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**BUDGET SCENARIOS**

05/01/95

DOE-0914-95  
DOE-FN      EPAS  
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REPORT



**Department of Energy**  
**Fernald Environmental Management Project**  
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MAY 01 1995

DOE-0914-95

Mr. James A. Saric, Remedial Project Director  
U.S. Environmental Protection Agency  
Region V - 5HRE-8J  
77 W. Jackson Boulevard  
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager  
Ohio Environmental Protection Agency  
401 East 5th Street  
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

**BUDGET SCENARIOS**

Enclosed is the information which you requested during our April 13, 1995, continuing discussions pertaining to the impact of current budget target levels on the Fernald Environmental Management Project (FEMP). A portion of the contents are a reiteration of information we shared with you during our budget conference call of April 27, 1995.

The information presented herein is of sufficient accuracy for strategic decision-making, but is not intended for specific budgeting, or project tracking purposes. This information is intended to build upon the material that was transmitted to you on March 22, 1995.

We will contact you in the near future to continue discussions pertaining to the effect of target budgets and priorities.

If you have any questions, please contact Johnny Reising at (513) 648-3139, or myself at (513) 648-3107.

Sincerely,

*Johnny Reising*

for Jack R. Craig  
Director

FN:Reising

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cc w/enc:

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ITEM 1

UPDATE ON NUCLEAR MATERIAL DISPOSITIONING

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**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT****URANIUM DISPOSITION**

Fernald is engaged in several activities related to dispositioning uranium materials. Highlights of these activities are discussed below.

**Depleted Uranium (DU):**

**Manufacturing Sciences Corporation** - Currently a contract is in place to ship several hundred tons of depleted durbies to Manufacturing Sciences Corporation (MSC) in Oak Ridge, Tennessee. To date, roughly 192 MT out of 439 MT have been shipped to MSC. Shipments began last year and should be completed by June 1996.

**Multi-Purpose Canister System** - The Multi-Purpose Canister (MPC) System is a DOE program to develop canisters and transport mechanisms to address high level waste. Depleted UF<sub>4</sub> and metal may be of value in the fabrication of these multi-purpose canisters. The canisters would safely confine spent nuclear fuel assemblies for transport, storage, and disposal purposes. Several canister configurations have been developed that incorporate DU into the design. In the early summer of this year, the canister design selection is expected to be complete. At that time the need for DU in the MPC program will be further defined. Contacts are being maintained with DOE MPC System coordinators for updates on the program.

**Normal Uranium**

**Allied Signal** - The agreement for the sale of a portion of Fernald's normal UF<sub>4</sub> and UO<sub>3</sub> to Allied Signal Corporation, Metropolis, Illinois, has been finalized. DOE-FN will be requesting approval of the transaction from both the Department of Energy, Ohio Field Office (DOE-OH) and Defense Programs at Headquarters. The agreement would transfer about 691,000 lbs of material to Allied for conversion into UF<sub>6</sub> for commercial reactors.

**Enriched Uranium**

**Highly Enriched Uranium (HEU) blend down program** - Representatives from Oak Ridge have been contacted to determine the value of Fernald materials for use in the future DOE blending programs. After some preliminary reviews of characterization data, it appears that Fernald material has a high U<sub>236</sub> content, making it undesirable for use in the blend down program at this time. Using the Fernald material would place the resulting fuel over limits set in the ASTM specification for commercial nuclear fuel. Further analysis and review of additional material is being conducted.

**United States Enrichment Corporation (USEC)** - The USEC has reviewed Fernald's material inventory and has expressed interest in obtaining some of the uranium products for their own use, or acting as Fernald's broker or sales agent to disposition the materials. By law the enriched material is required to be dispositioned through the USEC. Details of this arrangement are being discussed, and key elements involved in the transfer

are being identified, such as costs. If possible, Fernald would like to transfer all enriched materials to USEC.

**Cogema (France)** - Informal discussions have been reinitiated with Comurhex, a Cogema subsidiary. They remain interested in taking perhaps all of Fernald's enriched materials. The materials would either be used now for fuel or stored for use later. The high U236 content is not an issue for Cogema since most of their customers are in Europe and do not have as much concern about U236 content in nuclear fuel. Before any agreements can be made however, the involvement of the USEC has to be defined.

#### General

**EM/DP MOA** - EM-HQ sent comments to DP on the Memorandum of Agreement (MOA) issue for the transfer of nuclear materials to DP. EM has recommended that DP continue to take responsibility and provide funding for the warehousing and upkeep of the materials based on the fact that EM does not have budget for materials disposition activities. However, it appears that DP does not have the budget allocated either. Therefore, the issue remains unresolved at this time. This could complicate any transfer agreements for Fernald material since two DOE organizations will have to approve the transfers.

Attached is a 1-page summary of Fernald's material inventory.

**SUMMARY  
FERNALD SITE URANIUM INVENTORY  
MARCH 1, 1995**

DESCRIPTION	NO. CONTAINERS*	~ NET WT.(LBS.)	U WT. (MTU)**	DRUM EQUIV
<b>PRODUCT</b>				
<b>UO3</b>				
DEPLETED	143	94,491	35	1,008
NORMAL	28	19,908	7	409
ENRICHED	620	1,860,831	694	39,482
<b>TOTAL UO3</b>	<b>791</b>	<b>1,975,230</b>	<b>736</b>	<b>40,899</b>
<b>UF4</b>				
DEPLETED	14,787	4,288,438	1,475	11,698
NORMAL	2,563	671,777	230	1,219
ENRICHED	5,175	807,296	277	9,634
<b>TOTAL UF4</b>	<b>22,525</b>	<b>5,767,511</b>	<b>1,982</b>	<b>22,551</b>
<b>METAL</b>				
DEPLETED	3,963	4,712,547	2,125	4,713
NORMAL	429	471,272	212	470
ENRICHED	812	1,148,240	516	1,148
<b>TOTAL METAL</b>	<b>5,204</b>	<b>6,332,059</b>	<b>2,853</b>	<b>6,331</b>
<b>MISC. ENR. MATERIALS</b>				
RECOVERABLE RESIDUES	6,924	2,911,553	679	13,845
UO2/U3O8	16	8,662	3	22
<b>TOTAL MISC. MAT'LS</b>	<b>6,940</b>	<b>2,920,215</b>	<b>682</b>	<b>13,867</b>
<b>TOTAL PRODUCT</b>	<b>35,460</b>	<b>16,995,015</b>	<b>6,253</b>	<b>83,648</b>
<b>WASTE</b>				
MISC.WASTE	343	117,803	3	295
HOLDING ACCOUNT	39,416	20,419,964	1,298	51,050
<b>TOTAL WASTE</b>	<b>39,759</b>	<b>20,537,767</b>	<b>1,301</b>	<b>51,345</b>
<b>TOTAL INVENTORY:</b>	<b>75,219</b>	<b>37,532,782</b>	<b>7,554</b>	<b>134,993</b>

\* SEE NOTE ON PAGE 5 FOR RECONCILIATION WITH CONTAINER COUNT REPORT.

\*\* MTU – metric tons uranium; ACTUAL "BOOK" INVENTORY: 6253 MTU.

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INVENTORY REDUCTION FEB.: 25.8 MTU (16.8 PRODUCT/9.0 WASTE)  
FY 95 YTD: 162.5 MTU (67.1 PRODUCT/95.4 WASTE) EXCLUDING 62.1 MT THORIUM

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**ITEM 2**  
**NEW OFFICE BUILDING JUSTIFICATION**

**000008**

## **NEW BUILD/LEASE 85,700 to 89,500 SQUARE FOOT OFFICE FACILITY**

0875 (2)

During the past several years the Fernald Environmental Management Project (FEMP) concentrated on developing long range, comprehensive plans to clean up the Fernald Site. This planning process did not require the majority of the FERMCO employees to be located at or near the site. Some of FERMCO's Divisions supporting the planning effort are located approximately 19 miles away from the site at the Springdale and Showcase office facilities.

In the next few years the number of employees involved in the planning process will decline and the emphasis for the FEMP will change from "planning" to the actual dismantling and cleaning up of the site. The majority of the persons who are involved in supporting the clean up effort will be required to be located at or near the site. To house all FERMCO employees, DOE employees and subcontractors on site would require extensive new trailer installations over the next few years.

The construction of the new 85,700 to 89,500 square foot build/lease office facility to house 500 FERMCO employees will:

- Eliminate the existing off-site office space (except special purpose space),
- Consolidate the office space, the Public Environmental Information Center, and various rented meeting sites,
- Significantly reduce and eventually eliminate all of the office trailers, many of which are already beyond their useful life. Reducing trailer occupancy improves the personal safety of the employees, improves data and records safety, reduces site costs and increases productivity.
- Eliminate 100 office spaces on the Process Side after the new office facility is completed. This will further reduce potential exposures and thereby reduce the costs of maintaining special office areas.
- Eliminate all of the office space on the Process Side when the remediation activities become extensive.

In addition, as the employee population located in buildings on the administrative side of the site starts to decline, more persons can be moved to the new office facility. This reduction corresponds with the long range goals to remove all non-essential employees from the site, make the existing administrative buildings available for demolition, and reduce the infrastructure needed to support the on-site office space.

In order to meet mission requirements, and maintain the greatest flexibility of keeping employees at or near the site, FERMCO needs an office facility close to the Fernald Site.

The location for the new office must have the infrastructure to support an 85,000 to 90,000 square foot office facility. The closest area to the site with public water and an existing sewer system is 2-4 miles from the site. The next closest area is an additional five miles from the site. The additional five miles (10 miles round trip) creates the following difficulties:

- substantially increases business travel by employees,
- decreases productivity due to increased travel time,
- reduces interaction among employees, DOE and stakeholders
- allows less flexibility for moving persons off of the site, out of trailers and out of the process side.
- The additional driving distance to the site increases the likelihood of employees getting into an accidents and is not consistent with FERMCO's policy of minimizing accident risks to employees.

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If you have additional questions please call David Dravland at 648-7339.



**PRELIMINARY REAL ESTATE PLAN (PREP)  
REQUIREMENT FOR 85,700 TO 89,500 NET  
USEABLE SQUARE FEET OF OFFICE AND SPECIAL  
PURPOSE SPACE IN A BUILD/LEASE FACILITY**

**AND**

**LONG TERM OFFICE SPACE STUDY**

**FEBRUARY 1995**

**FOR**

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
(FEMP)**

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Fernald Environmental



Restoration Management Corporation

**PRELIMINARY REAL ESTATE PLAN (PREP)  
REQUIREMENT FOR 85,700 TO 89,500 NET  
USEABLE SQUARE FEET OF OFFICE AND SPECIAL  
PURPOSE SPACE IN A BUILD/LEASE FACILITY**

FOR

**FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
(FEMP)**

**FERNALD ENVIRONMENTAL RESTORATION MANAGEMENT CORPORATION (FERMCO)  
PRELIMINARY REAL ESTATE PLAN (PREP)  
REQUIREMENT FOR APPROXIMATELY 85,700 TO 89,500 NET USABLE SQUARE FEET  
OF OFFICE, AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

**HISTORY:**

Over the past three years the number of DOE employees, contractor and subcontractor employees working on the site, known as the Fernald Environmental Management Project (FEMP), has increased significantly. These personnel increases have resulted in moving many employees off of the site into leased facilities and renovating part of the on-site office space. This increase in personnel, and the subsequent reconfiguration of the office space, has resulted in a critical shortage of DOE owned or controlled office space.

This Preliminary Real Estate Plan proposes to lease a new 85,700 to 89,500 net useable square foot office facility near the FEMP to replace over 100,000 square feet of leased office space currently used by FERMCO at the Springdale office facility and the Showcase office facility. The new office building will be built to meet FERMCO's requirements because no office space of this magnitude is located within five miles of the site. The closest available existing office space for lease is located fifteen to twenty miles from the site. Leasing an office facility located fifteen to twenty miles from the site is not acceptable. The attached Long Term Space Study outlines the problems with leasing an office facility located this distance from the site.

The Showcase facility was originally leased by WEMCO and has increased in size to 29,370 square feet under FERMCO. In February 1993, FERMCO leased 74,900 square feet of office space at the Springdale facility. FERMCO planned to stay in these two leased facilities until a 300,000 square foot office facility could be built and leased near the site. The 300,000 square foot office facility project was terminated because of lack of funding. Other options have been considered and rejected since 1993.

**EXPLANATION OF NEED:**

During the past two years the FEMP concentrated on developing long range, comprehensive plans to clean up the Fernald Site. This planning process did not require the majority of the FERMCO employees to be located at or near the site. Some of FERMCO's Divisions supporting the planning effort are located approximately 19 miles away from the site at the Springdale and Showcase office facilities.

In the next few years the number of employees involved in the planning process will decline and the emphasis for the FEMP will change from planning to the actual

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

dismantling and cleaning up of the site. The majority of the persons who are involved in supporting the clean up effort will be required to be located at or near the site.

The new office facility will house approximately 500 persons. Under the plan for reducing the work force, FERMCO can keep 500 employees at the new facility through FY08. See Attachment 5 of the enclosed Long Term Office Space Study for the projected population reductions.

There are currently 2,228 FERMCO employees, DOE, IG and Subcontractors working in an office environment supported by FERMCO. These employees are working at the following locations:

DESCRIPTION OF SPACE	NUMBER OF EMPLOYEES
Buildings on the Administrative Side of the site	568
Buildings on the Process Side of the site	270
Trailers	741
Off-site special purpose space	95
Off-site Office Space	<u>554</u>
TOTAL	2,228

The proposed plan is to eliminate all of the off-site office space (except special purpose space) by the end of FY97; significantly reduce the trailer population by the end of FY00 and eliminate all of the office trailers by FY02; eliminate 100 office spaces on the Process Side by the end of FY96 and eliminate all of the office space on the Process Side by the end of FY04. In addition, the employee population located in buildings on the administrative side of the site starts to decline an average of 82 persons per year from the end of FY03 to the end of FY08. This reduction corresponds with the need to remove all non-essential employees from the site, make the existing administrative buildings available for demolition, and eliminate the infrastructure needed to support the office space.

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

The new office facility will be kept full even if larger budget reductions require a greater decline in the number of FERMCO employees. A larger reduction in the number of employees in the out years will only accelerate the moving of employees out of the controlled side of the site and out of the trailers. FERMCO can also reduce the amount of the lease space if there is a greater reduction in the work force than is presently projected. Under the terms and conditions of the lease, FERMCO will have the right to reduce the size of the leased area after the fifth year of the lease.

**COMPLIANCE WITH THE FERMCO LONG TERM SPACE UTILIZATION PLAN:**

This PREP complies with FERMCO's Long Term Space Utilization Plan (Space Utilization Plan) dated October 4, 1994 and sent to the DOE Contracting Officer on October 10, 1994.

