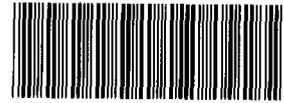


SA100



000064320

STATEMENT OF WORK

FOR

**SOLAR EVAPORATION PONDS
OPERABLE UNIT NO. 4
INTERAGENCY AGREEMENT
PHASE I RFI/RI
and
IM/IRA STREAMLINE PROGRAM**

Prepared by:

**EG&G Rocky Flats, Inc.
Environmental Restoration Management
Solar Pond Projects
Rocky Flats Plant
Golden, Colorado**

October 1994

REVISION 5

Document Classification
Review Waiver Per
Classification Office

ADMIN RECCRD

IA-A-000744

1/28

<u>REV #</u>	<u>DESCRIPTION OF CHANGE</u>	<u>APPROVAL</u>	<u>DATE</u>
0	Original Issue	R. T. Ogg	08-16-93
1	Streamline Modifications Per Dispute Resolution	R. T. Ogg	11-08-93
2	Deliverable Extension in Accordance w/ IAG Extension	D. R. Ericson	04-08-94
3	Sludge, Geotechnical, Utilities, Early Field Work, and TIII Services. Civil Gate Inclusion	D. R. Ericson	05-17-94
4	Negotiation updates to removal of TIII services, Deliverable Dates	KCL for J. A. Ledford	09-08-94
5	TIII Services Thru FY96, Revision of Title II Design for 964 Removal, Sludge Mixed with Dirt/Cement/Fly Ash	J. A. Ledford	09-23-94

1.0 OBJECTIVE

The objective of this Statement of Work (SOW) is to develop a "streamline" 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). 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 Public Health and Environment (CDPHE) on January 22, 1991. All work performed under this Statement of Work (SOW) shall comply with applicable laws, regulations, and policies.

2.0 SCOPE

The following work shall support the IM/IRA Process:

- 1) IM/IRA Decision Document;
- 2) Public Comment Period;
- 3) Regulatory Support;
- 4) Applicable Relevant and Appropriate Requirements (ARARs) Development;
- 5) Modeling Support;
- 6) Conceptual Design (enhanced);
- 7) Pond Closure Risk Analysis/Baseline Risk Assessment;
- 8) Data Evaluation (RFI/RI, Historical, Sludge etc.) and Data Management/GIS;
- 9) IM/IRA Decision Document Public Responsiveness Summary;
- 10) IM Environmental Assessment;
- 11) Phase I IM/IRA Implementation Document (Title II);
- 12) Final Title II Design with Construction Schedule;
- 13) Options Analysis - Pond Closure;
- 14) Technical Review Group;
- 15) IM/IRA Review Cycles; and
- 16) Incorporation of Supplemental Documentation/Reports

The subcontractor shall support the IM/IRA Program as referenced. The overall objective of this scope of work shall be to close the Solar Evaporation Ponds in accordance with the IAG/Colorado Hazardous Waste Act regulations.

3

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 CDPHE 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:

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/Interim Remedial 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., 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

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)

4.0 TECHNICAL REQUIREMENTS/TASKS

4.1 GENERAL

4.1.1 The subcontractor shall provide all materials, personnel, and services required to prepare the Phase I Final IM/IRA Decision Document and final Title II design package. 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 sufficient and of adequate quality to meet the study objectives and make sound decisions with reasonable confidence. EPA and CDPHE comments pertaining to the requirements in this SOW shall also be adhered to in completing the reports.

4.1.2 The Subcontractor shall provide hours estimates for the tasks in general accordance with Attachment "A" of this SOW.

4.2 DOCUMENTS/TASKS

4.2.1 IM/IRA Decision Document

The subcontractor shall prepare an Interim Measure/Interim Remedial Action (IM/IRA) Decision Document in accordance with the terms and conditions of the Rocky Flats Plant (RFP) Interagency Agreement (IAG) signed by the U.S. Department of Energy (DOE), U.S. Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE) on January 22, 1991. The draft proposed Phase I IM/IRA Decision Document shall be prepared in accordance with paragraphs 15 and 150 of the RFP IAG, and consistent with guidance for implementing interim actions under remedial authority provided in the preamble to the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) 55FR 8704, March 8, 1990 and the Colorado Hazardous Waste Act (CHWA) Closure requirements. The draft proposed Phase I IM/IRA Decision Document shall provide the information required to recommend an alternative consistent with the CDPHE closure regulations. The IM/IRA shall also include the closure of RCRA Units #21 (Building 788), #48 (Pondcrete process equipment at Building 788) and #24 (Building 964), disposition of pond sludge, and disposition of pondcrete.

The draft Phase I IM/IRA Decision Document shall address all hazardous substance source areas with risk levels greater than 10^{-6} evaluated at the source. The Phase I RFI/RI Report and/or OU4 Baseline Risk Assessment (BRA) shall define the source areas exhibiting a risk level of 10^{-6} . The proposed IM/IRA Decision Document shall be a concise document that: (1) indicates the objectives of the IM/IRA (Remediation of source and soils, pond sludges, processed pondcrete, closure of RCRA Units); (2) discusses alternatives, if any, that were considered; (3) provides the rationale for the alternative selected; (4) presents EPA/CDPHE approved Applicable, Relevant and Appropriate Requirement (ARAR) and; (5) discusses how the interim remedy selected will be consistent with the final remedy.

