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States Government

Department of Energy

DUE 12-16-93  
DATE 12-30-93

# Memorandum

Dec 3 11 09 AM '93 Rocky Flats Office

ACTION *Hutchins*

DEC 02 1993

EG&G  
ROCKY FLATS PLANT  
CORRESPONDENCE CONTROL

ERD:PS:12045

Accelerated Solar Ponds Closure

Harry P. Mann  
General Manager  
EG&G Rocky Flats, Inc.

The accelerated closure of the RFP solar ponds has been discussed by DOE as a way to achieve quicker and more tangible results in clean-up actions. The RFP's regulators have also shown interest in accelerating closure as indicated by the recent solar ponds dispute resolution action. A special emphasis item has been approved for the current period Award Fee Performance Evaluation Plan (PEP) which targets the completion of sludge removal from the 207A and 207B ponds by December 31, 1993, and sludge removal from all ponds by March 31, 1994. Also, a special emphasis item is anticipated for the second period PEP to complete the removal of Building 788 by September 30, 1994.

The DOE expects that current solar ponds work packages will have to be revised and new Building 788 removal work packages developed. Please provide a plan on how EG&G will do this including a schedule of tasks to support these PEP goals in the next two weeks; the required Baseline Change Proposal (BCP) packages should follow two weeks thereafter. The BCP package for Building 788 removal should include a complete plan with a technical, cost, and schedule baseline suitable for performance measurement use. A proposed Scope of Work for the Building 788 removal is attached; please review and recommend changes in the next week so that work can begin as soon as possible. Particular attention should be directed to minimizing mixed wastes to prevent exceeding current mixed waste storage limits. If additional mixed waste storage space is required it must be part of the overall project plan.

Please understand that EG&G's performance on the Solar Ponds Project will be evaluated based upon demonstrated progress toward these goals. If EG&G is not able to perform satisfactorily, strong consideration will be given to removing the Solar Ponds Project from EG&G and managing the project directly from the DOE office. The DOE stands ready to support EG&G's efforts fully so that the Solar Ponds Project can be a success for all of Rocky Flats.

Mark N. Silverman  
Manager

Attachment

DIST.	LTR	ENC
BENEDETTI, R.L.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BENJAMIN, A.	<input type="checkbox"/>	<input type="checkbox"/>
BERMAN, H.S.	<input type="checkbox"/>	<input type="checkbox"/>
CARNIVAL, G.J.	<input type="checkbox"/>	<input type="checkbox"/>
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DAVIS, J.G.	<input type="checkbox"/>	<input type="checkbox"/>
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PIZZUTO, V.M.	<input type="checkbox"/>	<input type="checkbox"/>
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SETLOCK, G.H.	<input type="checkbox"/>	<input type="checkbox"/>
SULLIVAN, M.T.	<input type="checkbox"/>	<input type="checkbox"/>
SWANSON, E.R.	<input type="checkbox"/>	<input type="checkbox"/>
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Valdez	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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ADMN RECORD/080	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Reviewed for Addressee  
Corres. Control RFP

12-3-93 *Ci*  
DATE BY

Ref Ltr. #

DOE ORDER #5400.1

H. Mann  
ERD:PS:12045

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DEC 02 1993

cc w/ Attachment :

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## Proposed Building 788 Removal Scope of Work (SOW)

Preface: Objective of this SOW

The following SOW has the following purposes:

- 1) Provide detailed input to EG&G-ERM on the task DOE-RFO intends for them to perform for the removal of Building 788.
- 2) Avoid expenditure of time in initiating project planning.
- 3) Allow enhanced dialogue to assist in resolving remaining uncertainties.
- 4) Serve as the basis for a FY 94 BCP to allow initiation of work.

