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NAS CECIL FIELD
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FINAL PLAN OF ACTION REMEDIAL INVESTIGATION/FEASIBILITY STUDY OPERABLE UNITS 1, 2 AND 7 (OU1) (OU2) (OU7) NAS CECIL FIELD FL

9/1/1991

ABB ENVIRONMENTAL SERVICES, INC

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FINAL

PLAN OF ACTION
RI/FS
OPERABLE UNITS 1, 2, AND 7
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

STATEMENT OF WORK NO. 010
NAVY CLEAN-DISTRICT I
CONTRACT NO. N62467-89-D-0317

SEPTEMBER 1991

SOUTHERN DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CHARLESTON, SOUTH CAROLINA
29411-0068

ABB Environmental Services, Inc.

ASEA BROWN BOVERI

PLAN OF ACTION

CONTRACT NO. N62467-89-D-0317
SOW NO. 010

RI/FS
NAS CECIL FIELD
JACKSONVILLE, FLORIDA

25 September 1991

Submitted By:

ABB ENVIRONMENTAL SERVICES, INC.
2571 EXECUTIVE CENTER CIRCLE EAST
TALLAHASSEE, FLORIDA 32301

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I. INTRODUCTION

On September 6, 1990, Southern Division (SDIV) Naval Facilities Engineering Command (NAVFACENGCOM) contracted with ABB Environmental Services, Inc. (ABB-ES) (Contract No. N62467-89-D-0317) to assist the Navy's Environmental Engineering Program by providing engineering support services for the Installation Restoration (IR) Program. The first step in the process of executing a Contract Task Order (CTO) is for ABB-ES to respond to a Statement of Work (SOW) by participating in a site visit to define the SOW and to develop a Plan of Action (POA). The POA presents a description of the scope of services, a schedule showing the duration of the tasks, and estimated costs associated with the defined tasks.

This POA describes the scope of services, presents a Gantt schedule, and provides cost estimates to meet the objectives of SOW #010, as described in the statement of work dated 30 August 1991 and discussed during negotiations on 23 and 24 September 1991. SOW #010 requires implementation of the approved workplan for an RI/FS at operable units 1, 2, and 7 (total of six sites) at NAS Cecil Field, Jacksonville, Florida. The SOW includes the following:

Management Activities, including coordination, progress reports, administrative record and site management plan support, attending bi-monthly progress review meetings and quarterly Technical Review Committee and Project Manager meetings, and preparing community relations presentations.

Technical Activities, including site clearing, geophysics, installation of monitoring wells, sampling of soil, groundwater, surface water, and sediment, surveying of sample locations, determining aquifer characteristics, coordinating laboratory analysis, evaluating the analytical data, photographic documentation, and preparation of the Final RI/FS Report.

Section II of this POA describes the approach and resource required to fulfill the proposed tasks.

II. SCOPE OF SERVICES

Task 1 - Task Order Management and Monthly Reports (SOW Tasks #1, 2, 14, 15, 16)

ABB-ES will provide full time continuous project oversight for the duration of the project (estimated 20 months, October 1991 through May 1993).

ABB-ES will prepare Technical/Financial Monthly Reports (TFMR) for 20 months (20 reports) in accordance with the provisions of Part V, Section 3 of the contract. Each report will be in the format required in the contract (Part IX, Attachment A) and will summarize activities during the month, including any problems encountered and their proposed resolution, and will include a schedule update in the form of a Gantt chart.

In addition to the TFMR, ABB-ES will provide a monthly Project Planning Report, including names and resumes of staff working on the project during the following month, updated schedule of project activities, including field activities, meetings, and deliverables, description of technical approach and methods to accomplish work in the following month, anticipated problems and proposed solutions, and a historical list of due dates and actual dates for all deliverables.

ABB-ES will notify the Navy immediately upon discovery of any significant new site conditions, including imminent hazard or substantial endangerment, and any deviation from the project schedule or Workplan.

ABB-ES will provide the Navy a schedule for all submittals in the final approved 1992 Site Management Plan within five days of receipt of the Plan from the Navy.

ABB-ES will provide written notice and field schedule to the Navy 28 days prior to each sampling event.

The Key personnel for this task will be the Task Order Manager and the Project Assistant.

Task 2 - Meetings (SOW Task #3)

ABB-ES will prepare for, participate in, and provide minutes of quarterly Technical Review Committee/Project Manager meetings (six meetings) and bimonthly progress review meetings (9 meetings) during the course of the project. All meetings will be held at NAS Cecil Field.

Key personnel for these meetings will include the Task Order Manager, Project Assistant, Senior Scientist and Technical Expert.

Task 3 - RI/FS Field Work (Operable Units 1, 2, and 7) (SOW Task #4, 18, 19, 23)

Task 3 is divided into sub-tasks, including Mobilization, Site Clearing, Geophysics, Soil Gas Sampling, Soil Borings and Monitoring Well Installation, Aquifer Testing, Groundwater Sampling, Surface Water and Sediment Sampling, Piezocone Penetration Tests, Location and Elevation Survey, and Health and Safety.

Sub-task 3.1 - Mobilization

ABB-ES will arrange for a 12'x 40' office trailer to be located near the sewage treatment plant at NAS Cecil Field and will coordinate with the facility to provide electricity. ABB-ES will arrange for a portable toilet to be located near the Operable Units under investigation and equipment decontamination stations to be located at sites convenient to the field crew and agreeable to facility personnel. The trailer and portable toilet charges appear on the Fee Itemization Form as "Other Support."

