RACS

draft work plan due by 3/18

ARCs work completion Date is 2/28/97

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February 1997

STATEMENT OF WORK FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) OVERSIGHT ACTIVITIES CENTRAL LANDFILL SUPERFUND SITE OPERABLE UNIT 2 JOHNSTON, RI

RI/FS OVERSIGHT

The contractor shall furnish personnel, services, materials and equipment required to perform oversight of Potentially Responsible Party (PRP) RI/FS activities at the Central Landfill Superfund site. The contractor shall provide technical support to assist EPA in verifying that the PRP work is conducted in accordance with the amended April 1987 Administrative Order by Consent. Technical oversight of the OU2 off-site RI/FS and preparation of a baseline risk assessment (human health and ecological) will be the major portions of this work assignment. In addition, data gaps and data necessary to complete the remedial designs for OU1 will be collected during the OU2 effort. Technical oversight of this data collection will be needed. The period of performance for this work assignment is through October 1997 (9 months).

The following work breakdown structure shall be used for project scoping, scheduling, and technical and cost tracking and reporting.

TASK 1 PROJECT PLANNING AND SUPPORT

The purpose of this task is to plan for the execution and overall management of this SOW.

1.1 Project Planning

.1.1 Attend Scoping Meeting. The contractor shall attend a kick-off meeting to be held at the EPA Regional Office.

.1.2 Conduct Site Visit.
N/A

delete → √ .1.3 Evaluate Existing Information. The contractor shall obtain, copy (if necessary), ~~Notime~~ and review the OU1 RI/FS to become familiarized with the site conditions.

Keep in → √ .1.4 Develop Technical Project Goals and Objectives. The contractor shall prepare data needs and data quality objectives (DQOs) for analytical sampling to be performed. The goals and objectives should be used to define the analytical methods and protocols, decontamination procedures, and EPA reporting levels (e.g., I, II, III, IV) required to match those used by the PRP's RA constructor.
split sampling

.1.5 Develop Work Plan

.1.5.1 Develop Draft Work Plan. The contractor shall prepare and submit a Draft Work Plan within 30 calendar days after initiation of the work assignment. Submit the original to the Contracting Officer, and two copies to the Project Officer.

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(a) Develop Narrative. The Work Plan shall include a description of project tasks, the procedures to accomplish them, and project schedule. Specifically, the Work Plan shall include the following:

- Identification of project elements and the associated tasks. This task will result in a detailed breakdown of subtasks within the WBS tasks.
- The contractor's technical approach to each task to be performed, including a description of each task, the assumptions used, the information needed for each task, any information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA. Information shall be presented in a sequence consistent with the work breakdown structure format defined in the standard WBS.
- A schedule with specific dates for completion of each required activity and submission of each deliverable required by this SOW.
- A project communications and management plan and contractor reporting requirements, such as meetings and presentations to EPA at the conclusion of major phases of the project.

(b) Develop Cost Estimate. The contractor's estimated cost to complete the work shall be broken into Level of Effort (by P-level) and cost for each task of the Work Breakdown Structure and submitted to EPA on disk.

(c) Perform internal QA and submit draft work plan.

.1.5.2 Prepare Final Work Plan. The contractor shall prepare a Final Work Plan 15 days after receipt of EPA comments on the draft. This final version shall incorporate comments on the draft version as directed by the WAM/RPM.

(a) Attend negotiation meeting.

(b) Modify draft work plan and cost estimate.

(c) Perform internal QA and submit final work plan.

.1.6 Review PRP Plans, if applicable, including the PRP Health and Safety Plan and/or the Sampling and Analysis Plan.

