

PERMIT ATTACHMENT R

FACILITY CORRECTIVE ACTION WORK PLAN OUTLINE

The purpose of the Facility Corrective Action Work Plan (FCAWP) is to have in place standard procedures for conducting an investigation of the nature, rate and extent of a contaminant release. The Permittee shall submit a FCAWP to the Secretary for approval within 180 calendar days of the effective date of this Permit. The Permittee shall furnish all personnel, materials, and services necessary for, or incidental to, creating and performing the FCAWP.

If the Permittee believes that certain requirements of the FCAWP are not applicable, the specific requirements shall be identified and a detailed rationale for inapplicability shall be provided.

The FCAWP consists of five tasks:

- Task I Corrective Action Data Collection Quality Assurance Plan
- Task II Corrective Action Data Management Plan
- Task III Health and Safety Plan
- Task IV Community Relations Plan
- Task V Corrective Action Project Management Plan

Task I Corrective Action Data Collection Quality Assurance Plan

The Permittee shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed at the Triassic Park Waste Disposal Facility (the Facility) during the investigation to characterize the environmental setting, source, and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

The Strategy Section of the Corrective Action Data Collection Quality Assurance Plan shall include, but not be limited to, the following:

- (a) description of the intended uses for the data, and the necessary level of precision and accuracy for those intended uses;

- (b) description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data; and
- (c) schedule and information to be provided in quality assurance reports, including at least:
 - i. periodic assessment of measurement data accuracy, precision, and completeness;
 - ii. results of performance audits;
 - iii. results of systems audits; and
 - iv. significant quality assurance problems and resolutions.

The Sampling and Field Measurements Section of the Corrective Action Data Collection Quality Assurance Plan shall discuss at a minimum:

- (a) selecting appropriate sampling and field measurements locations, depths, and other pertinent information;
- (b) providing a statistically sufficient number of sampling and field measurement sites;
- (c) determining conditions under which sampling or field measurements shall be conducted;
- (d) determining which parameters are to be measured and where;
- (e) selecting the frequency of sampling and length of sampling period;
- (f) selecting the types of samples (e.g., composite vs. grab) and number of samples to be collected;
- (g) delineating procedures designed to prevent contamination of sampling or field measurements equipment and cross-contamination between sampling points;
- (h) documenting field sampling operations and procedures (see Appendix 1, Monitoring Well Field Log);
- (i) selecting appropriate sample containers;
- (j) preserving samples;
- (k) controlling chain-of-custody; and

- (1) disposing of all contaminated materials generated by activities in a manner compliant with all State and Federal regulations.

The Sample Analysis Section of the Corrective Action Data Collection Quality Assurance Plan shall include:

- (a) chain-of-custody procedures;
- (b) sample storage procedures and holding times;
- (c) sample preparation methods;
- (d) analytical procedures;
- (e) calibration procedures and frequency;
- (f) data reduction, validation and reporting; and
- (g) frequency of internal quality control checks and laboratory performance audits.

Task II Corrective Action Data Management Plan

The Permittee shall develop a Corrective Action Data Management Plan to document and track investigation data and results. This Plan shall identify and set up data documentation materials and procedures (data record), project file requirements, and project-related progress reporting procedures and documents.

The data record shall include at least the following for all sample and field measurements:

- (a) unique measurement code;
- (b) measurement location;
- (c) measurement type;
- (d) laboratory ID number;
- (e) property or component analyzed; and
- (f) results of analysis.

The Corrective Action Data Management Plan shall provide the format to be used to present the data and conclusions of the investigation and other pertinent information.

- (a) The following shall be presented in tables: raw data; data sorted by significant features such as location, media, and constituent; data reduction for statistical analysis; and summary data.

- (b) The following shall be presented in graphical formats (e.g., bar graphs, line graphs, plan maps, isopleth plots, cross-sections, three-dimensional displays, and other pertinent information): sampling location and grid; levels of contamination at each sampling location; geographical extent of contamination; and changes in concentration relative to source, time, depth, and other parameters.