ABB-ES will purchase three cellular phones to be used for communication between ABB-ES and Navy personnel. These phones will be transferred and made available to other Navy CTO's after completion of this project. ABB-ES will coordinate with the facility IR coordinator and public works personnel for underground utility clearance at all drilling locations.

Key personnel for this task include 3 days time for the Senior Scientist and a Technician.

Sub-task 3.2 - Site Clearing

ABB-ES will subcontract for clearing of underbrush and debris as required to allow access for field investigations at the sites. ABB-ES will also arrange for offsite disposal of cleared debris. A tractor, front-end loader, and bushhog will be required. Sand or gravel will be required to fill low lying areas in order to allow a drill rig access to some sites. ABB-ES will investigate the need for wetlands permits in such cases.

Key personnel for this task will be the Technician for 2 days.

Sub-task 3.3 - Geophysics

ABB-ES will subcontract for electromagnetic induction surveys at the landfills (Operable Unit 1) and ground penetrating radar surveys at the sludge pits and AIMD seepage pit (Operable Units 2 and 7). GPR will also be performed at Site 4.

Key personnel for this task will be the Senior Scientist for 3 days.

Sub-task 3.4 - Soil Gas Sampling

ABB-ES will subcontract soil gas sampling at Operable Units 2 and 7 and Site 4. Key personnel will include a Chemist for 5 days.

Sub-task 3.5 - Soil Borings and Monitoring Well Installation

ABB-ES will subcontract to: perform 32 soil borings to the water table (estimated 10' bls) for collection of subsurface soil samples, abandonment of monitoring well MW 17-2D, installation of 24 groundwater monitoring wells in the upper zone of the surficial aquifer (estimated 15' deep), installation of 7 monitoring wells in the lower zone of the surficial aquifer (estimated 40' deep), and installation of three monitoring wells into the secondary artesian aquifer (estimated 120' deep, double cased to 70'). The wells will be constructed of 2" ID Schedule 40 PVC.

ABB-ES will properly dispose of drill cuttings and well development water according to USEPA "Guide to Management of Investigation-Derived Wastes" (1990). Drill cuttings will be spread on site if they are judged safe by the ABB-ES field leader and the Navy RI coordinator. ABB-ES will drum and label as "Hazardous Waste" all other drill cutting materials and disposable items that cannot be decontaminated. The Navy will pickup and dispose of the drums.

ABB-ES will drum decontamination liquids and the water generated during well development. The Navy will transport the drums to the wastewater treatment plant where the contents will be mixed, at a controlled rate, with the incoming wastewater.

Key personnel for this task will be a Senior Scientist for 10 days and two Geologists for 30 days each.

Sub-task 3.6 - Aquifer Testing

ABB-ES will perform slug tests at four wells at each site for a total of 24 slug tests. Key personnel will include a Geologist and a Technician for 5 days each.

Sub-task 3.7 - Groundwater Sampling

ABB-ES will collect groundwater samples from 38 wells at Operable Units 1, 2, and 7. Key personnel will include a Senior Scientist, Geologist, and Technician for 10 days each.

Sub-task 3.8 - Surface Water and Sediment Sampling

ABB-ES will collect surface water and sediment samples at 9 locations and measure stream flow at 3 locations. Key personnel will include a

Hydrologist and Technician for 3 days each.

Sub-task 3.9 - Piezocone Penetration Testing

ABB-ES will subcontract for PCPT investigations around the perimeter of the landfills (Operable Unit 1). The PCPT subcontractor will be supervised by an ABB-ES Geologist for 5 days.

Sub-task 3.10 - Location and Elevation Survey

ABB-ES will subcontract with a registered land surveyor to determine location and elevation of all wells and sampling locations. The ABB-ES geologist supervising the PCPT subcontractor will also oversee the survey subcontractor.

Sub-task 3.11 - Health and Safety

The ABB-ES Health and Safety Manager and the Field Leader will oversee the health and safety activities during field operations. Most of the field activities will be performed in accordance with USEPA Level "D" Guidelines, however some of the intrusive procedures may require the field leader to upgrade the personal protective equipment requirements to a Level "C." Because the types and duration of Level "C" activities cannot be predicted, the additional costs associated with Level "C" activities are not included on the Fee Itemization Form.

Also, health and safety equipment and supplies (all levels) for the entire Navy Clean team will be included in the ABB-ES PMO proposal for FY 1992. Therefore, no health and safety costs are proposed for these field activities. In the event that the parties agree not to include the cost of health and safety in the FY-1992 PMO budget, this task must be modified.

Task 4 - Photographic Documentation and Site Maps (SOW Tasks #8, 9, 10, 11)

ABB-ES will take video and still photographs of representative field activities during the investigations of Operable Units 1, 2, and 7. The video footage will be edited to be suitable for presentation at TRC or public meetings. The still photographs will be assembled in a photo album with explanatory captions for inclusion in the project files.

ABB-ES will prepare a photo album containing prints and slides of existing photographs of the sites taken by others (estimated to include approximately 36 photographs). The photographs will be labeled and placed in an archive quality binder.

ABB-ES will prepare overall station maps showing locations of all IRP sites, all RI/FS sites, and sites in OUs 1, 2, and 7, in two sizes

(12"x24" and 24"x36"). The maps will be labeled and mounted on stiff backing for hanging or standing on a tripod.

