



INTEROFFICE CORRESPONDENCE

DATE: September 14, 1994

TO: C. A. Lopez, Procurement, Bldg. 080, X8788

FROM: R. T. Ogg, Solar Pond Projects, Bldg. 080, X8608 *R.T. Ogg*

SUBJECT: SUBCONTRACT MODIFICATION IN SUPPORT OF OPERABLE UNIT 4 INTERAGENCY AGREEMENT REQUIREMENTS-SUBCONTRACT NO. MTS343790TB3 - RTO-062-94

DOE Order: 4700.1

Action: Request for Proposal

In accordance with the Rocky Flats Interagency Agreement (IAG) signed by the U. S. Department of Energy (DOE), U. S. Environmental Protection Agency (EPA), and Colorado Department of Public Health and Environment (CDPHE) on January 22, 1991, the Solar Pond Projects (SPP) is requiring support for Operable Unit 4 (OU 4) Program. Due to the magnitude, complexity, and streamlined schedule associated with this project, the SPP has identified the ERM Rocky Mountain, Inc. and Geraghty & Miller, Inc. team as the preferred subcontractor under the EG&G Rocky Flats, Inc. "Master Task Subcontract" (MTS) program in support of this Statement of Work (SOW). The SPP rationale for this selection is based on this team's extensive experience on OU 4 and above average performance evaluation ratings under the MTS program. Attached to this transmittal memorandum are the required procurement documentation to support a sole source procurement action for this SOW. The following documentation is included for this procurement:

- Statement of Work
- Justification for Out of Order Task Rotation
- Purchase Requisition
- Independent Cost Estimate
- Organizational Conflict of Interest

If you have any questions or require additional information to support this procurement action, please contact me at your earliest convenience.

pjm

Attachments:
As Stated (5)

cc:
T. R. Brady - w/o attachments
S. M. Paris
K. L. Ruger
ERM Records (2)

File
DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

ADMIN RECORD

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STATEMENT OF WORK

FOR

SOLAR EVAPORATION PONDS
OPERABLE UNIT NO. 4
INTERAGENCY AGREEMENT
PHASE I IM/IRA
PROGRAM

Prepared by:

EG&G Rocky Flats, Inc.
Environmental Restoration Management
Solar Ponds Project
Rocky Flats Plant
Golden, Colorado

September 1994
Rev. 4

Randy T. Ogg
Approval _____
9/15/94

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1.0 OBJECTIVE

The objective of this project is to support a closure strategy in the form of a Interim Measure/Interim Remedial Action (IM/IRA) Decision Document which shall satisfy the Rocky Flats Interagency Agreement (IAG) and Colorado Hazardous Waste Act Regulations (CHWA). In addition, a "post-closure" care document/application shall be prepared in accordance with applicable RCRA regulations. The post-closure care permit/document shall be designed to monitor the effectiveness of the selected remedial alternative for the Solar Evaporation Ponds. This work shall be performed in direct support of the Rocky Flats Plant (RFP) IAG, signed by the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA) and Colorado Department of Health (CDH) on January 22, 1991. All work performed under this Statement of Work (SOW) shall comply with applicable laws, regulations, and policies.

The objective of this Statement of Work (SOW)/Program is to provide EG&G with technical support for the Operable Unit 4 (OU 4) hydrogeological characterization efforts and assist EG&G in developing a remediation strategy associated with ground water contamination. All work/activities associated with this program shall be in support of the Rocky Flats Interagency Agreement (IAG) signed by the U.S. Department of Energy, U.S. Environmental Protection Agency, and the Colorado Department of Public Health and Environment on January 22, 1991. The subcontractor shall be responsible for evaluating applicable OU 4 data and supporting EG&G relative to planning requirements associated with all hydrogeological field activities. In addition, the subcontractor shall develop a comprehensive remediation strategy for OU 4 based on RCRA post closure conditions. This remediation strategy shall be based on applicable OU 4 data.

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2.0 SCOPE

The following work shall be required to support the IMIRA Program, Post-Closure Care Monitoring, *and the ground water characterization and remediation activities at OU4:*

- 1) IMIRA Technical Consultation
- 2) Post Closure Performance and Assessment;
- 3) Post Closure Care monitoring equipment installation (field activities,),
- 4) *Direct Project Support for RFI/RI Tasks,*
- 5) *Data Review/Technical Consultation for RFI/RI Field Program,*
- 6) *Technical Support for Field Program Execution,*
- 7) *Final Field Sampling Plan,*
- 8) *CMS/FS Database Management,*
- 9) *Integrated Modeling*
- 10) *CMS/FS Technical Implementation Plan,*
- 11) *CMS/FS Development,*
- 12) *CMS/FS Report Preparation,*
- 13) *Conceptual Design, and*
- 14) *Direct Project Support for CMS/FS Tasks.*

The subcontractor shall be required to support the *above tasks* as referenced *in section 4.0 of this Statement of Work (SOW)*. The overall objective of *Tasks 1-3 of the* scope of work shall be to close the Solar Evaporation Ponds in accordance with the IAG/Colorado Hazardous Waste Act regulations, and support all applicable requirements associated with Post-Closure Care monitoring and maintenance. The primary emphasis shall be to monitor the "effectiveness" of the selected remedial alternative *for the OU 4 IMIRA program. The overall objective of Tasks 4-14 of the scope of work shall be to develop a remediation strategy for ground water at OU4.*

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3.0 BACKGROUND AND APPLICABLE DOCUMENTS

3.1 BACKGROUND

The Solar Evaporation Ponds (SEP) were first identified as a RCRA regulated unit in the summer of 1986 as part of a site-wide environmental investigation. This investigation was conducted as part of the Comprehensive Environmental Assessment and Response Program (CEARP), and a compliance agreement between DOE and EPA signed on July 31, 1986. In 1989, DOE and the State of Colorado signed an Agreement in Principle (AIP) which required expediting the removal of water and sludge from the Solar Evaporation Ponds. On January 22, 1991 DOE, EPA, and CDH signed an Interagency Agreement (IAG) which defined the Solar Evaporation Ponds as Operable Unit No. 4 (OU 4) and includes specific requirements for investigating and remediating OU 4. Work performed thus far for OU 4, in accordance with the IAG, includes the development of a Phase I RFI/RI Work Plan (EG&G 1992), implementation of the final Phase I RFI/RI Work Plan, and an IM/IRA Decision Document (EG&G 1992). However, this IM/IRA Decision Document, referenced above, was not a Table 6 Milestone or Deliverable, the document was prepared in accordance with the Rocky Flats Plant IAG. The IM/IRA Decision Document identifies the processes associated with storing and remediating ground water collected in the Interceptor Trench System (ITS) located north and hydraulically down gradient of the Solar Evaporation Ponds.

3.2 APPLICABLE DOCUMENTS

The subcontractor shall utilize the following regulatory documents and any references cited therein while implementing this SOW for OU4:

EG&G, Rocky Flats, Inc., Final Phase II RFI/RI Work Plan for OU 4, Solar Evaporation Ponds Vol. 1 and Appendices, September 1994.