Task III Health and Safety Plan

The Permittee shall prepare a Facility Health and Safety Plan, which shall include:

- (a) a description of the Facility including availability of resources such as roads, water supply, electricity and telephone service;
- (b) a description of the known hazards and evaluation of the risks associated with each activity conducted, including but not limited to on- and off-site exposure to contaminants during implementation of interim measures;
- (c) a list of key personnel and alternates responsible for site safety, response operations, and for protection of public health;
- (d) delineation of the work area;
- (e) a description of levels of protection to be worn by personnel in the work area;
- (f) procedures established to control site access;
- (g) decontamination procedures for personnel and equipment;
- (h) site emergency procedures;
- (i) emergency medical care procedures for injuries and toxicological problems;
- (j) requirements for an environmental field monitoring program;
- (k) routine and special training requirements for responders; and
- (l) procedures for protecting workers from weather-related problems.

The Facility Health and Safety Plan shall be consistent with:

- (a) National Institute for Occupational Safety and Health (NIOSH) *Guidance Manual for Hazardous Waste Site Activities* (1985);
- (b) US Environmental Protection Agency (EPA) Order 1440.1 - *Respiratory Protection*;
- (c) EPA Order 1440.3 - *Health and Safety Requirements for Employees Engaged in Field Activities*;
- (d) the approved Facility Contingency Plan;
- (e) EPA *Operating Safety Guide* (1984);
- (f) US Occupational Safety and Health Administration (OSHA) regulations, particularly 29 CFR 1910 and 1926;
- (g) State and local regulations; and
- (h) other EPA guidance as provided.

Task IV Community Relations Plan

The Permittee shall prepare a plan for dissemination of information to the public regarding investigation activities and results.

Task VI Corrective Action Project Management Plan

The Permittee shall prepare a Corrective Action Project Management Plan which will include a discussion of the technical approach, schedules, budget, and key project personnel. The Corrective Action Project Management Plan will also include a description of qualifications of key project personnel performing or directing the investigation, including contractor personnel. This Plan shall also document the overall management approach to the investigation.

PERMIT ATTACHMENT R, APPENDIX 1

Monitoring Well Field Log - Evacuation and Recovery

MONITORING WELL FIELD LOG - EVACUATION AND RECOVERY

Event # _____ Year _____ Well Identification _____

Sample Collector\Operator _____

PRE-EVACUATION:

Organic Vapor Detected (Measurement required only if detected during well inspection) "Yes" "No" "Not Required"

Method of Detection

Concentration, ppm _____ as

Calibration, ppm Std. _____ ppm Det.

Immiscible Layer Detected ? Yes ? No"

Sample Collected ? Yes ? No" ? N/A"

Depth (Measured from Casing Reference Point)

to Top of layer(s), Ft. _____ (to
0.01)

to Bottom of layer, Ft. _____ (to
0.01)

Method of Sample Collection

Sample Reference #

EVACUATION:

Method of Evacuation

Before Evacuation:

a. Water Level Depth (a), Ft. _____ (to
0.01)

b. Well Depth (b), Ft. _____ (to
0.01)

c. Inside Well Casing Dia. _____ (Inches)

Calculate Well Volume, Gal.:

(Casing 6" Dia.) $1.33 \times (b - a) =$
Gallons

(Casing 4" Dia.) $0.65 \times (b - a) =$
Gallons

Initial Well Volume:

- Evacuate One Well Volume (to the extent practicable)
Volume evacuated _____ gallons
Time Completed _____

- Measure water Level within 12 to 24 hours of initial
completed evacuation.
_____ Ft. (0.01) Time of measurement _____

- Calculate recovered well volume _____ gallons

MONITORING WELL FIELD LOG - SAMPLING

Event # _____ Year _____ Well Identification _____

SAMPLING:

Date _____ Time _____
Collector/Operator _____

Sample Sequence _____

Water Level Depth,
(ft) _____
Method of Collection _____

Method of Filtration _____

Completed(date)
(time) _____
Reason for Sampling _____

*

Field Sample Analysis
Analytical Instrumentation _____

Calibration Information _____

Sample Values
Specific Conductance @ 25EC ($\mu\text{mhos/cm}$) std. ___ det. ___
pH (S.U.) std. ___ det. ___
Temperature (EC) ___
Turbidity (NTU) std. ___ det. ___

GENERAL INFORMATION:

Weather Conditions at time of sampling:

Sample Characteristics

Sample Information (Container, volume, preservatives, test):

Comments and Observations

Temp. of shuttle when shipped: _____

Temp. of shuttle when received at Lab _____

Certification: _____

Sample received by Lab: _____