

U. S. DEPARTMENT OF ENERGY
ROCKY PLATS PLANT
ENVIRONMENTAL RESTORATION PROGRAM WEEKLY REPORT
WEEK ENDING SEPTEMBER 11, 1992

Section I - Interagency Agreement

OU 1 - 881 Hillside

Phase III RFI/RI Field Activities -- Work continues on the OU 1 Phase III RFI/RI Report. Nearly 100 percent of the laboratory data has been received. Two risk assessment technical working group meetings dealing with uncertainty analysis in exposure and toxicity assessment will be held during September. Initial screening results from treatability study samples, that are in laboratory, are expected later this month. This information will be used to guide the soil flushing testing.

IRA Operations -- Effluent Tank 205 is 100 percent full of treated water from the french drain. Discharge of the tank into the South Interceptor Ditch began September 9, 1992.

The manhole door on Tank 206 is showing signs of rusting. Paint is also peeling from a small section of the tank interior. The top coat of the paint appears to be separating from the primer. EG&G is working with Advance Tank (manufacturer of the tank) to resolve and fix these problems. There is reddish precipitate on the floor of the tank. A sample of the precipitate has been submitted for lab analysis. The precipitate does not appear to result from the tank rusting since the quantity of precipitate is large.

The Ultraviolet/Hydrogen Peroxide Unit has been repaired and is operational. RFO is working with EG&G to arrange a maintenance/repair contract with the manufacturer of the system.

A nylon terminal strip located within the Ion Exchange's instrumentation panel is overheating due to a design flaw by the manufacturer. Negotiations with the manufacturer are underway to repair the design flaw.

Feasibility Study/Treatability Study -- All the core samples obtained during the drilling from OU1 for the Treatability Study/Feasibility Study have been submitted for analyses. Analytical work needed prior to the treatability testing is in progress. Analytical results are expected by September 14, 1992. These results will help in determining the type of treatability tests which will be carried out.

All comments for the Final Treatability Study Work Plan were incorporated into the final draft, prior to submittal to the regulatory agencies. The revised version of the Final Treatability Study Work Plan with all the comments incorporated was completed on September 9, 1992.

OU 2 - 903 Pad. Mound, East Trenches Area

Phase II RFI/RI Alluvial Field Activities -- A Draft Technical Memorandum, Surficial Soil Sampling Plan, is undergoing RFO review. The comments will be incorporated into the document and submitted to the regulatory agencies for review and comment during the week of September 14, 1992. The regulatory agencies will be solicited for a quick turnaround time on the document.

Phase II RI Report (Alluvial) and EHRA -- A request for a seven-month extension of the OU 2 Phase II RFI/RI Report is under consideration at

RFO. The extension was requested because of the extended laboratory turnaround time being experienced.

The Draft Final of Technical Memorandum No. 5, Exposure Scenarios, will be sent to the regulatory agencies this week pending completion of a transmittal letter.

The first draft of Technical Memorandum No. 6, Modeling Technical Memorandum, has been performed. An internal review and comment of the Technical Memorandum is being performed.

Subsurface Contamination IRAP -- The Final Subsurface IM/IRAP was released to the public on September 10, 1992. The OU 2 Subsurface IM/IRA Decision Document and Environmental Assessment and Responsiveness Summary were approved by the regulatory agencies with minor revisions to the text.

Treatability Study/Feasibility Study (TS/FS)--The Statement of Work (SOW) for the sampling of soil at OU2 for the Treatability Study/Feasibility Study (TS/FS) (TRU-Clean process and Magnetic Separation) was revised and is now in the EG&G Procurement cycle.

South Walnut Creek IM/IRA (GAC and RADS Removal System)

A presentation was made by Phil Adams of Calgon Carbon Corporation on the possibility of regenerating the spent granular activated carbon. The shipment of carbon that may contain radionuclides to an offsite processing plant is the hurdle. Phil indicated that the metals and radionuclides retained on the carbon are usually held by chemisorption process. This bonding is a result of quinones being present on the carbon surface. Phil indicated that the metals and radionuclides could be removed using a 5% caustic solution of potassium hydroxide. Calgon would be willing to work with Rocky Flats in performing treatability studies or providing technical assistance. If this process is successful in removing the radionuclides from the carbon, then the carbon could be sent back to Calgon for regeneration. Calgon usually does not send the regenerated carbon back to the users. If the user requests the carbon back then Calgon prefers to regenerate the carbon in 80,000 lbs batches.

The possibility of using onsite steam regeneration was discussed. Phil indicated that steam regeneration can restore approximately 60% of the carbon capacity and that this may be performed approximately a dozen times before the carbon would have to be replaced.