Rocky Flats Interagency Agreement, January 22, 1991

EG&G, Rocky Flats, Inc., Final Phase I RFI/RI Work Plan for OU4, Solar Evaporation Ponds Vol. I and II, January, 1992

EG&G, Rocky Flats, Inc., Technical Memorandum No. 1 To Final Phase I RFI/RI Work Plan, Vadose Zone Investigation, OU4, December 1992

EG&G, Rocky Flats, Inc., Proposed Interim Measure/Intermedial Action Decision Document for the Solar Evaporator Ponds Operating Unit No. 4., April 1992

EG&G, Rocky Flats, Inc., Annual Report: Sitewide Treatability Studies, March 1992

EG&G, Rocky Flats, Inc., Proposed Interim Measure/Intermedial Action Decision Document for the Solar Evaporator Ponds Operating Unit No. 4., April 1992

EG&G, Rocky Flats, Inc., Historical Release Report for the Rocky Flats Plant, June 1992

EG&G, Rocky Flats, Inc., Background Geochemical Characterization Report, September 1992

EG&G, Rocky Flats, Inc., Draft Environmental Evaluation Working Document for Phase I RFI/RI Work Plan, OU4, January 1993

US Department of Energy, Rocky Flats Plant, Draft Integration of NEPA, CERCLA, and RCRA for Activities Under the Interagency Agreement at Rocky Flats Plant, June 1992

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US EPA, Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, EPA 540 G-89-004, October 1988

US EPA, Data Quality Objectives for Remedial Response Activities, Development Process, March 1987

US EPA, Data Quality Objectives for Remedial Response Activities, Example Scenario, March 1987

US EPA, Guidance for Data Usability in Risk Assessment, October 1990

US EPA, Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual, (Part A), Interim Final, EPA 540/1-89/002, December 1989

US EPA, Risk Assessment Guidance for Superfund, Volume II, Environmental Evaluation Manual, Interim Final, EPA/540/1-89/001, March 1989

US EPA, Ecological Assessments of Hazardous Waste Sites: A field and Laboratory Reference, EPA/600/3-89/013, March 1989

US EPA, Guideline for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, EPA/540/2-058, December 1989

Code of Federal Regulations, Title 40, Part 265 - Interim Status Standard for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities, July 1990

Code of Federal Regulations, Title 43, Part 11 - Natural Resource Damage Assessments, October 1987
(or latest edition)

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4.0 TECHNICAL REQUIREMENTS/TASKS

4.1 GENERAL

The subcontractor shall provide all materials, personnel, and services required to complete the scope of work indicated in this document. The subcontractor shall be responsible for all aspects of the requirements of this SOW, except those sections specifically stated by EG&G. This SOW contains all requirements for preparation of the reports, but does not include reference material, guidance documents, and historical reports, which can be obtained upon request from EG&G. The work shall be performed in such a manner as to ensure that all required data and deliverables are generated and included in the documents specified in this SOW. The data generated shall be based on customary and specified scientific methods and shall be of adequate quality to meet the study objectives and make sound decisions with reasonable confidence. EPA, CDPHE, and DOE comments pertaining to the requirements in this SOW shall also be adhered to in completing the reports.

EG&G intends to implement a field sampling effort at OU4 as described in the Final Phase II RFI/RI Work Plan. The field effort includes an "observational approach" using field methods and real-time decision-making to fill identified data gaps for the ground water remediation program, as well as installation of permanent ground water monitoring points. The focus of the field effort is to complete the necessary supplemental investigations required to provide a complete database for implementation of the CMS/FS for OU4. This scope of work describes tasks required by EG&G to complete the CMS/FS for OU4. The tasks described below include technical support for the RFI/RI field program in order to ensure that all data required to complete the CMS/FS are collected during the RFI/RI. Explicitly excluded from this SOW is all field work (other than supervision/direction), site management work, and health and safety work associated with the RFI/RI program. The subcontractor shall assume that all required field work activities, site management and health and safety functions will be provided by EG&G. The subcontractor shall, however, be required to define their requirements regarding interaction and communication with the site management team during the execution of the RFI/RI field program.

The objectives of the RFI/RI are to; characterize the surface waters and ground waters of the unconsolidated materials, weathered bedrock and bedrock; Delineate the contribution of ground water contaminants to OU4 from upgradient sources; Characterize contamination in OU4 surface and ground water systems; delineate the extent of ground water contamination; evaluate mobility characteristics in OU4 media; evaluate the ITS effectiveness; Evaluate compliance with ARARs; and Evaluate the Bowmans Pond (Building 774) water system. Tasks identified in this SOW shall directly support some of the objectives for the RFI/RI program.

Following the RFI/RI program, EG&G intends to develop the CMS/FS. The RFI/RI field program is intended as a supplemental investigation with the exclusive purpose of filling data gaps required for completion of the CMS/FS. EG&G currently anticipates that remediation of ground water beneath OU4 will be required and that remedies for ground water will therefore be evaluated in the CMS/FS.

The objective of the CMS/FS is to provide the basis for the remedy selection process for OU4 ground water and soils (i.e., those soils not remediated under the IM/IRA program). This shall involve the development of performance criteria and the evaluation of alternatives by the functional categories for the nine National Contingency Plan (NCP) sections 300.430 (e)9 and 300.430 (f)(1)i.

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The project shall comply with regulatory guidance documents, incorporate agency comments from EPA, CDPHE, DOE, and EG&G, and shall require the subsequent approval by the aforementioned parties.

The subcontractor shall be responsible for all aspects of the work in this SOW, except those sections specifically stated by EG&G. This SOW does not include reference material, guidance documents, or historical reports. EG&G shall assist in locating reference material. The subcontractor may wish to reproduce the reference materials. The data generated shall be based on customary and specified scientific methods and shall be sufficient and of adequate quality to meet the SOW objectives and make sound defensible decisions with reasonable confidence. EG&G shall make the sole determination as to the adequacy of the work performed by the subcontractor. The Phase I RFI/RI Report (1994) and Phase II RFI/RI Work Plan (1994) for the Solar Evaporation Ponds (OU4), and 1993 Annual RCRA Ground Water Monitoring Report (1994) are the primary EG&G references for guidance in the completion of this SOW.

Requirements for the RFI/RI Field Program Support (Tasks 4 through 7) and CMS/FS Development (Tasks 8 through 14) are provided below.

4.2 DOCUMENTS/TASKS

4.2.1 TASK 1 - IM/IRA TECHNICAL CONSULTATION

The subcontractor shall provide technical support/technical consultation during the Phase I IM/IRA program. The subcontractor shall be required to support the following IM/IRA requirements:

- Evaluation of remedial alternatives;
- Selection of a preferred alternative;
- General regulatory support; and
- IM/IRA DD review and comment

The subcontractor shall be required to attend regulatory agency meetings and internal EG&G meetings.

The subcontractor shall provide technical support/technical consultation during the Phase II Program. The subcontractor shall be required to support the following requirements:

- Review and comment the Phase II RFI/RI Work Plan
- Develop an Options Analysis report for the Phase II Program

The subcontractor shall be required to provide technical review and comments on various documents generated during the OU4 IM/IRA program. Specifically, the subcontractor shall review and comment on a technical document reflecting the disposal of sludge and pondcrete under the OU4 IM/IRA engineered barrier. The subcontractor shall assume that the material/waste being placed under the barrier shall be minimally treated. Also, the subcontractor shall be required to support EG&G in the resolution of comments pertaining to the OU4 Post Closure Performance Monitoring Plan.

4.2.2 TASK 2 - POST CLOSURE PERFORMANCE AND ASSESSMENT

Subsequent to the selection of a remedial alternative, the subcontractor shall be required to develop a post closure performance and assessment document which shall be equivalent to a post closure care monitoring and maintenance permit. This document shall satisfy applicable RCRA Subtitle C requirements relative to closure and post closure criteria.

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The subcontractor shall submit a 60% Design package, 90% Design package, and Final Title II Design package with the appropriate comment resolution and incorporation of comments based on reviews from EG&G, DOE, CDH and EPA.

The subcontractor shall be responsible for the re-design of the OU4 Post Closure Performance and Monitoring Plan. The re-design shall be based on placing additional waste below the engineered barrier in the form of sludge and/or pondcrete. The subcontractor shall assume that the "footprint" of the barrier shall be modified.

4.2.3 TASK 3 - POST CLOSURE MONITORING FIELD ACTIVITIES

The subcontractor shall be required to implement the post closure performance and monitoring document. The subcontractor shall provide all necessary resources required to perform the field activities, including the following:

- Health & Safety;
- Site management;
- Drilling and equipment installation; and
- Field logistics, etc.

The subcontractor shall not be responsible for any horizontal drilling activities associated with the installation of the Post Closure Monitoring and Maintenance field equipment. All negotiated Other Direct Costs (ODCs) and labor hours associated with horizontal drilling shall be eliminated per this revision.

