



## New York State Department of Environmental Conservation

## MEMORANDUM

TO: Darrell Sweredoski, Reg. Hazardous Waste Remediation Engineer, Region 6  
FROM: Joseph L. Slack, Director, Bureau of Eastern Remedial Action, DHWR  
SUBJECT: Workplan for Records Review/Data Compilation - Ft. Drum Landfill #623008  
DATE: MAR 5 1990

*Joseph L. Slack/m.c.*

Attached are two documents relating to a work plan for Records Review/Data Compilation and Database Compilation Report for Existing Sanitary Landfill at Fort Drum. Please have staff review and comment upon the both documents by April 6, 1990.

Please direct all comments and questions to Syed Uddin, of my staff. If phone contact is required, he can be reached at (518) 457-3976. Thank you for your cooperation.

Attachments

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**WORK PLAN  
FOR  
RECORDS REVIEW/DATA COMPILATION  
EXISTING SANITARY LANDFILL  
FORT DRUM, NEW YORK**

**FINAL**

**CDM** Federal Programs Corporation

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**MISCELLANEOUS MILITARY AND CIVIL  
HAZARDOUS WASTE CLEANUP PROJECTS  
FOR  
U.S. ARMY CORPS OF ENGINEERS  
KANSAS CITY DISTRICT**

**WORK PLAN  
FOR  
RECORDS REVIEW/DATA COMPILATION  
EXISTING SANITARY LANDFILL  
FORT DRUM, NEW YORK**

**FINAL**

**CONTRACT NO. DACA41-89-D-0086**

**DO. NO. 010**

**CDM** Federal Programs Corporation

8215 Melrose Dr., Suite 100

Lenexa, KS 66214

**September 14, 1989**

# CDM Federal Programs Corporation

September 14, 1989

Ms. Linda Houston  
U.S. Army Corps of Engineers  
Kansas City District  
700 Federal Building  
601 East 12th Street  
Kansas City, MO 64108-2896

Project: Contract No. DACA41-89-D-0086  
Subject: Existing Landfill Final Work Plan, Fort Drum, NY

Dear Ms. Houston:

CDM Federal Programs Corporation is pleased to submit this Final Work Plan for the Existing Landfill Data Compilation. This work plan provides the basis for work on this assignment. Your comments on the Draft Work Plan have been received and are annotated below:

<u>Item</u>	<u>Page</u>	<u>Corps Comment</u>	<u>FPC Response</u>
		No comments	

If you have any questions regarding this plan or our comments, please contact me.

Sincerely,

CDM FEDERAL PROGRAMS CORPORATION



Mark A. Swatek, P.E.  
Contract Manager

Attachment: Distribution List

DISTRIBUTION LIST:

Commander U.S. Army Engineer District Kansas City ATTN: CEMRK-ED-TD (Linda Houston) 601 E. 12th Street Kansas City, MO 64106	3
U.S. Army Corps of Engineers Department of the Army ATTN: CEEC-B Pulaski Building Washington, DC 20317	1
U.S. Army Corps of Engineers Missouri River Division ATTN: CEMRD-ED-EA (Claudia Wiethop) 2945 South 132nd Street Omaha, NE 68144	3
Commander Army Environmental Hygiene Agency ATTN: HSHB-ME-SE (Hoddinott) Aberdeen Proving Ground, MD 21021-5422	3
Commander U.S. Army Toxic & Hazardous Materials Agency ATTN: CETHA-IR-A (Alavi) Aberdeen Proving Ground, MD 21010-5401	1
Commander U.S. Army Toxic & Hazardous Materials Agency ATTN: CETHA-IR-A (McClellan) Aberdeen Proving Ground, MD 21010-5401	1
Commander, Fort Drum ATTN: AFZS-EH-E (Moss) Building T4000 Fort Drum, NY 13602-5097	2
Mr. John Kenna Regional Solid Waste Engineer Department of Environmental Conservation State Office Building 317 Washington Street Watertown, NY 13601	2
Mark A. Swatek Jacqueline M. Mosher PF	Rosemary Ellersick Marty Mathamel Monte Morgan