The construction of an onsite thermal regeneration plant would be a costly project. However if this could be done in conjunction with other DOE sites that use activated carbon then the benefits gained might be worth the added costs.

Since the storm event at the end of August, a solution of peroxide (H_2O_2) and acid (H_2SO_4) has been used to provide excellent results in cleaning of the rads removal system membranes. The peroxide is used to remove the organic material and the acid is used to remove the inorganics. Powdered activated carbon is sometimes added to provide a scouring action. After some time, the carbon particles break down and have to be replaced.

OU 3 - Offsite Releases -- Surface soil sampling was discontinued for five weeks to allow time to obtain the necessary Use Agreements. The slow pace of

obtaining agreements could not keep the sampling crew sufficiently active.

Reservoir sediment sampling in Standley Lake Reservoir was completed the week ending September 11, 1992. Sediment sampling began in Mower Reservoir on September 10, 1992.

A meeting was held the week of September 4, 1992, to discuss the demand from EPA to draw a line within OU 3 that determines where construction activities may or may not occur. EPA wants this boundary enforced by RFO until completion of the RFI/RI activities. The direction from this meeting was to determine a risk line based on CERCLA risk "point of departure" of $1E-6$. This line is currently being calculated, but should occur within the Settlement Agreement lands. A response to EPA's request is due by September 30, 1992.

OU 4 - Solar Ponds -- The Implementation Plan and the Health and Safety Plan (HSP) for the OU 4 RFI/RI are being reviewed. Both reviews are expected to be completed by September 18, 1992.

OU 5 - Woman Creek -- The Final HSP was approved on September 4, 1992. RFO has requested that the High Purity Germanium Survey (HPG) begin at the 133 series of the Individual Hazardous Substance Sites (IHSSs) without written approval of the SOPs by the regulatory agencies. CDH has given their verbal approval, but EPA will not give comments until September 18, 1992.

Comments have been completed by CDH (conditional approval) and RFO on the Draft Technical Memorandum 2, Surface Geophysics, but comments are not expected from EPA until September 18, 1992. The baseline survey for the geophysical survey at the Old Landfill (IHSS 115) and the Ash Pits/Incinerator/Concrete Wash Pad (133 series of IHSSs) will be completed on September 18, 1992.

A Letter Contract has been awarded to implement the Environmental Evaluation Field Work at OUs 5 and 6. The field work in these OUs will begin prior to the onset of winter.

OU 6 - Walnut Creek -- The HSP has been reviewed and initial comments have been addressed. Surface water sampling in the ponds has started. The work is being performed under the OU 2 Health and Safety Plan. The Environmental Evaluation proposal has been technically evaluated. The technical evaluation is now in Procurement and a Letter Contract is in place.

OU 7 - Present Landfill -- Negotiations for implementation of the OU 7 RFI/RI Work Plan took place August 31, 1992 and the contract was awarded on September 11, 1992.

OU 8 - 700 Area -- The regulatory agencies are still reviewing the OU 8 Draft Phase I RFI/RI Work Plan submitted on June 22, 1992. Comments were due on July 30, 1992.

Because CDH is behind schedule in delivering comments to DOE, an extension letter to the regulators is under consideration at RFO to notify EPA and CDH that the September 28, 1992, IAG milestone would not be met. The proposed extension delivery date is December 1, 1992, based on a revised schedule that assumed agency comments would be received by September 11, 1992.

OU 9 - Original Process Waste Lines -- RFO requested more information/backup documentation from EG&G regarding an estimate for a 240-working day increase in schedule due to the IHSS transfer.

Final and best bids for implementation of the Phase I RFI/RI Work Plan for OU 9 were received on September 8, 1992. OU 9 field work is expected to begin during January 1993 after the HSP, TM #1 and the Work Plan Implementation Plan have been submitted to and approved by the appropriate parties.

OU 10 - Other Outside Closures -- The OU 10 Final Phase I RFI/RI Work Plan was approved on August 28, 1992. The Statement of Work (SOW) is presently being developed to implement the work plan. The contract is anticipated to be awarded by December 11, 1992. Field work for OU 10 is anticipated to start on March 2, 1993.

OU 11 - West Spray Field -- Verbal approval of the minor revisions to the OU 11 Work Plan were given by the CDH lead. The revisions are being incorporated into the Work Plan.

OU 12 - 400/800 Area -- Comment response and resolution is nearly complete, and the October 5, 1992 milestone for submitting the OU 12 Final Phase I RFI/RI Work Plan to the regulatory agencies will be met.

A meeting scheduled for September 15, 1992, with the regulatory agencies to discuss the proposed Field Sampling Plan (FSP) for the Industrial Area OUs has been postponed. RFO will focus on the ground water sampling portion of the FSP at the meeting and get input on the plan from the regulatory agencies.

