained from the implementation of the approved SAP.

7. Determination of Further IM/RFI Actions

Based on the results of this SAR, the Director shall determine the need for further investigations at specific unit(s) covered in the SWMU Assessment. If the Director determines that investigations are needed, the Director may require the Permittee to prepare an RFI Work Plan or Site Assessment Plan (SP) for such investigations. The RFI Work Plan or SP will be reviewed for approval pursuant to Permit Condition VII.H (RCRA Facility Investigation) or VII.L (Site Assessment and Remedy) of this Permit, as specified by the Director.

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 discovered during the course of groundwater monitoring, field investigation, environmental auditing, or other activities undertaken after commencement of the RFI or the SP, no later than fifteen ( 15 ) calendar days after 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 the RFI or the SP.

In the event the Permittee identifies a current 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 Permit Condition VII.G (Interim Measures), that identifies interim measures which mitigate this threat and are consistent with, and integrated into, any long term solution at the facility.

3. Further RCRA Facility Investigations

The Director may require further investigation of newly-identified release(s). A plan for such investigation will be reviewed for approval pursuant to Permit Condition VII.H (RCRA Facility Investigation Plan and Report) or VII.L (Site Assessment and Remedy) of this Permit, as specified by the Director.

G. INTERIM MEASURES (IM)

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. These interim stabilization measures may be deployed while investigations proceed that are consistent with the final remedy. The following factors should be considered in this determination:

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

- Risks of fire, explosion, or accident; and
- Other situations that may pose threats to human health and the environment.

2. Specifying Interim Measures and Actions

When it is determined that interim measures are needed, an IM Work Plan shall be developed that include, but not be limited to, the following elements from EPA-530/SW-88-028 (RCRA Corrective Action Plan (CAP)), EPA-530/SW-88-029 (RCRA Corrective Action Interim Measures Guidance), and/or EPA-625/4-91-029 (Stabilization Technologies of RCRA Corrective Action), and:

- What interim measures need to be taken;
- Specific action(s) that must be taken to implement the interim measure;
- Schedule for their implementation; and
- Parameters or measurements by which to judge the completion of the measures.

Either the Director or the Permittee shall develop the IM Work Plan as follows:

- If the nature and extent of the required interim measures is simple, the Director shall develop an IM Work Plan. The Director shall notify the Permittee in writing of the requirement to perform such interim measures. 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 Condition VII.A.3 (Document Approval and Permit Modification) to incorporate these measures. Interim Measures (IM) do not require a public comment period, until the measures are incorporated into the Corrective Measures Study (CMS) Work Plan and Report described in Permit Condition VII.I.

- If the nature and extent of the required Interim Measures is complex, or as requested by the Director, an IM Work Plan developed by the Permittee may be necessary. The Director will request in writing that the Permittee submit an IM Work Plan. The Permittee shall submit the IM Work Plan within thirty (30) calendar days after request.

3. Review and Approval/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 Plans 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 notifies the Permittee of the revisions.

Interim Measures do not require public comment and approval.

4. Implementation of the IM Work Plan

The Permittee shall begin to implement interim actions within fifteen (15) calendar days after receiving approval or notification of any Director-revisions. If the Director does not comment on the Work Plan within forty-five (45) calendar days of receipt of the Work Plan, the Permittee may implement interim measures in accordance with the IM Work Plan.

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

1. Submittal of RCRA Facility Investigation (RFI) Work Plan

For those SWMU's and AOC's that the Director has specified – either within this CASOC or pursuant to this CASOC (e.g. an RFI call-in) – must comply with Permit Condition VII.H, and based on the RFA and other relevant information available, the Permittee shall submit an RFI Work Plan designed to address the information needed to determine potential or actual impacts on human health and the environment. Additional RFI Work Plans may be required at future times in order to address updated information needed to determine potential or actual impacts on human health and the environment.

2. Content and Submittal of RCRA Facility Investigation Work Plan

Within ninety (90) calendar days of receipt of an RFI call-in, the Permittee shall submit a Preliminary Work Plan (PWP) to the Director containing a project schedule overview identifying and describing critical tasks and the due dates for submission of Draft RFI Work Plans to address those units, releases of hazardous waste (including hazardous constituents), and media of concern which require further investigation. The RFI shall include Tasks I, II, and III of the Corrective Action Plan (CAP). Task III (RFI Work plan) shall incorporate the CAP's Task VII facility submission summary, providing a schedule for all remaining tasks required under the RFI (CAP Tasks IV through VI). Task VII reporting

requirements shall be followed throughout the RFI process. The Permittee may eliminate those specific portions of the CAP which are not applicable to the nature of the releases at the facility. EPA OSWER Directive 9502.00-6D (May 1989) RFI Guidance, or equivalent should be consulted.