N/A

1.2 Preparation of Site-Specific Plans

.2.1 Develop Site Management Plan

N/A

.2.2 Develop or update Health and Safety Plan (HASP)
N/A

.2.3 Develop Sampling and Analysis Plan (SAP) to reflect the specific objectives of data acquisition to be conducted during RA construction oversight. The SAP will outline the data collection and QA/QC requirements of sampling and analysis to be conducted by the contractor. The SAP may be composed of the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) under separate covers, or it may be a single document, containing the essential elements of both the FSP and QAPP. The contractor shall use the SAPs prepared for the RI/FS and/or RD oversight portions of the project, whenever possible.

.2.3.1 Develop Quality Assurance Project Plan in accordance with QAMS-005/80 (December 29, 1980). The QAPP shall describe the project objectives and QA/QC protocols to be used in achieving the desired DQOs. The DQOs shall, at a minimum, reflect use of analytical methods for identifying contamination and addressing contamination consistent with the levels for RA objectives identified in the National Contingency Plan (NCP). The selected analytical methods and reporting levels shall parallel those being used by the PRP's RA constructor.

.2.3.2 Develop Field Sampling Plan to define the oversight sampling and information collection methods that shall be used for the project. It shall include sampling objectives, sample locations and frequency, sampling equipment and procedures, sample handling and analysis, and description of which samples are to be analyzed through the Contract Laboratory Program (CLP), which through other sources, and the justification for those decisions. The FSP shall be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. The FSP developed for the RI/FS or RD oversight should be used whenever possible in preparing the FSP for the RA oversight activities.

.2.4 Other Plan(s)
N/A

1.3 Project Management

.3.1 Prepare Periodic Status Reports. The contractor shall prepare Monthly Progress Reports.

.3.1.1 Document Cost and Performance Status. The contractor shall document the technical progress and status of each task in the WBS for the reporting period (approximately 9 reports) in accordance with contract requirements. The contractor shall report costs and level of effort (by P level) for the reporting period as well as cumulative amounts expended to date.

.3.1.2 Prepare and Submit Invoices. Monthly invoices will be prepared and submitted in accordance with the level of detail as specified in the contract.

delete reference to meetings → .3.2 Meeting Participation and Routine Communications. The contractor shall attend project meetings, provide documentation of meeting results, and shall contact the WAM/RPM by telephone on a weekly basis, if appropriate, to report project status.

1.4 Subcontract Procurement and Support Activities
N/A

TASK 2 COMMUNITY RELATIONS

This task includes work efforts related to the preparation and implementation of the Community Relations Plan (CRP) for the site. When attending public meetings and open houses, contractor employees must identify themselves as employees of an EPA contractor. The contractor shall provide support for the following community relations activities:

√ w/ Sarah if there is a CRP. If there is one, amend it.

delete 2.1 Conducting community interviews. - N/A
2.2 Preparation of a Community Relations Plan (CRP). - ondisc? No
2.3 Organizing public meetings. Contractor is to assume that ~~four~~ two public meetings and one public hearing will be held. @ Johnston High School cost of stenographer
N/A 2.4 Preparation of fact sheets. Contractor is to assume that two fact sheets will be required. - N/A
2.5 Publishing of 2 sets Public Notices in local newspapers serving the site community.
2.6 Maintenance of public information repositories. (3 trips)
2.7 Developing and updating site mailing list. (assume 300 people on list, 3 sets of lists)
2.8 Preparation of presentation materials.
2.9 Technical assistance in the preparation of the Proposed Plan (Low Level) (just providing assistance to someone else doing)

TASK 3 FIELD INVESTIGATION

use ARCs - extend project completion date.

This task involves work efforts to provide technical field oversight for the purpose of documenting PRP performance of field work. The contractor shall perform field investigations which consist of two subtasks, Filling of OU1 Data Gaps and Management of Migration Studies. A field logbook shall be kept by the contractor and provided to EPA. Details are as follows:

3.1 Filling of OU1 Gaps
.1.1 Residential Well Survey - The PRP will perform a door to door survey to establish which (if any) properties in the area may be using potentially contaminated groundwater. The contractor shall review the PRP's technical memorandum on the conclusions of this effort to ensure that the survey was comprehensive and provide written comments in a letter report to EPA. (cursory) DAS - lower detection levels
.1.2 Pumping Tests - N/A
.1.3 Lateral Extent of Chemical and Septage Sludges - The extent of these sludges may be beyond the toe of the existing 121-acre Phase I area. Test pits will be used to determine the extent. N/A

The contractor shall provide field oversight (about 2 days) which will consist of observing the excavation of the test pits to confirm the extent of the sludges.