4.2.4 RFI/RI SUPPORT TASKS

4.2.4.1 TASK 4 - DIRECT PROJECT SUPPORT FOR RFI/RI TASKS

The subcontractor shall attend meetings with EG&G project team members and DOE and regulatory agency personnel as required by the EG&G Project Manager/CTR. The subcontractor shall assume that two technical project meetings per month shall be required plus one project management update meeting per week for the duration of the project. Additional meetings may be required; all meetings and attendees shall be approved by the EG&G Project Manager/CTR. The subcontractor shall be responsible for preparation of meeting minutes to document all meetings. Meeting minutes shall be submitted to the EG&G Project Manager/CTR no later than (10) working days from the date of the meeting. The subcontractor shall also prepare periodic status and update documents for submittal to EG&G as described in Section 5.0.

All deliverables and transmittals to EG&G shall also be provided by the subcontractor in electronic format. The formats provided shall be compatible with EG&G computer systems as directed by the EG&G Project Manager/CTR. Acceptable formats may include WordPerfect for text, ASCII for data, and AutoCad for maps.

EG&G may supply the subcontractor with some of the equipment that shall be required for the performance of this subcontract. Availability of equipment or services may vary; requirements should be made to the CTR in writing (10) working days in advance of the date the equipment is needed.

4.2.4.2 TASK 5 - DATA REVIEW/TECHNICAL CONSULTATION FOR RFI/RI FIELD PROGRAM

The subcontractor shall provide technical consultation, including review of all applicable data and documents relevant to the definition of data requirements for the CMS/FS for OU4. The applicable data sources and documents shall include, but not be limited to:

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- *OU4 Phase I RFI/RI Report;*
- *annual RCRA ground water monitoring reports;*
- *the RFI/RI Work Plan; and*
- *the RFEDS database.*

The data evaluation subtask shall focus on the data requirements for the CMS/FS for OU4, and the results of the data analysis shall include data elements required to complete the necessary database for the CMS/FS (i.e., identification of data gaps). The subcontractor shall review the RFI/RI Work Plan and make recommendations for changes, additions, or deletions from the field program in order to ensure that all data gaps are filled. An initial (baseline) summary of the data gaps identified and recommended modifications to the field program shall be submitted to EG&G in writing. However, the review of the database and degree of completeness with respect to the CMS/FS data needs shall continue as the project proceeds, requiring continual updates to the baseline. Such updates shall be submitted to EG&G verbally or in writing as described in Task 6.

4.2.4.3 TASK 6 - TECHNICAL SUPPORT FOR FIELD PROGRAM EXECUTION

The first portion of the RFI/RI field program to be conducted by EG&G involves the use of field methods to develop an understanding of the hydraulics of the surface water and ground water systems at OU4 and to delineate the nature and extent of ground water contamination. The field methods to be employed by EG&G include, but are not limited to:

- *hydraulic characterization of surface water and ground water systems;*
- *sampling and field analysis of surface water and ground water in and around OU4;*
- *geophysical investigations;*
- *ground water sampling in the Rocky Flats Alluvium using geoprobe equipment; and*
- *installation of and field analysis of samples from bedrock wells.*

The intent of this portion of the field program is to use field methods and real-time analyses to direct field activities using an "observational approach." The subcontractor shall provide decision-making in the field to direct field activities in real time and to ensure that all identified data gaps are filled. The subcontractor shall be required to provide all necessary personnel and materials to evaluate real-time data collected in the field during this portion of the RFI/RI field program, and to provide decisions on a real-time basis to direct the field activities. These activities shall include, but not be limited to:

- *startup meetings and periodic update meetings as necessary to identify objectives and to disseminate relevant information to all field personnel;*
- *Plan of the Day (POD) meetings each working day, or as required, during implementation of the field program to direct field activities for the day;*
- *technical support for each field program (e.g., geophysics, geoprobe) as required to direct, on a real-time basis, ongoing activities;*
- *data compilation, decision, and disposition approaches;*

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- *daily review meetings, during which the data collected that day shall be added to the baseline and data gaps re-evaluated to direct the next day's activities;*
- *definition and regular updates of short-term, mid-term, and long-term data collection goals for each field program (e.g., geophysics, geoprobe);*
- *daily communication of upcoming site management needs (e.g., utility clearances, access requirements) to the site manager to avoid logistical obstructions.*

The subcontractor shall be responsible for directing field activities (e.g., sample locations and depths, required analyses, geophysical survey types and line locations) to ensure that all identified data gaps are filled.

The subcontractor shall identify all site management, equipment, sampling, and analytical needs in advance and shall communicate those needs to the site manager. The subcontractor shall not be responsible for procurement of equipment, utilities clearances, or access to specified areas or for the provision of expendable supplies or health and safety services.

4.2.4.4 TASK 7 - FINAL FIELD SAMPLING PLAN

It is EG&G's intent that, following the field-directed portion of the RFI/RI field program, final locations of permanent monitoring wells will be negotiated with CDPHE and EPA. The purpose of these wells will be to confirm the database developed during the first portion of the field program and to provide sampling points for some period of time to continue monitoring any movement of ground water contamination (temporal monitoring). The installation and sampling of these wells is explicitly excluded from this scope of work. However, the subcontractor shall provide all personnel and materials required to support EG&G in presenting the results of the "observational approach" and the resulting conceptual model of ground water flow and contamination at OU4 to CDPHE and EPA. The subcontractor shall also develop the Final Field Sampling Plan including locations for permanent monitoring wells, the justification for those locations, and the proposed monitoring program.

4.2.5 CMS/FS PROGRAM

The CMS/FS process occurs in two phases. The first phase consists of developing and screening remedial alternatives (Tasks 8 through 11d); the second phase includes a detailed analysis of alternatives and production of the CMS/FS report (Tasks 11e through 13).

4.2.5.1 TASK 8 - CMS/FS DATABASE MANAGEMENT

The subcontractor shall be required to utilize a Geographic Information System (GIS) and database applications in support of OU4 data manipulation, interpretation, and presentation activities. The subcontractor shall develop a comprehensive database of OU4 data required to support the CMS/FS and subsequent design activities. The subcontractor shall also develop a GIS for OU4, including the comprehensive database, to support the various CMS/FS, modeling, and conceptual design efforts identified in other tasks of this SOW. The database and GIS shall be used to develop contaminant maps, volume estimates, and other information required in the performance of the CMS/FS and conceptual design activities. The GIS shall also be used to develop graphical products to assist in the presentation of CMS/FS progress and results. The subcontractor shall be required to perform geostatistical analyses on

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the OU4 database to facilitate predictive modeling (i.e., clean vs dirty 3-D spatial modeling or definition of constituent of concern (COC) boundaries).

4.2.5.2 TASK 9 - INTEGRATED MODELING

The subcontractor shall develop and implement an integrated approach to predicting ground water flow and contaminant transport mechanisms relevant to the selection and design of a ground water remedy for OU4. The subcontractor shall evaluate all available ground water data from within and outside OU4 and develop an integrated conceptual ground water flow and transport model at the Rocky Flats Plant site, with special emphasis on OU4. The modeling results shall provide information required for the evaluation of remedial strategies and alternatives at OU4. The model shall have the capability to predict remediation times and the movement of contaminants under various ground water remediation options. Contaminant transport modeling of the site shall also be used to predict potential impacts of other sources (e.g., upgradient plumes) upon OU4 during static conditions as well as during the implementation of various potential OU4 ground water remediation strategies.

4.2.5.3 TASK 10 - CMS/FS TECHNICAL IMPLEMENTATION PLAN

The subcontractor shall prepare a concise CMS/FS Technical Implementation Plan (TIP) to serve as an internal project strategy, methodology, and management tool for EG&G. The CMS/FS TIP is not intended to be submitted to regulators or to the DOE. EG&G shall be the prime initiator for the strategy and methodologies documented in the CMS/FS TIP; the subcontractor shall assist in their formulation. The CMS/FS TIP shall identify by task: 1) subcontractor's approach to accomplishing essential tasks and subtasks required for implementation of the CMS/FS, 2) tangible products of each task and/or subtask, 3) how the task or subtask shall be accomplished including the methods and performance requirements, and 4) how the task or subtask shall support performance of the comprehensive CMS/FS.