(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 implementing 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 of Permit Condition VII.A.7 (Quality Assurance and Control), including formats for documenting and tracking data and other results of investigations, and health and safety procedures.

3. Review and Approval/Disapproval of RFI Work Plan

After the Permittee submits the RFI Work Plan, the Director should review it for proper content and include 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.

The Director shall also review for approval as part of the RFI Work Plan any plans developed addressing further investigations of newly-identified SWMUs (Permit Condition VII.E), or addressing new releases from previously-identified units (Permit Condition VII.F). The Director shall modify the Corrective Action Schedule of Compliance (CASOC) according to procedures in Permit Condition VII.A.3 (Document Approval and Permit Modification).

4. Implementation of RCRA Facility Investigation Work Plan

No later than fifteen (15) 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. If the Director does not comment, within forty-five (45) calendar days of Director's receipt of the RFI Work Plan, the Permittee shall implement the RFI Tasks according to the schedule of implementation contained in the RFI Work Plan.

5. Content and Submittal of RFI Final Reports

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 Final Report.

The RFI 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 Final Report shall present all information gathered under the approved RFI Work Plan. The RFI Final Report must contain adequate information to support further corrective action decisions at the facility.

(b) [RESERVED]

(c) As Applicable, Determination of No Further Action with Modification.

Based on 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 (processed pursuant to Permit Conditions I.A, I.C., and VII.A.3) 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 40 CFR 270.42(c), which incorporates by reference 40 CFR 270.13 through 270.21, 270.62, and 270.63, and state if:

- Contamination is found to be non-existent;
- Contaminant levels and subsequent risks are insignificant compared to existing background levels (i.e. levels are naturally occurring);

- Contamination results from releases originating from outside the facility;
- Groundwater is neither a current or potential source of drinking water, impacts potentially vulnerable Class I ground waters, nor is potentially usable for other human purposes;
- Contamination is located adjacent to industrialized, non-residential areas.

6. Review and Approval/Disapproval of RFI Final Report

After the Permittee submits the RFI Final Report and as applicable, the NFA Determination with a proposed Class 3 Modification, the Director shall review, and either approve/disapprove the Report and NFA Determination in writing.

(a) If the Director determines the RFI Report does not fully detail the objectives of an RFI Work Plan, the Director may disapprove the RFI Final Report. If the Director disapproves the 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. Within fifteen (15) calendar days of receipt of approval, the Permittee shall mail a notice that summarizes the approved RFI Final Report to all individuals on the facility mailing list maintained by ADEQ.

(b) If, based upon review of the Permittee's NFA Determination/Proposed Permit Modification, the results of the RFI, and other information (including comments received during the 60-day public comment period for Class 3 modifications), 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 will grant the requested modifications. However, the NFA approval does not preclude the Director from initiating other modifications to the CASOC according to procedures in 40 CFR 270.41 that may rescind the determination or require the Permittee to perform:

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

# I. CORRECTIVE MEASURES STUDY (CMS) PLAN AND REPORT

## 1. Submittal of Corrective Measures Study (CMS) Plan

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 contaminants 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 Corrective Measures Study (CMS) and shall notify the Permittee in writing. The Director's written notice should include a streamlined CMS analysis based on type and extent of environmental problems at the facility which addresses priority problems, and:

(a) Shall identify such hazardous constituent(s) exceeding action levels and those determined to threaten human health and environment given site-specific exposure conditions; and

(b) Shall specify CMS size and scope (how many alternatives are to be evaluated), focusing on plausible remedial options scaled to fit the complexity of the situation. A large and complex cleanup will likely require analysis of a full range of remedial alternatives. In other cases, the appropriate effective and protective remedy may be self-evident.

(c) May specify remedial alternatives to be evaluated by the Permittee during CMS.

## 2. Content and Submittal of CMS Plan

The Permittee shall submit a to the Director within forty-five (45) calendar days after notification of the requirement to conduct a CMS a preliminary CMS Plan identifying and describing specific investigation, evaluation and remedial alternatives in compliance with the Directors CMS notice. The preliminary plan shall also include a due date, not to exceed an additional 60 days, for submission of a final 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 VII.J (Remedy Selection);

(d) The schedules for conducting the study; and

(e) Proposed format for presentation of the information.