## 1.0 INTRODUCTION

The Corps of Engineers, Kansas City District (Corps) has authorized CDM Federal Programs Corporation (CDM FPC) to provide Data Compilation Services at the Existing Sanitary Landfill located in Fort Drum, NY. These activities will be performed under Contract No. DACA-41-89-D-0086, Delivery Order No. 010. This work plan is based on the Statement of Work received July 7, 1989, (included as Appendix A) and CDM FPC's proposal dated August 18, 1989, (included as Appendix B). The work covered under this work plan involves the professional services necessary to complete a records review and data compilation at the Existing Sanitary Landfill.

## 2.0 SITE DESCRIPTION

### 2.1 HISTORY

The Existing Landfill is located near the Wheeler-Sack Airfield. It occupies about 10 acres of the installation in an area that is level with very little vegetation. The landfill began operation in 1973. Solid wastes generated by mess halls, offices, barracks, maintenance shops and the training units were placed in this landfill. It is an unpermitted, unlined sand landfill. A portion of the site has been covered with an impermeable 20-mil PVC liner and topsoil and is revegetated.

There is no observable surficial evidence that environmental contamination has occurred, although the highly permeable soil, combined with the absence of the bottom liner indicates a potential for contamination at the subsurface level.

In previous work done at the site, four (4) borings were drilled in the area surrounding the existing landfill. From these wells the water table was determined to be between 50 to 65 feet below the ground surface.

### 2.2 CONTAMINATION SCENARIO

The environmental media of concern in the area surrounding the Existing Sanitary Landfill include groundwater, soil and surface water.

Potential contaminant pathways and receptors may be summarized as follows:

<u>Media</u>	<u>Pathway</u>	<u>Receptor</u>
Groundwater	Ingestion, absorption	Humans, wildlife, domestic animals
	Uptake	Plants*
Soil	Incidental ingestion, absorption	Humans, wildlife

<u>Media</u>	<u>Pathway</u>	<u>Receptor</u>
	Inhalation	Humans, wildlife
	Uptake	Plants
Surface Water	Ingestion, absorption	Humans, wildlife, domestic animals
	Uptake	Plants

\*Via Irrigation

Potential human receptors of wastes are base personnel who potentially come in contact with surface water and soil surrounding the landfill. On-site investigation teams are also potential receptors.



### 3.0 SCOPE OF WORK

The Corps has specified that the following tasks be performed:

- o Task 1 - Work Plan
- o Task 2 - Records and Data Review
- o Task 3 - Compile Information and Develop a Database
- o Task 4 - Monthly Report

#### 3.1 TASK 1 - PREPARE WORK PLAN (WP)

This work plan has been prepared to provide a Scope of Work for CDM FPC and the Corps of Engineers. It contains the Work Progression (Schedule) and the Data Management Plans required by the Corps (Sections 4.0 and 6.0, respectively).

#### 3.2 TASK 2 - RECORDS AND DATA REVIEW

Records and Data review will consist of the following subtasks:

##### 3.2.1 SUBTASK 1 - PREPARE BASE MAP OF THE SITE

Existing topographic maps of the site provided by the Corps will be reviewed and combined into one topographic and planimetric base map. The existing landfill cells will be located on the map as well as any other landfill characteristics. This map will be used as the basis for location of the existing monitoring wells. A topographic survey is not part of this Scope of Work.

##### 3.2.2 SUBTASK 2 - LOCATE EXISTING MONITORING WELLS

This task entails surveying the locations and elevations of existing

monitoring wells that lie along the perimeter of the existing landfill. The locations of these wells will be incorporated into the base map prepared under Subtask 1. Locating these wells onto a base map will provide the information necessary to evaluate the monitoring well chemical analysis.