The CMS/FS TIP shall document the review of, and summarize the relevant RFI/RI activities and previous applicable reports as well as related documentation. The CMS/FS TIP shall also document the review of and summarize the applicability of the following treatability study (TS) documents and related information. The review and summary shall assess existing data and information within the context of the OU4 CMS/FS and related TS requirements (if any):

- Final Sitewide Treatability Study Plan, August 1991
- Annual Report: Sitewide Treatability Studies, FY91, March 1992
- Future Annual Reports of Sitewide Treatability Studies, March of each year
- Coordination with EG&G Sitewide Treatability Studies staff: review in-progress version of current Treatability Studies Annual Report
- OU 4 Proposed IM/IRA (separate from IAG driven IM/IRA)

The CMS/FS TIP shall evaluate separating OU4 into sub-operable units (e.g., ground water, ground water beneath the source materials, surface soils, subsurface source material, air, biota, etc.). Such delineations, if appropriate, shall be identified in the CMS/FS TIP.

The CMS/FS TIP shall specify subcontractor's approach to essential technical facets of the CMS/FS including, but not limited to: (1) integration of existing or proposed IM/IRA components, (2) quantification of pathway risk reduction, (3) development of

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preliminary and revised remediation goals, (4) derivation of technology and process unit treatment efficiencies, (5) treatability study needs evaluation, (6) determination of waste volumes to be treated, (8) unit operations sizing, and (9) costing of CMS/FS alternatives. The subcontractor shall prepare 4 final copies of the CMS/FS TIP for delivery to EG&G. A draft version of the CMS/FS TIP shall not be necessary.

4.2.5.4 TASK 11 - CMS/FS DEVELOPMENT

4.2.5.4.1 Task 11a - Critical Review and Assessment of Potential Applicable or Relevant and Appropriate Requirements (ARARs) - ARARs identified in the Sitewide Benchmark tables list a compendium of chemical-specific regulations that could become ARARs. For proposal purposes, the subcontractor shall assume 15 Contaminants of Concern for each media within the OU (i.e., soil, ground water, sediment, etc). These shall be the criteria used to identify and evaluate potential remedial options and shall be the basis for the identification of performance and design standards for those proposed remedial options. EG&G will supply the RFP Sitewide Benchmark tables to the subcontractor, and will oversee and approve any proposed ARAR standard. As part of this task, potential ARARs shall be critically assessed for their current and future applicability with specific emphasis on their relevance to and impact upon CMS/FS remedial action alternatives.

4.2.5.4.2 Task 11b - Develop Remedial Action Objectives and General Response Actions and Preliminary Remediation Goals - The subcontractor shall develop Remedial Action Objectives (RAOs) in general accordance with EPA Guidance (USEPA, 1988). General Response Actions (GRAs) and Preliminary Remediation Goals (PRGs) shall be developed in a two-step process consistent with the National Contingency Plan (NCP) (USEPA 1990). The two step process entails establishing risk-based PRGs (a.k.a. "cleanup levels") based on the current and future use exposure scenarios and the Environmental Assessment. The subcontractor shall develop RAOs for the CMS/FS and shall develop media specific Preliminary Remediation Goals (See: Federal Register/Vol. 55, No. 46/March 8, 1990, page 8781 for discussion of preliminary and revised remedial (action) goals and use of the Point of Departure.) to meet the RAOs based on consideration of EPA's "Point of Departure" concept.

Based on the RAOs for OU4, the subcontractor shall develop initial General Response Actions (GRAs) that describe the types of actions that may be appropriate for OU4 and the initial areas and volumes to be remediated.

Following the development of initial RAOs, PRGs, and GRAs, the subcontractor shall revise the media-specific PRGs by considering exposure factors, uncertainty factors and technical factors such as: analytical detection/quantification limits, limitations of applicable technologies, ability to monitor and control movement of contaminants. Based on the revised PRGs, the subcontractor shall revise, as appropriate, the GRAs for OU4.

4.2.5.4.3 Task 11c - Technical Memorandum No. 1 - The subcontractor shall prepare a technical memorandum (See Section IX.A.4, Attachment 2, of the IAG; [See Sect. 3.2, Applicable Documents]) to propose site-specific corrective/remedial action objectives. The technical memorandum shall document the contaminants and media of interest, the volumes and areas of such media, exposure pathways and receptors, risk-based preliminary remediation goals ("cleanup levels") and shall address EPA and CDPHE accepted levels or ranges of levels for each exposure route. Additionally, the technical memorandum shall discuss the methodology used to develop preliminary and revised preliminary remediation goals.

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The subcontractor shall prepare: a preliminary draft for EG&G review (4 copies), a Draft Technical Memorandum #1 for submittal to DOE (12 copies), and a Final Technical Memorandum #1 for submittal to EPA and CDPHE (25 copies).

4.2.5.4.4 Task 11d - Identification and Screening of Applicable Technologies - *The subcontractor shall identify, compare, and screen applicable technologies based on site-applicability and preliminary and revised remediation goals, and ARARs. The screening process is discussed in EPA Guidance (USEPA 1988).*

The subcontractor shall utilize tables and/or graphics to summarize the identification and screening process. Supporting discussion shall be included to describe the identification and screening process.

4.2.5.4.5 Task 11e - Assembly and Screening of Alternatives - *The subcontractor shall assemble the representative process options into alternatives that represent a range of treatment and containment combinations under the general guidance provided by EPA (1988). The range of alternatives shall include alternatives: (1) to reduce toxicity, mobility, or volume; but which vary in the types of treatment, the amount of wastes treated, and the manner in which long-term residuals or untreated wastes are managed; (2) that involve containment with little or no treatment; (3) involving treatment and containment and (4) a no action alternative.*

The subcontractor shall refine the alternatives as necessary based on a preliminary sizing of unit operations considering the proposed contaminant volume(s). Additional considerations for the refinement step shall include any new or refined risk assessment information, revised preliminary remediation goals or refined action or location-specific ARARs.

The subcontractor shall screen alternatives based on effectiveness, implementability, and relative-cost in accordance with general guidance provided by EPA (1988). It may be necessary to employ treatability studies in order to perform this task. The goal of this screening is to assure that only alternatives with the most favorable composition, based on an evaluation of effectiveness, implementability, and relative cost, are retained for further analysis. The subcontractor shall provide a rational basis (e.g., ground water and contaminant transport models) to demonstrate interactions among media and among alternatives to support this alternatives screening process. Typically, an array of 5-7 alternatives (including no action) is desirable for detailed analysis.

4.2.5.4.6 Task 11f - Detailed Analysis of Alternatives - *The subcontractor shall perform a detailed analysis of alternatives consisting of an evaluation of each alternative against the standard nine performance criteria identified in guidance (USEPA, 1988). The subcontractor shall also propose and evaluate one additional innovative technology alternative. The analysis shall be comparative between each alternative using the nine performance criteria.*

For each alternative, the subcontractor shall provide a detailed description that outlines the waste management strategy involved and identifies the important associated ARARs. The subcontractor shall also provide a detailed discussion of each criterion assessment for each alternative. The subcontractor shall also employ tables and/or graphics to summarize the detailed analysis of alternatives.

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The subcontractor shall integrate OU4 specific treatability study report findings into the detailed analysis of alternatives. It is anticipated that such reports shall include bench or pilot-scale studies and in some instances require field-based testing results. Inclusion of these results shall be based on recommendations by the subcontractor for approval by the EG&G CTR. Treatability study testing results shall be used to guide the detailed analysis with respect to the viability of effective implementation of specified candidate technologies. Additionally, OU4 specific treatability study testing results shall provide information to facilitate an evaluation of residual waste handling requirements.