.1.4 Resolve Discrepancies in OU1 Chemical Analytical Data - The contractor shall perform a re-validation of split groundwater samples (4 samples) that showed acetone and methylene chloride. Also, the contractor shall review the PRP's protocol for the analysis of nitrates. N/A

3.2 Management of Migration Studies

.2.1 Groundwater Studies - The contractor will be involved in: trying to locate a plume migrating from the Hot Spot area; locating the northeast groundwater divide; evaluating groundwater mounding in the landfill; and off-site groundwater monitoring. The means to accomplish these tasks is described in the OU2 work plan (Task 1) provided by EPA.

mostly done, except for deep well, and some residential wells.

Residential Well survey GW sampling has been done, except for deep well.

In addition to reviewing the work plan, the contractor shall provide field oversight of bedrock monitoring well installations and split sampling with data validation for about 10% of the groundwater samples. It is estimated that about 10 groundwater samples will be split and analyzed for the full TAL/TCL lists and 100% of the splits require data validation.

.2.2 Surface Water Studies - The contractor shall provide field oversight of surface water sampling in Cedar Swamp Brook, Upper Simmons Reservoir, and Almy Reservoir. Split sampling and data validation of about 10% of the surface water samples will be required. The contractor is to assume six (6) splits for full TAL/TCL lists. Also, inspection of a stream gauge to be placed in Cedar Swamp Brook by the PRP will be required. N/A.

.2.3 Sediment Studies - The PRP has collected and reported on the results of sediment sampling in Upper Simmons Reservoir. The contractor shall provide technical support to review and provide written comments in this report in the form of a letter report. N/A

TASK 4 SAMPLE ANALYSIS Cost of Analysis for DAS

N/A

TASK 5 ANALYTICAL SUPPORT AND DATA VALIDATION

This task includes work efforts involved in scheduling, coordination, tracking, and oversight of sample analyses and validation of analytical data produced.

5.1 Collect, prepare, and ship environmental samples in accordance with the Field Sampling Plan (FSP) (developed under Task 1). The following types of sampling may be required:

- Field screening. - N/A
- Groundwater sampling

- Surface and subsurface soil sampling. – N/A
- Surface water and sediment sampling. – N/A
- Air monitoring and sampling. - N/A
- Biota sampling. – N/A
- Other types of media sampling and screening. - N/A

5.2 Develop Data Quality Objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling. - N/A

5.3 Request, obtain, and perform oversight of analytical services in compliance with EPA requirements.

5.4 Coordinate with the EPA Sample Management Office(SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical, data validation, and quality assurance issues.

5.5 Provide sample management including chain-of-custody procedures, information management, sample retention, and 10-year data storage.

5.6 Perform data validation, the process by which the quality of the data, the defensibility of the data and the chain of custody are verified. The contractor shall perform data validation in accordance with Regional guidelines.

TASK 6 DATA EVALUATION

N/A

Add in Task 6
Ask Data for Data Evaluation Report

TASK 7 ASSESSMENT OF RISK

The Agency is responsible for conducting Risk Assessments where the PRPs are performing RI/FS activities. As such, this task includes work efforts to conduct a Baseline Risk Assessment and to prepare necessary Risk Assessment documents. The objective of this assessment is to characterize and quantify where appropriate, the current and potential human health and environment risks that would prevail if no further remedial action is taken.