The subcontractor shall be required to incorporate all EG&G, DOE, EPA, and CDPHE comments into the draft and final proposed IM/IRA Decision Document and generate a comment responsiveness summary.

4.2.1.1 The subcontractor shall incorporate Individual Hazardous Substance Site (IHSS) 176 into the Decision Document. (Building 964 is located contiguously with IHSS 176; for tasks associated with B964, see paragraph 4.2.1.2.) The IHSS shall be remediated and contaminated materials handled in an analogous manner with the IHSS 101. The subcontractor shall use existing data, provided by EG&G, for this effort. Specific elements of the Decision Document to be modified to include IHSS 176 include Contaminants of Concern, Preliminary Remediation GOals, figures including maps and diagrams (the

6

subcontractor may propose revisions to existing figures or additional, supplemental figures to incorporate IHSS 176 based on cost and schedule effectiveness), RFI/RI data presentation, conceptual design, and narratives.

Incorporation of IHSS 176 shall include reconsideration of the most effective cap footprint, design of the cap such as slope ratios, and areas of clean closure within the IHSSs.

No unique deliverables are required for this scope element: page changes to the Draft DD prior to its release as the Proposed DD shall provide documentation of the scope element.

4.2.1.2 The subcontractor shall incorporate the closure of Unit 24 and removal of Building 964, which houses Unit 24, into the Decision Document (hereafter, Unit 24 and Building 964 will be referred to simply as "B964"). Building 964 concrete foundation and containment materials shall be handled in an analogous manner with B788. The subcontractor shall use the same performance standards as were used for B788 or shall propose specific changes if required. Specific elements of the Decision Document to be modified include figures including maps and diagrams (the subcontractor may propose revisions to existing figures or additional, supplemental figures to incorporate IHSS 176 based on cost and schedule effectiveness), and narratives. The DD conceptual design shall also be modified to account for B964, but the Scope of Work does not include movement of materials stored in B964 nor design of the B964 removal activities.

No unique deliverables are required for this scope element: page changes to the Draft DD prior to its release as the Proposed DD shall provide documentation of the scope element.

4.2.1.3 The scope of the remediation wastes from pond sludge to be incorporated into the DD is expanded to include previously treated pond sludge in inventory at Rocky Flats (this material is commonly called pondcrete). The subcontractor shall use existing data, provided by EG&G, for this effort. Specific elements of the Decision Document to be modified to include Contaminants of Concern, Preliminary Remediation Goals, figures including maps and diagrams, data presentation, conceptual design, permitting sections, and narratives. The Scope of Work does not include handling or treatment of the wastes; the subcontractor shall, however, participate in establishment of acceptance criteria for the wastes, identification of interactions between the remediation design and waste placement, documentation of joint interactions, and participative problem solving to achieve an overall simple approach and design for the total project.

Additional modeling is needed to support incorporation of the added pond sludge scope (see paragraph 4.2.5).

No unique deliverables are required for this scope element: page changes to the Draft DD prior to its release as the Proposed DD shall provide documentation of the scope element.

4.2.1.4 The subcontractor shall evaluate a revised approach to remediation of the Buffer Zone portion of OU 4: Viewing the Buffer Zone portion as a separate source area for the calculation of COCs and PRGs. The October, 1994 Final Programmatic PRG document shall be used in the evaluation; the subcontractor may suggest additional references. If supported by the data and the evaluation, and found to be appropriate by EG&G, the subcontractor shall prepare a white paper documenting the analysis suitable for submittal to the DOE and the regulators for their concurrence, and shall remove the remediation of the BUffer Zone area from the DD if so directed.

4.2.2 Public Comment Period

Subsequent to the IM/IRA Decision Document being revised in accordance with the above referenced agencies comments, the CDPHE/EPA shall open a public comment period for the proposed IM/IRA Decision Document to satisfy the required public comment period of 60 days.

Subsequent to the public comment period for the IM/IRA Decision Document, the subcontractor shall develop a IM/IRA Responsiveness Summary in accordance with the RFP IAG and EG&G, DOE, EPA, and CDPHE. After receipt of EG&G, DOE, EPA, CDPHE and the public comment concerning the proposed IM/IRA Decision Document, the subcontractor shall submit a Final IM/IRA Decision Document and Responsiveness Summary for EG&G, DOE, EPA and CDPHE review and approval in accordance with paragraph 150 of the RFP IAG.

4.2.3 Regulatory Support

4.2.3.1 The subcontractor shall provide regulatory support relative to the IM/IRA process. In general, an emphasis shall be placed on RCRA, CERCLA, Land Disposal Regulations (LDRs), CHWA and DOE Orders. Regulatory analysis shall be required for all options evaluated.

4.2.3.2 The Subcontractor shall provide technical consultations with a regulatory emphasis to resolve questions or concerns associated with the disposition of pond sludge, pondcrete, and other remediation wastes as part of the interim action and closure of affected RCRA units. The level of effort expected is approximately 16 hours per week for the duration of Title II design and approval.

4.2.4 Applicable Relevant and Appropriate Requirements (ARARs) Development

The subcontractor shall be required to prepare an EPA approved ARAR analysis in support of the IM/IRA Decision Document in accordance with the IAG.

4.2.5 Modeling Support

4.2.5.1 The subcontractor shall be required to provide numerical modeling support, if appropriate. For example, in the event a migration barrier is selected for the preferred alternative, the subcontractor shall be required to apply the EPA approved, "Hydrologic Evaluation Landfill Performance" (HELP) model, or comparable/equivalent model.