The CMS Plan shall be based on CAP Tasks VIII, IX, and X. The CMS Plan shall incorporate the CAP Task XI facility submission summary, providing a schedule for all remaining tasks required under the CMS (CAP Tasks VIII through X). Task XI reporting requirements shall be followed throughout the RFI process. Permittee may eliminate specific portions of the CAP which are not applicable to the nature of the releases at the facility. Obvious solutions will not need an exhaustive CMS/Remedy Selection.

3. Review and Approval/Disapproval of CMS Plan

The Director should review the CMS Plan to ensure it contains all necessary contents. If the Director disapproves the CMS Plan, the Director shall either:

(a) Notify the Permittee in writing of the Plan's deficiencies and specify a due date for submittal of a revised Plan, or

(b) Revise the CMS Plan and notify the Permittee of the revisions. This modified CMS Plan becomes the approved CMS Plan.

4. Implementation of Corrective Measures Study (CMS) Plan

No later than fifteen (15) calendar days after the Permittee has received written approval from the Director for the CMS Plan, the Permittee shall begin to implement the CMS Plan according to the schedules and procedures specified in the CMS Plan. If the Director does not comment on the CMS Plan, within forty-five (45) calendar days of submittal of the CMS Plan, the Permittee shall implement the CMS tasks according to the schedule of implementation and procedures contained in the CMS Plan.

5. Content and Submittal of CMS Final Report

Within sixty (60) calendar days after the completion of the CMS tasks, or in accordance with an alternate plan in the Director-approved CMS Plan the Permittee shall submit a draft CMS Final Report. The draft CMS Final 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. To streamline, performance standards should be specified rather than detailed design specifications; and

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

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

The Director shall approve, approve with modifications, or disapprove the draft CMS Final Report and will advise the Permittee of the determination in writing. The Director shall select the remedy according to Permit Condition VII.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 draft CMS Final Report, the Director shall notify the Permittee in writing of deficiencies in the Report and specify a due date for submittal of a revised draft CMS Final Report thirty (30) calendar days after notification.

(b) 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 to the Director a final CMS report consistent with Director's written notification. The Permittee shall also submit a Corrective Measures Implementation (CMI) Program Plan for the remedy selected pursuant to Permit Condition VII.K (Corrective Measures Implementation).

J. REMEDY SELECTION BASED ON RESULTS OF APPROVED CMS FINAL REPORT

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:

(a) Protect human health and the environment;

(b) Meet the concentration levels of hazardous constituents, in each medium, that the remedy must achieve to be protective of human health and the environment;

(c) 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

(d) Meet all applicable waste management requirements.

2. Technical Evaluation Factors of Remedy

In selecting the remedy 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:

- 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;
- Type and degree of long-term management required, including monitoring, operation and maintenance;
- 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;
- Long-term reliability of the engineering and institutional controls, including uncertainties associated with land disposal of untreated wastes and residuals;
- 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 waste constituents and that shall be considered include:

- The treatment processes the remedy(s) employs and materials it would treat;
- Amount of hazardous wastes that would be destroyed or treated;

- The degree to which the treatment is irreversible; and
- The residuals that will remain following treatment, considering the persistence, toxicity, mobility and propensity to bio-accumulate of such hazardous wastes.

(c) Short-term effectiveness.

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

- Magnitude of reduction of existing risks;
- 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
- 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:

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

(e) Cost.

The types of costs assessed include:

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

## K. CORRECTIVE MEASURES IMPLEMENTATION (CMI) 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 draft Corrective Measures Implementation (CMI) Program Plan (CAP Task XII). The draft CMI Program Plan shall incorporate the CAP Task XV facility submission summary, and provide a schedule for all remaining tasks required under the CMI (CAP Tasks XIII through XV). Task XV reporting shall be followed during the CMI process. Permittee may eliminate those portions of the CAP which are not applicable to the nature of releases at the facility. 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 technical features that are necessary to achieve the standards, not limited to:

- Requirements for quality sampling and analysis; including a plan for CMI groundwater monitoring that demonstrates an effective post-closure compliance/assessment monitoring program.
- Requirements for removal, decontamination, closure, or post-closure of units, equipment, devices or structures used to implement remedy;
- Requirements for achieving compliance with concentration limits and levels;

(b) Basic standards including, but not limited to:

- Hazardous constituent list;
- All concentration levels/limits of hazardous constituents in each medium (i.e. soil, groundwater) that the remedy must achieve to protect human health and the environment:
- Compliance points and compliance period;
- Management of hazardous waste.

(c) A schedule for initiating and completing all major technical features and milestones of the remedy; and required length of Corrective Actions taken, including when CMI groundwater monitoring is initiated in lieu of post-closure groundwater compliance/assessment monitoring;

(d) Requirements for submission of semi-annual reports, other information, and modifications if above regulations can not be met.

