

INTERIM MEASURE/INTERIM REMEDIAL ACTION OUTLINE

1. Executive Summary

Contents of your choice.

2. Introduction

Should contain the information on Exhibit 6-2 "Sample Declaration for the Record of Decision" but does not have to follow the format.

a. Site Name and Location

The name of the site as it appears on the National Priorities List.
The name of the town or county and the State in which the site is located.

b. Statement of Basis and Purpose

This section must contain the following standard language.

i. This decision document presents the selected interim remedial action for OU4, the solar ponds, which was chosen in accordance with the IAG, CHWA, CERCLA, as amended by SARA, RCRA, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for OU 4, the solar ponds.

c. Assessment of the Site

This section must contain the following standard language.

"Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this IM/IRA Decision Document, may present an imminent and substantial endangment to public health, welfare or the environment."

d. IM/IRA Objectives

e. Description of Selected Remedy

This section must include:

i. A description of the role of the solar ponds remedy within the overall strategy for OU4 and the site. What was the role of the solar ponds in the overall plant processing?

ii. A description of the major components of the selected remedy in bullet fashion.

f. Statutory Determinations:

The declaration should read as follows: The interim action selected in this IM/IRA Decision Document is protective of human health and the environment, complies with Federal and State applicable or relevant and appropriate requirements for this limited-scope action and is cost-effective. Although this interim action is not intended to address fully the statutory mandate for permanent solutions, to the maximum extent practicable, this interim action does utilize treatment and thus is in furtherance of that statutory mandate. Because this action does not constitute the final remedy for the solar ponds, the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal

element, although partially addressed in this remedy, will be addressed by the final reponse action. Subsequent actions are planned to address fully the threats posed by the conditions at the solar ponds. Because this is an interim measure/interim remedial action, review of the solar ponds will be ongoing as EPA, CDH and DOE continue to develop final remedial alternatives for the solar ponds under the IAG.

g. EPA and CDH Support Acceptance of the Remedy.

The following standard language would be appropriate. The IM/IRA Decision Document shall be final upon conclusion of the public comment period and EPA and CDH approval.

3. Site Characterization

a. Site Name, Location and Description

This section must include a description of the solar ponds in terms of the following factors, to the extent information is available.

- Name and location (including maps, site plan or other graphic descriptions, as appropriate) of the site.
- Area, topography and physical environment of the site.
- Uses of adjacent land
- Uses of natural resources
- Meterology, location of and distance to nearby populations.
- Site and local hydrology and hydrogeology.
- Ecology, sensitive and environmentally endangered species.
- Surface and subsurface features (e.g. numbers and volume of tanks, lagoons, drums or other structures on OU4, the solar ponds.)
- Analytical Data (May be appended)

b. Site History and Enforcement Activities

- History of site activities that lead to current problems.

c. Summary of Site Contamination

This section should focus on characterization of solar pond waters and french drain effluents to the extent information is available. This section must:

- Indicate all known or suspected sources of contamination at the solar ponds.
- Include a description of the following information related to the contamination and affected media.
- Types and characteristics (e.g. toxicity, mobility, carcinogenicity) of contaminants.)
- Describe the location and concentration of contamination in all media (air, soil and water) and known or potential routes of migration.
- Include maps, charts, tables or other graphic descriptions of contaminants and affected media.
- Analytical chemical analysis of solar pond water and french drain effluents.
- Analytical data (May be appended).

d. Highlights of Community Participation

- Summarize public participation in the remedy selection process. IM/IRA process was chosen over a change to interim status specifically to afford the public an opportunity to participate. Sixty day public comment period with optional public hearing during the public comment period. You may wish to schedule a public meeting at Westminster City Hall half way through the public comment period.

e. Scope and Role of the Solar Ponds.

This section provides the rationale for taking the limited action. To the extent that information is available, the section should detail how the response action fits into the overall remedial site strategy. This section should state that the interim action will be consistent with any planned future actions, to the extent possible.

f. Summary of Site Risks

This section must focus on risks that the interim action is intended to address and should provide the rationale for the limited scope of the action. The rationale can be supported by facts that indicate that temporary action is necessary to stabilize the site or portion of the site, prevent further environmental degradation, or achieve significant risk reduction quickly while a final remedial solution is being developed. Qualitative risk information may be presented if quantitative risk information is not yet available.

4. Identification and Analysis of IM/IRA Alternatives

Number of alternatives is optional.

a. Description of Alternatives.

This section must describe the limited alternatives that were considered for the interim action which will achieve the IM/IRA objectives. Only those requirements that are applicable or relevant and appropriate (ARAR's) to the limited-scope interim action should be incorporated into the description of alternatives:

-Treatment Components.

Treatment technologies that will be used.

Type and volume of waste to be treated.

Process Sizing

-Containment Components

Type of storage (Surge Tanks)

Type and quantity of waste to be stored

Type and quantity of untreated waste and/or treatment residuals to be contained.

-General Components

Quantities and physical location of the contaminated media being addressed.

Whether treatability testing has been or will be conducted?
(Summary of results of tests on madeup pond water)

Implementation requirements and timeframes (e.g. engineering specifications involving waste remaining on site.)

Institutional controls, where applicable, for example fences and security around the Solar Ponds and the surge tanks.