OU 13 - 100 Area -- Work continues on resolving OU 13 RFI/RI Work Plan comments. A meeting was held on September 9, 1992, with the regulatory agencies to discuss their comments in detail and to outline proposed approaches to answering their concerns. The integrated FSP for OUs 8, 12, 13 and 14 was discussed as a way to meet the regulatory agencies' concerns that there may be redundant sampling in the industrial area. The integrated FSP would be issued as a Technical Memorandum to the OU 13 Work Plan. In addition, the regulatory agencies requested that a comprehensive surficial soils sampling program be included in the work plan. The OU 13 Final Phase I RFI/RI Work Plan is due to the regulatory agencies on October 12, 1992, per the IAG.

OU 14 - Radioactive Sites -- The Draft Phase I RFI/RI Work Plan for OU 14 is being reviewed by the regulatory agencies. Revision of the draft document is pending resolution of any comments received from the regulatory agencies for incorporation into the Work Plan. Work Plan comments were expected from the regulatory agencies on August 20. When comments are received, they will be incorporated into the final work plan. The final plan will be submitted to the regulatory agencies by October 19, 1992, the IAG milestone date, assuming there is no further delay in the receipt of comments from the regulatory agencies.

OU 15 - Inside Building Closures -- Comments on the OU 15 Draft Phase I RFI/RI Work Plan from the regulatory agencies were received on August 28, 1992, and are being addressed. RFO will arrange a meeting among RFO and the regulatory agencies to discuss comments on the Work Plan.

OU 16 - Low-Priority Sites -- The Final No Further Action Justification (NFAJ) Document is being revised to incorporate CDH comments. A meeting was held on September 3, 1992, to discuss comments from the regulatory agencies on the NFAJ document. A meeting with the regulatory agencies originally scheduled for September 15, 1992, will be rescheduled to discuss RFO's approach for the revision of the NFAJ document. The revised document is due to the regulatory agencies on October 16, 1992.

Sitewide Treatability Studies

Annual Report - The first draft of the Annual Report on Treatability Studies is being prepared. The final draft has a deliverable date to the regulatory agencies of March 9, 1993. Currently, the updated Rocky Flats Environmental Database System (RFEDS) data on site characterization for each OU is being reviewed and compared to ARARs. A summary of activity is being prepared for each OU to be included in the report.

Soil Washing Demonstration (NRT) - October 12, 1992, will be the day to actually obtain the required soil sample for the NRT Soil Washing Demonstration. The sampling site is southeast of the 903 Pad. Sampling for NRT was delayed past the end of September due to other priorities. Depending on the exact workload, the NRT sampling may be accomplished before October 12, 1992.

Magnetic Separation - This project is still under RFO review. Once RFO has approved the project, sampling can be arranged and the sample will be shipped to the laboratory for the test work.

Ion Exchange and Adsorption - Work continues on the work plan for the Sitewide Treatability Study on Ion Exchange and Adsorption. Only the adsorption treatability study will actually be initiated in Fiscal Year 1993. The ion exchange treatability study will have to be performed sometime after Fiscal Year 1993.

Actinide Mobilization from Soils - RFO is discussing a possible project to investigate Actinide mobilization from soils using a class of chelating agents called Siderophores. RFO is interested in pursuing this project and will develop a detailed work outline by the end of September 1992. The work outline is to include estimated schedule and budget requirements.

Status of Building 881 - Planning continues for the treatability study and analytical laboratory. The required paperwork is being completed to obtain an ICP-Mass Spectrometer analyzer.

Other Activities

Protected Area (PA) Decontamination Facility -- The fill has been placed over the liner. Construction of form work for the concrete has begun.

Landfill Decontamination Facility -- The Project Management Plan (PMP) is undergoing RFO for review. Approval is expected the week ending September 18, 1992. Once the PMP is approved, Title II design will begin. Construction is expected to begin in February 1993 and will be completed by April 1993.

231 GAC Unit Installation -- The Engineering Job Order (EJO) for the GAC unit is complete. The EJO incorporates some design changes and will push the schedule back two to three months.

Section II - Pondcrete Activities

Project Management

The project budget and newly developed resource loaded schedule is currently under review to determine the extent of the apparent budget overrun. Causes of the possible overrun and recommended corrective actions will be investigated and provided to DOE-RFO during the week of 14 September.

Pondsludge Processing

Major components of the C-Pond process train are in position and undergoing final connection. RCRA secondary containment structures are nearing completion for both the C and A&B Ponds processing trains. Completion of the A&B ponds process train has been reduced in priority in order to facilitate the readiness of the C-pond train. The Systems Operation (SO) Test and Operating Instructions for the C-Pond casting station conveyor system are in development.