4.2.5.2 The subcontractor shall provide modeling services as required to support development of design criteria such as waste/soil ratios, to support development of waste acceptance criteria, and to validate results of simpler models. The subcontractor shall interact as required with other subcontractors responsible for waste form development. Such interaction shall include, at a minimum, a weekly telephone conference with the contractor and its waste form subcontractors, normal correspondence to document the work and to transmit deliverables, expert assistance to the other subcontractors in understanding model parameters and interpretation of results, and execution of the models as follows:

- One (1) run with literature values for input parameters (values supplied by the waste form subcontractor(s))
- Five (5) runs with input parameters as specified by the wastes form subcontractor(s) (used to iteratively optimize the waste forms)
- One (1) run with empirical values supplied by the waste form subcontractor(s) for the final waste forms
- Other such runs as the subcontractor shall consider appropriate, prudent, or necessary

The subcontractor shall deliver, after the final model run with empirical values, a set of maximum values for leachate concentration for each of the key contaminants of concern. These values will serve as part of the acceptance criteria for the waste forms.

4.2.6 Conceptual Design

The subcontractor shall be required to prepare a conceptual design in support of the preferred alternative selected in the IM/IRA Decision Document.

4.2.6.1 GENERAL PROVISIONS

4.2.6.1.1 The Subcontractor shall provide an Enhanced Conceptual Design at a level of detail which would allow Title II Design to start after submitting the Enhanced Conceptual Design. It is anticipated the engineered barrier level would be approximately 30 to 40% of the final Title II Design. The sludge/pondcrete level of detail shall be as provided by the Contractor.

4.2.6.1.2 The Subcontractor shall provide all materials, personnel, facilities and services required to provide the engineering and design required by this SOW in accordance with the A-E requirements listed in the EG&G Rocky Flats Inc. Design Criteria For Engineering and Architectural Services, DOE Order 6430.1A "General Design Criteria", and DOE Order 4700.1

4.2.6.1.3. Subcontractor shall be responsible for correcting any and all impacts to other facilities, structures, systems, and components impacted as a result of this project.

4.2.6.1.4. The Conceptual Design package shall undergo a plantwide review by the Contractor. Review comments and resolutions of comments shall be incorporated into the packages by the Subcontractor after approval by the Contract Technical Representative (CTR). The Subcontractor shall prepare a written summary of all comments and resolutions from the reviews using the example comment/resolution form identified in the COEM. The Subcontractor shall supply 30 bound copies to the CTR for all EG&G plantsite reviews. All drawings submitted for review shall be "B" size or larger.

4.2.6.1.5. The Subcontractor shall be responsible for performing drawing searches at Rocky Flats Plant or the Federal Center in Lakewood, CO as necessary to obtain background information required to support the design effort.

4.2.6.1.6. The Subcontractor shall be responsible for including as part of the Enhanced Conceptual Design the Post Closure Care and Monitoring requirements which will be provided by the CTR. This effort will consist of the following:

a)The CTR shall provide the specific design requirements for the Post Closure Care and Monitoring equipment to the Subcontractor.

b)The Subcontractor shall be responsible for providing any ancillary equipment (electrical power services, telephone lines, structural supports,etc.) required for the operation of the Post Closure Care and Monitoring deliverables provided by the CTR.

c)The Subcontractor shall be responsible for including the Post Closure Care and Monitoring deliverable into the IM/IRA document and the Enhanced Conceptual Design.

d)The Subcontractor shall prepare all comments and responses associated with the Post Closure Care and Monitoring portion of the package. This includes all plantsite reviews and the public comment/response reviews. Any question relating to the Post Closure Care and Monitoring portion of the package shall be provided in writing to the CTR a minimum of two weeks prior to the date when the response is required.

4.2.6.2 REQUIREMENTS

4.2.6.2.1 Sufficient design must be performed by the Subcontractor during Enhanced Conceptual Design work to establish the design basis as described in Section 4.2.6.3, to accurately develop project costs and schedules in addition to providing the general arrangement plans and drawings. Examples are layouts, utility routings, anticipated grading/topography, one-line electrical drawings, and equipment size.

4.2.6.2.2. The Subcontractor shall prepare a list of the anticipated construction specifications in Construction Specification Institute (CSI) format.

4.2.6.2.3. The Subcontractor shall identify equipment specifications for all major equipment anticipated and provide schedule requirements for procurement of any equipment which may require long-lead time.

4.2.6.2.4. The Subcontract shall identify quality assurance requirements that may be applicable to the project.

4.2.6.2.5. The Subcontract shall submit a Power Modification Request (PMR) to the EG&G Plant Electrical Design Engineering (PEDE) department for the proposed power changes. Subcontractor shall consult with PEDE when evaluating alternative power options and obtain an approved PMR from PEDE.

4.2.6.2.6. Subcontractor shall prepare all drawings to support the design basis document and Enhanced Conceptual Design. All drawings shall be prepared according to COEM 6.6.2, "Engineering Drawing Control". The following requirements apply to all drawings produced by the Subcontractor for this project.

1. In the event that the Subcontract is terminated prior to completion of the project, Subcontractor shall provide to Contractor, at no additional charge, all documentation relating to the project such as hard copies and CAD/CAE tapes, disks, or other electronic media.

2. Subcontractor shall deliver all final drawings to the CTR in both hard copy and in electronic format in the below listed RFP standard CAD/CAE system format.