Assumptions, limitations and/or uncertainties regarding effectiveness of the remedy. For example, if the distillate from the vapor compressors does not meet chemical specific or radionuclide ARAR's GAC units or other treatments will be added to the process. Contingencies for catastrophic failure of the surge tanks.

Estimated present worth, capital and O&M costs.
For each alternative, information on physical effects on the environment caused by implementation (e.g. habitat alteration) and efforts to be taken to minimize such effects?

b. Comparative Analysis of Alternatives

The comparative analysis should be presented in light of the limited scope of the action. Evaluation criteria not relevant to the evaluation of interim actions need not be addressed in detail. Rather, their irrelevance to the decision should be noted briefly. (Groundwater contamination will be addressed by the final remedy)

NCP Section 300.430(e) nine evaluation criteria for comparative analysis of alternatives. Arrange these in a manner that will allow for comparison of alternatives

Threshold Criteria

1. Overall protection of human health and the environment.
Air quality, water quality, personnel exposure.
2. Compliance with federal and state ARARs.
 - Identify all potential ARAR's for a given remedy.
 - Potential Chemical Specific ARAR's for evaporator effluent.
 - Potential Action Specific ARAR's Management of pondcrete, Surge Tank treatment.
 - Potential Location Specific ARAR's Surge tank siting, not on a SWMU or wetland, etc
 - Identify grounds for ARAR waivers if needed.

Primary Balancing Criteria

3. Long-term effectiveness and permanence.
4. Reduction of toxicity, mobility, or volume through treatment.
5. Short-term effectiveness
6. Implementability
7. Cost

Modifying Criteria

8. State acceptance.
9. Community acceptance.

***The NCP indicates that the most important criteria during the remedy selection process are the threshold criteria. A remedy must satisfy these criteria first and foremost, or the remedy is not considered acceptable.

c. Selected Remedy

This section should provide a detailed description of the preferred alternative and must include the following:

-The selected remedy and the general technology type (e.g. thermal) or the specific process option, (e.g. rotary kiln incineration).

-Description of all remedy components, including management and disposition of residues, distillate, and volume of materials treated and generated. Describe contingencies (environmental and process). Address disposition of structural components upon conclusion of the IM/IRA.

- Present worth, capital and O&M costs for the selected remedy.
- Performance standards for all components.
- The remediation goals and the basis for remediation goals (e.g. potential ARAR's, risk calculation).
- Specific points of compliance, where remediation goals (Potential ARAR's) will be met. The points of compliance are where the distillate enters the raw water system and the sludge concentrate enters the pondcrete treatment plant. Potential Action and Location ARAR's apply to the surge tank system. The potential state ARAR's for hazardous waste in the distillate are covered by the Building 374 letter enclosed as Attachment 4 where it was determined that the water is not a solid waste. The Potential ARAR's for radionuclides in the distillate are either the MCL's in 40 CFR 141.11 Attachment 6 or Attachment 5, Surface Water standards for Walnut Creek, 5 CCR 1002-8 Section 3.8.6 (2) Table Value Standards Table 2, Site Specific Radionuclide Standards page 12c.

-Schedule of enforceable milestones. Meaningful milestones must be identified and scheduled. At a minimum, milestones must be identified for initiation of construction activities, field tests of equipment, and full scale operation of the remedy. The schedule must be consistent with the remedial objective and allow DOE to meet it's IAG obligation for OU4.

5. Explanation of Significant Changes to the IM/IRA.

Responses to comments made during the public comment period which significantly change or alter the IM/IRA remedy are placed in this section of the Final IM/IRA Decision Document which is published after the public comment period.

6. Responsiveness Summary

This section does not need to be attached until after the public comment period ends.

Technical Notes

a. The Tank System must comply with the tank requirements of 6 CCR 1007-3 Part 264, Subpart J. A copy of this section is attached (Attachment 3) with appropriate sections highlighted.

It is not entirely clear in the drawings whether or not the tank has a metal bottom.

For the purposes of secondary containment, Section 264.194 (d) two layers of HDPE inside a metal cylinder are unlikely to meet the definition of a double wall tank or an external liner even if the second layer has the required leak detection system.

The next document which goes out to public comment should have a drawing which shows whatever secondary containment, and leak detection system is chosen for the tank farm. Some mention of the daily inspection schedule for leak detection of any of the tanks and tank ancillary equipment; sumps, piping, valves

etc, needs to be included in the Proposed IM/IRA Decision Document which goes out to public comment.

b. Flash Evaporators

Include a short summary of the Licon tests done on simulated pond water which shows how clean the water is expected to be in the final distillate released to the raw water system. You may wish to include some information about the chelating effect of non-hazardous EDTA and its acidic ability to clean and adjust pH. A simple tabular correlation between the chemical analysis of real pond water and the simulated pond water used at Licon would be informative. You may also wish to mention that simulated pond water was used due to problems and the complexity of transporting real pond water to Florida.

Make it clear in the text that the evaporator/compressor system is closed and that hazardous chemical vapors do not escape into the air. Explain and show by referencing the diagram (Conceptual Flow Diagram Portable Evaporators) where the HEPA filters are placed and what air is filtered. Include a schedule for inspecting and replacing the HEPA filters. Change the text to indicate that clean natural gas generators have replaced the diesel engines in the diagram and the text.

The flowchart titled "Conceptual Flow Diagram Portable Evaporators" should be edited to include the surge tanks. The 30,000 ppm should have a chemical identity added.