### 3.2.3 SUBTASK 3 - PREPARE A BRIEF HISTORY OF THE SITE

A brief chronology of the site will be prepared which discusses the operation of the Landfill. The history will include the operation dates, wastes that were disposed in the fill, operating procedures, cap installation procedures and well installation history.

### 3.2.4 SUBTASK 4 - COMPILE AND SUMMARIZE MONITORING WELL DATA

A database will be compiled which includes groundwater chemical analysis from the existing wells. This database (developed for use on an IBM, MS-DOS compatible system) will be developed in a format to allow updating and manipulation by base personnel.

### 3.2.5 SUBTASK 5 - REVIEW OF NY LANDFILL REGULATIONS

The New York regulations governing landfill closures will be reviewed and the necessary steps for closure compliance will be determined.

## 3.3 TASK 3 - COMPILE INFORMATION AND DEVELOP A DATABASE

The information gathered in Task 1 will be compiled into a single document. This document will contain the following information:

- o Data gathered in the Records Review (appendix)
- o Summary of data
- o Topographic map depicting the landfill and surrounding monitoring wells

- o Graphical summary of monitoring well installation details
- o Summary of NY regulations and the necessary steps for closure compliance
- o Recommendations for closure

#### 3.4 TASK 4 - MONTHLY REPORT

A Monthly Report will be prepared which will include the following:

- o Progress Chart: Actual progress on each site will be updated and submitted by the 15th of each month and will be included with the request for payment. The progress charts will be included with the request for payment. The progress charts will be revised to reflect modifications and other approved changes in scheduling.
- o Monthly Update: Along with the updated progress charts a monthly update in the form of a letter shall be provided. This letter will outline the progress during the past month and the projected work effort for the next month.

## 4.0 SCHEDULE

### 4.1 SCHEDULE

The schedule for the Data Compilation Services at the Existing Sanitary Landfill is depicted in Figure 4-1. Key dates, as outlined in the Statement of Work, were used as the basis for development of this schedule.

It was assumed that Corps reviews required in the Scope of Work would be completed in 30 days. If the review takes longer than the allotted 30 days, the schedule shifts accordingly.

Development of this schedule is contingent upon performing all field work, (mapping of wells) prior to November 23, 1989. If the field crew encounters adverse weather conditions which inhibit field work, the schedule will need to be adjusted to accommodate these conditions.