The Space Utilization Plan stated that FERMCO would re-evaluate its office needs in early 1995 and submit a PREP to replace the Showcase and Springdale office facilities. This PREP meets and complies with that Plan.

**ESTIMATED PERIOD OF NEED:**

The need for an off-site office facility located near the site will continue for at least the next fifteen years. The proposed lease/build office facility would be a fifteen (15) year lease with FERMCO having the right to terminate the lease after five (5) years, with 180 days written notice. FERMCO will also have the right to vacate part of the leased space and return it to the lessor after the first five (5) years of the lease, with 180 days written notice. The lease space vacated by FERMCO, at any one time, will be at least 10,000 square feet. A 10,000 square foot area is a large enough space for the building owner to attract a new tenant.

Since there are no existing office buildings available in the delineated area, the Lessor will have to construct a new facility to meet FERMCO's requirements.

**AMOUNT OF REAL PROPERTY REQUIRED, BASED ON THE LATEST AVAILABLE GSA GUIDELINES:**

The current proposal is to lease approximately 85,700 to 89,500 net usable square feet of office and special purpose space. The approximate breakdown of the areas is as follows:

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

<b>LOCATION OF SPACE</b>	<b>TOTAL NET USEABLE SQUARE FEET</b>
Office Space	76,250
Reprographics	3,500
Conference/Auditorium	1,700
Public Environmental Information Center (PEIC), Administrative Record (AR)	3,250
Receiving/Loading Dock/ Staging Area	<u>1,000</u>
<b>TOTAL</b>	<b>85,700</b>

There will be 500 FERMCO employees working in the facility. Allocation and utilization of the space will be in accordance with the requirements of Federal Property Management Regulations, Temporary Regulation D-76.

**PHYSICAL CHARACTERISTICS:**

The space requirements described above can be met with the construction of a new office building located within five driving miles of the site. Construction of a building is necessary because there is no existing office facility available for lease within five miles of the site. If a facility becomes available during the time the Solicitation is open, the owner would be allowed to submit an offer.

**ACCESS AND TRANSPORTATION REQUIREMENTS:**

Space must meet applicable accessibility standards and/or codes for the handicapped. Since public transportation is not available, sufficient parking for privately owned employee vehicles and the public is a necessity.

**AVAILABILITY OF FUNDS:**

Funds will be made available for the firm term (five years) of the proposed lease. The requirement will be funded from the FERMCO Management budget for the leased

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

space which is supported from plant overhead. Once DOE approval has been obtained, the funds will be set aside to cover the cost of the firm term of the lease (5 years) in accordance with OMB Circular A-11.

**SECURITY CONSIDERATIONS:**

No classified material will be utilized or maintained in the space. A person from FERMCO Security will review the Solicitation to insure that it includes the proper security requirements. In addition, a person from FERMCO Security will be included in the evaluation of all offers to determine what type of modifications must be done to the proposed facility to ensure that it complies with DOE/FERMCO security requirements.

**REQUIRED PROXIMITY TO OTHER GOVERNMENT OR COMMERCIAL FACILITIES:**

The new office facility needs to be located near the site in order to meet mission requirements. It is critical to the future clean up of the site that the new facility be located near the site. FERMCO has determined that the delineated area will be within five (5) driving miles of the south or north entrance to the Fernald Site and the building must be serviced by a public water and sewer system.

The distance to the site is very critical to the FERMCO employees who must be located at or near the site. Many employees will have to drive back and forth to the site on a daily or weekly basis.

The location of the building is less critical to the persons wanting to bid on this new office facility. At the DOE West Valley Facility, the West Valley Nuclear Services Company, Inc. limited their delineated area to the local school district. Many of the developers were from outside the West Valley area and obtained options to purchase land for their proposed building. The successful developer exercised the option to purchase the land and is in the process of building the facility for West Valley. In some instances the land owner sold a land option to more than one developer.

The delineated area described above should provide ample sites for potential developers to obtain options to purchase suitable property.

**DEMOGRAPHIC CONSIDERATIONS BASED ON PROPOSED USE:**

Demographic considerations are not critical. Only normal office/business operations will be conducted in the leased space and no hazardous operations will be involved.

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

**OPTIONS AND ALTERNATIVES CONSIDERED IN ACQUIRING THE SPACE:**

FERMCO has considered three alternatives in the attached study entitled Long Term Office Space Study. The report considers three alternatives:

**A. ON-SITE PLAN**

Under this alternative, the report analyzes the impact of eliminating all of the off-site office space except for office space located in special purpose facilities. Those employees working at the site would be housed in existing office facilities and trailers. The existing trailers would have to be refurbished or replaced as required.

**B. LEASE EXISTING OFFICE SPACE GREATER THAN FIVE MILES FROM THE SITE**

Under this alternative, the report analyzes the impact of leasing an existing off-site facility more than five miles from the site. The facility would hold approximately 200 employees. The 200 employees represent the number of employees who do not need to be located at or near the site. Those employees working at the site would be housed in existing office facilities and trailers. The existing trailers would have to be refurbished or replaced as required.

**C. LEASE A NEW OFFICE FACILITY WITHIN FIVE MILES OF THE SITE**

Under this alternative, the report analyzes the impact of leasing a new office facility, located within five miles of the north or south entrances to the site, and built to FERMCO's requirements. As the number of employees working on the project decreases, those employees working in trailers at the site would be moved into the new office facility.

**RECOMMENDED OPTION:**

It is FERMCO's recommendation that leasing a new office facility, located within five miles of the site, and built to FERMCO's specifications, is the best alternative for the Government, the stakeholders and FERMCO. The reasons for this recommendation can be found in the attached Long Term Office Space Study.

**FERMCO PREP FOR 85,700 to 89,500 NET USEABLE SQUARE FEET  
OF OFFICE AND SPECIAL PURPOSE SPACE IN A BUILD/LEASE FACILITY**

If this plan is adapted, it will be necessary to extend the Showcase leases and the Springdale lease until the new office facility is completed. It is anticipated that the new office facility will be finished on September 30, 1996. FERMCO will need approximately two months to install FERMCO equipment in the new facility and execute an orderly move from Showcase and Springdale to the new facility. The lease at the Springdale office facility expires on February 11, 1996. The leases at the Showcase office facility expire in February and May, 1996. It will be necessary to extend the leases at Springdale and Showcase until November 31, 1996.

In view of this recommendation, the following pertinent information is provided for this option:

- A. 85,700 to 89,500 net usable square feet of new office space and special purpose space will be leased to meet the requirements of the project.
- B. The area of consideration will be within five driving miles of the north or south entrances to the Fernald Site.
- C. It is estimated that the lease cost for the firm term of the lease, five (5) years, will be approximately \$1,930,000 per annum or \$9,650,000 over the first five years of the lease. The actual cost of the lease will depend upon the offers received, total square footage and the appraisal value of the facility.

Fernald Environmental



Restoration Management Corporation

# LONG TERM OFFICE SPACE STUDY

FEBRUARY 1995

FOR

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT  
(FEMP)

## LONG TERM OFFICE SPACE STUDY

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**LONG TERM OFFICE SPACE STUDY  
FEBRUARY 1995  
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT**

## **1.0 EXECUTIVE SUMMARY**

This Study is the result of a year long effort by FERMCO to develop a long term strategy for determining and acquiring long term office space and special purpose space for the Fernald Environmental Management Project (FEMP).

The long term special purpose space needs have been discussed in detail in FERMCO's Long Term Space Utilization Plan sent to DOE in a letter from Gail Phillips to Mona Snyder dated October 10, 1994. This Plan was designed to develop and implement the most cost effective, long term solutions to the FEMP's needs for special purpose space. FERMCO is continuing to follow this plan and has leased the Northstar Warehouse, Harrison Lab, and will soon lease space for Rad Worker Training and the Enclosed Space Simulator. The Plan also outlines future acquisition plans for the Historical Records Center, Joint Information Center(JIC), Public Environmental Information Center (PEIC)/Administrative Record (AR) and space for the Citizens Task Force support staff. The Plan stated that FERMCO needed to re-evaluate its office needs in early 1995 and submit a Preliminary Real Estate Plan to DOE concerning these office requirements. This Study addresses those long term office needs and FERMCO's proposed solution.

The following Long Term Office Space Study evaluates three alternatives for providing adequate office space for the FEMP for the next 15 years. The Study addresses the recent and future restructuring programs, future budget cuts, funding requirements, safety and health issues, cost effectiveness, impacts on productivity, outyear funding, regulatory requirements, and long term goals in developing a long range, cost effective plan.

The recommended long range office space plan is to lease 85,700 to 89,500 square feet of office and special purpose space within five miles of the site. This office facility will accommodate 500 FERMCO employees. The 500 person capacity is based upon the need to eliminate old trailers, optimize use of existing, recently built trailers, and insure at least 10 years of full occupancy at the new leased facility. More importantly, FERMCO will have the right to terminate part or all of the leased space after the first five years of the lease. This gives the FEMP the flexibility to adjust its office space requirements to future unplanned budget actions.

This recommended plan will reduce Direct Costs by approximately \$4,000,000 compared to the alternative plan of leasing office space more than five miles from the site; this plan will reduce Direct Costs by \$9,000,000 verses the alternative plan of

**LONG TERM OFFICE SPACE STUDY  
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moving all employees onto the site. In addition, Indirect Costs could also be reduced by \$4,000,000 and \$10,000,000 respectively.

The recommend plan would allow for the removal of non-essential employees from the Process Area, eliminate the old office trailers, improve safety, improve regulatory compliance, and substantially improve productivity at the FEMP.

Under this plan, FERMCO will incorporate the Public Environmental Information Center (PEIC)/Administrative Record (AR), Graphics and, Parson's, the subcontractor for A/E Services, and special meeting space, into the new office facility.

Implementation of the proposed plan would require funding of approximately \$9,500,000 in FY95 to commit to the five year firm term of the lease. The lease would start in FY97. Because the funding for the first five years of the lease is committed in FY95, and this is the lowest cost alternative, approximately \$16,000,000 in Funding from FY96 through FY01 will be available for Remediation activities that would otherwise have to be spent on site landlord costs, trailer construction and demolition, additional lease costs, etc. Yearly funding requirements are contained in Attachment No. 6.

Restructuring and reduced budgets starting in FY96 requires a strategy that improves productivity and maximizes utilization of existing and future funding. The recommended alternative of this study accomplishes these goals and provides the most cost effective and flexible office environment for meeting the FEMP's long range goals.

## **2.0 BACKGROUND**

The Fernald Environmental Management Project currently has a large number of employees and subcontractor employees working in off-site leased buildings located up to 20 miles from the site.

The majority of the FERMCO employees and subcontractors working at the site are involved in operations related to the construction of the various treatment facilities, process start-up, management and planning, and preparation for site closure. These activities have overburdened existing office space facilities located on the site. A majority of the portable trailers, originally designed for temporary use, are old and are

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being utilized well beyond their design life. This situation has led to safety and health concerns, decreased productivity, and increased maintenance costs.

This study analyzes the current status of the office space at the FEMP, considers the effects of the work force restructuring, and evaluates three alternative approaches for providing office space for the next 15 years. It is imperative that one of these three alternatives (possibly with some revisions) is chosen as the path forward. The FEMP is at a crossroads due to the expiring leases, restructuring, and reduced funding levels. A long range plan must be developed and implemented in the very near future.

### **3.0 CURRENT STATUS**

FERMCO employees and subcontractors are presently housed in on-site buildings, on-site trailers, off-site leased office facilities, and special purpose facilities.

#### **3.1 OFFICE SPACE POPULATION**

The office population has been divided into three categories: on-site buildings, on-site trailers, and off-site leases. A map showing the location of the site and the three off-site office facilities is enclosed as Attachment No. 7. Persons working in these facilities and the off-site special purpose space is shown below:

● On-site Buildings	838 (38%)
● On-site Trailers	741 (33%)
● Off-site Leases	<u>649</u> (29%)
	2,228

#### **3.2 EXISTING OR PROJECTED LEASES**

There are, or will be, twelve off-site facilities housing FERMCO employees and their subcontractors. Three of these facilities are primarily used for office space and the remaining facilities are used for special purpose space. The leased space is divided into two categories, Long Term and Short Term. Those facilities in the Long Term category will be needed for at least the next five years. Those facilities in the short term may be needed for less than five years.

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- Long Term 95 office spaces
  - Northstar Warehouse
  - Record Storage\*
  - Harrison Lab
  - Joint Information Center (JIC)\*
  - Public Environmental Information Center (PEIC)  
and the Administrative Record(AR) \*\*
  - RAD Worker Training Facility\*\*
  - \* These facilities are scheduled to be relocated from their current location.
  - \*\* FERMCO has issued a Solicitation to replace these facilities.
  
- Short Term 548 office spaces
  - Springdale Expr. 3/96
  - Showcase Expr. 5/96
  - UNO/DOS Expr. 6/96
  - Fairfield Training Center Expr. 2/96
  - Fairfield Exec. Center(Parsons) Expr. 9/95
  - Jamtek - Citizens Task Force\* Expr. 7/98
  - The Citizens Task Force Support Group will move into the PEIC/AR space in the Jamtek Facility after a new facility is leased for the PEIC/AR

### 3.3 ON-SITE BUILDINGS

There are 838 office spaces currently identified as being in buildings on-site. Most of these spaces are located in buildings on the Administrative Side, but approx. 270 office spaces are scattered in buildings on the Process Side. Except for the Process Side spaces which need to be eliminated, these spaces are assumed to be useable for the long term (10-15 years).

### 3.4 TRAILERS

On-site trailers have been divided into three categories based on age and condition. A more detailed breakdown can be found in Attachment No. 1. These categories are as follows:

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Category 1 Trailers - Poor Condition

- There are 23 Trailers containing 192 office spaces in Category 1. Density is 8.4 office spaces per trailer. Some of these trailers are over 15 years old and are in need of replacement. Some have flooring and structural problems that need to be corrected if they are not replaced. If the office space provided by these trailers is needed for the long term, a project to replace these trailers should be initiated in FY95. These trailers could be replaced with 3-Ten-plexes.
- Handicap Accessibility is available in 35% of these trailers.
- Only 8% of these trailers have toilet facilities, and none of the toilets are handicap accessible.
- Just 4% of these trailers have sprinklers for fire protection of personnel and records.

Category 2 Trailers - Moderate Condition

- There are 16 Trailers containing 138 office spaces in Category 2. Density of the offices is 8.6 spaces per trailer. These 16 trailers are the second oldest (7 to 10 years old) and require some immediate repair. If the trailers are needed for the long term, they should be replaced in 1998. These trailers can be replaced with 2-Ten-plexes.
- Handicap Accessibility is available in 20% of these trailers.
- Only 10% of these trailers have toilet facilities and none of the toilets are handicap accessible.
- None of these trailers have sprinklers for personnel and records.