The subcontractor shall provide a detailed analysis of the costs versus risk reduction/benefit of each alternative. This analysis shall be based on the cost of each alternative to attain ARARs, and risk-based remediation goals across the lifetime added cancer risk range 1×10^{-4} to 1×10^{-6} . The analysis shall evaluate the cost versus risk reduction/benefit of alternative remediation requirements based on the range of plausible baseline risks detailed in the baseline risk assessment of the RFI/RI program.

The subcontractors risk reduction/benefit analysis shall include presentation of the following 9 cell table:

	1×10^{-6}	1×10^{-5}	1×10^{-4}
Residential Use			
Ecological Use			
Industrial Use			

The numeric value presented within each cell shall be the cost/life-saved for each land use at the given residual lifetime excess cancer risk. Supporting text shall be provided.

The analysis shall integrate key risk-management factors including the number of individuals potentially exposed, temporal pattern of risk, uncertainties in risk reduction estimates and engineering estimates, and pertinent population dynamics including proposed growth and attendant population risk in potentially affected areas.

A preferred alternative shall be identified that considers the requisite nine criteria analysis as well as the cost versus risk/benefit assessment discussed above.

4.2.5.4.7 Task 11g - Technical Memorandum No. 2 - The subcontractor shall prepare a Technical Memorandum (See IAG Section IX.B) for submittal to EPA and CDPHE which summarizes the findings of the detailed analysis of alternatives. This technical memorandum shall (1) summarize the identification of technology types and process options, (2) summarize the assembled alternatives and their related action-specific ARARs, and (3) summarize the results and rationale used in screening, arraying alternatives that remain after screening, and propose action-specific ARARs for the alternatives that remain after screening.

The subcontractor shall prepare: a preliminary working draft for review with EG&G (4 copies), a Draft Technical Memorandum #2 for submittal to DOE (12 copies), and a Final Technical Memorandum #2 for submittal to EPA and CDPHE (25 copies).

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4.2.5.5 TASK 12 - CMS/FS REPORT PREPARATION

The subcontractor shall prepare a Preliminary Draft, Draft, and Final detailed CMS/FS Report that (1) describes and substantiates the rationale behind all findings and (2) summarizes all findings into a concise format to facilitate communication with technical and non-technical audiences. The subcontractor shall employ, to the extent practicable, tables and graphics to summarize information and convey concepts.

The CMS/FS report shall include a NEPA Environmental Assessment (EA). Guidance for performing the EA shall be taken from the draft DOE document Draft, Integration of NEPA, CERCLA and RCRA for Activities Under the Interagency Agreement at Rocky Flats Plant, June 1992. The subcontractor shall coordinate this task with the EG&G NEPA group oversight. The subcontractor shall also meet the requirements stated in 40 CFR 1021 and the NEPA Implementing Regulations, 40 CFR 1500. The subcontractor shall budget 1 two-day round trip to Washington, DC to brief DOE Headquarters on the EA portion of the CMS/FS (one person).

The CMS/FS Report shall be presented as a main text that presents an orderly description of the FS development. Detailed technical work such as risk reduction methods and costing shall be presented in stand-alone appendices.

The subcontractor shall prepare 4 preliminary draft copies for EG&G review and approval, plus 12 copies of the Draft CMS/FS and 25 copies of the Final.

4.2.5.6 TASK 13 - CONCEPTUAL DESIGN

The subcontractor shall prepare a 15% conceptual design of the preferred alternative for inclusion in the Draft CMS/FS Report. The 15% conceptual design shall provide added detail regarding the preferred alternative including conceptual design drawings, descriptions of unit operations, and costs.

The subcontractor shall prepare a 30% conceptual design of the selected alternative for inclusion in the Final CMS/FS Report. The 30% conceptual design shall provide added detail above the 15% conceptual design including detailed conceptual design drawings, descriptions of unit operations, and costs.

4.2.5.7 TASK 14 - DIRECT PROJECT SUPPORT FOR CMS/FS TASKS

The subcontractor shall develop a Project Implementation Plan consisting of a comprehensive and detailed Master Schedule and costs in accordance with the EG&G 5 Year Plan framework schedule provided by the CTR. The Implementation Plan shall present a schedule in Gantt Chart format (using either Microsoft Project or Primavera software) and include schedule assumptions in bullet format.

The schedule and costs shall be presented on a Fiscal Year (October 1 to September 30) basis. Review times for documents are provided in the IAG Environmental Restoration Schedule (Green Binder) dated August 14, 1990. Any questions about the document review process or any other aspect of RFP scheduling shall be directed to the CTR.

The Implementation Plan shall also include a Project Management Plan (PMP) which shall contain the following: a project organization structure with a responsibility matrix, a Work Breakdown Structure (WBS), and the subcontractor's project

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Management Control System. The PMP shall include cost and schedule information relative to the WBS. The subcontractor shall use the tasks outlined in this SOW as the basis for WBS development. Because the WBS is a work structure, not an organization structure, complete definition of the WBS encompasses defining all work to be performed by all participants of the project. All cost and resource estimates shall be consistent with the format of the EG&G approved WBS. EG&G will also provide technical oversight and direction at all project levels. The Implementation Plan shall be submitted to and approved by the CTR. The Implementation Plan may be revised to accommodate changes in budget or for other reasons through modification to the subcontract. The Implementation Plan shall be submitted to EG&G for approval within 20 working days after subcontract award.

The subcontractor shall attend meetings with EG&G project team members and DOE and regulatory agency personnel as required by the EG&G Project Manager/CTR. The subcontractor shall assume that two technical project meetings per month shall be required plus one project management update meeting per week for the duration of the project. Additional meetings may be required; all meetings and attendees shall be approved by the EG&G Project Manager/CTR. The subcontractor shall be responsible for preparation of meeting minutes to document all meetings. Meeting minutes shall be submitted to the EG&G Project Manager/CTR no later than ten (10) working days from the date of the meeting. The subcontractor shall also prepare periodic status and update documents for submittal to EG&G as described in Section 5.0.

All deliverables and transmittals to EG&G shall also be provided by the subcontractor in electronic format. The formats provided shall be compatible with EG&G computer systems as directed by the EG&G Project Manager/CTR. Acceptable formats may include WordPerfect for text, ASCII for data, and AutoCad for maps.

EG&G may supply the subcontractor with some of the equipment that shall be required for the performance of this subcontract. Availability of equipment or services may vary; requirements should be made to the CTR in writing (10) working days in advance of the date the equipment is needed.

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5.0 DELIVERABLES/SCHEDULE

5.1 GENERAL REPORTS DATA REQUIREMENTS

The following reports and data are required for all tasks detailed in this SOW for Operable Unit 4, Solar Evaporation Ponds:

5.1.1 Project Reports

Weekly projects updates shall be submitted to the EG&G Project Manager /CTR no later than 11:00 a.m. on the last working day of each week.

Weekly Status Meetings shall be conducted for the duration of the contract with EG&G's Project Manager/CTR. These Meetings will include any accomplishments or problems that occurred during the previous week as well as the current and future status of the project. However, should a problem arise, the subcontractor must contact the EG&G Project Manager immediately.

5.1.2 Budget Reports

Budget Status Reports shall be completed by the subcontractor and submitted to the Project Manager/CTR, by the **10th** day of the **following** month for the current month's activities. **Two status reports shall be generated each month, one reflecting the Fiscal Year (FY) allocated funding and the other reflecting negotiated funding.** The report(s) shall be based on actual costs incurred. **All budget/status** report(s) shall include earned value statements that will detail the following:

Budgeted Cost of Work Performed for the period (BCWP);

Actual Cost of Work Performed for the period (ACWP);

Budgeted Cost of Work Scheduled for the period (BSWS); and

Cumulative costs to date for the above items.

Variance values shall be calculated for the above comparing actual costs versus budgeted costs and work scheduled (BCWS) versus work performed (BCWP). Values are calculated as $((BCWP - ACWP) \times 100) / BCWP$ and $((BCWP - BCWS) \times 100) / BCWS$. If these variances exceed +/- 10% for a cumulative value or +/- 20% for a monthly value, the Budget Status Report shall detail the reasons for the variance and the corrective action to be implemented. The variance reports shall include the current monthly variance report as well as a cumulative variance report. All calculations shall be completed and reported for the current month and for the year. Budgeted costs for work shall be based upon Milestone and activity schedule.