The Risk Assessment must be done in accordance with the guidance, procedures, assumptions, methods and formats contained in:

- Human Health Evaluation Manual Supplemental Guidance: "Standard Default Exposure Factors" OSWER Directive 9285.6-03 (EPA, March 25, 1991).
- EPA Regional guidance as specified.
- Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A) Interim Final (EPA 540/1/-89, December 1989).
- Risk Assessment Guidance for Superfund, Volume II: Environmental Evaluation

(EPA 540/1-89/001, March 1989).

- Guidance for Data Useability in Risk Assessment (EPA/540/G-90/008, September 1990).
- Air/Superfund National Technical Guidance Study Series Volumes I, II, III, and IV (EPA 450/1-89-001, 002, 003, 004, July 1989).
- Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference Document (EPA 600/3-89/013, March 1989).

7.1 The Baseline Risk Assessment shall be separated into two components: (1) Human Health Risk Assessment and (2) Ecological Risk Assessment. The Human Health Risk Assessment is Not Applicable under this work assignment.

Final Eco Assess. Work Plan RA - Med
interim deliverable - low
response to comments -
draft - high
final - low
2 1/2-day Meetings in RI

7.2 The Ecological Risk Assessment shall address the following:

- Definition of objectives.
- Characterization of site and potential receptors.
- Selection of chemicals, species and end points for risk evaluation.
- Exposure assessment.
- Toxicity assessment.
- Risk characterization.
- Limitation/uncertainties.

TASK 8 TREATABILITY STUDY/PILOT TESTING

This task involves work efforts to provide technical oversight of PRP Treatability Study/Pilot Testing.

8.1 Review of PRP work plan for Treatability Study/Pilot Test. - N/A
8.2 Split Sampling. - N/A
8.3 Oversight of Treatability Study/Pilot Test activities. - N/A
8.4 Preparation of Technical Memorandum. - N/A

TASK 9 REMEDIAL INVESTIGATION REPORT

This task includes work efforts to review the draft and the final draft of the PRP-generated Remedial Investigation (RI) report. The contractor shall perform a technical review (high level of effort) and generate comments in the form of a Technical Memorandum. The contractor shall identify data gaps that may be important for the ~~Human Health and~~ Ecological Risk Assessment and the Feasibility Study. The contractor shall prepare for and attend all meetings (anticipated to be four) with EPA and the PRP to discuss preparation of the RI Report and technical comments to the RI Report.

~~Subt~~ also, review tech. reports that are prepared in support of the RI
(assume 3 technical reviews at a Low Level)

TASK 10 REMEDIAL ALTERNATIVES SCREENING

N/A (work included under Task 9)

TASK 11 REMEDIAL ALTERNATIVES EVALUATION

N/A (work included under Task 9)

TASK 12 FS REPORT AND RI/FS REPORT

This task includes work efforts (high level of effort) to review and comment on the following documents provided by EPA and generated by the PRP as interim deliverables:

12.1 Technical Memorandum - Remedial Response Objectives and Response Actions
12.2 Memorandum - Preliminary Identification of ARARs
12.3 Technical Memorandum - Initial Screening of Remedial Alternatives
12.4 The draft and final PRP-generated FS Report

The contractor shall perform a technical review and generate comments to EPA for all the documents listed above in the form of a Technical Memorandum. The contractor shall prepare for and attend all meetings (anticipated to be three) to discuss EPA's comments to the interim deliverables and draft FS Report.

TASK 13 POST RI/FS SUPPORT

This task includes efforts to support the Agency's Record of Decision (ROD).

2 ½ day meetings in Boston w/ 2 people

13.1 Attend technical meetings, ~~public meetings, briefings, public hearings~~. N/A
13.2 Provide technical assistance in the preparation of the Record of Decision (ROD).
13.3 Review PRP Feasibility Study (FS) Addendum, if necessary.
13.4 Provide technical assistance in the preparation of the Responsiveness Summary.