Category 3 Trailers - Good Condition

- There are 22 Trailers containing 411 office spaces in Category 3. Density is 18.7 office spaces per trailer. These trailers are two (2) to six (6) years old. Some of the trailers need minor repairs. If the office space located in these trailers is needed long term, they should be either refurbished or replaced in 5-6 years.
- Handicap Accessibility is available in 36% of these trailers.
- Only 45% of these trailers have toilet facilities, and most are handicap accessible.

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- 63% of these trailers have sprinklers for fire protection of personnel and records.

### **3.5 OFFICE SPACE POPULATION PROJECTION**

Current projections show a reduction of 500 office spaces in the next two years. This projection may eliminate the need for all of the off-site leased office space within a few years, but it will not result in a reduction of the on-site population or the off-site special purpose space. If all of the off-site office space is eliminated, an extensive trailer replacement program will have to be initiated in FY96 to house the work force over the remainder of the project.

In our projections we have assumed that the FERMCO population will be stable from FY97 through FY99. Starting in FY00, we have assumed a population reduction of 10% per year.

FERMCO's Long Term Space Utilization Plan has addressed the long term special purpose needs for the FEMP. Now is the time to be pro-active and address the need for office space for the Fernald site through FY10. Short term leasing solutions should not be used. These "fixes" result in lost productivity, increased lease/project costs, and reduced safety and security. This study provides a method of determining if it is in the best interests of the Government and FERMCO to lease office space off-site, or continue to use and upgrade existing on-site office facilities. It also provides a basis for the efficient use of on-site and off-site facilities. Office spaces include, not only FERMCO, but DOE, IG, and the subcontractors.

Office space projections through the year 2010 is as follows:

1995	2,228	2004	1,020
1996	1,878	2005	918
1997	1,728	2006	826
1998	1,728	2007	744
1999	1,728	2008	669
2000	1,555	2009	603
2001	1,400	2010	542
2002	1,260		
2003	1,134		

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**3.6 PARSON'S**

Parson's provides the A/E Support Services for the FEMP. They are currently located in leased facilities approximately 15 miles from the site. The space they are occupying is under a firm term lease through September 1995. Parsons is presently using about 120 office spaces plus file space. Due to reductions in the number of Parson's employees over the last two years, FERMCO employees are utilizing 30 of Parson's office spaces and some special purpose space under the Parson's lease. Parson's could not vacate the surplus space under the terms and conditions of their lease. The Parsons lease is at the market rate. However, the administration of their lease, facility management, and space planning are chargeable to FERMCO at approximately \$300,000 per annum.

Parson's is projected to remain at 100 office spaces in 1996 and then reduce their work force substantially in the next few years. A new short term lease for Parsons, beginning in September 1995, would not be cost effective and would result in lost productivity, moving costs, buildout costs, etc. By combining Parson's office needs with FERMCO office facilities it would eliminate the duplication in support services, reduce lease costs, and decrease disruption costs. Due to the size of FERMCO's office space, FERMCO would be in a better position to accommodate Parson's downsizing in future years.

The Parson's office space requirements are not included in the three alternatives in this study, but they can be accommodated by increasing the amount of leased office space or delaying the shutdown of trailers on the site.

**3.7 POPULATION PROJECTION AND IMPACTS OF LEASING FACILITIES LOCATED FROM 15 TO 20 MILES FROM THE SITE**

An attempt was made to determine the number of office spaces that would be required if FERMCO were to obtain existing off-site lease space located between 15 and 20 miles from the site. This distance was used because almost all of the large office buildings are located approximately 15 to 20 miles from the site. The office space requirements would be based on a work force reduced by restructuring and expected budget reductions in FY96 and FY97.

Based on the experience of leasing office space during the last two years, FERMCO has determined that many of the departments are impacted by being

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located in office facilities a long distance from the site. FERMCO has experienced difficulties due to reduced interaction between departments, losses in productivity due to travel time, and reduced communication with site organizations. FERMCO had determined that CRU4, Start-up, Design Engineering, Site Engineering, and selected employees in Administration, Training, Public Affairs, and Legal Services should be located close to the site to effectively interact with the Customer and site organizations.

Currently 650 office spaces are located in off-site leased facilities. Of these spaces, 135 spaces need to be located close to or on the site.

Of the 515 remaining spaces, an expected reduction of 40% is anticipated in the next two years. The 40% is used because the support departments located off-site will probably be reduced more than Engineering, RSO, CRU, or Construction.

Of the remaining 309 office spaces, 95 will be in Special Purpose off-site locations at:

- The Northstar Warehouse
- Environmental Monitoring
- PEIC/AR
- Records Storage
- JIC
- Citizens' Task Force Support Staff
- Training

This leaves approximately 214 office spaces that could remain at an off-site location up to 20 miles from the site. For purposes of this study, an off-site lease for 200 office spaces could house most of the support personnel from the following divisions:

- Public Affairs
- Administration
- Quality Assurance
- Legal
- SPI
- Acquisitions
- I.S.
- Technology

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Regulatory Programs  
Finance

## **4.0 EVALUATION CRITERIA**

FERMCO has considered three alternatives: On-Site Plan; Lease Existing Office Space Greater than Five Miles from the Site; and Lease a New Office Facility Within Five Miles of the Site. In order to objectively evaluate these options, five criteria have been established to rank the various options. These criteria are: Direct Costs; Indirect Costs; Safety; Regulatory; and Long Range Goals.

### **4.1 DIRECT COSTS**

A detailed breakdown of the direct costs for each of the categories listed below, except the cost of the trailers, is found in Attachment No. 2.

#### Site Cost

- On-site Costs are \$4,163 per person per year. These costs include utilities, maintenance, janitorial, etc. in the cost of maintaining one employee per year on the site.

#### Off-site Lease Costs (Existing Buildings)

- Because existing office buildings may not have efficient layouts which allow for efficient use of space, and the office buildings would contain special purpose space, a figure of 185 sq. ft. per person multiplied by the expected lease rate of \$17.00 per sq.ft. is used.
- $185 \times \$17 = \$3,145$ /person per year. These lease costs include utilities, maintenance, janitorial, etc. in the cost of the lease.

#### Trailer Costs

- Based on cost of acquiring and installing several large trailer facilities within the last five years, the cost of new trailer complexes is approx. \$101/sq.ft. Butler type buildings or modular office installations constructed on the site would have a comparable cost.

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New Lease (New Building)

- Based on the GSA standard of 152 sq.ft. per person plus 20 sq.ft./person for special purpose space, multiplied by \$22/sq.ft./yr. Newly constructed lease office space should cost approx. \$3,784 per person per year. These lease costs include utilities, maintenance, janitorial, etc. in the cost of the lease.

**4.2 INDIRECT COSTS**

A detailed breakdown of the indirect costs for each of the categories listed below is found in Attachment No. 2.

- There are 741 people located in trailers on the site. When there are weather alerts on the site, these people must move to more permanent buildings for safety. Sometimes these occurrences take up to a total of two (2) hours of disruption in work time. The cost for the lost time is approximately \$45,000 per occurrence. A weather alert occurs an average of twice a year.
- Because people are isolated in 61 trailers, it takes time to travel from trailer to trailer for meetings, normal business interaction, and to go to the rest room. Employees are constantly on the move within the site going from trailer to trailer, etc. If people are scattered in multiple trailers all over the site (many with no toilet facilities), it is realistic to estimate a 5% (24 minutes a day) loss in productivity per employee.
- Travel to and from a distant off-site location costs \$0.15 per mile plus an average of 1 ½ hours lost productivity per trip.
- Travel to and from a near by office facility would not have mileage costs, but would have about a ¾ hour lost productivity per trip.
- Reduced training costs can be realized by moving non-essential personnel from the site. Site worker training would be eliminated by moving support personnel off-site.

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**4.3 SAFETY**

- Remove personnel from sub-standard trailers which are being used beyond their useful design life.
- Most trailers do not have sprinkler systems. While it is not necessarily a code requirement, the safety of equipment and employees would be improved if they were located in sprinklered facilities.
- Tornado warnings, when they occur, require evacuation from trailers to permanent buildings. This process could take as much as 30 minutes, and a tornado could travel 15 miles during that period. In many instances persons are required to travel from the trailers to permanent buildings in inclement weather. This exposes the employee to additional potential injuries from slipping and becoming ill from wet weather. In addition, it is not economically feasible to evacuate trailers every time a severe storm is in the vicinity of the site.
- With 61 trailers on the site housing 741 employees, the sidewalk traffic is substantial, and the potential for workplace injuries from slipping and tripping is greatly increased.

**4.4 REGULATORY**

- Only a small percentage of existing trailers are handicapped accessible, and very few of the rest rooms in these trailers are designed to accommodate wheelchairs.
- A large volume of in-process records are in non-sprinklered trailers and could be lost if a fire occurred.
- A severe storm or tornado could result in a loss of a large volume of process records which would be very expensive to duplicate. If the documents cannot be duplicated they may have to be recreated. If they cannot be recreated, they would be lost forever.

**4.5 LONG RANGE GOALS**

- All non-essential personnel should be moved out of the Process Side to reduce training expenses, exposure, medical, etc.

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- All non-essential support personnel should be located off-site to reduce the potential risk of being injured from an incident or accident at the construction, storage, treatment, and disposal facilities. The long range plan should provide for moving all non-essential personnel from the site as the remediation progresses.
- Enhance productivity at the site.
- Minimize transfer of personnel from facility to facility.
- Consolidate support personnel as much as possible to enhance communication, improve productivity, and coordination between groups.
- Satisfy long term office needs by developing a long term plan. A long term plan will minimize cost and maximize flexibility.
- Make the on-site Administrative Area available for remediation by 2005-2010.

## **5.0 ALTERNATIVES**

### **5.1 ON-SITE PLAN**

This alternative requires moving all of the employees located in the off-site leased office facilities (UNO/DOS, Showcase and Springdale) onto the site. The off-site leased special purpose space would remain.

- Assumptions

Move 100 personnel from Process Side to Administrative Side in FY96.

Replace all Category 1 trailers.

Eliminate off-site office facilities after acceptable space is available on site.

Retain all off-site special purpose space.

Refurbish or replace Category 2 and 3 trailers as required.

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- Direct Cost

The Direct Costs are shown on Attachment No. 3.

Direct Costs total \$92,853,922

- Indirect Cost

The Indirect Costs are shown on Attachment No. 3.

Indirect Costs total \$21,959,274

- Safety

Positive

- Replace 40 old trailers with modern 10-plex trailers by 1999
- New trailers will have a sprinkler system
- Reduced sidewalk traffic

Negative

- No change in severe weather (tornados) related safety
- Takes four years to upgrade trailers
- Personnel in trailers until 2007

- Regulatory

Positive

- Improved handicap access by 1999
- Improved sprinkler coverage by 1999

Negative

- Wait 4 years to substantially improve handicap access
- Wait 4 years to improve sprinkler coverage
- No improvement in exposure of records to severe storms or tornadoes

- Long Range Goals

Positive

- Remove non-essential employees from Process Area

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- |          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Negative | <ul style="list-style-type: none"> <li>● Administrative Side personnel more consolidated by 1999</li> <li>● Marginal improvements in productivity</li> <li>● All support personnel will be on-site surrounded by remediation actions</li> <li>● No flexibility to reduce proximity between office and remediation actions</li> <li>● Administrative Buildings will still be occupied and cannot be demolished unless a short term lease close to the site is obtained in 2005</li> <li>● Continued high level of movement of people from facility to facility for the life of the project</li> <li>● Long Term Strategy (10-15 years) not satisfied</li> </ul> |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**5.2 LEASE EXISTING OFFICE SPACE GREATER THAN FIVE MILES FROM SITE**

This alternative considers leasing an office facility to house employees not required to be located at or near the site. It would result in replacing Springdale, and Showcase offices with a smaller 200 person office facility. It is anticipated that this facility would be located approximately 20 miles from the site since there are no existing office facilities available for lease close to the site. The off-site leased special purpose space would remain.

- Assumptions

Move 100 personnel from the Process Side to Administrative Side.

Lease a 200 person office facility within 20 miles of the site. The 200 persons represents the number of people who do not need to be at or near the site to work effectively.

Refurbish or replace trailers as required.

- Direct Cost

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The Direct Costs are shown on Attachment No. 4.

Direct Costs total **\$87,149,212**

- Indirect Cost

The Indirect Costs are shown on Attachment No. 4.

Total Indirect Costs total **\$17,634,865**

- Safety

Positive	<ul style="list-style-type: none"> <li>● Replace Category 1 trailers with new 10-plex trailers in FY96</li> <li>● Decrease in sidewalk traffic</li> <li>● Improved sprinkler coverage in new trailers</li> </ul>
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Negative	<ul style="list-style-type: none"> <li>● Still have 500 people in trailers that have injury and weather related concerns</li> <li>● Takes two years to upgrade trailers</li> </ul>
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- Regulatory

Positive	<ul style="list-style-type: none"> <li>● Improved handicap access in new trailers</li> <li>● Improved sprinklers in new trailers</li> </ul>
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Negative	<ul style="list-style-type: none"> <li>● Category 2 trailers are not sprinkled and few of these trailers meet handicapped requirements</li> <li>● No substantial change in exposure of records to severe storms or tornadoes</li> </ul>
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- Long Range Goals

Positive	<ul style="list-style-type: none"> <li>● Remove non-essential from Process Area</li> <li>● Administrative Side personnel more consolidated</li> <li>● Moving 200 people off-site will reduce some landlord costs and improve productivity</li> </ul>
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**Negative**

- All remaining support personnel will be on-site surrounded by remediation actions (only 200 moved off-site)
- Only minor reductions in landlord costs
- Low flexibility for reducing proximity between on-site office space and remediation actions
- Administrative Buildings will still be occupied between 2005-2010
- A short term lease for office space near the site will be needed after 2000.
- A high percentage of people will continue transferring from facility to facility for life of the project
- Low flexibility in moving support personnel from the site to new office facility
- Long term strategy (10-15 years) not satisfied

**5.3 LEASE A NEW OFFICE FACILITY WITHIN FIVE MILES OF THE SITE**

This alternative considers leasing a new office facility within five miles of the site. The new facility would be built to FERMCO requirements. It would result in eliminating the UNO/DOS, Springdale and Showcase office facilities. It would allow for the greatest flexibility on moving persons from the site to the new office facility as the on-site office facilities are demolished. The off-site leased special purpose space would remain.

- Assumptions

Move 100 personnel from the Process Side to the Administrative Side.

500 people in off-site lease office space less than 5 miles from the site

Long term (15 year) lease with 5 years firm term

Employees moved to lease from the site as reductions in force occur (10%/yr)

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- Direct Cost

The Direct Costs are shown on Attachment No. 5.

Direct Costs total \$82,321,279

- Indirect Cost

The Indirect Costs are shown on Attachment No. 5.