ABB-ES will prepare site maps of each of the sites in OUs 1, 2, and 7 in 8.5"x11" format with site descriptions on the reverse of the maps. The maps and site descriptions will be laminated for weatherproofing and to provide a stiff mounting for use in the field.

Key personnel will include a Senior Graphics Technician and Project Assistant.

Task 5 - Treatability Studies (SOW Task #5)

ABB-ES will prepare a letter report to Southern Division describing proposed treatability testing and associated costs. Costs for bench scale testing of remedial treatment alternatives vary widely and cannot be estimated until a more detailed study plan has been prepared. We anticipate evaluating solidification, bioremediation, soil washing and solvent extraction as possible remedial alternatives for Operable Units 1, 2, and 7 at NAS Cecil Field. ABB-ES will collect appropriate samples and arrange for performance of the agreed upon treatability tests. ABB-ES will prepare a technical memorandum evaluating the results of the treatability tests and include this information in the final RI/FS report for the appropriate Operable Units.

Key personnel will include a Senior Engineer for 15 days, an Engineer at 20 days; a Chemist for 15 days; a Senior Chemist for 7.5 days; and a Technical Expert for 2 days.

Task 6 - Data Validation (SOW Task #4 and 21)

ABB-ES will contract with the analytical laboratory to provide electronic deliverables and will utilize the ACS computerized Data Management System to facilitate data validation. A total of 749 sample analyses (285 organic analyses and 464 inorganic analyses) will require validation. The recommended review time for Level "D" data validation packages for each analysis is 1 hour for each organic analysis and half an hour for each inorganic analysis. The review is performed by a Quality Assurance Assistant with oversight by the Quality Assurance Manager.

Task 7 - Baseline Risk Assessment (SOW Task #4)

ABB-ES will perform a baseline health and ecological assessment for Operable Units 1, 2, and 7, focusing on the source areas. Exposure pathways to be evaluated will include direct contact and airborne contamination. The groundwater exposure pathway will not be considered at this time. ABB-ES will prepare a technical memorandum identifying target cleanup levels and the baseline risk assessment will be included in the

final RI/FS reports. Key personnel will include Senior Scientists (Applied Ecologists); Public Health Specialists; Toxicologists; and a Technical Expert.

Task 8 - Data Evaluation and Interpretation (SOW Task #4 and 22)

ABB-ES will compile and evaluate the data from the field investigations. Technical memoranda will be prepared summarizing results of the geophysical investigations, soil gas survey, and hydrogeologic investigations (slug tests, soil borings and PCPT). The technical memoranda will be included as chapters or appendices in the final RI/FS report.

Key personnel will include a Senior Scientist and Hydrologist for 30 days each; a Chemist and Technical Expert for 3 days each.

Task 9 - Feasibility Study (SOW Task #4)

ABB-ES will identify and evaluate potential remedial technologies, identify and evaluate potential remedial alternatives, and perform a detailed evaluation of alternatives for remediation of Operable Units 1, 2, and 7 to meet the target cleanup levels identified in Task 6 and comply with ARARs.

Key personnel will include a Senior Engineer for 22 days; Engineer for 44 days; and the Technical Expert, Public Health Specialist, and Ecotoxicologist for 5 days each.

Task 10 - Groundwater Modeling Evaluation (SOW Task #17)

ABB-ES will provide a brief letter report evaluating the need for groundwater modeling during the RI/FS at NAS Cecil Field. The report will recommend specific models, including computer software packages and hardware requirements, and the point in the project when modeling should be implemented, if appropriate.

Key personnel for this task include a Technical Expert for 1.5 weeks.

Task 11 - RI/FS Report (SOW Task #4)

ABB-ES will prepare Draft, Draft Final, and Final RI/FS reports for each Operable Unit under investigation. The Navy will review the Draft reports at ABB-ES prior to their submittal to EPA. Results of the field investigation, risk assessment, treatability studies, and feasibility study will be included. The Draft Final documents will address comments provided by the Navy, EPA, FDER, and other TRC members. Minimal comments are anticipated on the Draft Final documents.

An estimate 30 copies of each deliverable will be prepared, at approximately 750 pages each contained in two 3-ring binders.

Key personnel include Senior Engineer and Senior Scientist for 15 days each; Engineer and Hydrologist for 30 days each; Technical Expert, Public Health Specialist, Technical Editor, and Ecotoxicologist for 5 days each.

Task 12 - Proposed Plan/ Draft ROD (SOW Task #7)

ABB-ES will incorporate the selected remedy into a proposed plan/draft Record of Decision for public review and comment. Key personnel include the Senior Engineer for 10 days; Engineer for 5 days; Technical Expert for 1.5 days; and Community Relations Specialist for 3 days.

Task 13 - Community Relations Support (SOW Task #6)

ABB-ES will provide support for an estimated four public meetings, including presentation development and review, participation, and preparation of minutes for each meeting. ABB-ES will prepare an estimated four fact sheets or press releases describing progress of the RI/FS at NAS Cecil Field for the public.

Key personnel include the Senior Scientist for 30 hours per meeting; Community Relations Specialist for 40 hours per meeting (includes fact sheet preparation); and Graphics Technician for 10 hours per meeting.

Task 14 - Administrative Record/FFA Support (SOW Task #12 and 13)

ABB-ES will provide quarterly updates to the Administrative Record File Index and maintain the administrative record files at NAS Cecil Field and Southern Division. ABB-ES will assist Southern Division in preparation of the annual Site Management Plan required under the Federal Facilities Agreement for NAS Cecil Field. Key personnel include the Task Order Manager and the Project Assistant.