### 1.0 Objectives

The objectives of the Building 788 removal Subproject are as follows:

- Remove Building 788 and contained equipment to support the closure of the Solar Ponds (OU-4); close or support closure of RCRA Unit 21 (Pondcrete Storage Area: Building 788).
- Remove equipment associated with the original Pondcrete operation as necessary to support the closure of the Solar Ponds (OU-4); close or support closure of RCRA Unit 48 (Pond Crete Solidification Process: Building 788).
- Removal or in-place closure of the portion of OU-9, Original Process Waste Lines located in the OU-4 area.
- Package and dispose of generated waste in an acceptable manner.
- ITEMS NOT IN SCOPE (i.e. desirable but not required):  
Utilize Building 788 removal as a pilot to establish precedents for selected D&D features, such as:
  - equipment decontamination costs/ criteria
  - establish preliminary management system
  - develop D&D characterization plan requirements
  - develop D&D public involvement approach
  - develop RCRA Unit closure approach
  - develop D&D regulatory approach (IM/IRA)
  - feedback into ER MSA Requirements/Guidelines documents
  - procedure (SOP) development and test-out
  - establish procedure for determining use of in-house or contracted services (i.e. "make or buy")
  - establish disposal criteria and methodology

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## 2.0 Assumptions

There are two categories of items covered under this section: Planning Requirements and Assumptions; the latter is divided into Technical, Schedule, and Cost sub-categories. The Planning Requirements are considered DOE direction. The Assumptions are working assumptions that will allow us to proceed, but will probably need to be supported (or refuted, as a change to the subproject) as the subproject proceeds.

### Planning Requirements

- Removal of Building 788 is required for OU-4 Closure.
- The Protected Area Decontamination Pad will be utilized for any construction equipment involved in post-decontamination razing of building/equipment.
- Clean-up standards (contamination levels after removal is completed) will be consistent with OU-4 draft ARARs; these standards will be the RCRA requirements for closure.
- Soil characterization around/under building and equipment external to the RCRA Units is the responsibility of OU-4; Unit boundaries will be drawn.
- A graded approach to safety requirements will be implemented, consistent with the approach used for OU-4.
- Plant training will be handled on a graded approach, and under minimal requirements.
- Cost estimates for waste management, waste disposal, training, to be consistent with ER estimating practice.
- Estimates of waste types and anticipated storage and disposal locations, permits required, and an aggressive strategy to obtain added mixed waste storage space to accommodate schedule requirements.
- A plan will be developed detailing how waste disposal criteria will be met.

### Technical

- Building 788 will be available for removal immediately (it will not be required for waste operations during the sludge removal phase).
- Building 788 "Permacon" will be available for equipment decontamination.
- Building 788 removal will not be governed by CERCLA RI/FS documentation requirements as currently implemented; rather, documents and formats will utilize a streamlined approach to be developed.
- Waste will be characterized, and clean and slightly contaminated materials will be disposed of as fill during pond closure or, in the event that this is unacceptable, clean waste will be disposed of as fill, and contaminated waste will be shipped to Envirocare.
- Waste storage space will be obtained prior to generation of mixed waste and existing mixed waste storage limits will not be significantly increased.
- Building and external equipment will be decontaminated and removed with minimal new external enclosures or containment.
- Security constraints will not exceed current requirements.
- Contractor procurement and/or selection will not cause delay of schedule (site construction contractor or plant maintenance will be used for removal).
- The Building 788 foundation will be removed to nominally 6" below grade; there will not be a requirement for significant below-grade excavation.
- RCRA closures for Units 21 and 48 will occur as independent closure actions, based on the greater ease of closing units in this fashion; any IM/IRA

actions, either as part of the OU-4 IM/IRA or a separate Building 788 removal IM/IRA, will be independent of RCRA Unit Closures. (A contingent approach would be to roll the RCRA closures for Units 21 and 48 into the OU-4 Closure IM/IRA; this method would be based on the IAG provision that permit modifications necessitated by the IAG are a State responsibility. In the event that this is not the case, or that other RCRA Permit modifications are necessary, then regulatory approvals will be promptly executed.)