TASK 14 N/A

TASK 15 WORK ASSIGNMENT CLOSE OUT

This task includes efforts related to work assignment close out. Typical activities the contractor may be tasked to perform include but are not limited to:

15.1 Return of documents to EPA or other document repositories.
15.2 File duplication, distribution, and storage.
15.3 File archiving to meet Federal Records Center requirements. - N/A

15.4 N/A

15.5 Prepare a Work Assignment Close-out Report (WACR) in accordance with Regional guidance or other procedures as specified in the work assignment.

February 1997

STATEMENT OF WORK FOR REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) OVERSIGHT ACTIVITIES CENTRAL LANDFILL SUPERFUND SITE OPERABLE UNIT 2 JOHNSTON, RI

RI/FS OVERSIGHT

The contractor shall furnish personnel, services, materials and equipment required to perform oversight of Potentially Responsible Party (PRP) RI/FS activities at the Central Landfill Superfund site. The contractor shall provide technical support to assist EPA in verifying that the PRP work is conducted in accordance with the amended April 1987 Administrative Order by Consent. Technical oversight of the OU2 off-site RI/FS and preparation of a baseline risk assessment (human health and ecological) will be the major portions of this work assignment. In addition, data gaps and data necessary to complete the remedial designs for OU1 will be collected during the OU2 effort. Technical oversight of this data collection will be needed. The period of performance for this work assignment is through October 1997 (9 months).

The following work breakdown structure shall be used for project scoping, scheduling, and technical and cost tracking and reporting.

TASK 1 PROJECT PLANNING AND SUPPORT

The purpose of this task is to plan for the execution and overall management of this SOW.

1.1 Project Planning

- .1.1 Attend Scoping Meeting. The contractor shall attend a kick-off meeting to be held at the EPA Regional Office.
- .1.2 Conduct Site Visit.
  N/A
- .1.3 Evaluate Existing Information. The contractor shall obtain, copy (if necessary), and review the OU1 RI/FS to become familiarized with the site conditions.
- .1.4 Develop Technical Project Goals and Objectives. The contractor shall prepare data needs and data quality objectives (DQOs) for analytical sampling to be performed. The goals and objectives should be used to define the analytical methods and protocols, decontamination procedures, and EPA reporting levels (e.g., I, II, III, IV) required to match those used by the PRP's RA constructor.
- .1.5 Develop Work Plan
  - .1.5.1 Develop Draft Work Plan. The contractor shall prepare and submit a Draft Work Plan within 30 calendar days after initiation of the work assignment. Submit the original to the Contracting Officer, and two copies to the Project Officer.

(a) Develop Narrative. The Work Plan shall include a description of project tasks, the procedures to accomplish them, and project schedule. Specifically, the Work Plan shall include the following:

- Identification of project elements and the associated tasks. This task will result in a detailed breakdown of subtasks within the WBS tasks.
- The contractor's technical approach to each task to be performed, including a description of each task, the assumptions used, the information needed for each task, any information to be produced during and at the conclusion of each task, and a description of the work products that will be submitted to EPA. Information shall be presented in a sequence consistent with the work breakdown structure format defined in the standard WBS.
- A schedule with specific dates for completion of each required activity and submission of each deliverable required by this SOW.
- A project communications and management plan and contractor reporting requirements, such as meetings and presentations to EPA at the conclusion of major phases of the project.

(b) Develop Cost Estimate. The contractor's estimated cost to complete the work shall be broken into Level of Effort (by P-level) and cost for each task of the Work Breakdown Structure and submitted to EPA on disk.

(c) Perform internal QA and submit draft work plan.

.1.5.2 Prepare Final Work Plan. The contractor shall prepare a Final Work Plan 15 days after receipt of EPA comments on the draft. This final version shall incorporate comments on the draft version as directed by the WAM/RPM.

(a) Attend negotiation meeting.

(b) Modify draft work plan and cost estimate.

(c) Perform internal QA and submit final work plan.