Indirect Costs total \$12,350,542

- Safety

Positive

- All Category 1 and 2 trailers will be eliminated
- Substantially reduced sidewalk traffic
- Substantially reducing the risk of weather related injuries
- 81% of trailer occupants are protected by sprinklers

Negative

- Not all trailers eliminated until the year 2002

- Regulatory

Positive

- Almost all of the office spaces will be handicap accessible
- Almost all of the office records would have fire protection

- The exposure of records to severe storms or tornadoes will be substantially reduced.

- Long Range Goals

Positive

- All non-essential personnel can be moved from the Process Area to the Administrative Area

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- By 1997 all support personnel can be moved to a leased office facility located close enough to continue supporting the site for the next 15 years
  - Maximizes reduction in landlord costs and increases productivity
  - All support personnel are consolidated at one location
  - Provides long term strategy (15 years) for progressively removing support personnel from the remediation site to an off-site office facility close to the site.
  - Will make Administrative Area available for demolition by the 2005-10
- Negative
- Some lost time in travel for support personnel from the site to the new facility

## 6.0 RECOMMENDATION

### Alternative C (with modifications)

Based upon costs and the other criteria listed in this study, Alternative C, Lease A New Office Facility Within Five Miles Of The Site, is the preferred alternative.

#### COSTS:

ALTERNATIVES/ COSTS	ALTERNATIVE "A" ON-SITE PLAN	ALTERNATIVE "B" LEASE OFFICE SPACE GREATER THAN 5 MILES FROM SITE	ALTERNATIVE "C" LEASE OFFICE SPACE WITHIN 5 MILES OF SITE
DIRECT COSTS	\$ 92,852,922	\$ 87,149,212	\$ 82,321,279
INDIRECT COSTS	\$ 21,959,274	\$ 17,634,865	\$ 12,350,542
TOTAL	\$114,812,196	\$104,784,077	\$ 94,671,821

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Attachment No. 6 is a yearly breakdown of the yearly funding requirements for each of the Alternatives.

FERMCO would carry out the following actions as part of implementing Alternative "C":

- Lease 85,700 to 89,500 net useable square feet of office space and special purpose space less than 5 miles from site.
- The lease would be a 15 year lease, 5 years firm term.
- FERMCO would have the right to give up all or part of the lease space after the fifth year of the lease
- Funding of \$9.5M to commit lease in FY95. Funding to cover lease costs for the firm term of the lease.
- Budget \$1,900,000 per year for the new lease in FY97 and future years.
- Occupancy of the new facility is projected to be October, 1996.
- Move Parson's to Springdale after their lease expires in September, 1995.
- Incorporate Parson's personnel into new lease space.
- Close some of the Category 1 trailers in FY95.
- Close all Category 1 and 2 trailers in FY97.
- Combine Reproduction and Graphics into the new office in FY97.
- Incorporate Public Environmental Information Center (PEIC) into the new facility in FY97.
- Being close to the site, FERMCO will have the flexibility of incorporating the Joint Information Center (JIC) and the Citizens Task Force support staff into the new office facility at a future date.

## 7.0 LIST OF ATTACHMENTS

ATTACHMENT NO.:

- 
- |   |                                                             |
|---|-------------------------------------------------------------|
| 1 | TRAILER UTILIZATION CHART                                   |
| 2 | DIRECT AND INDIRECT COSTS                                   |
| 3 | ON-SITE FACILITY UTILIZATION PLAN AND COST CHARTS           |
| 4 | OFF-SITE EXISTING FACILITY UTILIZATION PLAN AND COST CHARTS |
| 5 | NEW LEASE UTILIZATION PLAN AND COST CHARTS                  |
| 6 | FUNDING REQUIREMENTS                                        |
| 7 | AREA MAP                                                    |

ATTACHMENT NO. 1

TRAILER UTILIZATION CHART

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Trailer Number	Square Ft.	# Persons	Age	Sprinklers	Handicap Accessible	Toilet	Toilet Handicap Accessible	Category
304	1,000	5	---	N	N	N	N	LEASED
305	1,200	5	---	N	N	N	N	LEASED
303	1,288	15	---	N	N	N	N	LEASED
39	1,327	8	---	N	N	Y	N	LEASED
21	360	4	11	N	N	N	N	1
3	360	4	13	N	Y	N	N	1
2	360	6	13	N	Y	N	N	1
22	360	4	11	N	N	N	N	1
5	360	3	est 10	N	Y	N	N	1
20	360	3	11	N	N	N	N	1
4	360	0	13	N	Y	N	N	1
8	429	4	est 10	N	Y	N	N	1
15	437	3	18	N	N	N	N	1
17	440	3	18	N	N	N	N	1
14	451	5	18	N	N	N	N	1
9	460	3	18	N	N	N	N	1
7	460	3	13	N	Y	N	N	1
72	551	5	10	N	N	N	N	1
62	600	5	11	N	N	N	N	1
51	672	8	11	N	N	N	N	1
46	273	2	13	N	N	N	N	1
	976	24	13	N	Y	Y	N	1
23	608	22	15	Y	Y	Y	N	1
<b>Total Cat 1</b>	<b>23,702</b>	<b>92</b>						
34	150	1	est 7	N	N	N	N	2
32	150	1	est 7	N	N	N	N	2
28	150	3	est 7	N	N	N	N	2
31	300	5	est 7	N	N	N	N	2
301	360	10	est 7	N	N	N	N	2
519	360	7	est 7	N	N	N	N	2
513	360	2	est 7	N	N	N	N	2
514	360	1	est 7	N	N	N	N	2
512	360	1	est 7	N	N	N	N	2
27	600	2	est 7	N	N	N	N	2
71	605	5	10	N	N	N	N	2
33	720	4	est 7	N	N	N	N	2
26	720	9	est 7	N	N	N	N	2
19	924	25	est 7	N	N	Y	N	2
25	622	29	7	N	Y	Y	N	2
24	622	33	7	N	Y	Y	N	2
<b>Total Cat 2</b>	<b>15,363</b>	<b>138</b>						
97	150	5	est 5	N	N	N	N	3
505	720	15	est 5	N	N	N	N	3
5	720	4	est 5	N	N	N	N	3
30	913	5	est 5	Y	Y	N	N	3
29	913	9	est 5	Y	Y	N	N	3
45	273	11	6	N	N	N	N	3
44	344	13	6	N	N	N	N	3
43	344	12	6	N	N	N	N	3
35	553	9	6	N	N	N	N	3
82	792	8	3	Y	Y	Y	Y	3
83	792	9	3	Y	Y	Y	Y	3
78	806	10	3	Y	N	Y	N	3
79	806	15	3	Y	N	N	N	3
85	819	18	3	Y	N	N	N	3
86	819	17	3	Y	N	Y	N	3
87	819	15	3	Y	N	N	N	3
84	819	4	3	Y	N	Y	N	3
38	2,145	9	6	N	N	Y	N	3
31	9,030	55	3	Y	Y	Y	Y	3
77	9,030	41	3	Y	Y	Y	Y	3
80	9,030	60	3	Y	Y	Y	Y	3
76	9,030	64	3	Y	Y	Y	Y	3
<b>Total Cat 3</b>	<b>61,717</b>	<b>411</b>						
<b>TOTAL</b>	<b>100,782</b>	<b>741</b>						

Gross Square Ft./Person = 136

Category:

- 1 - Replace or Upgrade in 1996, if required
- 2 - Replace or Upgrade in 1998, if required
- 3 - Upgrade in 1999, if required

000042

# DIRECT COSTS

Electrical\*

Total Annual Cost	=	\$1,394,618	
% Administrative Use	x	.40	
Cost for Administrative Area	=	\$557,847	
557847/1500	=		\$372 /person

Water Treatment\*

Total Annual Cost	=	\$785,548	
% Administrative Use	x	.39	
Cost for Administrative Area	=	\$306,364	
306364/1500	=		\$204 /person

Sewer Treatment\*

Total Annual Cost	=	\$213,311	
% Administrative Use	x	.39	
Cost for Administrative Area	=	\$83,191	
83191/1500	=		\$55 /person

Steam Heat \*\*

Total Annual Cost	=	\$1,926,244	
% Administrative Use	x	9.2	
Cost for Administrative Area	=	\$177,214	
177214/1100	=		\$161 /person

Blue Maintenance Area \*\*

Total Annual Cost	=	\$1,687,418	
Fixed Cost = 20% ; Variable Cost = 80%			
1,687,418 x .80	=	\$1,349,934	
1349934/1100	=		\$1,227 /person

Porters \*\*

Total Annual Cost	=	\$1,064,773	
Fixed Cost = 30% ; Variable Cost = 70%			
1,064,773 x .70	=	\$745,341	
745341/1100	=		\$678 /person

Medical \*\*

Total Annual Cost	=	\$2,019,096	
Fixed Cost = 60% ; Variable Cost = 40%			
2,019,096 x .40	=	\$807,638	
807638/1100	=		\$734 /person

Security \*\*

Total Annual Cost	=	\$1,594,140	
Fixed Cost = 80% ; Variable Cost = 20%			
1,594,140 x .20	=	\$318,828	
318828/1100	=		\$290 /person

\* Based on 1994 actual costs

\*\* Estimated Costs based on 1992 actual costs with 3% added each year

Fire Engineering \*\*

Total Annual Cost = \$391,428  
 Fixed Cost = 100% ; Variable cost = 0%

Rad Safety \*\*

Total Annual Cost = \$4,340,240  
 Fixed Cost = 85% ; Variable Cost = 15%  
 $4,340,240 \times .15 = 651,036$   
 $651,036 / 2100 = \$310 / \text{person}$

Emergency Preparedness \*\*

Total Annual Cost = \$514,445  
 Fixed Cost = 90% ; Variable Cost = 10%  
 $514,445 \times .10 = 51,445$   
 $51,445 / 1100 = \$47 / \text{person}$

OSHA Upgrade \*\*

Total Annual Cost = \$592,270  
 Fixed Cost = 70% ; Variable Cost = 30%  
 $592,270 \times .30 = 177,681$   
 $177,681 / 2100 = \$85 / \text{person}$

**TOTAL ON-SITE COSTS = \$4,163 /person**

**LEAST COST for greater than 5 MILES FROM SITE**  
 (Existing Lease Space)

185 sq.ft. per office space times an estimated  
 \$17.00 per sq.ft. per year = **\$3,145 /person**

**LEASE COST for less than 5 MILES FROM SITE**  
 (Build Lease Space)

172 sq.ft. per office space (including 20 sq. ft./per person special  
 purpose space) times an estimated \$22.00 per sq.ft. per year = **\$3,784 /person**

## INDIRECT COSTS

Weather Disruption Losses (Trailer occupants only)

2hrs per occurrence times 2 occurrences per year = 4 hrs lost per person per year  
 4 hrs per year times \$30.00 per hr = **\$120.00 per person per year**

Productivity Losses (Trailer occupants only)

Building occupancy is assumed to be similar in all scenarios.  
 A 5% loss in productivity is used for all occupants of trailers.  
 (3 minutes per hour per person)

1800 hrs per yr times .05 = 90 hours per year  
 90 hours per year times \$30.00 per hour = **\$2,700 per person per year**

000043

Travel Mileage Losses (Off-site > 5 miles only)

Average 30 miles round trip times .15/mile = \$4.50 per trip  
 Assume that 25% of office personnel travel to the site once a week = 50 people  
 50 trips per week times 50 weeks per year = 2,500 trips per year  
 2,500 times \$4.50

= \$11,500 per year total expenses

Travel Productivity Losses

## a. Existing Leases &gt; 5 miles

1.5 hrs per trip – 200 people

50 trips per week times 50 weeks per year

= 2,500 trips per year

2500 trips per year times 1.5 hrs

= 3,750 hours per year

3,750 hours times \$30.00 per hour

= \$112,500 per year total expenses

## b. New Lease &lt; 5 miles

0.75 hrs per trip – 500 people

Assume 50% of office personnel travel to the site once a week

= 200 people

250 trips per week times 50 weeks per year

= 12,500 trips per year

12500 trips times 0.75 hrs per trip

= 9,375 hours per year

9,3375 hours times \$30.00 per hour

= \$281,250 per year total expenses

Training Losses

Assume 250 people On-site in Admin. side who would not need access to Process side and need not take Site Worker Training.

Site Worker Training (16hrs) plus 4 hrs per person of instruction/preparation time