AUTOCAD

a) Operating System - Release 11 or higher operating on an IBM personal computer or 100% compatible.

b) Files - All AUTOCAD files are to be delivered to the CTR.

c) Media - The electronic format shall be delivered on 3.5 inch, 1.44MB or higher density disks. The file names and method used to create the media shall be on a label attached to the disks. An index of file names and descriptive text shall be provided.

3. Subcontractor shall ensure that the proposed CAD/CAE layering, drafting conventions, library parts, library standards, fonts, etc., are approved by the CTR before starting any CAD/CAE work. The CTR will coordinate the above information with Engineering Technical Services department to ensure standardization and compatibility.

4. Any CAD/CAE drawing produced by the Subcontractor on a system other than the one listed in this SOW shall be converted by the Subcontractor to the RFP standard listed. Any additional requirements or costs associated with the conversion process shall be borne by the Subcontractor.

4.2.6.2.7. Subcontractor shall prepare a Enhanced Conceptual Design project cost estimate in accordance with FE Manual 009 or current revision, DOE Order 4700.1, and COEM Section 6.1.5. Attachment 1. The cost estimate shall include estimates for construction labor, equipment, material quantities, the identification of long-lead time procurement items, and potential labor or material supply problems. Subcontractor shall consult with EG&G Rocky Flats Cost Estimating Department for guidance prior to initiation of work on the cost estimate. The cost estimate shall include quantities, unit costs, identification of originating organizations, basis of the estimate, and an explanation of unusually high or low costs. Subcontractor shall update the Enhanced Conceptual Design cost estimates based on any changes during the review process.

4.2.6.2.8. Text, Spreadsheets, Schedules. Subcontractor shall deliver to the CTR 2 sets of labeled 3.5 inch, 1.44MB or higher density disks containing all "non-drawing" documentation for the project such as typed text, schedules, and cost estimates. The software used and disks shall be 100% IBM compatible. Typed text shall be produced on "Wordperfect" version 5.0 or higher software. All software used for other items shall be subject to CTR approval; general guidelines are that all other software shall be industry standard and not specialty software.

4.2.6.2.9. The Subcontractor shall provide one typed copy of responses of all review comments to comments to the CTR for approval within 5 working days of the meeting end.

4.2.6.2.10 The Subcontractor shall incorporate into the closure design a method to incorporate approximately 13,000 to 23, 000 cubic yards of treated pond sludge and pondcrete material. The Contractor will provide all process equipment and support utilities to treat the sludge and pondcrete material.

4.2.6.11 The Subcontractor shall provide written discussions regarding placement of the pond sludge and pondcrete material into the closure design. The Contractor shall make the project files which contain the pond sludge and pondcrete information available for the Subcontractor.

4.2.6.12 The subcontractor shall make provisions for inclusion of interim derived materials generated as a result of the OU-4 investigations. The approximate volume is expected to be a minimum of 200 drums.

4.2.6.3 Design Basis Document

4.2.6.3.1. The Subcontractor shall provide a Design Basis Document which identifies the items listed below with the final Enhanced Conceptual Design Review:

4.2.6.3.2. The Subcontract shall provide a general description of work to be performed including a comprehensive statement of the purpose of the facility, the location, and the overall concept and layout. General arrangement plans and drawings shall be referenced and attached as necessary.

4.2.6.3.3. An explanation and justification of the basis used to establish the size, capacity, and type of equipment for the design. The justification will include calculations, equipment specifications, user requirements, applicable codes/regulations, logic used in reaching conclusions, and any other pertinent information as needed to document and justify all aspects and components of the design. The design logic of the system and an overview of why the system was designed as shown shall be included.

4.2.6.3.4. A preliminary establishment of System Categories and Functional Classifications. This establishment shall be in accordance with COEM 6.3.6, "DOE General Design Criteria Application and Classification of Systems".

11

4.2.6.3.5. The Subcontractor shall provide all geotechnical investigation services required to provide site specific data required to complete the interim measure / interim remedial action. It is anticipated that the analysis would consist of 5 bore holes, with the following analytic analysis performed: 14 triaxial or direct shear tests, 2 consolidation tests, 7 Atterberg Limits tests, 17 moisture and density tests, 3 specific gravity tests, 7 gradation tests and three California Bearing Ratio tests (to be taken for the vehicle access road through the PSZ). The subcontractor shall submit the proposed work plan to the CTR for approval prior to implementation. The Contractor shall provide the construction management and security escorts required to complete the task. The results/recommendations of the geotechnical engineering investigation shall be provided in the design basis document.

4.2.6.3.6. Results of the power usage surveys which indicate the anticipated additional capacity required or the decrease in loads.

4.2.8 Data Evaluation

The subcontractor shall be required to evaluate all OU4 and existing SEP data applicable to supporting the IM/IRA process. At a minimum, the subcontractor shall be required to utilize the OU4 Phase I RFI/RI, historical, and previous investigations data to evaluate/select a remedial technology for closure of the Solar Evaporation Ponds.

4.2.9 IM/IRA Decision Document and Public Responsiveness Summary

The subcontractor shall be required to support the public comment period associated with the IM/IRA Decision Document. This shall include, but may not be limited to, development of slides/overheads, attending public meetings and addressing questions, preparing narrative description of the selected remedy, etc. In addition, the subcontractor shall be required to prepare a "IM/IRA Decision Document Public Responsiveness Summary" in accordance with the RFP IAG. The responsiveness summary shall become an integrated component of the IM/IRA Decision Document.