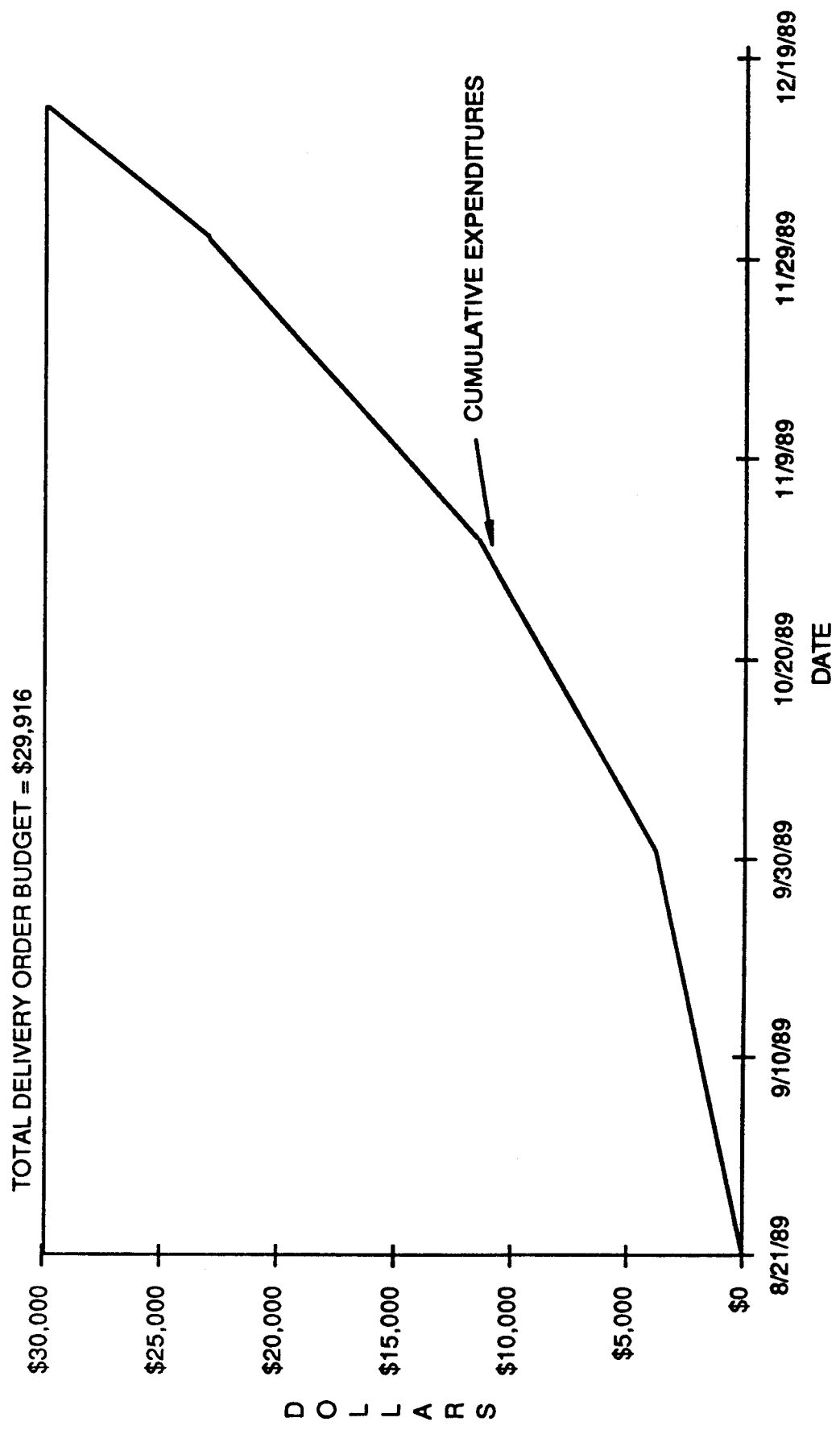
The anticipated cost expenditure chart is depicted in Figure 4-2. This graph depicts the projected cumulative expenditure rate for this project. This chart will be updated monthly to reflect earned value of the work completed at that time and submitted as part of the monthly report discussed below.

### 4.2 MONTHLY REPORT

Monthly progress reports will be submitted as part of the requirements detailed in the Statement of Work. The form in Figure 4-3 will be used as the basis for this report. In addition, updates of the schedule and cost expenditure chart will also be included in this report.



EXISTING LANDFILL DATABASE COMPILATION  
PROJECTED CUMULATIVE EXPENDITURES



## 5.0 PROJECT STAFFING PLAN

The key project staff are listed below:

- o Contract Manager - Mark A. Swatek, P.E.
- o Delivery Order Manager - Monte Morgan
- o Technical Advisory Committee - Mark A. Swatek, Bill Koski
- o Quality Assurance Director - Rosemary Ellersick

Other technical staff will be used during the performance of the identified tasks. These people will report directly to the Delivery Order Manager.

## 6.0 DATA MANAGEMENT PLAN

### 6.1 TYPES OF DATA

Several types of data will be collected during this Data Compilation:

- o Subsurface/geologic data pertain to soil types, stratigraphy and depth of the unsaturated zone in the area. These data will be provided by the monitoring well borings completed for this site in past studies and will be used to determine the geology of the site.
- o Hydrogeologic data (groundwater level measurements and permeability tests) will be collected from past studies of the monitoring wells and will be used to determine the direction and velocity of groundwater flow. No new levels will be collected at this time.
- o Chemical data will include analysis of groundwater, surface water, soil, sediment, and sludge samples collected during past investigations. These data will be used to assess the type and concentration of contamination which exists in the area. No new sampling and analyses will be conducted.