Task 15 - Source Removal (SOW Task #20)

At some point in the future, the Navy may direct ABB-ES to remove source contamination at various sites at NAS Cecil Field. Since the extent of these activities cannot be defined at this time, the associated costs cannot be determined and thus are not included in the costs estimate to complete this statement of work.

III. KEY PERSONNEL

The designated roles for the RI/FS Workplan development at the NAS Cecil Field are as follows:

- Task Order Manager. The Task Order Manager for the RI/FS will be Margaret Layne, P.E. Ms. Layne is responsible for evaluating the appropriateness and adequacy of the technical or engineering services provided for the project and for developing the technical approach and LOE required to address each of the Workplan tasks.

  Specific responsibilities of this role include:

  - overall technical responsibility for the project;
  - initiating project activities;
  - participating in planning and staff assignments;
  - monitoring task activities to ensure compliance with established budgets, schedules, and scope of work; and
  - regularly interacting with the EIC, the Program Manager, and others as appropriate, on the status of the project.

- Senior Scientist. The Senior Scientist will be Charles Donahue. Mr. Donahue will be responsible for the day-to-day conduct of work, including the integration of supporting disciplines. He will oversee quality control during the performance of the work, the technical integrity of the approach, and the clarity and usefulness of project work products.

- Quality Review Board. A Quality Review Board comprised of senior technical staff from the ABB-ES team will assist the Task Order Manager by providing review of the technical aspects of the project to assure they are produced in accordance with corporate policy, and meet the requirements of U.S. Navy Southern Division.

  Michael Keirn, Ph.D. and Ken Busen, P.G. will comprise the ABB-ES technical quality review board and will be actively involved in assuring the technical quality and appropriateness of methodologies, conclusions and recommendations. Dr. Keirn will serve as primary Technical Expert supporting the RFI program. Mr. Busen will provide oversight of the hydrogeologic portions of the program.

  Dr. Keirn is an environmental scientist with over 20 years experience in environmental assessments. He has been active in all phases in the IR program as a consultant and/or project manager since 1979. As an environmental chemist, Dr. Keirn has designed and interpreted

numerous sampling and analysis programs for all environmental media, including design and implementation of baseline, detection, and compliance monitoring programs at solid waste landfills in accordance with the past and current RCRA guidance on program design and statistical analysis.

- Other Key Technical Team Members. John McVoy will be the QA Manager overseeing the data collection and validation. Mr. McVoy has extensive knowledge and experience with analytical protocols, QA/QC requirements, and USEPA Region IV requirements.

IV. SCHEDULE

Attachment A includes a Gantt chart presenting the proposed schedule based on calendar days for completion of the tasks described above. Additionally, a milestone report is included presenting the key deadline dates in the project. These schedules assume receipt of Notice to Proceed on September 30, 1991.

V. COST

Attachment B (Table 1 and fee itemization form) presents the cost estimate to complete the scope of services described herein.

VI. FEE ITEMIZATION FORM SCOPE LIMITATION

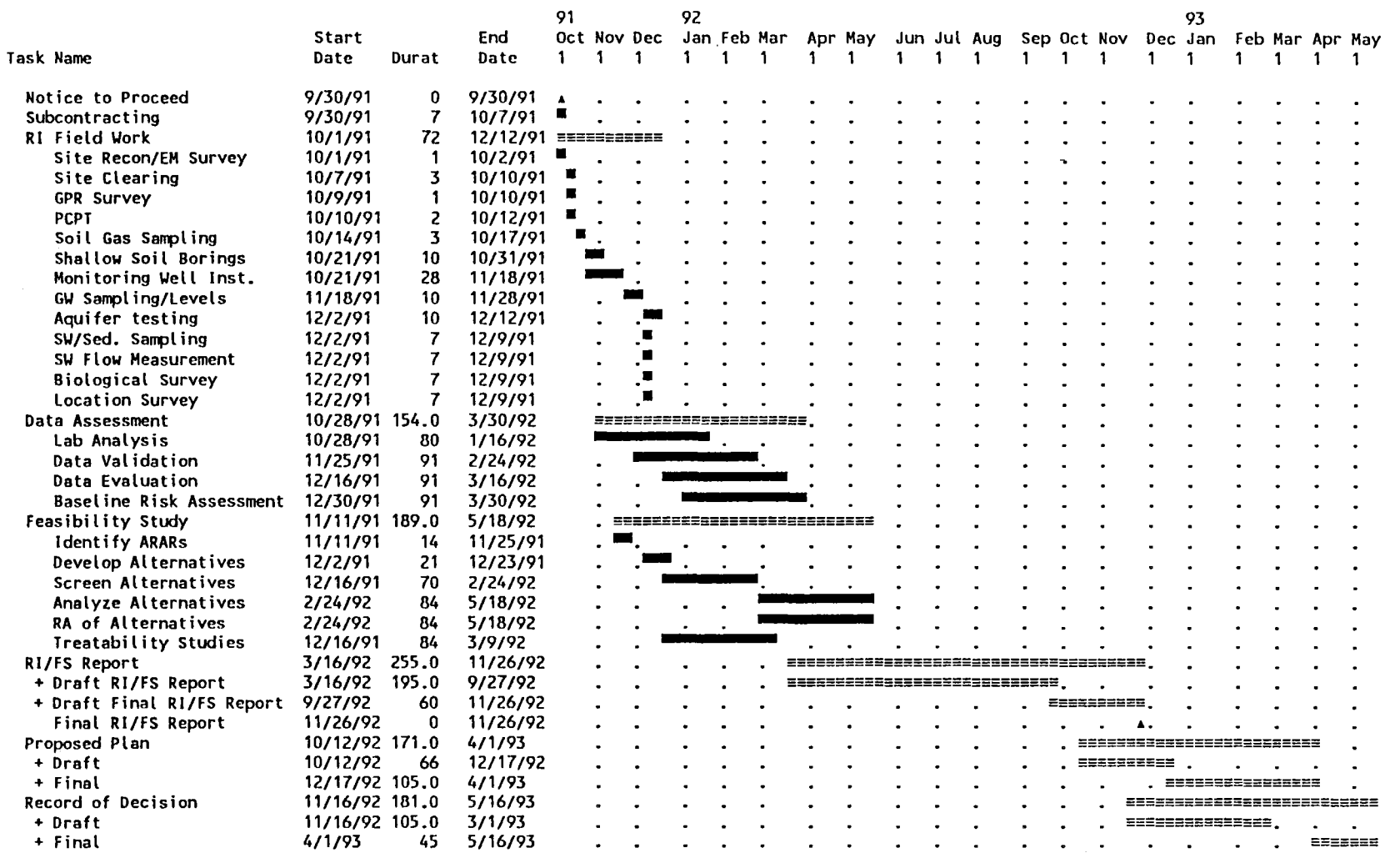
The purpose of this paragraph is to clearly define the scope and assumptions made for this fee proposal should it be necessary to enact provisions delineated at Par VII. Para. 22 of the subject contract in accordance with FAR 5243-2.