4.2.10 Environmental Assessment (EA)

The subcontractor shall perform a National Environmental Policy Act (NEPA), Environmental Assessment (EA) that shall be integrated into the IM/IRA Decision Document. Guidance for performing the EA shall be taken from the integration of NEPA, CERCLA, and RCRA for activities under the Interagency Agreement at Rocky Flats Plant".

4.2.11 Phase I IM/IRA Implementation Document (Title II Design)

The subcontractor shall be required to develop a Phase I IM/IRA Implementation Document (Title II) in accordance with the RFP IAG. The Phase I IM/IRA Implementation Document/Title II Design shall reflect appropriate percent complete (85% - 95%).

4.2.11.1 The subcontractor shall incorporate IHSS 176 into the Title II Design per the Decision Document tasks (paragraph 4.2.1.1).

Incorporation of IHSS 176 shall include reconsideration of the most effective cap footprint, design of the cap such as slope ratios, and areas of clean closure within the IHSSs.

No unique deliverables are required for this scope element: The implementation Document/Title II Design shall provide documentation of the scope element.

12

4.2.12 Final Title II Design with Construction Schedule

The subcontractor shall be required to revise the Phase I IM/IRA Implementation Document/Title II Design in accordance with EPA/CDPHE comments and prepare a construction schedule. This document shall be prepared in accordance with the RFP IAG. The Final Title II Design Document shall reflect appropriate percent completion. The construction schedule shall be developed in accordance with the IAG schedule. The final Title II design drawings shall be stamped and approved by a registered professional engineer.

4.2.12.1 General

4.2.12.1.1. The Subcontractor shall provide a final Title II Design package for a fixed price construction contract which shall include the "Division 1- General Provisions" and a the Procurement boiler plate sections which will be provided by the CTR. The Subcontractor shall provide twenty-five (25) copies of the final Title II deliverable with full size, "D" drawings, and twenty-five (30) copies of the final Title II drawings ("B" size) and specifications without the procurement boiler plate. All final deliverables shall be bound.

4.2.12.1.2 The Subcontractor shall provide all materials, personnel, facilities and services required to provide the engineering and design required by this SOW in accordance with the A-E requirements listed in the EG&G Rocky Flats Inc. Design Criteria For Engineering and Architectural Services, DOE Order 6430.1A "General Design Criteria", and DOE Order 4700.1

4.2.12.1.3. The subcontractor shall be responsible for correcting any and all impacts to other facilities, structures, systems, and components impacted as a result of this project.

4.2.12.1.4. The Title II Design package shall undergo a 60% and 90% plantwide review by the Contractor. Review comments and resolutions of comments shall be incorporated into the packages by the Subcontractor after approval by the Contract Technical Representative (CTR). The Subcontractor shall prepare a written summary of all comments and resolutions from the reviews using the example comment/resolution form identified in the COEM. A minimum of twenty-five bound (25) copies shall be provided to the CTR for all plantwide reviews.

4.2.12.1.5. The Subcontractor shall be responsible for performing drawing searches at Rocky Flats Plant or the Federal Center in Lakewood, CO as necessary to obtain background information.

4.2.12.1.6. The Subcontractor shall be responsible for including as part of the Title II Design the Post Closure Care and Monitoring requirements which will be provided by the CTR. This effort will consist of the following:

- a) The CTR shall provide the specific design requirements for the Post Closure Care and Monitoring equipment to the Subcontractor.
- b) The Subcontractor shall be responsible for providing any ancillary equipment (electrical power services, telephone lines, structural supports, etc.) required for the operation of the Post Closure Care and Monitoring deliverables provided by the CTR.
- c) The Subcontractor shall be responsible for including the Post Closure Care and Monitoring deliverable into the IM/IRA document and the Title II Design.
- d) The Subcontractor shall prepare all comments and responses associated with the Post Closure Care and Monitoring portion of the package. This includes all plantsite reviews and the public comment/response reviews. Any question relating to the Post Closure Care and Monitoring portion of the package shall be provided in writing to the CTR a minimum of two weeks prior to the date when the response is required.

4.2.12.1.7 The Subcontractor shall provide a separate fixed price Title II design package for the general site improvements around the OU-4 project site. This package shall include any OU-4 relocated utilities, utilities for contractor trailers, construction fence installation around the project site, and other construction related tasks that can be accomplished before final approval of the IM/IRA. The Title II package shall be completed no later than ninety days (90 days) after the notice to proceed has been provided, or as otherwise directed, in order to expedite the start of construction date for Phase I.

4.2.12.1.8 The subcontractor shall incorporate IHSS 176 into the Title II Design and construction schedule.

4.2.12.2 Requirements

4.2.12.2.1. The Subcontractor shall prepare all calculations in accordance with COEM 6.4, "Design Calculations". Subcontractor shall first establish System Categories and Functional Classifications in accordance with COEM 6.3.6 to determine the type of calculation package required. Optional calculations listed in COEM 6.4 shall be performed by the Subcontractor.

To clarify the method for issuing calculations, as described in COEM 6.4, the Subcontractor shall:

- prepare the calculation package with separate sections for each of the following engineering disciplines; civil, architectural, structural, mechanical, electrical, and alarms/communications

- attach the Calculation Cover Sheet to the calculation package, complete the top section of the cover sheet, sign the columns for Preparer and Checker, and deliver 8 copies of the complete package to the CTR

- the CTR shall distribute the packages to the Contractor's design engineers for Independent Verification (if required) and Design Engineering Manager signatures.