= 20 hours per person

20 hours times \$30.00 per hour

= \$600 per year per person

## a. On-site Alternative

250 people times \$600

= \$150,000 per year total expenses

## b. Off-site &gt; 5 miles Alternative

100 people times \$600

= \$ 60,000 per year total expenses

## c. Off-site &lt; 5 miles Alternative

0 people times \$600

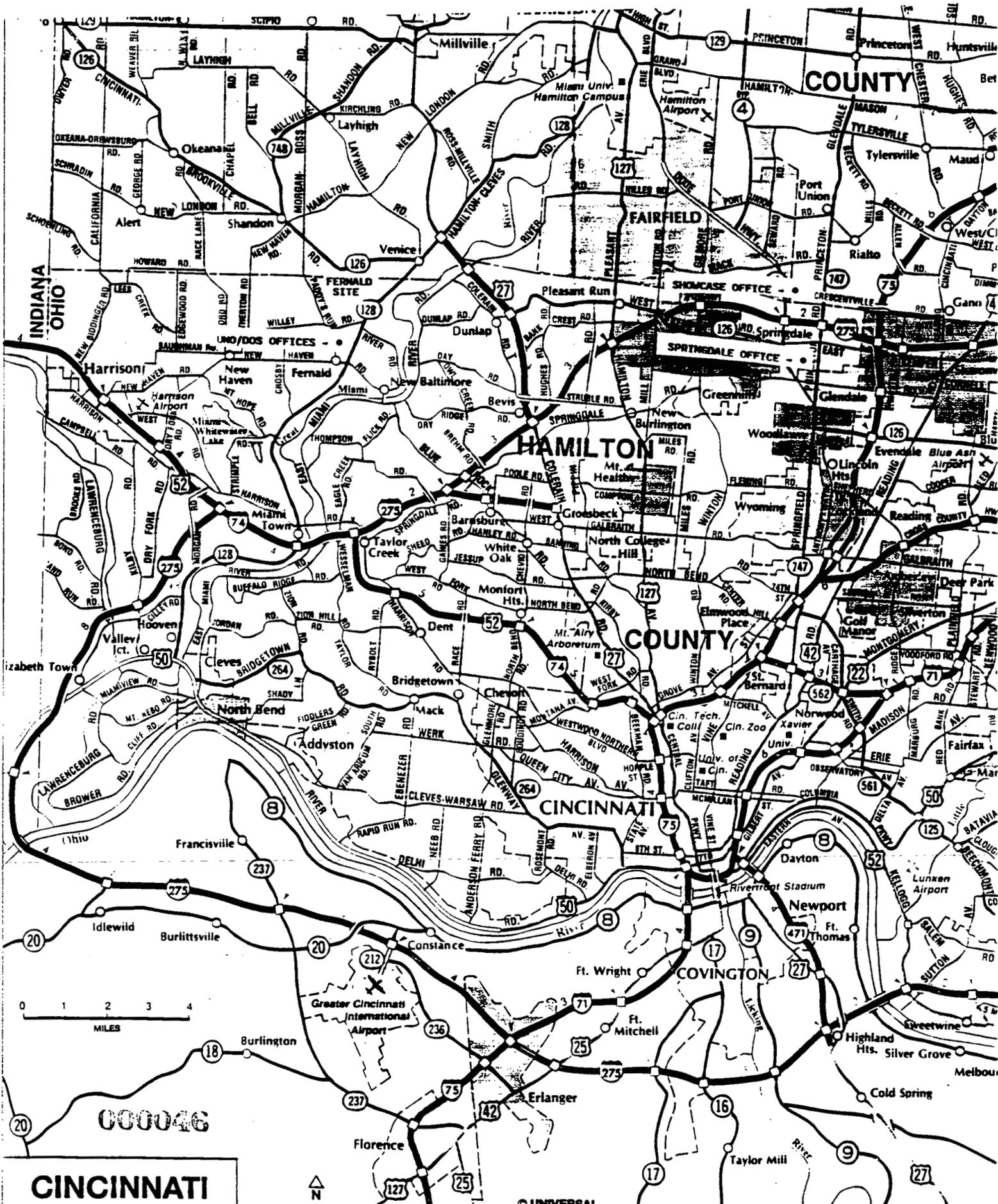
= \$ 0 per year total expenses

## ATTACHMENT NO 6

<b>FUNDING REQUIREMENTS</b>			
<b>Year</b>	<b>On-site Plan</b>	<b>Off-site &gt; 5 miles</b>	<b>Off-site &lt; 5 miles</b>
1995	\$8,945,427	\$8,945,427	\$18,335,427
1996	\$11,462,231	\$10,472,231	\$7,462,231
1997	\$7,403,381	\$7,189,601	\$5,262,829
1998	\$9,383,381	\$7,262,897	\$5,262,829
1999	\$7,411,707	\$7,262,897	\$5,262,829
2000	\$6,822,463	\$6,618,863	\$4,543,463
2001	\$6,175,033	\$5,971,433	\$3,896,033
2002	\$5,592,346	\$5,388,746	\$5,205,346
2003	\$5,067,928	\$4,864,328	\$4,680,928
2004	\$4,594,425	\$4,392,352	\$4,208,952
2005	\$4,169,799	\$3,967,573	\$3,784,173
2006	\$3,787,636	\$3,585,272	\$3,401,872
2007	\$3,443,689	\$3,241,201	\$3,057,801
2008	\$3,134,136	\$2,931,538	\$2,748,138
2009	\$2,855,539	\$2,652,841	\$2,602,657
2010	\$2,604,802	\$2,402,013	\$2,605,772
	\$92,853,923	\$87,149,213	\$82,321,280

# FERMCO LONG TERM OFFICE SPACE STUDY ATTACHMENT NO. 7 - AREA MAP

6875



CINCINNATI

FACILITY UTILIZATION PLAN (POPULATION)

ON-SITE PLAN

Group	Facility	Pop. of Pop. Year															
		95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
<b>On site Buildings</b>																	
	<i>Administration side-</i>																
	HAS Building	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	180
	Admin Building	130	130	130	130	130	130	130	130	130	130	130	130	130	130	125	97
	Services Building	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	IR & Security Bldg	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	Laboratory Bldg	186	186	186	186	186	186	186	186	186	186	186	186	186	186	141	120
	<i>Controlled side-</i>																
	Misc. Buildings	270	170	170	170	170	131	60	0	0	0	0	0	0	0	0	0
<b>Total</b>		<b>858</b>	<b>736</b>	<b>736</b>	<b>736</b>	<b>736</b>	<b>699</b>	<b>628</b>	<b>565</b>	<b>566</b>	<b>566</b>	<b>566</b>	<b>566</b>	<b>566</b>	<b>566</b>	<b>507</b>	<b>447</b>
<b>On Site Trailers:</b>																	
	Category 1	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Category 2	138	138	138	0	0	0	0	0	0	0	0	0	0	0	0	0
	Category 3	411	411	411	411	411	327	247	121	7	0	0	0	0	0	0	0
	3 - New 10 Places	0	0	210	210	210	210	210	210	210	210	210	210	210	210	210	210
	2 - New 10 Places	0	0	0	0	140	140	140	140	140	140	140	140	140	81	6	0
<b>Total</b>		<b>741</b>	<b>549</b>	<b>759</b>	<b>761</b>	<b>761</b>	<b>677</b>	<b>597</b>	<b>471</b>	<b>387</b>	<b>295</b>	<b>193</b>	<b>81</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Leased Space:</b>																	
	Leased Office space	534	496	136	136	134	0	0	0	0	0	0	0	0	0	0	0
	Leased Special Purpose Space	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
<b>Total</b>		<b>649</b>	<b>591</b>	<b>231</b>	<b>231</b>	<b>229</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>	<b>95</b>
<b>GRAND TOTAL</b>		<b>2228</b>	<b>1976</b>	<b>1728</b>	<b>1728</b>	<b>1728</b>	<b>1555</b>	<b>1400</b>	<b>1260</b>	<b>1134</b>	<b>1020</b>	<b>910</b>	<b>826</b>	<b>744</b>	<b>689</b>	<b>602</b>	<b>542</b>

Priorities for Personnel Reductions

- a. Out of Process Area
- b. Out of Category 1 Trailers
- c. Out of Leased Office Space
- d. Out of Remaining Process Area
- e. Out of Trailers
- f. Out of Administrative Buildings

Onsite Plan

End of fiscal year >>	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Population:	630	718	738	738	738	738	738	738	738	738	738	738	738	738	738	738
On site buildings	741	649	738	738	738	738	738	738	738	738	738	738	738	738	738	738
On site trailers	648	1878	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738
On-site houses	228															
TOTAL	228	1878	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738	1738

Costs:

Category	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Long Term Office space	\$1,688,800	\$1,480,800	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720	\$427,720
Special Purpose Space	\$1,348,200	\$780,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880	\$743,880
Total On-Site House Costs	\$2,372,050	\$2,264,450	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370	\$1,171,370
Site -	\$6,673,377	\$3,357,781	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011	\$8,232,011
Maintenance, utilities	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000	\$2,870,000
Travel Replacements	\$3,803,377	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
P.A.D. Training	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000	\$800,000
Total on-site costs >>	\$16,573,317	\$13,227,781	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011	\$18,232,011

Category	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Total yearly costs >>	\$6,845,427	\$11,462,231	\$7,402,381	\$8,343,381	\$7,411,707	\$6,622,483	\$6,178,033	\$6,662,346	\$5,087,828	\$4,158,425	\$4,158,798	\$3,787,538	\$3,443,889	\$3,134,136	\$2,858,538	\$2,804,802
Cumulative costs >>	\$6,845,427	\$20,407,658	\$27,810,039	\$37,154,420	\$44,608,127	\$51,428,610	\$57,603,643	\$63,198,898	\$68,293,898	\$72,958,321	\$77,028,120	\$80,815,758	\$84,259,445	\$87,293,581	\$90,249,120	\$92,653,922

Category	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Yearly Funding >>	\$8,845,427	\$11,462,231	\$7,402,381	\$8,343,381	\$7,411,707	\$6,622,483	\$6,178,033	\$6,662,346	\$5,087,828	\$4,158,425	\$4,158,798	\$3,787,538	\$3,443,889	\$3,134,136	\$2,858,538	\$2,804,802

Indirect Costs:

Category	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Weather Disruption Losses	\$68,620	\$45,840	\$91,000	\$91,000	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320	\$91,320
Productivity Losses	\$2,000,700	\$1,482,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300	\$2,048,300
Training	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Total Indirect Costs/yr	\$2,219,320	\$1,678,140	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300
TOTAL	\$2,238,620	\$1,696,100	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300	\$2,290,300
Total yearly costs >>	\$9,064,047	\$13,158,331	\$9,692,681	\$10,633,681	\$9,702,007	\$8,912,783	\$8,468,333	\$8,952,646	\$7,378,628	\$6,316,850	\$6,449,126	\$6,077,838	\$5,734,689	\$5,424,436	\$5,148,838	\$5,095,102
Cumulative costs >>	\$9,064,047	\$22,316,668	\$31,909,349	\$42,543,030	\$52,255,037	\$61,167,817	\$69,345,850	\$76,908,196	\$83,066,624	\$88,225,049	\$92,383,847	\$96,543,145	\$100,702,444	\$104,861,743	\$109,021,042	\$113,180,341

Sheet 104 of 141

Space Management Group

ATTACHMENT NO 4

Page 1 of 2

FACILITY UTILIZATION PLAN (POPULATION)

OFF-SITE EXISTING LEASE PLAN

Group	Facility	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	
On Site Buildings	Administration side-	210	210	210	210	210	210	210	210	210	210	210	210	203	203	165	135	165
	H&S Building	130	130	130	130	130	130	130	130	130	130	130	130	100	100	60	60	60
	Admin Building	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
	Services Building	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
	IR & Security Bldg	186	186	186	186	186	186	186	186	186	186	186	186	186	104	67	51	20
	Laboratory Bldg	210	170	170	170	170	71	30	0	0	0	0	0	0	0	0	0	0
	Controlled side-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Misc. Buildings	638	738	738	738	638	598	538	538	538	538	538	531	449	374	308	247	0
Total	On Site Trailers:	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Category 1	136	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Category 2	411	411	411	411	411	297	217	217	210	197	63	0	0	0	0	0	0
	Category 3	0	0	210	210	210	210	210	210	210	0	0	0	0	0	0	0	0
	2 - New 10 Phases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	Leased Office space	741	548	621	621	621	507	427	301	187	63	0	0	0	0	0	0	0
	Leased Office space	534	496	346	274	274	200	200	200	200	200	200	200	200	200	200	200	200
	Leased Special Purpose Space	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
Total		648	591	441	369	369	295	295	295	295	295	295	295	295	295	295	295	295
GRAND TOTAL		2228	1878	1728	1728	1728	1535	1400	1260	1134	1020	918	826	744	669	603	542	0

Priorities for Personnel Reductions

- a. Out of Process Area
- b. Out of Category 1 Trailers
- c. Out of Leases Off-site
- d. Out of Remaining Process Area
- e. Out of Trailers
- f. Out of Administrative Buildings



Sheet: 001 of 1

Space Management Group

ATTACHMENT NO 5 Page 1 of 2

FACILITY UTILIZATION PLAN (POPULATION)

NEW LEASE PLAN

Group	End of Fiscal Year															
	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
On Site Buildings:																
Administration side -																
Hqs. Building	210	210	210	210	210	210	210	210	188	188	181	119	77	17	10	10
Admin Building	130	130	130	130	130	130	130	130	114	84	0	0	0	0	0	0
Services Building	25	25	25	25	25	25	25	25	25	25	25	25	25	20	10	10
HR & Security Bldg	17	17	17	17	17	17	17	17	17	17	17	17	17	17	10	10
Laboratory Bldg	188	188	188	188	188	188	188	188	165	111	100	70	30	20	10	10
Controlled side -																
Misc. Buildings	270	170	170	170	170	170	150	97	30	0	0	0	0	0	0	0
Total	638	738	738	738	738	738	716	665	539	425	323	231	148	74	40	40
On Site Trailers:																
Category 1	182	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Category 2	138	138	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Category 3	411	411	395	395	395	222	87	0	0	0	0	0	0	0	0	0
Total	741	549	395	395	395	222	87	0	0	0	0	0	0	0	0	0
Leased Space:																
Leased Office Spaces	554	488	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leased Special Purpose Space	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95	95
New Leased Bldg	0	0	500	500	500	500	500	500	500	500	500	500	500	500	488	407
Total	649	581	895	895	895	895	895	895	895	895	895	895	895	895	863	802
<b>GRAND TOTAL</b>	<b>2228</b>	<b>1878</b>	<b>1728</b>	<b>1728</b>	<b>1728</b>	<b>1355</b>	<b>1400</b>	<b>1260</b>	<b>1134</b>	<b>1020</b>	<b>818</b>	<b>826</b>	<b>744</b>	<b>689</b>	<b>603</b>	<b>542</b>

02/24/05

Priorities for Personnel Relocations

- a. Out of Process Area
- b. Out of Category 1 Trailers
- c. Out of Lease Off-site
- d. Out of Remaining Process Area
- e. Out of Trailers
- f. Out of Administrative Buildings

**New Lease Plan**

End of fiscal year >	95	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10
Population:	838	738	738	738	738	738	718	685	538	425	323	231	149	74	40	40
On site buildings	741	540	385	385	385	222	97	0	0	0	0	0	0	0	0	0
Off site buildings	640	590	500	500	500	46	0	0	0	0	0	0	0	0	0	0
Off-site lease cost >	2233	1873	1728	1728	1728	1525	1200	950	724	500	328	228	142	68	48	48
Total >																
Category 1 trailers move 100 people from Process side																
Category 2 trailers																
High waiting Process side																

ATTACHMENT NO 5 PAGE 2 of 2

**Costs:**

Leases:	\$1,548,800	\$1,450,800	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Long Term Office Space	\$713,250	\$683,650	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Special Purpose Space	\$0	\$0	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000	\$1,892,000
New Lease	\$0	\$0	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150
Total off-site lease cost >	\$2,302,050	\$2,104,450	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150	\$2,438,150
Site:	\$8,873,377	\$8,357,781	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819
Multi-tenancy utilities	\$8,873,377	\$8,357,781	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819
Total on-site cost >	\$8,873,377	\$8,357,781	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819	\$4,718,819
Total >	\$11,175,427	\$10,462,231	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969	\$7,156,969
Total yearly costs >>	\$8,873,427	\$7,462,231	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829	\$7,154,829
Cumulative cost >>	\$8,873,427	\$18,334,658	\$25,489,487	\$32,644,316	\$39,799,145	\$46,953,974	\$54,108,803	\$61,263,632	\$68,418,461	\$75,573,290	\$82,728,119	\$89,882,948	\$97,037,777	\$104,192,606	\$111,347,435	\$118,502,264

**Yearly funding >**

	\$18,335,427	\$7,462,231	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829	\$5,282,829
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**Indirect Costs:**

Weather Disruption Costs	\$68,600	\$45,680	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400	\$47,400
Productivity Losses	\$2,000,700	\$1,442,300	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500	\$1,000,500
Travel Productivity losses	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250	\$281,250
Training	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Indirect Cost >	\$2,370,610	\$1,829,430	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150	\$1,359,150
Total >	\$11,214,037	\$12,291,661	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019	\$8,516,019
Total yearly costs >>	\$11,214,037	\$14,113,292	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169	\$9,875,169
Cumulative cost >>	\$11,214,037	\$25,226,584	\$35,101,753	\$45,076,922	\$54,952,091	\$64,827,260	\$74,702,429	\$84,577,598	\$94,452,767	\$104,327,936	\$114,203,105	\$124,078,274	\$133,953,443	\$143,828,612	\$153,703,781	\$163,578,950

\*Assume Graphics and P&C/ATI incorporated in New Lease

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ITEM 3

OPERABLE UNIT 1 COMPLIANCE SCENARIO

00053

# CERCLA / RCRA UNIT 1

6875



FEMP

000054

## OUI CONCEPT

- Treatment includes pretreatment (e.g., crusher/shredder), thermal drying, and off-gas collection and treatment.
- Shipment of waste for off-site disposal is still focused on the use of unit trains (for shipment to the permitted commercial disposal facility).
- Off-site disposal of wastes will be at a permitted commercial disposal facility, as much as possible (i.e., as much waste will be disposed of at this location as meets the disposal facility's waste acceptance criteria). If necessary, some wastes may be sent to the Nevada Test Site for disposal.
- The current scenario/design calls for a processing duration of approximately ten years.