910 Building Evaporators

Work continues on rectifying the deficiencies noted during the System Component Testing and procedure walkdowns of the system. Repair work on the natural gas powered engines for the generators continued following discovery of problems during an earlier brief engine start test. System operational procedures may be revised to eliminate the potential for reoccurrence of such problems.

Modular Tanks

The Beneficial Occupancy of the tanks is scheduled for September 16, 1992. Completion of final construction activities will extend beyond this date. The tank start-up test is currently scheduled for later this month.

Section III - Surface Water Management

USGS Statement of Work (SOW) for Gaging Station Operation and Maintenance

A draft SOW for U.S. the Geological Survey, Water Resources Division (USGS,WRD) to operate and maintain the RFP stream gages was completed. The SOW is at RFO for comment. The final SOW will require the U.S.G.S./WRD to operate and maintain the RFP stream gages, collect flow records and water quality samples, publish the flow record annually in the U.S.G.S. Open File Reports, and perform data analysis and interpretation to investigate contaminant transport in storm water.

Spray Evaporation Resumes

RFO has given EG&G approval to resume spray evaporation at the landfill pond. EG&G will re-establish spray evaporation over the pond as practiced in the past. Operations will be conducted seven days-per-week, eight to ten hours each day, and will be terminated during adverse weather. Because the pond is at 87 percent capacity, spray evaporation alone may not be enough to bring it to acceptable levels before winter. Therefore, it may still be necessary to transfer water from the landfill pond to pond A-1 or A-3 before spray evaporation can resume next spring. Permission to transfer will be requested from the Colorado Department of Health (CDH) if pond levels approach 90 percent.

Permission to transfer water from ponds B-1 and B-2 to pond A-2 for spray evaporation is still under consideration by the Colorado Department of Health.

The South Interceptor Ditch (SID) is scheduled to undergo major maintenance during FY '93. This maintenance is needed to prevent a reoccurrence of the August 24, 1992 bypass. Major maintenance was scheduled for FY '92 but was postponed due to the suspected presence of several species in the SID that were protected by the Threatened and Endangered Species Act regulations. SID maintenance is now undergoing NEPA review.

Section IV - Transition/Decontamination and Decommissioning

Section V - Meetings

OU 1 - Two risk assessment technical working group meetings dealing with uncertainty analysis in exposure and toxicity assessment will be held during September.

OU 3 - Offsite Releases -A meeting was held the week of September 4, 1992, to discuss the demand from EPA to draw a line within OU 3 that determines where construction activities may or may not occur. EPA wants this boundary enforced by RFO until completion of the RFI/RI activities. The direction from this meeting was to determine a risk line based on CERCLA risk "point of departure" of 1E-6. This line is currently being calculated, but should occur within the Settlement Agreement lands. A response to EPA's request is due by September 30, 1992.

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ICE Team Reconciliation -- A meeting has been scheduled for September 30, 1992 to reconcile PR-20 items identified in the February 1992 audit. Sondra Cavalier is the team leader with contractor support.

Section VI - Future

Work Package Reviews

RFO and HQ will be reviewing the EG&G FY93 ER Program Work Packages during September on the following schedule:

Week of September 14:	RFO Reviews
Week of September 21:	EM-453 Review
Week of September 28:	EM-40 Review

Initial work package reviews have not been completed. EG&G was not fully prepared to discuss a set of work packages meeting the funding constraints for FY93. EG&G is revising the entire set of work packages to total to the \$161 target.

Independent Cost Estimate (ICE) Reconciliation Meeting

A meeting is scheduled for September 30, 1992, at RFP to reconcile the ICE of the RFP ER Program prepared by PR-24 subcontractors. The data used by the subcontractor, Project Time and Cost, to prepare the ICE is the backup information prepared for the Baseline Validation in February, 1992.

September-October 1992 IAG Milestones Scheduled for Delivery from RFO to EPA/CDH:

<u>OU</u>	<u>Milestone</u>	<u>Date Due to EPA/CDH</u>
08	Submit Final Phase I RFI/RI Work Plan	Sep. 28, 1992
12	Submit Final Phase I RFI/RI Work Plan	Oct. 5, 1992
13	Submit Final Phase I RFI/RI Work Plan	Oct. 12, 1992
14	Submit Final Phase I RFI/RI Work Plan	Oct. 19, 1992
15	Submit Final Phase I RFI/RI Work Plan	Oct. 26, 1992
01	Submit Draft Phase I RFI/RI Report	Oct. 28, 1992*

*extended from original IAG date of July 30, 1992 with approval from EPA/CDH