ATTACHMENT A

SCHEDULE

Schedule Name : NAS Cecil Field Site Management Plan
Responsible : Cliff Casey
As-of Date : 9/25/91 Schedule File : CECILACC

Operable Units 1, 2, and 7 - Informal Review Schedule



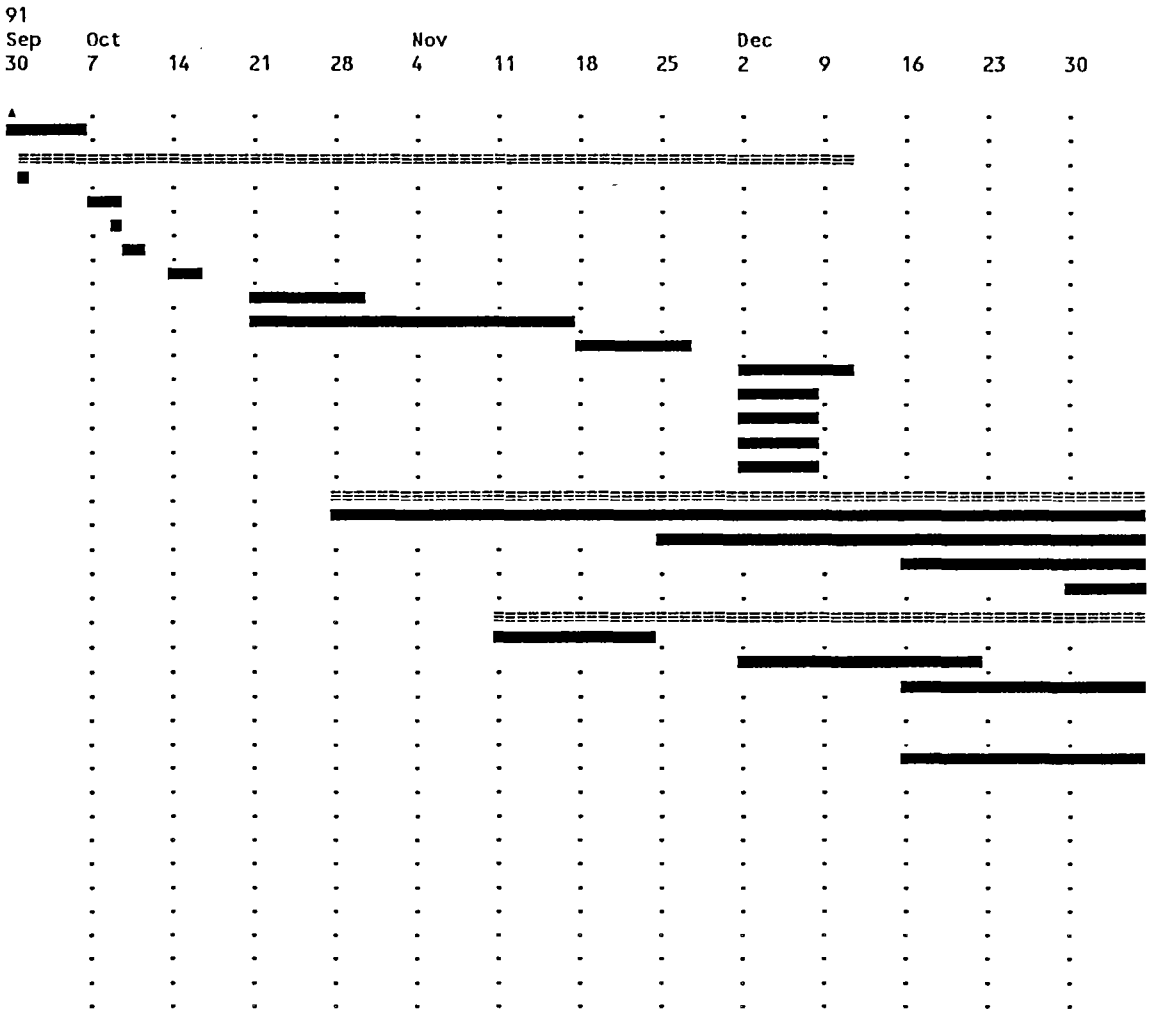
Task Name	Start Date	Durat	End Date
Notice to Proceed	9/30/91	0	9/30/91
Subcontracting	9/30/91	7	10/7/91
RI Field Work	10/1/91	72	12/12/91
Site Recon/EM Survey	10/1/91	1	10/2/91
Site Clearing	10/7/91	3	10/10/91
GPR Survey	10/9/91	1	10/10/91
PCPT	10/10/91	2	10/12/91
Soil Gas Sampling	10/14/91	3	10/17/91
Shallow Soil Borings	10/21/91	10	10/31/91
Monitoring Well Inst.	10/21/91	28	11/18/91
GW Sampling/Levels	11/18/91	10	11/28/91
Aquifer testing	12/2/91	10	12/12/91
SW/Sed. Sampling	12/2/91	7	12/9/91
SW Flow Measurement	12/2/91	7	12/9/91
Biological Survey	12/2/91	7	12/9/91
Location Survey	12/2/91	7	12/9/91
Data Assessment	10/28/91	154.0	3/30/92
Lab Analysis	10/28/91	80	1/16/92
Data Validation	11/25/91	91	2/24/92
Data Evaluation	12/16/91	91	3/16/92
Baseline Risk Assessment	12/30/91	91	3/30/92
Feasibility Study	11/11/91	189.0	5/18/92
Identify ARARs	11/11/91	14	11/25/91
Develop Alternatives	12/2/91	21	12/23/91
Screen Alternatives	12/16/91	70	2/24/92
Analyze Alternatives	2/24/92	84	5/18/92
RA of Alternatives	2/24/92	84	5/18/92
Treatability Studies	12/16/91	84	3/9/92
RI/FS Report	3/16/92	255.0	11/26/92
+ Draft RI/FS Report	3/16/92	195.0	9/27/92
+ Draft Final RI/FS Report	9/27/92	60	11/26/92
Final RI/FS Report	11/26/92	0	11/26/92
Proposed Plan	10/12/92	171.0	4/1/93
+ Draft	10/12/92	66	12/17/92
+ Final	12/17/92	105.0	4/1/93
Record of Decision	11/16/92	181.0	5/16/93
+ Draft	11/16/92	105.0	3/1/93
+ Final	4/1/93	45	5/16/93