5.1.3 Invoices

Copies of subcontractor invoice/purchase documents (vender) shall be submitted with subcontractors' signature and pertains to any documentation to verify procurement. The subcontractor shall ensure daily accounting of personnel, contractors, materials & supplies procured under this contract.

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5.1.4 Master Schedule

A master schedule shall be submitted within 15 working days from subcontract award, the subcontractor shall develop a comprehensive and detailed Master Schedule which shall integrate all tasks in this SOW. The schedule shall be presented in Gant and Pert chart format. The schedule shall be presented on a Fiscal Year basis.

5.1.5 Staffing Plan

A detailed Staffing Plan (including personnel names and resumes) shall be submitted 10 days from contract award in the form of an organization chart.

5.1.6 Meeting Minutes

The subcontractor shall be responsible for attending meetings with EG&G project team members and/or regulatory agency personnel. The subcontractor shall be responsible for participating in meetings concerning any logistical coordination. The subcontractor shall prepare meeting minutes to document all meetings with EG&G project team members and agency personnel. The typed meeting minutes are due to the EG&G Project Manager within one week of the meeting date. The subcontractor shall use an appropriate electronic format such as WordPerfect for text, ASCII for data, LOGGER for log data and AUTOCAD/GIS for maps. The subcontractor shall obtain approval from the CTR for any uncertain electronic format decisions. Both a hard copy and an electronic copy (3-1/2 " disk) shall be submitted to the EG&G project manager. Project management meetings other than these detailed may be required. Meetings and attendees shall require approval by the EG&G Project Manager.

5.2 PHASE I IM/IRA PROCESS REPORTS/DATA REQUIREMENTS

5.2.1 IM/IRA Process

The following reports and data are required for the Phase I IM/IRA program:

Post Closure Performance and Assessment:

Roundtable - February 21, 1994

Draft Proposed - May 16, 1994*

Proposed - July 25, 1994*

Draft Responsiveness Summary - December 1, 1994*

Final - February 13, 1994 *

*Subject to change due to ongoing discussions with EPA and CDH

Post Closure Performance and Assessment Plan Title II Design

60% Design work package - TBD

90% Design work package - TBD

Final Title II Design work package - TBD

Post Closure Monitoring Equipment Installation:

October 1995 - September 1996

5.2.2 RFI/RI Program Support

Final Field Monitoring Plan

Preliminary Draft - January 24, 1995

Draft - February 3, 1995

Final - February 14, 1995

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5.2.3 CMS/FS Program

Project Implementation Plan

Draft - October 28, 1994
Final - November 11, 1994

Technical Implementation Plan

Final - March 23, 1995

Technical Memorandum No. 1

Preliminary Draft - January 6, 1995
Draft - January 20, 1995
Final - February 24, 1995

Technical Memorandum No. 2

Preliminary Draft - October 3, 1995
Draft - October 31, 1995
Final - December 5, 1995

CMS/FS Report

Preliminary Draft - February 27, 1996
Draft - April 11, 1996
Final - August 15, 1996

5.2.4 Report Review

The subcontractor shall provide a 30% and 60% completion update presentations to EG&G, DOE/RFO, EPA, CDH, and any other group approved by EG&G. The subcontractor shall present working maps, preliminary data, preliminary findings, etc. as approved by the Project Manager.

5.2.5 Transmittal

Transmittal of all documents to EG&G must have a written record of memos, meeting minutes or transmittal letter. Electronic copies of the final document (text and figures) shall be provided to EG&G on software compatible with that available at EG&G/RFP. Complex figures shall be in color to provide clarity. Photographs shall be used where appropriate.

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6.0 QUALITY ASSURANCES (QA) REQUIREMENTS

Work performed under this SOW is governed by the EG&G Environmental Restoration(ER) Quality Assurance Project Plan (QAPjP). The ER QAPjP complies with the requirements of EPA QAMS-005/80 and DOE Order 5700.6B which addresses ASME NQA-1.

The supplier shall perform all work in accordance with EG&G Quality Assurance program requirements. All work shall be performed under the cognizance of the responsible EG&G organization and in accordance with approved EG&G implementing procedures, or supplier procedures which have been approved by the responsible EG&G organization prior to the start of any work. The responsible EG&G organization shall review and approve all work in accordance with applicable implementing procedures.

The subcontractor shall comply with the following fundamental Quality Assurance (QA) requirements relevant to this SOW are listed below.

6.1 Quality Assurance Quality Control

6.1.1 Organization -

The authority and responsibilities of persons or organizations performing work under this statement of work shall be established, documented and submitted to EG&G ER. An organization chart identifying specific individuals by name, supported by itemized authorities and responsibilities is a suitable means of documentation.

6.1.2 Personnel Qualification -

Personnel performing technical work shall receive training and indoctrination in accordance with 3-21000-ADM-2.02, to applicable procedures, to assure proper understanding of the QA and technical requirements of this SOW before beginning work. In addition, written personnel qualification requirements shall be established for all positions performing technical work. Documented evidence of personnel training, training materials, qualification requirements, and qualifications shall be maintained and made available to EG&G for review upon request. EG&G will provide training for Quality Assurance and technical procedures.

6.1.3 Design and Control of Scientific Investigations and Processes-

Activities involving the performance of technical design, environmental sampling, characterization, and/or remediation shall be reviewed, documented, and approved by EG&G ER. All processes shall be performed to EG&G ER approved and controlled procedures or work plans except where excluded in writing by EG&G. Examples of processes include physical sampling, handling/shipping/storage, experiments, tests, and data analysis (e.g., software). Documentation describing the process, and products resulting from the process (e.g., data and technical reports) must be established well enough for process reproduction (by independent peers).

6.1.4 Control of Purchased Items and Services -

Items or services procured under this subcontract shall be performed in accordance with the requirements of the QAPjP, including retention of receipts, contracts, and any other documentation related to the integrity of the purchased product or service.

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6.1.5 Document Control -

The subcontractor shall acknowledge receipt of, and manage, EG&G plans and procedures in accordance with EG&G procedure 3-21000-ADM-06.01.

6.1.6 Identification and Control of Equipment/Items -

When applicable, the subcontractor shall ensure that correct and accepted items are used and that they are traceable through unique identifiers. Procedures describing the process shall be submitted to EG&G for approval. Activities in which personnel use measuring and test equipment shall be controlled in accordance with EG&G procedure number 3-2100-ADM-12.01. Such devices shall be controlled, calibrated, and maintained at predetermined intervals (established by the subcontractor and approved by EG&G) to ensure acceptable performance.

6.1.7 Control of Non conforming Items -

Identification and disposition of non conforming items and services shall be performed in accordance with EG&G procedure 3-21000-ADM-15.01. The control of nonconformances shall apply to all components and processes of programmatic and physical systems.

6.1.8 Corrective Actions -

Activities that identify, rectify and preclude recurrence of conditions adverse to quality shall be conducted in accordance with EG&G procedure number 3-21000-ADM-16.01

6.1.9 Inspection and Assessment -

Quality affecting activities are subject to inspection and assessments by EG&G. These assessments will be performed in accordance with EG&G procedures (e.g., 3-2100-ADM010.01 and/or -ADM-18.02). The subcontractor's work place and working records shall be accessible during normal working hours for verification or audit by EG&G or their representatives, during the performance of this contract. All completed records shall become the property of EG&G and shall be turned over to EG&G no later than sixty (60) days following the completion of the technical work.

6.2 Miscellaneous -

The supplier shall perform all work in accordance with EG&G Quality Assurance program requirements. All work shall be performed under the cognizance of the responsible EG&G organization and in accordance with approved EG&G implementing procedures, or supplier procedures which have been approved by the responsible EG&G organization prior to the start of any work. The responsible EG&G organization shall review and approval all work in accordance with applicable implementing procedures.