### 6.2 SUBSURFACE/GEOLOGIC DATA

The subsurface/geologic data collected during previous installation of monitoring wells will be compiled and used to prepare graphic representations of the geologic conditions at each well location.

### 6.3 HYDROLOGIC DATA

Following collection of the data, a table will be prepared which summarizes the elevations obtained at each location. This table will be included in the Data Compilation Report.



#### 6.4 CHEMICAL DATA

Chemical data from past studies will be collected for groundwater and soil.

Once the data has been reviewed, it will be tabulated in a computerized spreadsheet for easy retrieval. The data will be stored on floppy disks as well as hard copies for filing.

The chemical data will be presented in the Data Compilation Report in tabular and, where appropriate, graphic form. The tables will summarize the data by date in concentration versus location format.

## 7.0 QUALITY ASSURANCE

All deliverables will be subject to technical review by CDM FPC technical specialists. These reviews will take place for the following deliverables:

- o Work Plan
- o Data Compilation

A Technical Review Committee, as outlined in Section 5.0, will meet to review the Data Compilation Report, while still under preparation. The Technical Review Committee is comprised of technical experts who discuss the document in an open forum format. The committee will verify the overall concept of the project and determine whether the data collected during the investigation is adequate to achieve goals of the project.

In addition to the review of the deliverables, checking of all calculations will be performed throughout the job. The following minimum requirements will apply:

- o All calculations will be checked by an independent reviewer.
- o Corrections will be clearly noted on the original calculations in red pencil; erroneous figures will be crossed out in red pencil and will not be erased.
- o All revisions will be reviewed with the individual who made the original calculations.
- o The name of the checker and date of checking will be included in the appropriate places on the calculation sheets and filed in the project QA file.

In accordance with CDM FPC's policy of auditing a certain percentage of work assignments, a QA system audit may be conducted. If this assignment is audited, a written audit report will be distributed to the audited group and CDM FPC management.

**APPENDIX A  
STATEMENT OF WORK PROVIDED  
BY THE  
CORPS OF ENGINEERS**

SCOPE OF WORK FOR THE  
EXISTING SANITARY LANDFILL  
AT  
FORT DRUM, NEW YORK

1. DESCRIPTION OF WORK: The work covered under this Scope of Work (SOW) involves the professional services necessary to complete a records review and data compilation for the Existing Sanitary Landfill near the airfield at Fort Drum, New York. The following is to be accomplished as part of the project:

a. Perform a records and data review.

b. Compile information and develop a database.

c. OPTION 1. Perform the necessary services to complete design and construction documents for the permanent closure of the landfill.

2. A-E RESPONSIBILITY:

a. The A-E shall perform and shall assume all responsibility for the accuracy and completeness of the work and services for the described project in accordance with criteria and instructions. The A-E will be responsible for the correction of any errors or deficiencies and reimbursement of any costs resulting therefrom. Should changes, as a result of revised criteria, be required the A-E may be required to perform the necessary work. In this instance where changes are required by revised criteria, the contract will be modified accordingly, including an adjustment in contract amount.

b. Should the A-E receive any directions or criteria that are not included in this contract and that require additional effort beyond the contract criteria, the A-E shall notify the Contracting Officer in writing, describing the change(s) and their impact on the effort.

3. RELEASE OF INFORMATION: The A-E shall not publicize nor release in any manner information or data in regard to projects on which they may be working or negotiating with this office, nor discuss with anyone not directly concerned with the project prior to public release by this office, a project, any future program, or any planning. Any inquiries in regard to these matters shall be referred to the Contracting Officer or District Project Manager.

4. CRITERIA: The performance criteria provided or referenced are intended to serve as a guide for the A-E in the preparation of a proposal for professional services. All aspects of this project are to meet all applicable Federal, state, and local regulations.