Detail Task Summary Task Baseline
(Progress) (Progress) Conflict
(Slack) (Slack) Resource delay
Progress shows Percent Achieved on Actual Milestone
Scale: 7 days per character

Schedule Name : NAS Cecil Field Site Management Plan
Responsible : Cliff Casey
As-of Date : 9/25/91 Schedule File : CECILACC

Operable Units 1, 2, and 7 - Informal Review Schedule

Task Name	Start Date	Durat	End Date
Notice to Proceed	9/30/91	0	9/30/91
Subcontracting	9/30/91	7	10/7/91
RI Field Work	10/1/91	72	12/12/91
Site Recon/EM Survey	10/1/91	1	10/2/91
Site Clearing	10/7/91	3	10/10/91
GPR Survey	10/9/91	1	10/10/91
PCPT	10/10/91	2	10/12/91
Soil Gas Sampling	10/14/91	3	10/17/91
Shallow Soil Borings	10/21/91	10	10/31/91
Monitoring Well Inst.	10/21/91	28	11/18/91
GW Sampling/Levels	11/18/91	10	11/28/91
Aquifer testing	12/2/91	10	12/12/91
SW/Sed. Sampling	12/2/91	7	12/9/91
SW Flow Measurement	12/2/91	7	12/9/91
Biological Survey	12/2/91	7	12/9/91
Location Survey	12/2/91	7	12/9/91
Data Assessment	10/28/91	154.0	3/30/92
Lab Analysis	10/28/91	80	1/16/92
Data Validation	11/25/91	91	2/24/92
Data Evaluation	12/16/91	91	3/16/92
Baseline Risk Assessment	12/30/91	91	3/30/92
Feasibility Study	11/11/91	189.0	5/18/92
Identify ARARs	11/11/91	14	11/25/91
Develop Alternatives	12/2/91	21	12/23/91
Screen Alternatives	12/16/91	70	2/24/92
Analyze Alternatives	2/24/92	84	5/18/92
RA of Alternatives	2/24/92	84	5/18/92
Treatability Studies	12/16/91	84	3/9/92
RI/FS Report	3/16/92	255.0	11/26/92
+ Draft RI/FS Report	3/16/92	195.0	9/27/92
+ Draft Final RI/FS Report	9/27/92	60	11/26/92
Final RI/FS Report	11/26/92	0	11/26/92
Proposed Plan	10/12/92	171.0	4/1/93
+ Draft	10/12/92	66	12/17/92
+ Final	12/17/92	105.0	4/1/93
Record of Decision	11/16/92	181.0	5/16/93
+ Draft	11/16/92	105.0	3/1/93
+ Final	4/1/93	45	5/16/93



Detail Task ≡≡≡≡≡ Summary Task °°°°° Baseline
••••• (Progress) ≡≡≡≡≡ (Progress) ▸▸▸ Conflict
————— (Slack) ≡≡≡—— (Slack) •• Resource delay
Progress shows Percent Achieved on Actual ▲ Milestone
---------- Scale: 8 hours per character ----------

ATTACHMENT B

COST ESTIMATE

CLEAN FEE ITEMIZATION FORM
SOUTHDIV ENVIRONMENTAL DIVISION

DATE OF SCOPE: 25 September 1991 A&E FIRM: ABB Environmental Services, Inc.