## CERCLA / RCRA UNIT 1

FEMP

50000

SUMMARY OF THE REMEDIAL DESIGN WORK PLAN PROJECT

- Summarize the purpose and scope of the Operable Unit 1 remedial action
- Describe the primary requirements for the design of all OU1 remedial actions including remedial action levels and compliance with ARARs and PCDF WAC
- Set forth an overall design strategy
- Define the design packages and other plans that will be prepared for review and approval and identify the schedule for each package submittal

# CERCLA / RCRA UNIT 1

FEMP

## SUMMARY OF THE REMEDIAL DESIGN WORK PLAN PROJECT (Con't)

- Package I: Preliminary Review Submittal 10/24/95  
 Pre-final Review Submittal 03/21/95  
 Plant Facilities Design Criteria  
 Plant Facilities Engineering  
 Equipment Specifications  
 Site Improvement Plan  
 Construction Schedule
  
- Package II: Preliminary Review Submittal 10/24/95  
 Pre-final Review Submittal 03/21/95  
 Excavation Plan  
 Site Restoration Plan  
 Transportation and Disposal Plan

# CERCLA / RCRA UNIT 1

FEMP

000057

## OPTIMIZATION ISSUES

- Moisture Content
  - Drying to Dryness
  - Drying only to Meet PCDF WAC
  - Auxiliary Moisture Removal (e.g. Vacuum Filtration)
- % NTS
  - Re-examining Pit Data vs WAC for PCDF
- Intermodal as a Transportation Option
- Pit Sequence for Remediation: Pit 6, 5, first

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ITEM 4

DISPOSAL FACILITY "INTERIM" CLOSURE

000058

### Partial Closure Options

The design of the partial closure capping system will be developed as part of the detailed design of the disposal facility. The basis for that design will include the anticipated shutdown period. That shutdown period will be somewhat better understood as the design progresses and the remediation of Operable Units 3 and 5 is more fully defined. The regulatory agencies will have an opportunity to review the proposed partial closure capping system during the currently proposed design review cycles.

The partial closure capping systems associated with different shutdown periods could range between two extremes. For a short period a minimal capping system would be utilized that relied on geosynthetics topped by a vegetative layer. For shutdown periods covering many years, the working face of the partial facility would need to be closed out with a system more similar to the final capping system. It should be noted that this partial closure cap applies only to the working face of the disposal facility since waste surfaces other than the working face would be covered by the final capping system.

The choice of partial closure capping system could have significant cost impacts. If the partial closure capping system is intended for a lengthy service life, the additional layers, added thicknesses of those layers, and added area to be covered (which increases as the slope of the working face becomes flatter) will increase the cost. When additional waste is ready to be placed at the facility, portions of the partial closure capping system (e.g. biotic barrier, vegetative zone) would likely be removed and used elsewhere in the facility.

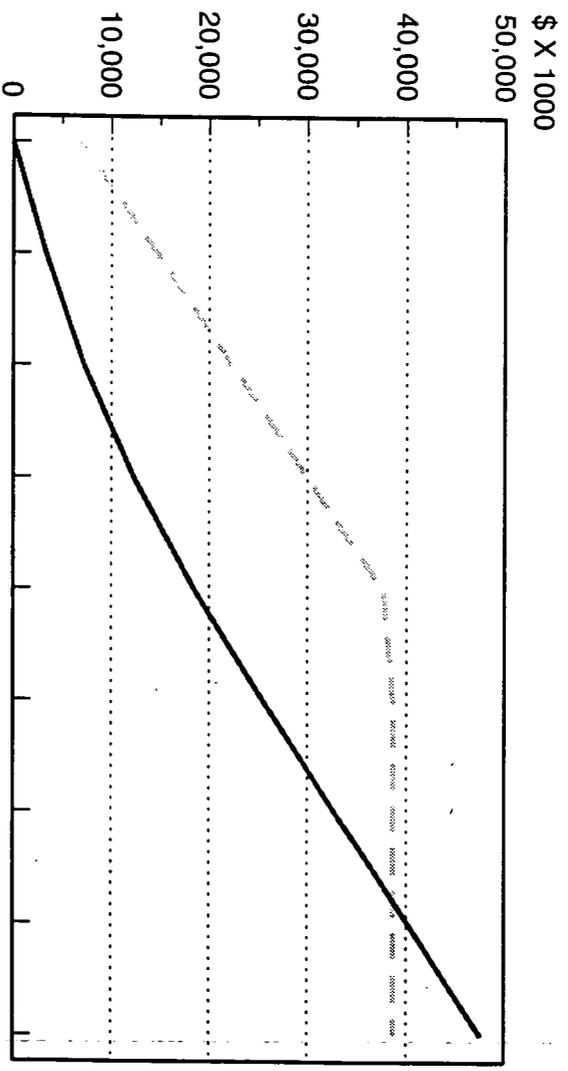
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ITEM 5

SAFE SHUTDOWN COST SAVINGS CURVE

000060

# TOTAL SAFE SHUTDOWN COST TOTAL 68D1 COST SAVINGS



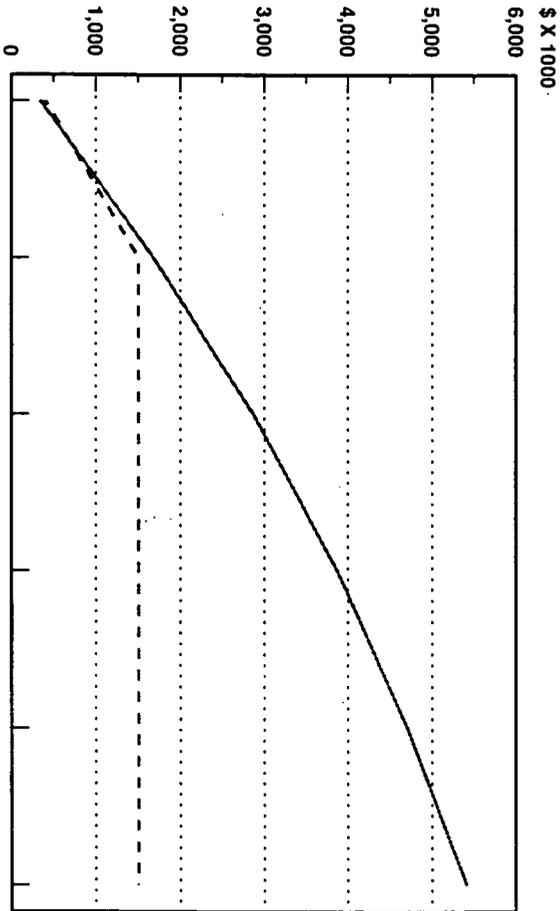
	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01	FY 02	FY 03
SS COST	6,963	14,685	22,391	30,061	37,646	38,615	38,615	38,615	38,615
68D1 SAV	—	3,346	7,171	12,266	18,445	25,508	32,860	40,212	47,564

ITEM 6

FACILITY ABANDONMENT UTILITY REDUCTIONS  
COST SAVINGS CURVE

# UTILITY REDUCTIONS

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	FY 96	FY 97	FY 98	FY 99	FY 00	FY 01
68D1 SAV —	342	1,687	2,870	3,875	4,710	5,414
UR COST - - -	403	1,510	1,510	1,510	1,510	1,510

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ITEM 7

**COST IMPACT OF OU5 INSTALLATION OF  
28 VS 9 EXTRACTION WELLS**

000064

Issue

Installation of 28 Extraction Wells vs. 9 in South Field Area

Cost Impact

Installation of Well Fields	\$10 M
Required Expansion of AWWT	\$ 5 M
Total	\$15 M

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ITEM 8

**BACKUP INFORMATION FOR BUDGET/SCENARIO SUMMARY  
AND RECONCILIATION SHEET**

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**SUMMARY**

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Fernald Budget/Scenario  
Summary and Reconciliation

Budget/Scenario	Unscalated (\$ in billions)	Escalated (\$ in billions)	Notes/Comments
<u>BEMR</u>			
Total Project Cost(TPC)	\$6.4	\$8.3	Escalated to mid point of remaining duration, from FY 94 to FY 2028. Adjusted escalation calculation, per DOE indices dated Jan. 20, 1995
<p>The BEMR document represents a "Total Life Cycle Cost" for the remediation of the FEMP from FY 1989 through FY 2028 with the completion of the Great Miami Aquifer.</p> <p>The Budget Target Case(25 Years) and the Accelerated Cases(10 Years &amp; 7 Years) represent "Estimates To Complete"(ETC) from FY 96 through Cell Closure for each case. The Following summarizes the costs for the ETC and the TPC for each case.</p>			
<u>Budget Target Case(25 Years)</u>			
ETC	\$3.8	\$5.8	Major reductions in estimated costs for OU 3(\$ 700 million) and OU 5(\$ 300 million).
TPC	\$5.0	\$7.2	Landlord and Proj Mgt costs reduced(300 million) due to a schedule reduction of 3 years.
<u>Accelerated Case — 10 Year Plan</u>			
ETC	\$2.5	\$3.0	Major reductions in estimated costs for OU 3(\$ 700 million) and OU 5(\$ 300 million).
TPC	\$4.1	\$4.7	Landlord and Proj Mgt costs reduced(\$1.3 billion) due to a schedule reduction of 15 years and operational enhancements.
<u>Accelerated Case — 7 Year Plan</u>			
ETC	\$2.1	\$2.4	Major reductions in estimated costs for OU 3(\$ 700 million) and OU 5(\$ 300 million).
TPC	\$3.8	\$4.3	Landlord and Proj Mgt costs reduced(\$1.6 billion) due to a schedule reduction of 18 years and further operational enhancements.

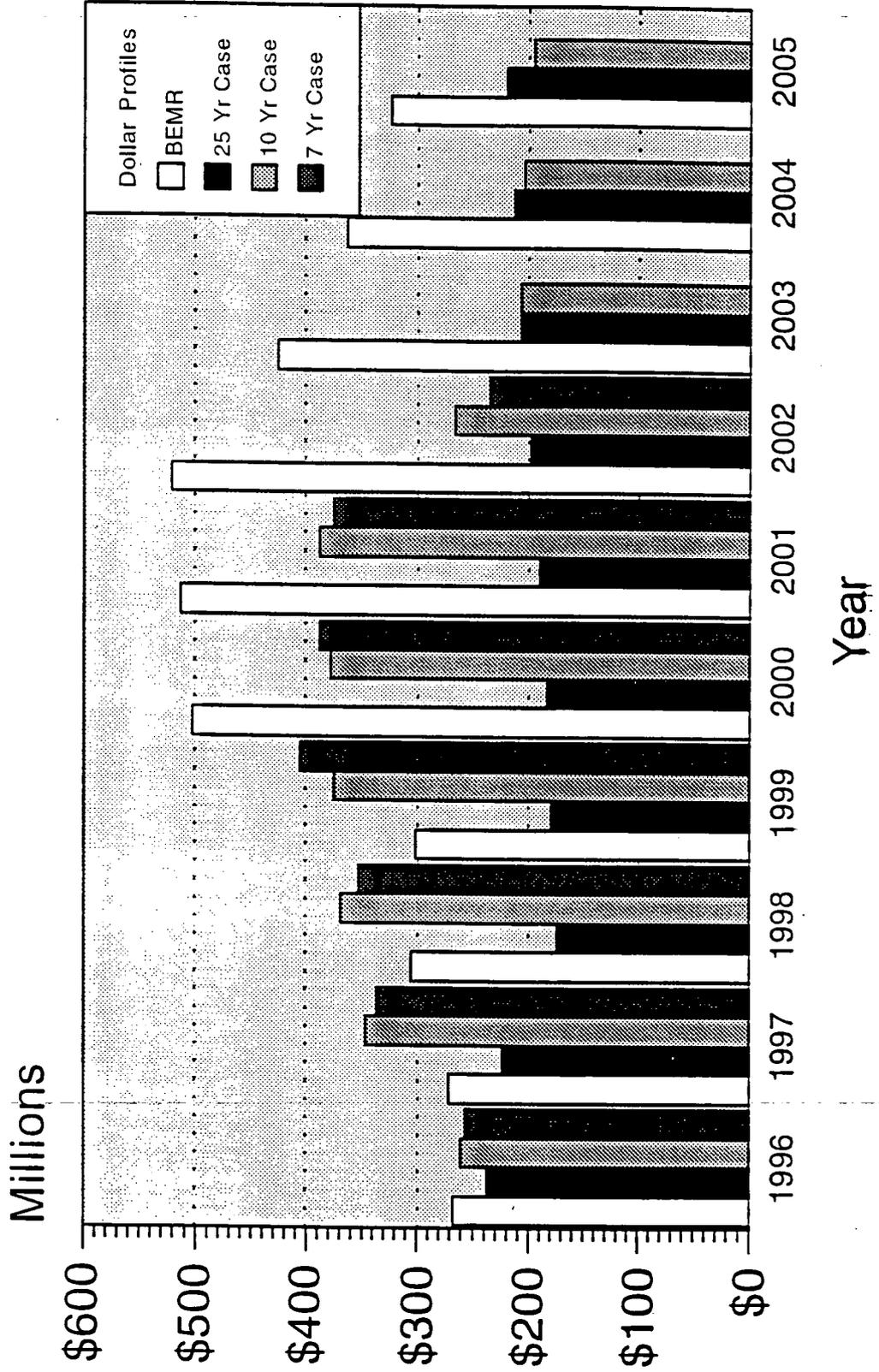
The 10 and 7 Year Plans affords significant schedule risk due to the assumption that single multi-year funding will be available. The absence of single multi-year funding has a potential negative impact of a 30--40% schedule slip, with a resultant cost impact of up to \$ 300 million.

The assumption used for the quantities and cost for offsite burial offer a high cost risk. In recent weeks the NTS burial costs for FY 97 have increased 34%, additionally, should quantities estimated to be buried onsite require offsite burial, a cost impact of up to 30 million would result.