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The supplier shall not be permitted to:

- (1) Provide any safety-related items without prior inspection and acceptance by EG&G Quality Assurance organization.
- (2) Perform any special processes such as welding, NDE, heat treatment, plating, etc., for which acceptance is based on supplier-furnished personnel qualifications or other quality assurance criteria.
- (3) Perform inspections or tests of equipment or components for the purpose of determining final acceptance by EG&G, except for those inspections and tests conducted in accordance with approved EG&G implementing procedures or supplier procedures which have been approved by EG&G. All such inspections and tests shall be performed using measuring and test equipment verified and authorized by the Rocky Flats Metrology Lab. All work shall be performed under the direct supervision of EG&G, and witnessed by qualified EG&G personnel."

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7.0 SECURITY/BADGING REQUIREMENTS

Routine/daily access shall be required into the RFP Protected Area (PA), and specifically, the Solar Evaporation Ponds (SEP's) OU4. This shall require all field personnel to obtain an "L" or "Q" clearance. The "Request for Proposal" (RFP) shall include all pertinent forms/documentation required to obtain the appropriate clearance for general access to the SEP's. The award of these tasks should coincide with the award of the clearances to maintain progress and efficiency.

In the event that the subcontractor's FOCI has not been approved at the time of the award of the contract, then uncleared persons performing work in the Protected Area will be accompanied by escorts, provided by EG&G, in accordance with the Rocky Flats Plant Project Security Plan (GSP-005-Rev. 02).

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8.0 CHEMICAL REPORTING NOTIFICATION REQUIREMENTS

Prior to the transportation of any chemicals to the RFP site, the chemical Tracking and Control systems Division of Environmental Protection as well as the CTR shall be notified. CT&CSD will inform the subcontractor of appropriate procedures for tracking the type, quantity, storage, movement, use and final disposition of chemicals at RFP. The subcontractor shall be responsible for managing the chemicals in accordance with EG&G procedures.

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September 15, 1994
Requisition Number: P 359055

**JUSTIFICATION FOR
OUT OF ORDER TASK ROTATION
(Acquisitions Exceeding \$10,000)**

I. PROPOSED SOURCE

ERM/Geraghty & Miller, Inc.
Area 5

II. SCOPE OF WORK

A. Description of supplies or services to be procured.

The Statement of Work (SOW) for this project includes supporting the Operable Unit 4 (OU 4) hydrogeological characterization efforts and the development of a ground water remediation strategy in accordance with the Rocky Flats Interagency Agreement (IAG) and applicable RCRA and CERCLA regulations. This work shall include data review and technical consultation in support of making real-time decisions during the field investigatory process. Also, based on the data collected and analyzed from this hydrogeological investigation, a ground water remediation strategy shall be developed. The ground water remediation strategy shall be developed in accordance with the Rocky Flats IAG and applicable RCRA and CERCLA regulations. This ground water remediation strategy shall be designed based on appropriate ground water clean-up standards (health-based).

B. Schedule requirements.

All work being conducted under this SOW is being performed on a "streamlined" basis as mandated by the U.S. Department of Energy (DOE), and EG&G Management in accordance with the "Environmental Restoration 2000 Initiative." DOE RFFO has directed EG&G to complete all IAG related activities for all OU's at Rocky Flats by the year 2000. The ERM Rocky Mountain, Inc. and Geraghty & Miller, Inc. Team have been supporting EG&G for a variety of IAG activities. Therefore, this team has developed an excellent understanding and perspective of OU 4 which shall promote a more efficient and effective system for performing this work. By utilizing the ERM and Geraghty & Miller Team for this work, EG&G has estimated that at least twelve months can be eliminated from the existing IAG schedule. This amount of schedule savings shall equate to significant monetary reductions for the DOE RFFO.

III. EFFORTS TO DEVELOP COMPETITION

A. Description of efforts (market survey's ect.) to identify additional sources and develop competition for these materials/services or justification for not searching for or developing other sources.

Other sources were not considered for this work because of the specific location of the proposed work and an immediate need to implement the new scope. ERM and Geraghty & Miller is currently supporting the IAG OU 4 Phase I Program, and it would create operational difficulties and significant schedule delays (6-8 months) if another vendor/source is utilized for these IAG related activities.

B. Effects of this procurement on future acquisition (or follow-on work) of the materials/services.

None

IV. EXCLUSIVE CAPABILITY FOR SOLE SOURCE

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- A. Description of proposed source's capabilities and/or personnel to perform this work which are unique, exclusive, or otherwise not available elsewhere.

Upon reviewing the MTS proposals it was discovered that ERM and Geraghty & Miller is the only subcontractor that could perform the specific scope of work within the scheduling constraints. ERM and/or Geraghty & Miller employs an internationally renowned scientist, Dr. Lorne G. Everett, Chief Research Hydrologist and Vice President for Geraghty & Miller. Dr. Everett is the world's expert in ground water characterization and remediation and Vadose Zone monitoring and remediation. Dr. Everett has authored nine books and over 120 professional papers on the subject of ground water monitoring and remediation and Vadose Zone monitoring and remediation. Dr. Everett is the author of the EPA Position Document entitled "Vadose Zone Monitoring for Hazardous Waste Sites", and two federally mandated Guidance Documents entitled:

1. "Unsaturated Zone Monitoring for Hazardous Waste Land Treatment Units"
2. "Permit Writers Guidance Manual for Monitoring Unsaturated Regions of the Vadose Zone at RCRA Subtitle C Facilities."

The RFI/CMS Program shall be subjected to these types of requirements during the ground water remediation program. Therefore, it would be in EG&G's best interest to utilize this individual and general support services from ERM and Geraghty & Miller which are not available from other vendors from the MTS Program.

V. ESTIMATED COST

- A. A detailed breakdown of the cost estimate is required with the requisition, therefore, only the total estimated price or cost is provided in this section.

TOTAL PRICE OR COST \$3,500,000

CERTIFICATION AND SIGNATURES:

I certify that the information presented in this justification is current and factual to the best of my knowledge and belief.

Randy T. Osg
Signature of Originator

9/16/94
DATE

Randy T. Osg
Signature of Originator
Requesting Originator

9/16/94
DATE

Procurement Concurrence

DATE

07/32

EG&G ROCKY FLATS, INC.
PURCHASE REQUISITION (This is not an Order)

IMPORTANT! READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.

NO. P 359055

SHADED AREAS FOR PURCHASING DEPARTMENT USE ONLY

THE REQUISITIONER IS RESPONSIBLE TO:

1. Estimate the total cost, as \$ 3,500,000, for the item(s) recorded below.
- () 2. Route the requisition to Industrial Hygiene if an item is a hazardous material (Reference H&S Manual 9.07).
Signature: _____
- () 3. If requisition is for a service to be performed on plantsite, coordinate with cognizant Building Manager or Area Safety Engineer as required.
- () 4. Record the Responsibility Code as appropriate.
- () 5. Obtain signatures in accordance with Plant Policy 7-6 and Instructions.