SOW: 10 DATE OF ESTIMATE: 25 September 1991 CONTRACT NO.: N62467-89-D-0317

PROJECT: RI/FS OPERABLE UNITS 1,2, AND 7

FUNDING: Defense Environmental Restoration Act (DERA)

ACTIVITY: Naval Air Station, Cecil Field

UIC CODE: _____ LOCATION: Jacksonville, Florida

		OFFICE		FIELDWORK		TOTAL	
ITEM	RATE/HR.	LABOR HOURS	COST(S)	LABOR HOURS	COST(S)	LABOR HOURS	COST(S)
Program Manager	36.50		$0.00		$0.00	0	$0.00
Quality Assurance Manager	25.50	80	$2,040.00		$0.00	80	$2,040.00
Task Order Manager	29.00	2720	$78,880.00		$0.00	2,720	$78,880.00
Senior Engineer	29.00	496	$14,384.00		$0.00	496	$14,384.00
Senior Scientist	29.10	2170	$63,147.00		$0.00	2,170	$63,147.00
Engineer	18.50	790	$14,615.00		$0.00	790	$14,615.00
Geologist	19.00	536	$10,184.00		$0.00	536	$10,184.00
Hydrologist	20.00	480	$9,600.00		$0.00	480	$9,600.00
Toxicologist	18.00	176	$3,168.00		$0.00	176	$3,168.00
Program Assistant	13.00	840	$10,920.00		$0.00	840	$10,920.00
Clerical/Word Processing	10.00	340	$3,400.00		$0.00	340	$3,400.00
Accounting	14.00		$0.00		$0.00	0	$0.00
Contract Manager	19.50		$0.00		$0.00	0	$0.00
Technical Editor	13.26	40	$530.40		$0.00	40	$530.40
Health & Safety Assistant	12.50		$0.00		$0.00	0	$0.00
Health & Safety Manager (CIH)	24.00		$0.00		$0.00	0	$0.00
Quality Assurance Assistant	19.71	517	$10,190.07		$0.00	517	$10,190.07
Cad Operator/Sr. Draftsperson	15.60	400	$6,240.00		$0.00	400	$6,240.00
Draftsperson	10.50		$0.00		$0.00	0	$0.00
Air Quality Engineer/Scientist	16.94		$0.00		$0.00	0	$0.00
Chemist	16.35	160	$2,616.00		$0.00	160	$2,616.00
Senior Chemist (CLP Qual.)	22.44	80	$1,795.20		$0.00	80	$1,795.20
Public Health Specialist	29.58	704	$20,824.32		$0.00	704	$20,824.32
Technician	10.50	176	$1,848.00		$0.00	176	$1,848.00
Community Relations Specialist	19.23	184	$3,538.32		$0.00	184	$3,538.32
Technical Expert (PhD-Sci/Eng)	35.00	498	$17,430.00		$0.00	498	$17,430.00
TOTAL DIRECT LABOR	XXXXX	11,387	$275,350.31	0	$0.00	11,387	$275,350.31
X Fringe (.3312)	XXXXX	XXXXX	$91,196.02	XXXXX	$0.00	XXXXX	$91,196.02
X Overhead (.5413)	XXXXX	XXXXX	$198,411.53	XXXXX	$0.00	XXXXX	$198,411.53
X G&A (.0733)	XXXXX	XXXXX	$41,411.41	XXXXX	$0.00	XXXXX	$41,411.41
Total Burdened Dir. Labor	XXXXX	XXXXX	$606,369.27	XXXXX	$0.00	XXXXX	$606,369.27

PART II - OTHER DIRECT COSTS (Itemized on Supplement Sheets)

ITEM	UNIT COST(S)	QUANTITY	TOTAL
Telephone/Communications	$5.00/Call		$3,600.00
Postage/Freight	See attached sheet		$6,165.00
Expendables	See attached sheet		$400.00
Equipment	See attached sheet		$1,350.00
Subtotal			$11,515.00
X G&A (.0733)			$844.05
TOTAL	XXXXXXX	XXXXXXX	$12,359.05

PART III - TRAVEL (Itemized on Supplement Sheets)

Subsistence	$26.00		$6,812.00
Car/Fuel	$50.00		$7,050.00
Field Van/Fuel	$80.00		$2,400.00
Lodging	See attached sheet		$8,786.00
Airfare	See attached sheet		$6,306.00
Subtotal			$31,354.00
X G&A (.0733)			$2,298.25
TOTAL TRAVEL EXPENSES	XXXXX	XXXXX	$33,652.25

PART IV - SUBCONTRACTOR SERVICES (Itemized on Supplement Sheets)

Subcontract Drilling	See attached sheet		$72,076.00
Subcontract Laboratory	See attached sheet		$236,998.00
Subcontract Survey	See attached sheet		$19,900.00
Soil Gas Survey & PCPT & GPR & EM Survey	See attached sheet		$25,545.00
Other	See attached sheet		$27,510.00
Subtotal			$382,029.00
X G&A (.0733)			$28,002.73
TOTAL SUBCONTRACTOR EXPENSES	XXXXX	XXXXX	$410,031.73
			438,034.46