- Contractor shall obtain a control number and enter the drawings into the Engineering Document Control System.

4.2.12.2.2. Subcontractor shall provide a complete engineering package that explicitly defines all work required of a Subcontractor for a fixed price construction contract. The Title II Design shall be consistent with the approved Enhanced Conceptual Design package and design basis document.

4.2.12.2.3. Subcontractor shall prepare final Title II Design construction specifications in CSI format. Specifications shall include all materials to be used. Where alternative materials may be used, the benefits and reasons shall be explained.

4.2.12.2.4. Subcontractor shall prepare GFE equipment specifications for individual items of equipment identified during the Enhanced Conceptual Design. Equipment specifications shall be in accordance with EG&G Engineering Procedure DES-5, "Specification for Procurement and Construction" found in Appendix 2 of the COEM.

4.2.12.2.5. Subcontractor shall prepare a Quality Verification Plan (QVP) which shall parallel the Construction Specifications and include final construction quality control tests, conformance testing, laboratory testing, construction procedures, checklists and sequences. The QVP shall identify all QA hold points. The QVP shall include quality requirements for pre-construction, construction, and post-construction activities. The QVP shall be consistent with the Environmental Restoration Quality Assurance Requirements and Description Document.

4.2.12.2.6. A final PEDE approved Power Modification Request shall be included in the Title II design package.

4.2.12.2.7. Subcontractor shall prepare a final schedule for construction which reflects the requirements of the Title II Design. The schedules shall identify key milestones.

4.2.12.2.8. Subcontractor shall prepare final demolition and construction drawings to support all construction activities. All drawings shall be prepared according to COEM 6.6.2, "Engineering Drawing Control". Final drawings shall be based upon the final Enhanced Conceptual Design package and changes during the Title II design. The following requirements apply to all drawings produced by the Subcontractor for this project.

- a. In the event that the Subcontract is terminated prior to completion of the project, Subcontractor shall provide to Contractor, at no additional charge, all documentation relating to the project such as mylar hard copies and CAD/CAE tapes, disks, or other electronic media.
- b. Subcontractor shall deliver all final drawings to the CTR in both hard copy and in electronic format in the below listed RFP standard CAD/CAE system format.

1) AUTOCAD

- a) Operating System - Release 11 or higher operating on an IBM personal computer or 100% compatible.
- b) Files - All AUTOCAD files are to be delivered to the CTR.
- c) Media - The electronic format shall be delivered on 3.5 inch, 1.44MB or higher density disks. The file names and method used to create the media shall be on a label attached to the disks. An index of file names and descriptive text shall be provided.
- c. Subcontractor shall ensure that the proposed CAD/CAE layering, drafting conventions, library parts, library standards, fonts, etc., are approved by the CTR before starting any CAD/CAE work. The CTR will coordinate the above information with Engineering Technical Services department to ensure standardization and compatibility.
- d. Any CAD/CAE drawing produced by the Subcontractor on a system other than the one listed in this SOW shall be converted by the Subcontractor to the RFP standard listed. Any additional requirements or costs associated with the conversion process shall be borne by the Subcontractor.

4.2.12.2.9. Subcontractor shall prepare a final project cost estimate in accordance with FE Manual 009 or new revision and DOE Order 4700.1. The cost estimate shall include estimates for construction labor, equipment, material quantities, the identification of long-lead time procurement items, and potential labor or material supply problems. The cost estimate shall include quantities, unit costs, basis of the estimate, and an explanation of unusually high or low costs.

4.2.12.2.10. The Subcontractor shall prepare final Component Checkout (CC) and System Operational (SO) Test Procedures for inclusion in the Final Title II Design package. CC and SO Test Procedures shall be approved by the CTR.

4.2.12.2.11. Subcontractor shall incorporate all Title II review comments into the final Title II Design package after approval by the CTR.

4.2.12.2.12. The Final Design Basis Document shall be included in the final Title II Design review package and include the following information:

15

-A final description of work consisting of a comprehensive statement outlining the purpose of the facility, its location, the overall concept, and layout.

-An explanation and justification of the basis used to establish the size, capacity, and type of equipment for the design. The justification will include calculations, equipment specifications, logic used in reaching conclusions, and any other pertinent information as needed to document and justify all aspects and components of the design.

-An explanation and justification of the basis used to establish the construction specification for the design. The justification will include calculations, material specifications, logic used in reaching conclusions, and any other pertinent information as needed to document and justify all aspects and components of the design.

-A final establishment of System Categories and Functional Classifications. This establishment shall be in accordance with COEM 6.3.6, "DOE General Design Criteria Application and Classification of Systems".

-A final geotechnical investigations report.

-Results of the power survey. Calculations, listing of critical equipment (and load requirements) to be serviced by the generator, and reasoning for choosing equipment as "critical" shall be included in the report.

4.2.12.2.13 Text, Spreadsheets, Schedules. Subcontractor shall deliver to the CTR 2 sets of labeled 3.5 inch, 1.44MB or higher density disks containing all "non-drawing" documentation for the project such as typed text, schedules, and cost estimates. The software used and disks shall be 100% IBM compatible. Typed text shall be produced on "Wordperfect" version 5.0 or higher software. All software used for other items shall be subject to CTR approval; general guidelines are that all other software shall be industry standard and not specialty software.