.1.6 Review PRP Plans, if applicable, including the PRP Health and Safety Plan and/or the Sampling and Analysis Plan.
N/A

1.2 Preparation of Site-Specific Plans

.2.1 Develop Site Management Plan
N/A

.2.2 Develop or update Health and Safety Plan (HASP)
N/A

.2.3 Develop Sampling and Analysis Plan (SAP) to reflect the specific objectives of data acquisition to be conducted during RA construction oversight. The SAP will outline the data collection and QA/QC requirements of sampling and analysis to be conducted by the contractor. The SAP may be composed of the Field Sampling Plan (FSP) and Quality Assurance Project Plan (QAPP) under separate covers, or it may be a single document, containing the essential elements of both the FSP and QAPP. The contractor shall use the SAPs prepared for the RI/FS and/or RD oversight portions of the project, whenever possible.

.2.3.1 Develop Quality Assurance Project Plan in accordance with QAMS-005/80 (December 29, 1980). The QAPP shall describe the project objectives and QA/QC protocols to be used in achieving the desired DQOs. The DQOs shall, at a minimum, reflect use of analytical methods for identifying contamination and addressing contamination consistent with the levels for RA objectives identified in the National Contingency Plan (NCP). The selected analytical methods and reporting levels shall parallel those being used by the PRP's RA constructor.

.2.3.2 Develop Field Sampling Plan to define the oversight sampling and information collection methods that shall be used for the project. It shall include sampling objectives, sample locations and frequency, sampling equipment and procedures, sample handling and analysis, and description of which samples are to be analyzed through the Contract Laboratory Program (CLP), which through other sources, and the justification for those decisions. The FSP shall be written so that a field sampling team unfamiliar with the site would be able to gather the samples and field information required. The FSP developed for the RI/FS or RD oversight should be used whenever possible in preparing the FSP for the RA oversight activities.

.2.4 Other Plan(s)
N/A

1.3 Project Management

.3.1 Prepare Periodic Status Reports. The contractor shall prepare Monthly Progress Reports.

.3.1.1 Document Cost and Performance Status. The contractor shall document the technical progress and status of each task in the WBS for the reporting period (approximately 9 reports) in accordance with contract requirements. The contractor shall report costs and level of effort (by P level) for the reporting period as well as cumulative amounts expended to date.

.3.1.2 Prepare and Submit Invoices. Monthly invoices will be prepared and submitted in accordance with the level of detail as specified in the contract.

.3.2 Meeting Participation and Routine Communications. The contractor shall attend project meetings, provide documentation of meeting results, and shall contact the WAM/RPM by telephone on a weekly basis, if appropriate, to report project status.

1.4 Subcontract Procurement and Support Activities
N/A

TASK 2 COMMUNITY RELATIONS

This task includes work efforts related to the preparation and implementation of the Community Relations Plan (CRP) for the site. When attending public meetings and open houses, contractor employees must identify themselves as employees of an EPA contractor. The contractor shall provide support for the following community relations activities:

2.1 Conducting community interviews.
2.2 Preparation of a Community Relations Plan (CRP).
2.3 Organizing public meetings. Contractor is to assume that four public meetings will be held.
2.4 Preparation of fact sheets. Contractor is to assume that two fact sheets will be required.
2.5 Publishing of Public Notices in local newspapers serving the site community.
2.6 Maintenance of public information repositories.
2.7 Developing and updating site mailing list.
2.8 Preparation of presentation materials.
2.9 Technical assistance in the preparation of the Proposed Plan

TASK 3 FIELD INVESTIGATION

This task involves work efforts to provide technical field oversight for the purpose of documenting PRP performance of field work. The contractor shall perform field investigations which consist of two subtasks, Filling of OU1 Data Gaps and Management of Migration Studies. A field logbook shall be kept by the contractor and provided to EPA. Details are as follows:

3.1 Filling of OU1 Gaps
.1.1 Residential Well Survey - The PRP will perform a door to door survey to establish which (if any) properties in the area may be using potentially contaminated groundwater. The contractor shall review the PRP's technical memorandum on the conclusions of this effort to ensure that the survey was comprehensive and provide written comments in a letter report to EPA.
.1.2 Pumping Tests - N/A
.1.3 Lateral Extent of Chemical and Septage Sludges - The extent of these sludges may be beyond the toe of the existing 121-acre Phase I area. Test pits will be used to determine the extent.