- Management and packaging of waste to meet Envirocare waste acceptance criteria will require significant detailed planning to effectively accomplish this task without impacting waste storage limits.
- Building 788 removal will be considered a Category III Hazard Class; however, Building 788 removal will not require a Category III SAR.
- A Categorical Exclusion will satisfy the NEPA requirements for Building 788 removal; in the event that an EA is required, then it will be rolled into the IM/IRA.
- Existing SOPs for removal activities will be detailed enough to avoid a major expenditure of effort in procedure development.
- Regulatory approval will only be required for three activities: Contaminants of Concern, Cleanup Criteria, and Design Complete/Initiation of Removal. In the event that an IM/IRA is performed, then these approvals will be rolled into the IM/IRA decision document approval.
- No CERCLA Risk Assessment will be required; a Hazards Analysis will be performed to support establishment of worker safety requirements.
- No long-lead (GFE) procurements will be required. Procurement will be limited to standard items (small tools and waste packaging materials).

### Schedule

#### **General**

- Regulatory concurrence with D&D design will require 15 days.
- Laboratory analysis efforts will achieve 30 day turnaround.
- A streamlined approach will be implemented for project approvals (no HQ KD-0,1,2,3 approvals are required).
- Preliminary design (and the associated reviews) will be eliminated based on a more comprehensive planning or conceptual design phase, and early start on definitive design. Elimination of Conceptual Design may be considered based on the detail of planning documents.
- Approval of Definitive Design (and all procurements, long-lead and otherwise) will be expedited (allowed to proceed in advance of a FONSI, not tied to external approvals, etc.)
- Regulatory approvals will be timely, expedited, or satisfied by after-the-fact concurrence/notification.

#### **Building 788 Removal Requirements from OU-4**

- OU-4 input into Design Criteria received by beginning of conceptual design.
- Approval to Proceed for OU-4 (IROD) is not required prior to the start of Building 788 removal "Construction". Regulator approval will be achieved independently (through an IM/IRA or RCRA Closure Plan).
- Sludge removal operations within the clarifier will be completed before clarifier removal will begin.
- Building 788 will be released free of waste boxes by 4/30/94; OU-4 will be responsible for disposition of packaged waste currently located in the building without significantly impacting current waste storage limits.

#### **OU-4 Requirements from Building 788 D&D**

- Planning or Conceptual Design documents completed by the Building 788 removal subproject will be of sufficient quality to support the OU-4 decision document information input needs.
- Building removal completed no later than 3 months after start of OU-4 Construction.

#### Cost

- Removal efforts will be done as a on-site construction contractor task

### 3.0 Drivers

#### Regulatory

- Building 788 removal must support the OU-4 Dispute Resolution closure schedule, and DOE's accelerated closure special emphasis item.
- Interim status or permitted mixed waste storage space.

#### DOE Orders

- None (DOE Orders will be followed, but no current out-of-compliance condition exists.)

#### Criteria / Requirements

- Remove Building and foundation to 6" below current grade; leave below -grade foundation (details to be covered in conceptual design).
- Support OU-4 closure schedule.
- No decontamination in excess of OU-4 Draft ARARs.
- Final condition will not impact ability of the cap design to meet soil permeability criteria.

### 4.0 Activities

Note: The activity descriptions assume a Work Breakdown Structure (WBS) format. The intent of this section is not to provide a definitive list of activities or preclude additions or modifications to this list, rather to give an indication of activities covered under these WBS items.

#### 110 Project Management

- Interface with MSA
- Interface with OU-4
- Interface with matrix organizations
- Project Validation
- Project Responsibilities and Authorities

#### 120 Baseline Documents

- Develop and maintain subproject baselines and subproject management documentation
- WBS
- Organizational Breakdown Structure (OBS) and Responsibility Assignment Matrix (RAM)
- Cost estimates and critical path method (CPM) schedules to support the above
- Activity Data Sheet (ADS) and budget documents
- Develop and maintain work packages

130 Design Criteria

- Develop detailed removal design criteria
- Support OU-4 Requirements
- Confirm criteria and standards

140 Project Control

- Support cost collection and reporting
- Variance analysis
- Implementation of systems

150 Project Planning

- The following planning documents will be required:

Health and Safety Plan

Characterization Plan

Quality Assurance Plan

Procurement Plan

Work Flow Diagrams

Waste generation estimate by waste types, unanticipated storage, and disposal sites

160 Project Training

- Training Requirements Matrix
- General plant training
- RCRA/HAZWOPER/etc.
- Minimal CONOPS, COE, etc.