Since contingency was not included in the 10 & 7 Year Plans, recommend \$250 million to \$350 million (unescalated) be added for unknowns and uncertainties associated with these two plans.

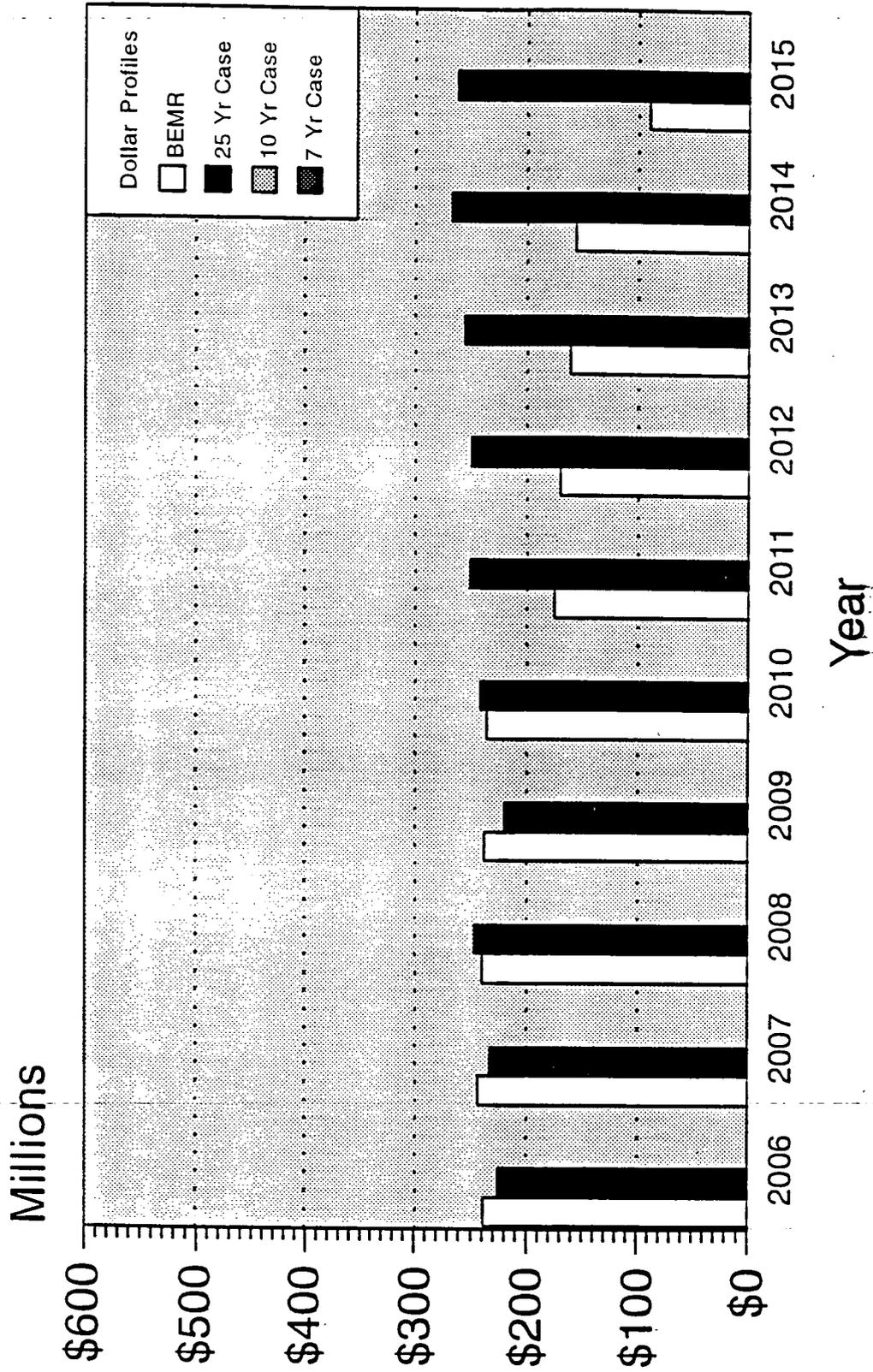


# FERNALD BUDGET/SCENARIO SUMMARY & RECONCILIATION DOLLAR PROFILES (Escalated)



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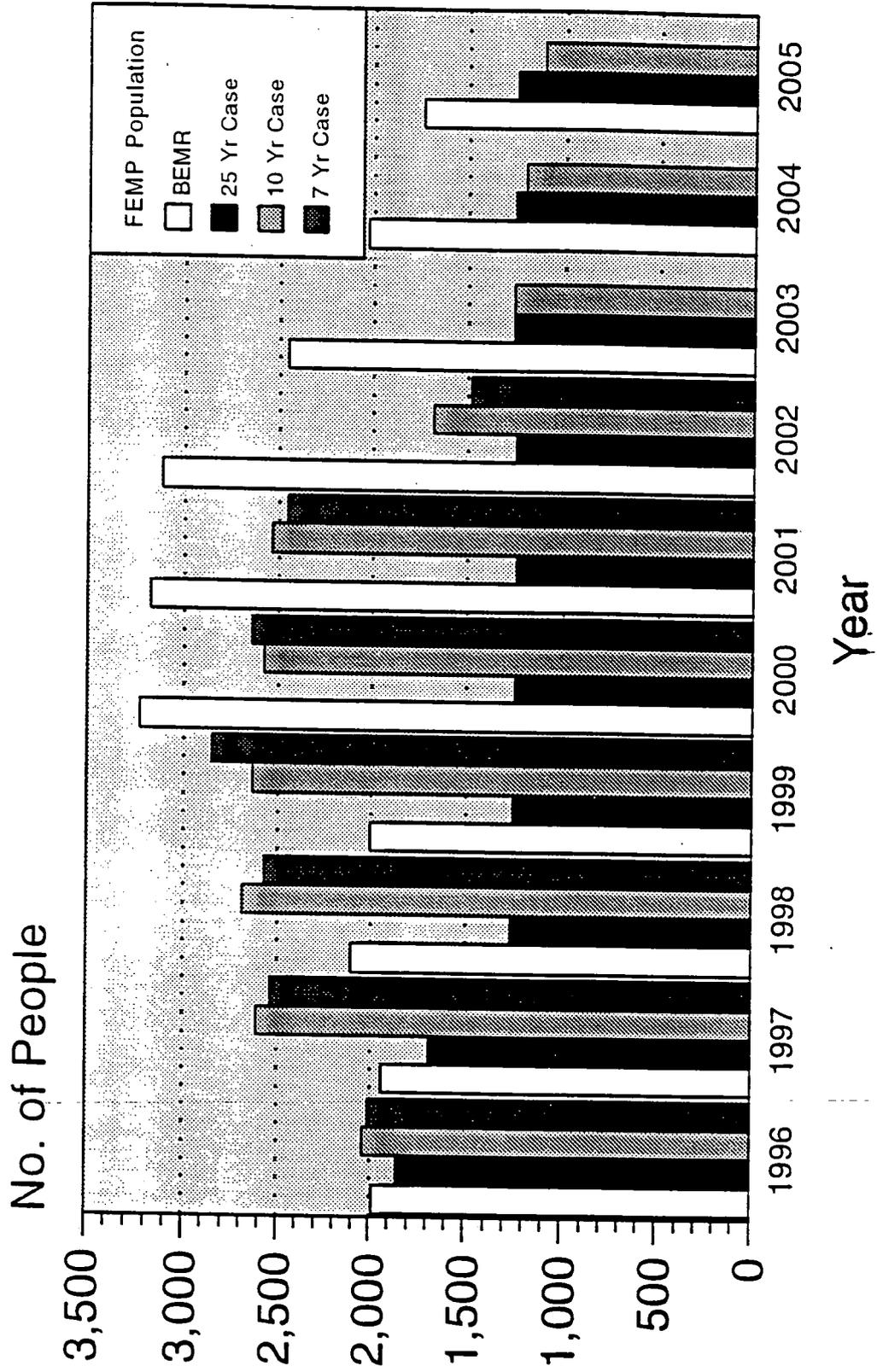
# FERNALD BUDGET/SCENARIO SUMMARY & RECONCILIATION DOLLAR PROFILES (Escalated)



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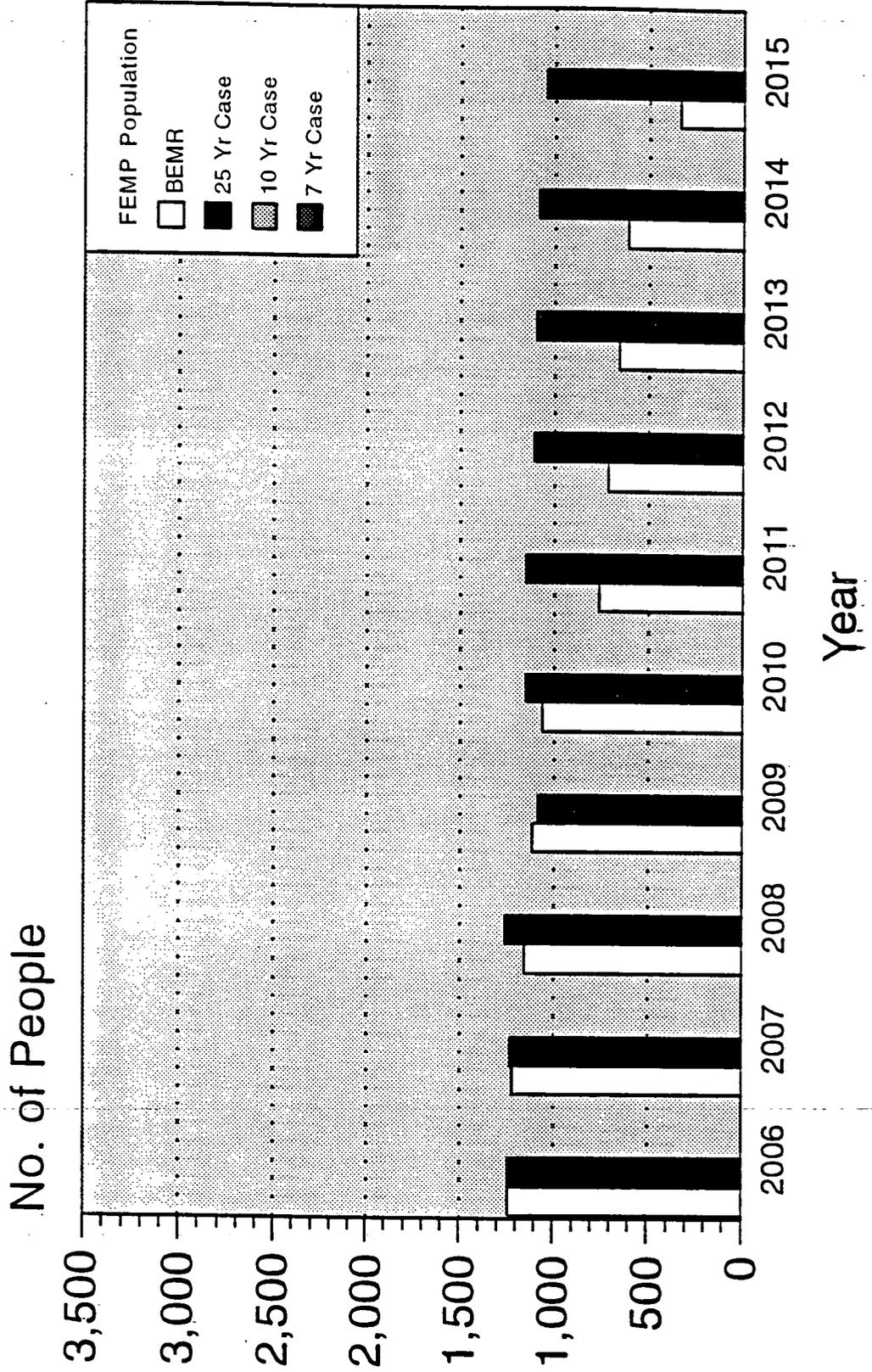
# FERNALD BUDGET/SCENARIO SUMMARY & RECONCILIATION MANPOWER PROJECTIONS



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# FERNALD BUDGET/SCENARIO SUMMARY & RECONCILIATION MANPOWER PROJECTIONS



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CASE DATA

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**Budget/Scenario Reconciliation  
Backup Data**

<u>BEMR</u>	Unscalated 94 Estimates (\$ in billions)	Escalated (\$ in billions)	
Total Project Costs	6.4	8.8	escalated to mid point of remaining duration, from 1994 to 2028. report used 37%.
	adjusted value -----	8.3	escalation adjusted using DOE Indices dated Jan. 20, 1995 - used 32.7%

**Notes:**

1. BEMR included costs from 1989 through 2028. Completion was defined as D & D of the Water Treating facility of OU 5.
2. BEMR also included Monitoring & Surveillance (M & S) for the various OU's from completion of remediation until the Year 2028.