The contractor shall provide field oversight (about 2 days) which will consist of observing the excavation of the test pits to confirm the extent of the sludges.

.1.4 Resolve Discrepancies in OU1 Chemical Analytical Data - The contractor shall perform a re-validation of split groundwater samples (4 samples) that showed acetone and methylene chloride. Also, the contractor shall review the PRP's protocol for the analysis of nitrates.

3.2 Management of Migration Studies

.2.1 Groundwater Studies - The contractor will be involved in: trying to locate a plume migrating from the Hot Spot area; locating the northeast groundwater divide; evaluating groundwater mounding in the landfill; and off-site groundwater monitoring. The means to accomplish these tasks is described in the OU2 work plan (Task 1) provided by EPA.

In addition to reviewing the work plan, the contractor shall provide field oversight of bedrock monitoring well installations and split sampling with data validation for about 10% of the groundwater samples. It is estimated that about 10 groundwater samples will be split and analyzed for the full TAL/TCL lists and 100% of the splits require data validation.

.2.2 Surface Water Studies - The contractor shall provide field oversight of surface water sampling in Cedar Swamp Brook, Upper Simmons Reservoir, and Almy Reservoir. Split sampling and data validation of about 10% of the surface water samples will be required. The contractor is to assume six (6) splits for full TAL/TCL lists. Also, inspection of a stream gauge to be placed in Cedar Swamp Brook by the PRP will be required.

.2.3 Sediment Studies - The PRP has collected and reported on the results of sediment sampling in Upper Simmons Reservoir. The contractor shall provide technical support to review and provide written comments in this report in the form of a letter report.

TASK 4 SAMPLE ANALYSIS

N/A

TASK 5 ANALYTICAL SUPPORT AND DATA VALIDATION

This task includes work efforts involved in scheduling, coordination, tracking, and oversight of sample analyses and validation of analytical data produced.

5.1 Collect, prepare, and ship environmental samples in accordance with the Field Sampling Plan (FSP) (developed under Task 1). The following types of sampling may be required:

- Field screening. - N/A
- Groundwater sampling

- Surface and subsurface soil sampling.
- Surface water and sediment sampling.
- Air monitoring and sampling. - N/A
- Biota sampling.
- Other types of media sampling and screening. - N/A

5.2 Develop Data Quality Objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling. - N/A

5.3 Request, obtain, and perform oversight of analytical services in compliance with EPA requirements.

5.4 Coordinate with the EPA Sample Management Office(SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical, data validation, and quality assurance issues.

5.5 Provide sample management including chain-of-custody procedures, information management, sample retention, and 10-year data storage.

5.6 Perform data validation, the process by which the quality of the data, the defensibility of the data and the chain of custody are verified. The contractor shall perform data validation in accordance with Regional guidelines.

TASK 6 DATA EVALUATION

N/A

TASK 7 ASSESSMENT OF RISK

The Agency is responsible for conducting Risk Assessments where the PRPs are performing RI/FS activities. As such, this task includes work efforts to conduct a Baseline Risk Assessment and to prepare necessary Risk Assessment documents. The objective of this assessment is to characterize and quantify where appropriate, the current and potential human health and environment risks that would prevail if no further remedial action is taken.

The Risk Assessment must be done in accordance with the guidance, procedures, assumptions, methods and formats contained in:

- Human Health Evaluation Manual Supplemental Guidance: "Standard Default Exposure Factors" OSWER Directive 9285.6-03 (EPA, March 25, 1991).
- EPA Regional guidance as specified.
- Risk Assessment Guidance for Superfund, Volume I: Human Health Evaluation Manual (Part A) Interim Final (EPA 540/1/-89, December 1989).
- Risk Assessment Guidance for Superfund, Volume II: Environmental Evaluation

(EPA 540/1-89/001, March 1989).