4.2.12.2.14 The Subcontractor shall provide one typed copy of responses of all review comments to comments to the CTR for approval within 5 working days of the review meeting end.

4.2.12.2.15 The Subcontractor shall provide non-intrusive field investigations, such as ground penetrating radar, to define the depths and locations of questionable underground utilities which may be impacted as a result of the final design. The proposed work plan for this task shall be submitted to the CTR for approval prior to field investigation activities. The Contractor shall provide construction management and security escorts services for completion of this task.

4.2.13 Options Analysis

The subcontractor shall be required to support an "Options Analysis" for remediation and/or pond closure. The options analysis shall take all potential remedial alternatives into consideration. The options analysis shall support the IM/IRA Decision Document, as appropriate.

4.2.14 Technology Literature Research

The subcontractor shall be required to perform technology literature research in support of selecting a remedial technology for the Solar Evaporation Ponds/Operable Unit 4. The technologies selected shall be utilized for pond closure and remediation.

4.2.15 IM/IRA Review Cycles

The subcontractor shall be required to support all aspects of the OU 4 IM/IRA review cycles. The OU 4 IM/IRA shall undergo five (5) review cycles (see attached schedule). The subcontractor shall be required to develop responses to all comments pertaining to the OU 4 IM/IRA Decision Document, including the enhanced conceptual design, and Phase I RFI/RI Report. The subcontractor shall be required to incorporate comments into the OU 4 IM/IRA Decision Document, Phase I RFI/RI Report, Post Closure Care and Monitoring Plan, and Phase II RFI/RI Work Plan. Resolution to comments pertaining to the Post Closure Care and Monitoring Plan and Phase II RFI/RI Work Plan shall be provided to the subcontractor by the EG&G Contract Technical Representative (CTR). These comments shall be provided to the subcontractor in accordance with the attached schedule.

4.2.16 Incorporation of Supplemental Documentation/Reports

The subcontractor shall be required to incorporate supplemental documentation into the OU 4 Phase I IM/IRA Decision Document. The supplemental documentation shall consist of the following:

OU 4 Phase I RFI/RI Report;

OU 4 Post Closure Care and Monitoring Plan;

OU 4 Phase II RFI/RI Work Plan

The subcontractor shall be required to develop comment responses on all aspects of these documents, except the OU 4 Post Closure Care and Monitoring Plan. The subcontractor shall be required to incorporate comment responses into the OU 4 IM/IRA Decision Document, including the supplemental documentation. The EG&G CTR shall provide the subcontractor with comment responses for the OU 4 Post Closure Care and Monitoring Plan for incorporation into the OU 4 IM/IRA Decision Document.

4.2.17 Title III Services

4.2.17.1 The Subcontractor shall provide a quotation for the following services for the IM/IRA:

a) Selection of Potential Remedial Contractors, including prequalification criteria and evaluation, technical evaluation of final proposals.

b) Review and approval of construction material submittals and requests for approved equals.

5.0 DELIVERABLES/SCHEDULE

5.1 GENERAL REPORTS/DATA REQUIREMENTS

The subcontractor shall prepare all reports and schedules to reflect the attached EG&G working schedule. The following WBS outline shall reflect the subcontractors reporting and invoicing procedures. The subcontractor shall roll-up all related cost to each task and report/charge to the appropriate charge number.

TASK

CHARGE#

IM/IRA Project:

<i>Selected Alternatives</i>	TBD
Risk Analysis	
Contaminants of Concern	
Preliminary Remediation Goals	
ARAR Development	
Option Analysis	
Technology Literature Research	
Options Development	
Modeling Support	
Data Evaluation	
<i>Report Preparation</i>	TBD
IM/IRA EA DD Preparation	
Technical Review Group	
Environmental Assessment	
Inclusion of Phase I RFI/RI Report	
Inclusion of Phase II RFI/RI Work Plan	
Inclusion of Conceptual Design	
Inclusion of Post Closure and Assessment Plan	
<i>IM/IRA EA DD Reviews</i>	TBD
Roundtable (RT) Submittal	
RT Comment Resolution	
RT Incorporate Comments	
IAG #1 Submittal (Draft Proposed)	
IAG #1 Comment Resolution	
IAG #1 Incorporate Comments	
IAG #2 Submittal (Proposed)	
IAG #2 Public Comment Period	
IAG #3 Prepare Draft Responsiveness Summary (RS)	
IAG #3 Submittal (Draft RS)	
IAG #3 Comment Resolution	
IAG #3 Incorporate Comments	
IAG #4 Submittal (Final IM/IRA & RS)	
<i>Direct Project Support</i>	989910
Program Manger	
Project Manager	
Regulatory Support	

Conceptual Design Project:

<i>40% Conceptual Design</i>	TBD
Drawings	
Specs	
Schedule	
Cost Estimate	
<i>Direct Project Support</i>	TBD
Program Manager	
Project Manager	

Title II Design Project:

<i>60% Title II Design</i>	989618
Drawings	
Specs	
Schedule	
Cost Estimate	
60% Review	
60% Incorporate Comments	
<i>90% Title II Design</i>	989619
Drawings	
Specs	
Schedule	
Cost Estimate	
90% Review	
90% Incorporate Comments	
<i>Title II Review Cycle</i>	989620
IAG #5 Transmittal	
Comment Resolution	
Incorporate Comments	
<i>Direct Project Support</i>	989947
Program Manager	
Project Manager	

The following reports and data are required for all tasks detailed in the above WBS outline, unless otherwise stated, 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. These weekly project reports shall include accomplishments, issues and/or problems that the Project Manager/CTR should be aware of along with a progressed Gant chart.