170 Special Studies

- Issue papers will be prepared on the following:

Tradeoff between decontamination and recycle vs. disposal as waste (cover disposal as both in-pond fill and off-site to NTS and/or Envirocare; also, disposal of contaminated stream from a decontamination operation). Determine clean/contaminated waste splits based on disposition option.

Determination of waste disposal requirements based on clean, slightly contaminated, and LLW; evaluation of impact of WACs and Debris Rule.

Determine plant capacity for waste (various interim and final types), both permitted capacities and physical capacities. Identify ceiling issues and options.

Decontamination options study

Waste storage limits for mixed waste: Determine the optimum method for obtaining added mixed waste storage space without significantly affecting current mixed waste storage limits.

200 Utilities and Common Support

- Support for utilities and normal maintenance for period from receipt of building from Waste Operations until demolition

310 NEPA Support

- Development of a CX or EA
- Preparation for, conduct of, and response to reviews by regulators and the public

- 320 RCRA/ CERCLA Support
- Criteria Definition document development to allow regulatory input
  - RCRA Unit 21 and 48 Closure documents/input
  - Preparation for, conduct of, and response to reviews by regulators and the public
  - IM/IRA (If necessary)
- 330 Other Environmental Compliance
- Compliance with CAA, etc.
  - Utilization of OU-4 umbrella
  - Community relations/ information strategy development/ implementation
  - Preparation for, conduct of, and response to reviews by regulators and the public
  - Permits or Interim Status waste treatment / storage documentation
- 411 Removal Conceptual Design
- Develop detailed design basis
  - Internal and external design reviews (including public comment)
  - Preliminary cost estimate
  - Waste estimates
- 412 Removal Assessment
- Assessment of radioactive and hazardous components to allow planning of work
  - Assessment of radioactive and hazardous components to allow agreement on release approach
  - Field sampling activities
  - Laboratory support for characterization/ assessment activities
  - Waste management
- 413 Removal Detailed Design
- Work Plans
  - Readiness Assessment (or ORR) checklist
  - Safety Assessment/ Category III SAR
  - Standard Procedures (Generic and project specific)
  - IWCP Packages
  - Waste management
- 420 Equipment Removal
- Disconnection of utilities, etc. (Isolation)
  - Removal of clean items
  - Relocation of stored wastes
  - Readiness Assessment (in-lieu-of an ORR)
  - Waste management
- 430 External Process Equipment Removal
- Removal of silos, clarifier, pug mill, mixer, etc.
  - Cleanup and release of equipment
  - Shredding and crushing of equipment to support use as fill
  - Waste management
  - OU-9 activities
- 440 Building Decontamination
- Cleanup of building
  - Cleanup of decontamination cell
  - Remove "release source"
  - Waste management

- 450 Building Demolition
- Removal of structure
  - Removal of foundation to grade
  - Disposal of waste
  - Waste management (Storage, Treatment , Disposal)

- 460 Final Cleanup
- QA to assure requirements are met
  - Close out of paperwork
  - Final survey(?)

## 5.0 Schedule / Milestones

### Schedule

- Top and Intermediate-level schedules (75-100 activities)
- Roll-up of CPM networks
- Include input actions: Sludge removal, Approval of capping concept, etc. as well as deliverables (see Assumptions)
- Discussion of interface with OU-4 schedules
- Discussion of areas of schedule risk; contingency

### Milestone Log

- Approval of Contaminants of Concern
- Approval of Cleanup Criteria
- Completion of Conceptual Design
- Complete Design
- Approval of Design/ Initiation of Removal ("Construction")
- Complete Equipment Removal
- Complete Building Removal

## 6.0 Cost Estimate

- Estimate roll-up by WBS element; estimate at task level
- General basis of estimate/ estimate methodology
- Discussion of areas of cost risk; contingency

## 7.0 Interfaces/ Responsibilities

### OU-4

- Routine interfaces
- Reporting responsibilities
- Schedule interfaces

### Other

- ER operations
- OU-9
- Transition
- Radiation Protection
- Engineering
- Waste Operations
- Health and Safety (OSHA compliance)
- Central Planning
- Quality Assurance