- Guidance for Data Useability in Risk Assessment (EPA/540/G-90/008, September 1990).
- Air/Superfund National Technical Guidance Study Series Volumes I, II, III, and IV (EPA 450/1-89-001, 002, 003, 004, July 1989).
- Ecological Assessment of Hazardous Waste Sites: A Field and Laboratory Reference Document (EPA 600/3-89/013, March 1989).

7.1 The Baseline Risk Assessment shall be separated into two components: (1) Human Health Risk Assessment and (2) Ecological Risk Assessment. The Human Health Risk Assessment is Not Applicable under this work assignment.

7.2 The Ecological Risk Assessment shall address the following:

- Definition of objectives.
- Characterization of site and potential receptors.
- Selection of chemicals, species and end points for risk evaluation.
- Exposure assessment.
- Toxicity assessment.
- Risk characterization.
- Limitation/uncertainties.

TASK 8 TREATABILITY STUDY/PILOT TESTING

This task involves work efforts to provide technical oversight of PRP Treatability Study/Pilot Testing.

8.1 Review of PRP work plan for Treatability Study/Pilot Test. - N/A
8.2 Split Sampling. - N/A
8.3 Oversight of Treatability Study/Pilot Test activities. - N/A
8.4 Preparation of Technical Memorandum. - N/A

TASK 9 REMEDIAL INVESTIGATION REPORT

This task includes work efforts to review the draft and the final draft of the PRP-generated Remedial Investigation (RI) report. The contractor shall perform a technical review (high level of effort) and generate comments in the form of a Technical Memorandum. The contractor shall identify data gaps that may be important for the Human Health and Ecological Risk Assessment and the Feasibility Study. The contractor shall prepare for and attend all meetings (anticipated to be four) with EPA and the PRP to discuss preparation of the RI Report and technical comments to the RI Report.

TASK 10 REMEDIAL ALTERNATIVES SCREENING

N/A (work included under Task 9)

TASK 11 REMEDIAL ALTERNATIVES EVALUATION

N/A (work included under Task 9)

TASK 12 FS REPORT AND RI/FS REPORT

This task includes work efforts (high level of effort) to review and comment on the following documents provided by EPA and generated by the PRP as interim deliverables:

12.1 Technical Memorandum - Remedial Response Objectives and Response Actions
12.2 Memorandum - Preliminary Identification of ARARs
12.3 Technical Memorandum - Initial Screening of Remedial Alternatives
12.4 The draft and final PRP-generated FS Report

The contractor shall perform a technical review and generate comments to EPA for all the documents listed above in the form of a Technical Memorandum. The contractor shall prepare for and attend all meetings (anticipated to be three) to discuss EPA's comments to the interim deliverables and draft FS Report.

TASK 13 POST RI/FS SUPPORT

This task includes efforts to support the Agency's Record of Decision (ROD).

13.1 Attend technical meetings, public meetings, briefings, public hearings.
13.2 Provide technical assistance in the preparation of the Record of Decision (ROD).
13.3 Review PRP Feasibility Study (FS) Addendum, if necessary.
13.4 Provide technical assistance in the preparation of the Responsiveness Summary.

TASK 14 N/A

TASK 15 WORK ASSIGNMENT CLOSE OUT

This task includes efforts related to work assignment close out. Typical activities the contractor may be tasked to perform include but are not limited to:

15.1 Return of documents to EPA or other document repositories.
15.2 File duplication, distribution, and storage.
15.3 File archiving to meet Federal Records Center requirements. - N/A

15.4 N/A

15.5 Prepare a Work Assignment Close-out Report (WACR) in accordance with Regional guidance or other procedures as specified in the work assignment.