5. RECORDS REVIEW AND EVALUATION: The A-E shall review and evaluate existing records, studies, and data concerning the site as provided by the Government, existing in the files of Government agencies, or otherwise readily available.

6. SERVICES TO BE PERFORMED BY THE ARCHITECT-ENGINEER: The A-E shall perform and shall assume all responsibility for the accuracy and completeness of the following work and services in accordance with criteria and instructions specified hereinafter.

a. Work Progression Plan. A detailed narrative on how the services will be accomplished, including schedules. The work plan shall be submitted for approval prior to the start of work and, once submitted and approved, the work plan shall become an integral part of this Scope of Work.

b. Data Management Plan.

c. Records Review and Evaluation.

d. Database.

7. SUBMISSIONS REQUIRED OF THE ARCHITECT-ENGINEER: The A-E will be required to make the following submissions at various stages of the project:

- Work Progression Plan
- Data Management Plan
- Database

a. All drawings, analyses, and/or reports shall be physically assembled in sets, in one office, several working days prior to scheduled submittal to permit an overall coordination review and interference check by the A-E. The importance of careful checking and coordination of drawings and other project documents cannot be overemphasized. All project data shall be checked and coordinated prior to all submittals. Deficiencies, ambiguities, conflicts, and inconsistencies shall be rectified prior to submittal of documents.

b. A letter of transmittal shall accompany each submittal. The letter shall reference the project by title, number, and location. The letter of transmittal shall certify that all documents have been checked and coordinated prior to submittal. The letter shall also include a listing of material being submitted. A complete submission must be received by the Government before it will undertake review of such submission; partial submissions will not be accepted without prior approval.

c. Submissions will be made, in the quantities indicated, to each office as designated in the Document Distribution Listing. Documents for all contract levels of work shall be distributed via courier service that will provide for at least second-day delivery.

8. DOCUMENT DISTRIBUTION LISTING:

DRAFT      FINAL

Commander U.S. Army Engineer District, Kansas City ATTN: CEMRK-ED-TD (Linda Houston) 601 E. 12th Street Kansas City, MO 64106	3	3	
U.S. Army Corps of Engineers Department of the Army ATTN: CEEC-B Pulaski Building Washington, DC 20317	1	1	
U.S. Army Corps of Engineers Missouri River Division ATTN: CEMRD-ED-EA (Claudia Wiethop) 2945 South 132nd Street Omaha, NE 68144	1	1	
Commander Army Environmental Hygiene Agency ATTN: HSHE-ME-SE (Hoddinott) Aberdeen Proving Ground, MD 21010-5422	2	2	2
Commander U.S. Army Toxic & Hazardous Materials Agency ATTN: CETHA-IR-A (Alavi) Aberdeen Proving Ground, MD 21010-5401	1	1	1
Commander Army Environmental Hygiene Agency ATTN: HSHE-ME-SH (McClellan) Aberdeen Proving Ground, MD 21010-5422	1	1	1
Commander, Fort Drum ATTN: AFZS-EH-E (Moss) Building T4000 Fort Drum, NY 13602-5097	2	2	2
Mr. John Kenna Regional Solid Waste Engineer Department of Environmental Conservation State Office Building 317 Washington Street Watertown, NY 13601	2	2	2

9. COMPLETION SCHEDULE: The A-E shall complete the design work and services as follows:

a. Work Progression and Data Management Plans submitted within 35 calendar days after receipt of notice to proceed.

b. Database submittal within 75 calendar days after the approval of the Work Progression and Data Management Plan submittals.

c. Services are contemplated to begin as outlined in the project schedule. Should the start of each phase or portions thereof be delayed more than 6 months by other than the A-E's negligence the remaining fee and time schedule may be renegotiated at the A-E's request.