	TOTAL	
	LABOR HOURS	COST(S)
TOTAL PART I (Direct Labor)	11,387	$606,369.27
TOTAL PART II (Other Direct Costs)		$12,359.05
TOTAL PART III (Travel Expenses)		$33,652.25
SUBTOTAL (Parts I, II, & III)		$652,380.57
Award Fee Pool @ 10% x Parts I, II, & III Enter Award Fee % here 10%		$65,238.06
Parts I, II, & III TOTAL		717,618.63
TOTAL PART IV (Subcontractor Expenses)		$410,031.73
Award Fee Pool @ 4.5 % x Part IV Enter Award Fee % here 4.5 %		$18,451.43
Part IV TOTAL		$428,483.16
TOTAL: (Parts I, II, & III)		$717,618.63
(Part IV)		$428,483.16
GRAND TOTAL		$1,146,101.79

A&E Signature	Date		Telephone	
James R Wallace	9/25/91		904-656-1293	
EIC Signature	Date	Code	Code 18C Approval	Date

COST SUMMARY
PROJECT NAME: RI/FS, OUs 1, 2 & 7, NAS Cecil Field
RESPONSIBLE:

DESCRIPTION	BASE	RATE	AMOUNT
TASK ORDER MANAGER	2720	$29.00	$78,880.00
QUALITY ASSURANCE MANAGER	80	$25.50	$2,040.00
SENIOR ENGINEER	496	$29.00	$14,384.00
SENIOR SCIENTIST	2170	$29.10	$63,147.00
ENGINEER	790	$18.50	$14,615.00
GEOLOGIST	536	$19.00	$10,184.00
HYDROLOGIST	480	$20.00	$9,600.00
TOXICOLOGIST	176	$18.00	$3,168.00
SENIOR HYDROLOGIST		$33.79	
CHEMIST	160	$16.35	$2,616.00
TECHNICIAN	176	$10.50	$1,848.00
SENIOR CHEMIST	80	$22.44	$1,795.20
PUBLIC HEALTH SPECIALIST	704	$29.58	$20,824.32
COMMUNITY RELATIONS SPECIALIST	184	$19.23	$3,538.32
TECHNICAL EXPERT	498	$35.00	$17,430.00
PROJECT ASSISTANT	640	$13.00	$10,920.00
CLERK/WORD PROCESSOR	340	$10.00	$3,400.00
CAD OPERATOR/SR DRAFTSMAN	400	$15.60	$6,240.00
QUALITY ASSURANCE ASSISTANT	517	$19.71	$10,190.07
TECHNICAL EDITOR	40	$13.26	$530.40
SUBTOTAL DIRECT LABOR	11387		$275,350.31
OVERHEAD	275350.31	0.3312	$91,196.02
FRINGE	366546.33	0.5413	$198,411.53
G&A - LABOR	564957.86	0.0733	$41,411.41
TOTAL LABOR			$606,369.27
AIRFARE			$6,306.00
CAR/FUEL		$50.00	$7,050.00
FIELD VAN/FUEL		$80.00	$2,400.00
PER DIEM		$26.00	$6,812.00
LODGING			$8,786.00
SUBTOTAL TRAVEL			$31,354.00
G&A - TRAVEL	31354	0.0733	$2,298.25
TOTAL TRAVEL			$33,652.25
PHONE & TELEX		$5.00	$3,600.00
SHIPPING			$6,165.00
EQUIPMENT			$1,350.00
EXPENDABLES			$400.00
SUBTOTAL OTHER DIRECT COSTS			$11,515.00
G&A - OTHER DIRECT COSTS	11515.00	0.0733	$844.05
TOTAL OTHER DIRECT COSTS			$12,359.05
SUBCONTRACT			
DRILLING			$72,076.00
LABORATORY			$236,998.00
SURVEY			$19,900.00
PCPT			$6,300.00
BENCH TESTS			
GPR & EM SURVEY			$7,000.00
SOIL GAS SURVEY			$12,245.00
OTHER			$27,510.00
SUBTOTAL SUBCONTRACT			$382,029.00
G&A - SUBCONTRACT	382029	0.0733	$28,002.73
TOTAL SUBCONTRACT			$410,031.73
TOTAL COST			$1,062,412.30
AWARD FEE - LABOR, TRAVEL, ODC	652380.57	0.1	$65,238.06
AWARD FEE - SUBCONTRACT	410031.73	0.045	$18,451.43
TOTAL PRICE			$1,146,101.78

CERTIFICATE OF CURRENT COST OR PRICING DATA

This is to certify that, to the best of my knowledge and belief, the cost or pricing data (as defined in Section 15.801 of the Federal Acquisition Regulation (FAR) and required under FAR Subsection 15.804-2) submitted, either actually or by specific identification in writing, to the Contracting Officer or the Contracting Officer's representative in support of Statement of Work No. 010, RI/FS, Operable Units 1, 2, and 7, Naval Air Station Jacksonville, Florida are accurate, complete, and current as of 24 September 1991. This certification includes the cost or pricing data supporting any advance agreements and forward pricing rate agreements between the offeror and the Government that are part of the proposal.

FIRM: ABB ENVIRONMENTAL SERVICES, INC.

NAME: Laurie A. Huffman

Laurie A. Huffman

TITLE: CONTRACTS MANAGER

DATE: 25 SEPTEMBER 1991