2. Review and Approval/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) 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. The Director shall incorporate the remedy selected into the Permit either by reference or by detailing it into the Permit. The Class 3 modification will be processed pursuant to Permit Condition VII.A.3 (Document Approval and Permit Modification).

3. Implementation of CMI Program Plan

If the Director does not comment, within forty-five (45) days of receipt of the draft CMI Program Plan, the Permittee shall implement the CMI tasks according to the schedule of implementation contained 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 areal extent and for which it is believed that there is no current or future threat to groundwater. 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 process (Condition H of this Permit Part) if, during performance of the SP or RP, extensive contamination is found, or if groundwater is threatened by the release.

1. A SP shall be submitted to the Director for 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/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/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.

(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 60 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:
- the sampling procedures used;
- the equipment used for sampling;
- the analytical procedures and methods used;
- the analytical equipment used;
- 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.

2. A RP shall be submitted to the Director for approval. The RP shall contain the following:

(a) A general description of the process to be used in the removal of all hazardous waste and hazardous waste constituents, and/or soils determined to be contaminated with hazardous waste, 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/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 the conformational sampling indicate the presence of hazardous waste, 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 “blue staked” prior to remediation;

(r) Provisions for the submission of a Remedial Report providing:

i. A summary of results, significant observations, and conclusions.

ii. A discussion of the sampling followed for each site, including a description of:
- the sampling procedures used;
- the equipment used for sampling;
- the analytical procedures and methods used;
- the analytical equipment used;
- 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, 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;

3. 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.

**Table VII-1**
**CORRECTIVE ACTION SCHEDULE OF COMPLIANCE**
**FACILITY SUBMITTAL SUMMARY**

| Facility Submittal Requirements | Due Date |
|---|---|
| **Notification of newly-identified SWMUs** | **fifteen (15) calendar days after discovery** |
| **SWMU Assessment Plan for new SWMUs** | **ninety (90) calendar days after receipt of request** |
| **Revised SWMU Assessment Plan (SAP)** | **as determined** |
| **Implementation of SWMU Assessment Plan** | **fifteen (15) calendar days after receiving written approval or in compliance with an alternate schedule in the Director approved SAP.** |
| **SWMU Assessment Report** | **twenty-five (25) calendar days after completion of implementation of SWMU Assessment Plan or in compliance with an alternate schedule in the Director approved SAP.** |
| **Notification of newly-identified releases** | **fifteen (15) calendar days after discovery** |
| **Interim Measures Work Plan for interim measures required after Permit issuance** | **forty-five (45) calendar days after notification to Director** |
| **Revised Interim Measures Work Plan** | **as determined** |
| **Implementation of Interim Measures Work Plan** | **fifteen (15) calendar days after receiving written approval** |
| **Preliminary Work Plan** | **ninety (90) calendar days of receipt of an RFI call-in; also**<br>**refer to Permit Condition VII.H.2** |
| **RFI Work Plans for SWMUs identified in Permit Condition IV.C or for any other SWMUs identified before Permit issuance** | **As specified in the Preliminary Work Plan; also**<br>**refer to Permit Condition VII.H.2** |
| **Revised RFI Work Plan** | **as determined** |
| **Implementation of RFI Work Plan** | **fifteen (15) calendar days after receiving written approval** |
| **RFI Report** | **sixty (60) calendar days after completion of RFI or other Director-approved schedule** |
| **Final RFI Report** | **thirty (30) calendar days after notification of deficiency** |

| Facility Submittal Requirements | Due Date |
|---|---|
| **CMS Plan** | **forty-five (45) calendar days after notification of requirement to perform CMS** |
| **Revised CMS Plan** | **as determined** |
| **Implementation of CMS Plan** | **fifteen (15) calendar days after receiving written approval** |
| **CMS Report** | **sixty (60) calendar days after completion of CMS** |
| **Revised CMS Report** | **thirty (30) calendar days after notification of deficiency** |
| **CMI Program Plan** | **forty-five (45) calendar days after the receipt of the Director's Remedy Selection** |
| **Revised CMI Program Plan** | **as determined** |
| **Implementation of CMI Program Plan** | **within forty-five (45) calendar days of receipt of CMI Program Plan or by Director's response** |
| **Progress reports on all activities** | **quarterly, monthly, etc., no later than ninety (90) calendar days after Permittee is required to begin implementation** |
| **Written notification of Project Coordinator selected** | **Within ninety (90) calendar days after effective date of the Permit** |
| **Written notification of change of Project Coordinator** | **Within seven (7) calendar days of changing the Project Coordinator** |