10. GENERAL REQUIREMENTS AND STANDARDS:

a. Project Manager:

(1) The A-E shall assign a principal or key employee to serve as the Project Manager. The Project Manager shall oversee the coordination of the entire project design and shall be capable of administering all instructions from the Kansas City District Office and obtaining answers to all questions from the Kansas City District Office during and after design work.

(2) During the prosecution of the work under the contract, the A-E shall keep in close liaison with the Corps of Engineers Design Project Manager, who will coordinate work with all other agencies. All requests made to the A-E by other agencies shall be referred to the CE PM.

(3) All written comments transmitted to the A-E shall be annotated and returned to the CE. Annotated comments shall be resolved to the satisfaction of the CE.

b. Review of Progress and Technical Adequacy: At appropriate times, representatives of the Contracting Officer may review the progress and technical adequacy of the work. Such review will not relieve the A-E from performing all contract requirements, except those which may be waived by written instruction.

c. Monthly Update: A monthly update in the form of a letter shall be provided. This letter will outline the progress during the past month and the projected work effort for the next month. The monthly update will be distributed to the CO and to the following:

Commander  
J.S. Army Toxic & Hazardous Materials Agency  
ATTN: CETHA-IR-A (McClellan)  
Aberdeen Proving Ground, MD 21010-5401

Commander, Fort Drum  
ATTN: AFZS-EH-E (Moss)  
Building T4000  
Fort Drum, NY 13602-5097

d. Confirmation Notices: The A-E shall be required to provide a record of all discussions, verbal directions, telephone conversations, and other communications participated in by the A-E and/or his representatives on matters relative to this contract and work, irrespective of whom the other participants may have been. These records, entitled "Confirmation Notices," will be numbered sequentially and shall fully identify participating personnel, subject discussed, and any conclusions reached. The A-E shall forward a reproducible copy of the Confirmation Notices on a biweekly basis to the Corps of Engineers Project Manager.

e. Project Records: At the request of the Government, at the time of project completion, the A-E shall provide a complete set of project records including correspondence, memorandums, trip reports, confirmation notices, sampling plans, test results, submittals, photographs, and any other records or documents generated as a result of the project.

f. Notification of Site Visits: The A-E shall notify the CE Project Manager at least 7 days prior to site visits and immediately upon decision to visit the site. Confirmation of site visits shall be made immediately prior to the visits. Notification by phone is sufficient.

11. METHOD OF PAYMENT: Payment for work and services will be made in accordance with the following procedures:

a. Partial Payments: The A-E shall prepare and submit to the U.S. Army Engineer District, Kansas City, partial payment estimates in accordance with "Instructions for Completion of ENG Form 93." All partial payments shall be based on work completed as of the 15th day of the report month and shall be submitted to the office of the Contracting Officer by the 18th day of the month. The U.S. Army Engineer District, Kansas City, will prepare supporting payment documents after obtaining necessary approvals and forward all documents to the U.S. Army Engineer District, Omaha, for issuance of the payment check. All questions regarding payments shall be directed to the U.S. Army Engineer District, Kansas City. Payment under this contract, for which property or services are provided in a series of partial executions or deliveries, will be made within 15 days after receipt of an invoice which has been properly executed by the A-E, approved by the Contracting Officer, and received at the paying office.

12. CRITERIA AND INSTRUCTION DOCUMENTS LISTING. The criteria noted with an asterisk (\*) was furnished with the Request for Proposal. The A-E should verify and notify the CE Project Manager of any additional criteria that they may find applicable from the above referenced documents.

\*a. Scope of Work.

\*b. Previous Site Reports.



**APPENDIX B  
STATEMENT OF WORK  
FROM  
CDM FPC'S PROPOSAL**

SECTION 1 - SCOPE OF WORK  
EXISTING SANITARY LANDFILL

INTRODUCTION

A. Description of Work

The work covered under this Scope of Work (SOW) involves the professional services necessary to complete a records review and data compilation for the Existing Sanitary Landfill near the airfield at Fort Drum, New York. The following is to be accomplished as part of the project:

- a. Perform a records and data review.
- b. Compile information and develop a database.