DATE 9/15/94
SUGGESTED SUBCONTRACTORS:
ERM Rocky Mountain
(MTS Area 5)

Telephone No.: _____
Enter Previous Purchase Order No.: P216624

P.O. PREFIX _____ PURCHASE DOCUMENT NO. MTS 343790TB3

SIGNATURE AUTHORIZES EXPENDITURES TO THE MAXIMUM THRESHOLD UNLESS OTHERWISE INDICATED	TO \$100,000 ENTER "NOT TO EXCEED" AMOUNT	PRINT NAME <u>R.T. Ogg</u>	TO \$500,000 ENTER "NOT TO EXCEED" AMOUNT	PRINT NAME <u>S. R. Keith</u>
	WORK PRG. MGR. <u>R.T. Ogg</u>	PRINT NAME <u>R.T. Ogg</u>	Over \$500,000 ENTER "NOT TO EXCEED" AMOUNT	PRINT NAME <u>S. R. Keith</u>

ISSUED TO: _____ FOLLOW-UP CODE 99 VENDOR NO. _____ P O CODE _____ DATE (FOR SG STIGER)

ROUTER CODE _____ SHIP VIA _____ STATE OF MFG. _____ F.O.B. POINT _____ F.O.B. CODE _____

RESP CODE _____ PAYMENT TERMS _____

ROCKY FLATS CODE ID	ITEM NO	SIC CODE	ITEMS/SERVICES DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE	CONTRACT DELIVERY DATE
PL HMC SAL <u>33 N/A N/A</u>			<u>Technical Support for</u>					
ROCKY FLATS CODE ID			<u>Operable Unit 4 - IAG</u>	<u>1</u>	<u>LT</u>			
PL HMC SAL			<u>FY 94: \$20,000</u>					
ROCKY FLATS CODE ID			<u>FY 95: \$2,239,000</u>					
PL HMC SAL			<u>FY 96: \$1,200,000</u>					
ROCKY FLATS CODE ID								
PL HMC SAL								

Work Scope/Spec. Classified? Yes No "Q" Cleared Workers Req'd? Yes No Delivery Date 9/23/94 Desired Required Justification Required Priority Rating (If DX, Reference Authorizing Document) DO DX

ORG CODE	ITEMS	ITEMS	COST ELEMENT	COST CENTER	CHARGE NUMBER	DELIVER TO:	BLDG	DOOR	REQUISITIONER	COPY OF P.O. TO:
<u>11300</u>	<u>1</u>		<u>A5H0410</u>	<u>3602</u>	<u>FY94 98960800</u> <u>FY95 (TRB)</u>	NAME: <u>R.T. Ogg</u> DEPT: <u>SPP</u> PHONE: <u>8608</u>	<u>080</u>		NAME: <u>R.T. Ogg</u> DEPT: <u>SPP</u> BLDG: <u>080</u> PHONE: <u>8608</u>	NAME: _____ DEPT: _____ BLDG: _____ PHONE: _____

IM/IRA Program

TASK 1; Technical Consultation	\$9,000
TASK 2; Post Closure Monitoring Plan	\$50,000

RFI/RI PROGRAM

TASK 4; DIRECT PROJECT SUPPORT	\$94,000
TASK 5; DATA REVIEW/TECHNICAL CONSULTATION	\$96,000
TASK 6; FIELD TECHNICAL SUPPORT	\$220,000
TASK 7; FINAL FIELD SAMPLING PLAN	\$60,000
RFI/RI Program Subtotal	\$470,000

CMS/FS PROGRAM

TASK 8; DATA BASE MANAGEMENT	\$240,000
TASK 9; Integrated Modelling	\$260,000
TASK 10; CMS/FS Technical Implementation Plan	\$60,000
TASK 11; CMS/FS Alternatives Development	\$940,000
TASK 12; CMS/FS Report Preparation	\$450,000
TASK 13; Conceptual Design	\$180,000
TASK 14; Direct Project Support	\$380,000
OTHER DIRECT COSTS (ODC)	\$420,000
CMS/FS Program Subtotal	\$2,930,000

TOTAL COST ESTIMATE= \$3,459,000

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PREPROCUREMENT ORGANIZATIONAL CONFLICTS OF INTEREST
FACT SHEET

This fact sheet is designed to provide an early recognition of possible organizational conflicts of interest (OCI) problem areas in relation to the planned procurement. The three sections of the Fact Sheet (Section A, Procurement Description; Section B, Potential Organizational Conflicts of Interest Problem Areas; and Section C, Special Instructions and Pertinent Information) are to be completed by the requisitioner at the time each procurement request is initiated if the contract will involve one or more of the following categories. See Department of Energy Acquisition Regulation (DEAR) Subsection 909.570-7 (Check the applicable category)

- [] EVALUATION SERVICES OR ACTIVITIES (Any work or effort, the principal purpose of which involves the independent study of a technology, process, product, or policy which entails the assessment, appraisal, or survey of such technology, process, product or policy.)
- [] TECHNICAL CONSULTING AND MANAGEMENT/SUPPORT SERVICES AND PROFESSIONAL SERVICES (Any work or effort, the principal purpose of which is to provide internal assistance to any program element or other organizational component of EG&G in the formulation or administration of its program, projects, or policies, which requires the contractor to be given access to internal or proprietary data. Such services typically include assistance in the preparing of program plans: evaluation, monitoring, or review of contractor's activities or proposals submitted by prospective contractors: preparation of preliminary designs, specifications, or statements of work.)
- [] Research and development conducted pursuant to the authority of the Federal Energy Administration Act of 1974 (Pub. L 93-275), as amended.
- [] Services which, by their nature, require special OCI coverage (if this category is checked, please explain in Section C)

The Fact Sheet is to be forwarded with the purchase requisition to Purchasing. Purchasing will utilize the Fact Sheet as their reference to elicit complete and accurate information from the offeror concerning a possible OCI. This information, in turn, is used by the Buyer to complete the OCI Information Abstract.

SECTION A
PROCUREMENT DESCRIPTION

1. Purchase Requisition No. P357165		
2. EG&G's Organization(s) to be served by the Contractor:		
(a) Solar Panels Project (SPP)	(e)	
(b)	(f)	
(c)	(g)	
(d)	(h)	
3. BRIEF DESCRIPTION OR PURPOSES OF PROCUREMENT AND USES OF CONTRACTOR SERVICES AND WORK PRODUCTS: Support for the OU4 Phase II Program		
4. IF THIS IS A FOLLOW-ON EFFORT TO ANOTHER EG&G CONTRACT, PLEASE STATE:		
(a) Contract No. MTS22544456/MTS343790TB3	(b) Completion Date 9/30/96	(c) Contract Amount \$1,413,026
5. BRIEF DESCRIPTION OF WORK: The work shall be required for the OU4 Phase II Program in accordance with the Rock Flats Plant Interagency Agreement (IAG)		

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SECTION B
 POTENTIAL ORGANIZATIONAL PROBLEM AREAS

Listed below are factors used to determine whether the possibility of an OCI situation exists in the context of the planned procurement action. If a factor indicating a possible OCI problem is present to any degree, your response should be affirmative. Use additional sheets if necessary.

Indicate answer by placing "X" in proper column and, if the answer to any or the following three questions (1, 2, or 3) is "Yes," complete Question 4.	YES	NO
1. Will the work involve the preparation of specifications?		X
2. Will the work involve the preparation of a Statement of Work?		X
3. Will the work involve the formulation of a detailed plan for specific approaches or methodologies which are to be employed in or incorporated into future procurements or access to such specifications, statements of work, or plans?		X
4. Briefly state the relationship between 1, 2, and 3 and any possible future procurement(s). Indicate whether other contractors, EG&G personnel, or third parties are to assist the contractor in the development of Questions 1, 2, or 3 (above). N/A		
5.a. Will Contractor provide software? YES () NO (X)	5.b. Will the use of the Software require the acquisition of new ADPE? YES () NO (X)	
6. Will performance of the contract provide access to Internal Information Concerning DOE or EG&G plans or programs, and related opinions, clarifications, interpretations and positions? YES () NO (X)		
6.a. If yes, identify categories of information and the program elements involved: N/A		
7. Will performance of the contract provide access to confidential or proprietary information of EG&G or others (particularly private institutions, corporations, and individuals) including Technical, Business or Financial Information? YES () NO (X)		
7.a. If yes, identify categories of information: N/A		
8. Does performance of the Contract involve Advice or Assistance on Regulatory Matters or Provide Access to Internal DOE Regulatory Information? YES () NO (X)		
8a. If Performance of the Contract will provide access to Internal DOE Regulatory Information, Please Describe such information and its use for Regulatory Purposes: N/A		
9. Will the Contractor's Work Product be Employed in connection with the Formulation of DOE or EG&G Policy Plans or Strategies? YES () NO (X)		
9a. If Yes, Please Describe the Work Products and the Manner in which they will be used. N/A		
10. Will the Contractor's performance include the review, Analysis, or Evaluation of the Services or Products of DOE or EG&G Contractors? YES () NO (X)		
10a. If yes, briefly identify such services and products: N/A		

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