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 for discussion and resolution. Weekly Round Table/Team Meeting with EG&G, DOE, CDPHE, and EPA shall be conducted for the duration of the contract due to the structure of the enhanced IM/IRA program.

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 each month reflecting the previous month's actuals, along with the Monthly Task Order Status Reports for the current month's activities. This report shall include earned value statements that will detail the following by task:

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.

The monthly report shall also include a breakdown of individual man-hours, billing rates, equipment rentals, communications, reproduction, expenses, copies of subcontractor procurement documents and miscellaneous costs by task.

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.

5.1.4 Master Schedule

A master schedule shall be submitted within 10 working days from subcontract award, the subcontractor shall develop a comprehensive and detailed Master Schedule which shall reflect EG&Gs program schedule (see attachment). The schedule shall be presented in Gant, Pert, and logic format. The schedule shall be presented on a Fiscal Year (October 1 - September 30) 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

20

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 INTERAGENCY AGREEMENT (IAG) MILESTONES/DELIVERABLES

The following reports and deliverables are required on or before the dates listed below for submittal to the EG&G Project Manager/CTR:

-Options Analysis

December 10, 1993 approximately 25 copies

-Roundtable Review

February 25, 1994 approximately 25 copies

- Draft Proposed IM/IRA Environmental Assessment (EA) Decision Document

May 23, 1994 approximately 25 copies

- Phase I Proposed IM/IRA EA Decision Document:

December 12, 1994 approximately 35 copies

- Draft IM/IRA Responsiveness Summary:

April 3, 1995 approximately 35 copies

- Final Phase I IM/IRA EA Decision Document and Responsiveness Summary:

August 14, 1995 approximately 35 copies

-60% Design Review

December 7, 1994 approximately 30 copies

-90% Design Review

February 28, 1995 approximately 30 copies

-Title II Final Design/Implementation Plan

August 16, 1995 approximately 35 copies

5.2.2 Report Review

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

5.2.3 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.

Any document generated for this contract shall be subjected to complying with the following document(s):

Environmental Management Administrative Procedures Manual - 2-11000-ER-ADM
Sections 17.01 and 17.02

5.2.4 MTS Design Hours Proposal Format

5.2.4.1 The Subcontractor shall submit proposed hours for the new scope items in accordance with the Attachment "A" included in the back of this SOW.

5.2.4.2 Separate estimates shall be provided for the following tasks:

- a) Geotechnical Drilling/Testing
 - b) Utilities Verification
 - c) Expedited Title II Package Identified in Section 4.2.12.1.7
 - d) Building 788 IM/IRA Inclusions
 - e) Inclusion of Pond Sludge into the IM/IRA
 - f) Title III services identified in section 4.2.17.1 for each task
 - g) Technical / Regulatory support

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 subcontractor shall comply with the following specific Quality Assurance (QA) requirements prior to the initiation of work, as appropriate:

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 material content, personnel qualification requirements, and the qualification of personnel who meet the personnel qualification requirements shall be maintained and made available to EG&G for review upon request. EG&G will provide training for Quality Assurance and technical procedures furnished by EG&G.

6.1.3 Design

Activities involving the performance of technical design related activities, specifically, but not limited to, calculations used in developing data and calculations incorporated into reports, shall be reviewed, verified and documented. Calculations shall be performed in accordance with EG&G procedure number 3-21000-ADM-03.07.

6.1.4 Instructions, Procedures, and Drawings

All work shall be performed to EG&G ER approved and controlled procedures except where excluded in writing by EG&G.

6.1.5 Document Control

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

6.1.6 Identification and Control of Items

When applicable, the subcontractor shall prepare written procedures that ensure that only correct and accepted items are used or installed and that they are traceable through unique identifiers. The procedures shall be submitted to EG&G for approval.

6.1.7 Inspection

Quality affecting activities are subject to inspection by EG&G. These inspections will be performed in accordance with EG&G procedure number 3-21000-ADM-10.02.

6.1.8 Control of Measuring and Test Equipment

Activities in which personnel use measuring and test equipment shall be controlled in accordance with EG&G procedure number 3-21000-ADM-12.01. Such devices shall be controlled, calibrated, and adjusted at predetermined intervals (established by the subcontractor and approved by EG&G) to maintain accuracy.

6.1.9 Handling, Storage, and Shipping

Activities in which personnel handle, store, package, ship, or receive items which if damaged, lost, or deteriorated would be detrimental to the work performed by the subcontractor or those activities in which personnel handle, store, package, or ship hazardous material shall be controlled by written procedures. The procedures shall be submitted to EG&G for approval.

6.1.10 Control of Non conforming Items

Activities regarding the identification and disposition of non conforming items shall be performed in accordance with EG&G procedure number 3-21000-ADM-15.01. The control of non conforming items shall apply to all activities that involve the handling of all items, including samples, data, raw materials, hardware, and software.

6.1.11 Software Quality Assurance

The development and use of both administrative and scientific computer software which have a potential to affect quality shall be performed in accordance with written procedures prepared by the subcontractor and approved by EG&G.

6.1.12 Accessibility

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.

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."

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).

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.

ATTACHMENT A - DESIGN HOURS PROPOSAL FORMAT (EXAMPLE)