B. Description of Site

The Existing Landfill is located near the Wheeler-Sack Airfield. It occupies about 10 acres of the installation in an area that is level with very little vegetation. The landfill began operation in 1973. Solid wastes generated by mess halls, offices, barracks, maintenance shops and the training units were placed in this landfill. It is an unpermitted, unlined sand landfill. A portion of the site has been covered with an impermeable 20-mil PVC liner and topsoil and is revegetated.

SCOPE OF WORK

Task 1. Work Plan (WP)

This WP has been divided into two sections; Data Management and Work Progression. The Data Management section discusses the type of data which will be collected as part of this investigation and also outlines the procedures which will be used to reduce, store, and present the collected data. The Work Progression section details the technical approach, project schedules, and the overall management approach to track the progress of the site investigation.

The Work Plan will be submitted for approval prior to the start of work and, once submitted and approved, the work plan shall become an integral part of this scope of work.

For costing purposes we have assumed the following:

- Approximate size of DMWP: 30 pages
- Number of versions: 2 (Draft and Final)
- Number of DMWP Copies: 16
- Number of meetings with COE to review and finalized draft: 2

Task 2. Records and Data Review

Records and Data review will consist of the following subtasks:

- o Prepare Base Map of the Site

Existing topographic maps of the site provided by the Corps will be reviewed and combined into one topographic and planimetric base map. The existing landfill cells will be located on the map as well as any other landfill characteristics. This map will be used as the basis for location of the existing monitoring wells. A topographic survey is not part of this Scope of Work.

- o Locate Existing Monitoring Wells

This task entails surveying the locations and elevations of existing monitoring wells. The locations of these wells will be incorporated into the base map prepared under Subtask 1. Locating these wells onto a base map will provide the information necessary to evaluate the monitoring well chemical analysis.

- o Prepare a Brief History of the Site

A brief chronology of the site will be prepared which discusses the operation of the Landfill. The history will include the operation dates, wastes that were disposed in the fill, operating procedures, cap installation procedures and well installation history.

- o Compile and Summarize Monitoring Well Data

A database will be compiled which includes groundwater chemical analysis from the existing wells. This database (developed for use on an IBM, MS-DOS compatible system) will be developed in a format to allow updating and manipulation by base personnel.

- o Review of NY Landfill Regulations

The New York regulations governing landfill closures will be reviewed and the necessary steps for closure compliance will be determined.

For costing purposes we have assumed the following:

Number of trips to Fort Drum: 1 person for 5 days  
Number of trips to New York: 0  
Number of meetings in Kansas City: 0  
Number of meetings at Fort Drum: 0

### Task 3. Compile Information and Develop a Database

The information gathered in Task 1 will be compiled into a single document. This document will contain the following information:

- o Data gathered in the Records Review (appendix)
- o Summary of data

- o Topographic map depicting the landfill and surrounding monitoring wells
- o Graphical summary of monitoring well installation details
- o Summary of NY regulations and the necessary steps for closure compliance
- o Recommendations for closure

For cost purposes we have assumed the following:

Approximate size of report: 100 pages  
 Number of versions: 2 (draft and final)  
 Number of drawings: 6  
 Number of copies: 16  
 Number of meetings at Fort Drum: 0

#### Task 4. Monthly Report

A Monthly report will include the following:

- o Progress Chart: Actual progress on each site will be updated and submitted by the 15th of each month and will be included with the request for payment. The progress charts will be included with the request for payment. The progress charts will be revised to reflect modifications and other approved changes in scheduling.
- o Monthly Update: Along with the updated progress charts a monthly update in the form of a letter shall be provided. This letter will outline the progress during the past month and the projected work effort for the next month.

For costing purposes we have assumed the following:

Approximate size of Monthly Report: 5 pages  
 Number of versions: 1  
 Number of Monthly Report copies: 8  
 Number of Months: 6