**ETC to cell closure  
@ 2020**

(\$ in millions)

OU 1	526.1
OU 2	387.8
OU 3	1,026.8
OU 4	113.1
OU 5	718.8
Subtotal	<u>2,772.6</u>

TSD	134.4
Proj Mgt	791.8
Landlord	1,024.3
Non-MSA	26.7
Subtotal	<u>1,977.2</u>

Fee & DOE	712.5
Costs @ 15%	<u>          </u>

5.5

7.3

escalation adjusted using  
DOE Indices dated  
Jan. 20, 1995 - used 32.7%

**Budget/Scenario Reconciliation  
Backup Data**

<u>25 Year Plan</u>	Unscalated 95 Estimates (\$ in billions)	Escalated (\$ in billions)	
ETC to cell closure @ 2019	(\$ in millions)		
OU 1	621.9		
OU 2	227.3		
OU 3	318.8		
OU 4	166.6		
OU 5	328.7		
Subtotal	1,663.3		excludes water treating thru 2028
TSD	60.5		no costs included after 97
Proj Mgt	766.3		
Landlord	839.7		
Non-MSA	0.0		not included
Subtotal	1,666.5		
Fee & DOE Costs @ 15%	499.5		
<b>Total</b>		<b>3.8</b>	<b>5.8</b>
			Escalated @ 53.5% to mid point @ 2007
TCP costs thru 2028	(\$ in millions)		
ACWP to 94 95 baseline	610.1		Included in BEMR
OU 1	284.6		Not included in plan
OU 2	621.9		
OU 3	227.3		
OU 4	318.8		
OU 5	166.6		
OU 5	328.7		
Subtotal	2,558.0		added 78.0 million for water treating & D&D of AWWT
TSD	60.5		
Proj Mgt	802.3		added 72.0 million for outyears thru 2028
Landlord	875.7		included in BEMR
Non-MSA	26.7		
Subtotal	1,765.2		
Fee & DOE Costs @ 15%	648.5		
<b>Total</b>		<b>5.0</b>	<b>7.2</b>
			includes NO contingency

# TARGET BUDGET CASE SCENARIO

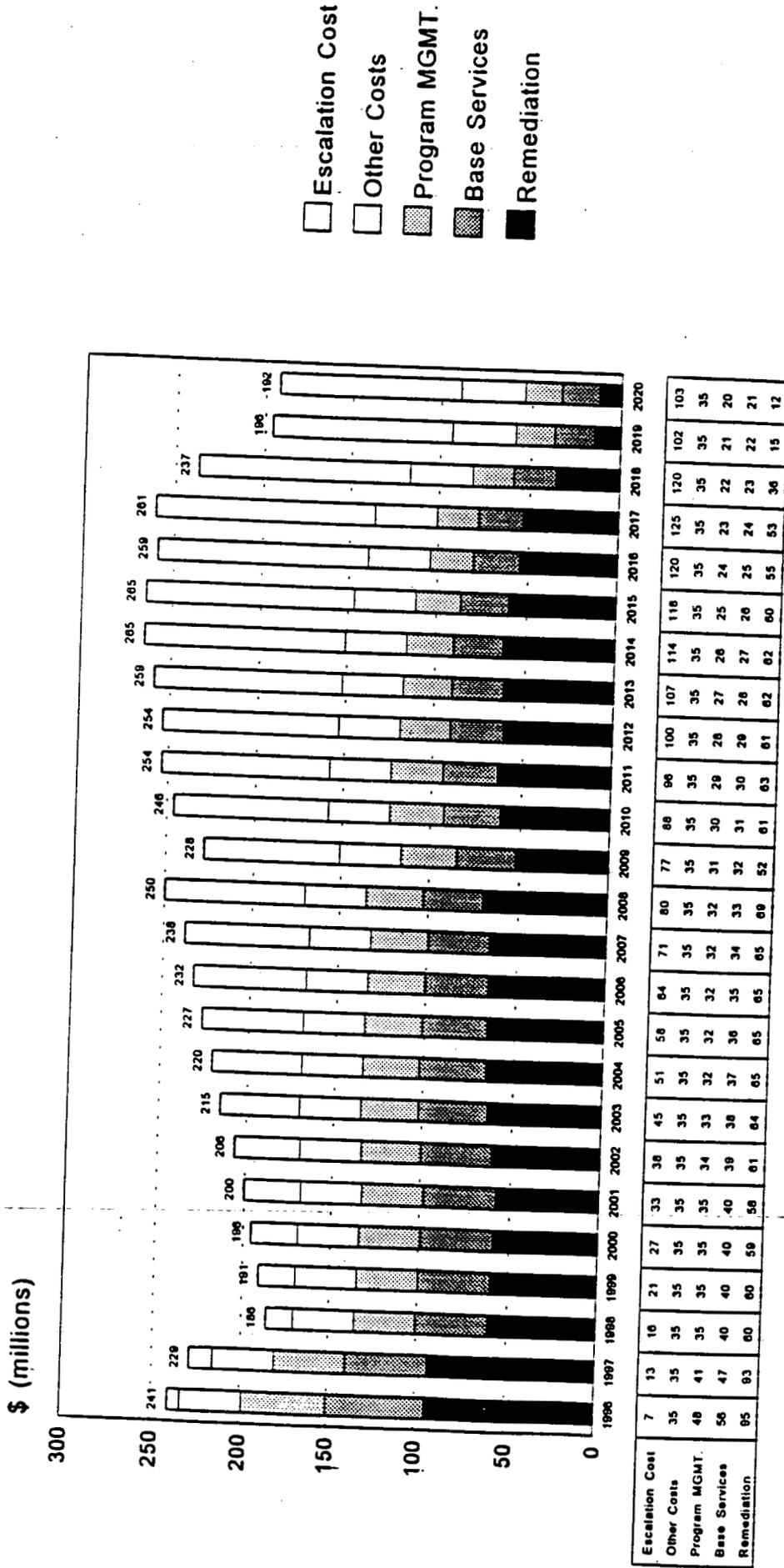
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FY	96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	
OU1	Ball upgrades Drying facility construction phase 1	Additional upgrades Drying facility construction phase 2	PTU 6 treatment/shipment	Wet pits treatment/shipment	Dry pits treatment/shipment	D&D of drying facility																				
OU2	Design	Remediation flyash piles, South Field	Construction staging pad/haul roads																							
OU3	RIFFS	Nuclear material disposition	Safe Shutdown																							
OU4	Construction vitrification plant	Vitrification process/offsite disposal																								
OU5	Advanced Waste Water Treatment Facility operation and groundwater recovery well operation																									
Disposal Facility	Construction/placement of OU2 & plant 4 waste	Ongoing monitoring																								

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# TARGET BUDGET CASE SCENARIO

## Cost Projection with Escalation



Fiscal Year

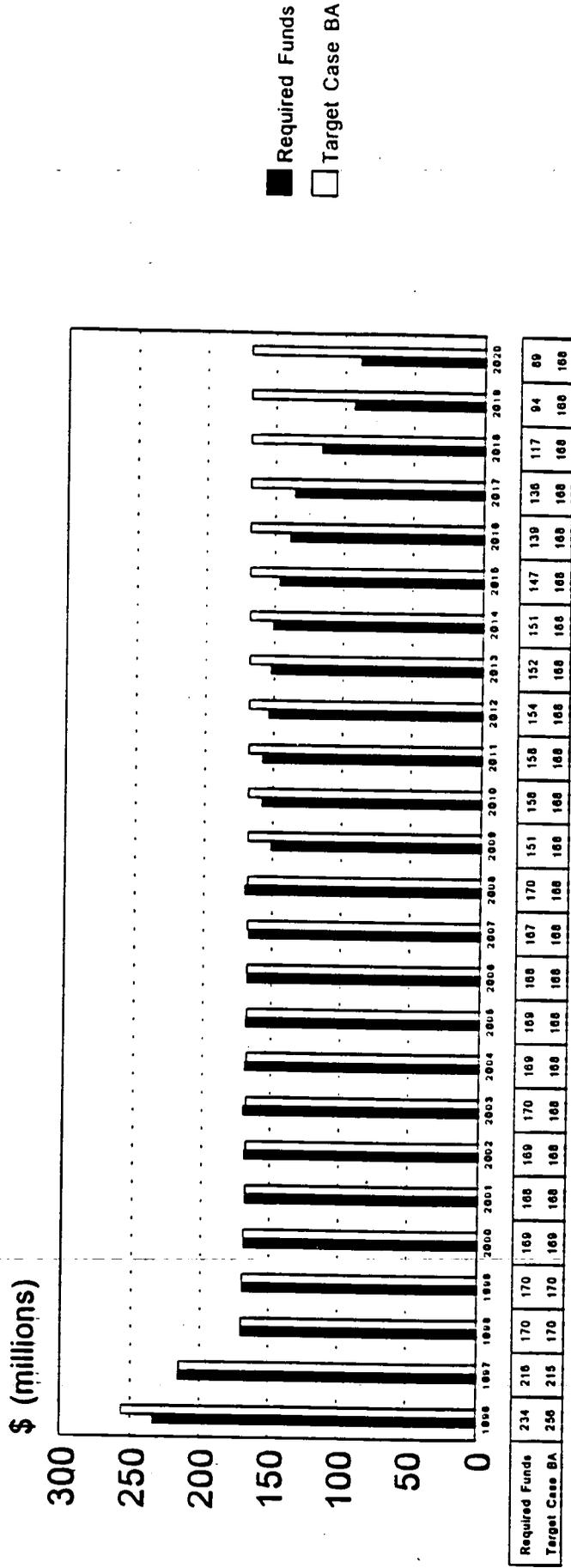
Other costs include DOE support and fees.  
 Escalation estimated at 3% per annum. 1995 is Base Year.  
 Operable Unit 2 precedes Operable Unit 1.

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# TARGET CASE I - UNESCALATED

## FEMP Funding Required vs Target Case BA

### Operable Unit 2 Preceeds Operable Unit 1



Fiscal Year

Constant 1995 dollars  
Includes contractor fee and DOE costs.

TARGET CASE I STUDY

\$ (Millions)

FERMCO Work Scope Estimate by Activity (Unescalated)

ADS	Title	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
8-B1	Program Management	48.2	34.7	34.7	34.7	34.7	34.7	33.7	32.7	31.7	32.4	32.4	32.4	32.4
68-D1	Landlord	56.1	46.7	40.3	40.3	40.3	40.3	39.3	38.3	37.3	36.3	35.3	34.3	33.3
16-C3	T/S/D	18.0	15.0	7.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
49-B2	Operable Unit 4	16.3	33.1	19.7	16.6	19.1	20.6	20.6	20.6	0.0	0.0	0.0	0.0	0.0
47-B2	Operable Unit 2	12.0	19.1	9.8	15.2	14.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
46-B2	Operable Unit 1	15.2	5.5	5.4	5.4	12.3	23.2	27.1	30.1	52.0	52.0	52.0	52.0	35.8
48-B2	Operable Unit 3	19.4	9.8	7.6	7.6									20.5
50-B2	Operable Unit 5	13.6	10.8	10.7	10.7	10.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
	Total FEMP Scope BA	198.8	180.8	135.2	134.5	133.8	132.8	133.7	134.7	134.0	133.7	132.7	131.7	135.0

Work Scope Estimate by Activity

ADS	Title	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8-B1	Program Management	31.4	30.4	29.4	28.4	27.4	26.4	25.4	24.4	23.4	22.4	21.4	20.4
68-D1	Landlord	32.3	31.3	30.3	29.3	28.3	27.3	26.3	25.3	24.3	23.3	22.3	21.3
16-C3	T/S/D	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.0	0.0	0.0
49-B2	Operable Unit 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47-B2	Operable Unit 2	7.7	8.1	8.2	7.3	10.6	13.3	14.5	18.9	32.4	19.3	2.5	2.5
46-B2	Operable Unit 1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48-B2	Operable Unit 3	31.4	39.1	39.6	35.5	33.0	30.9	25.7	14.5	2.1	2.1	0.0	0.0
50-B2	Operable Unit 5	12.1	13.1	15.0	17.5	17.4	17.7	19.2	20.6	18.3	14.4	12.3	9.8
	Total FEMP Scope BA	115.9	123.0	123.0	118.5	117.2	116.1	111.6	104.2	101.0	81.5	58.5	54.0

Plan Total

ADS	Title	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8-B1	Program Management	766.3											
68-D1	Landlord	839.7											
16-C3	T/S/D	60.5											
49-B2	Operable Unit 4	168.6											
47-B2	Operable Unit 2	227.3											
46-B2	Operable Unit 1	621.9											
48-B2	Operable Unit 3	318.8											
50-B2	Operable Unit 5	328.7											
	Grand Total FEMP BA	3075.9											

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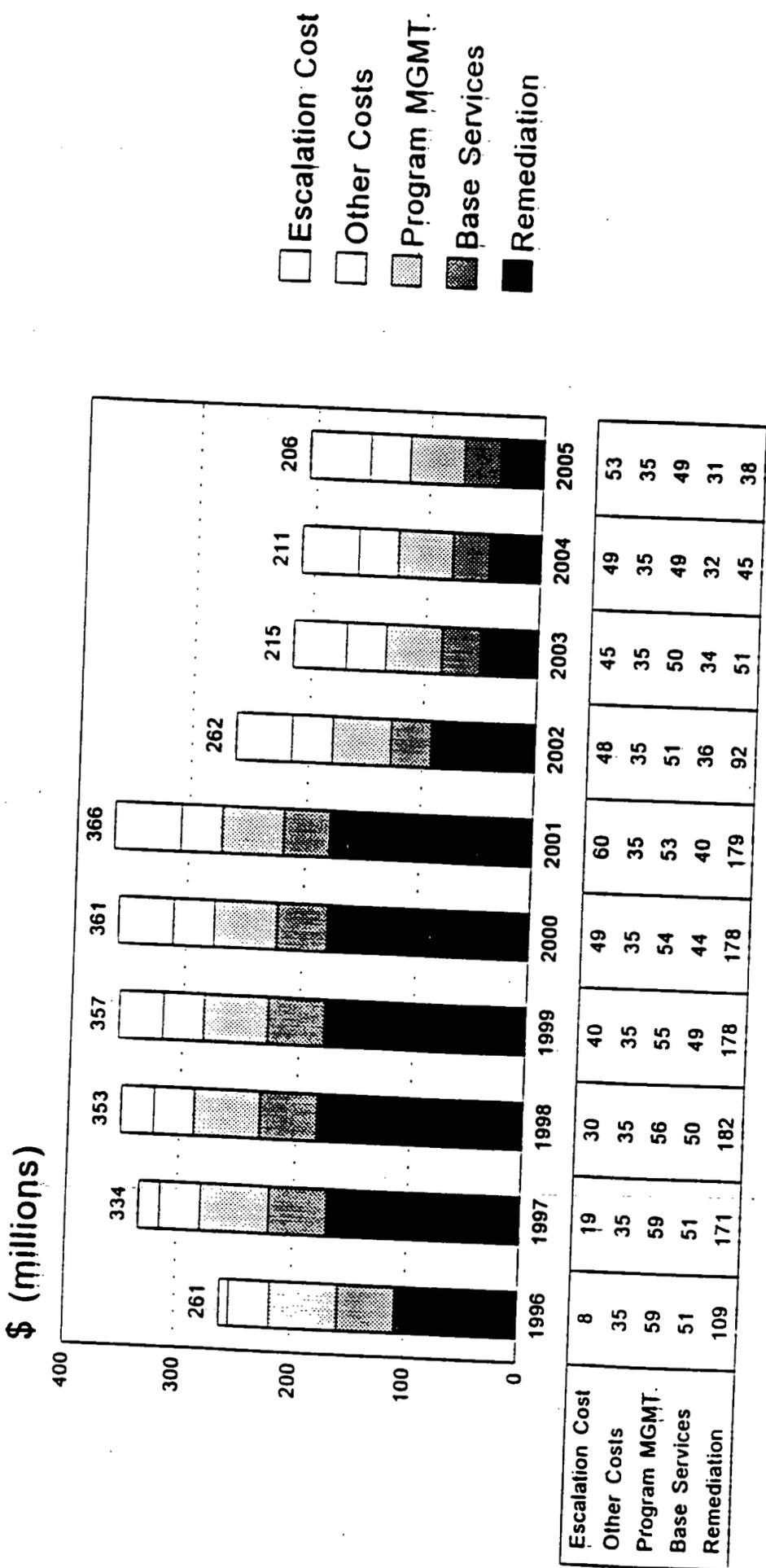
**Budget/Scenario Reconciliation**  
Backup Data

<u>10 Year Plan</u>	Unscalated 95 Estimates (\$ in billions)	Escalated (\$ in billions)	
ETC to cell closure @ 2005	(\$ in millions)		
OU 1	370.9		No M&S included
OU 2	172.5		No M&S included
OU 3	352.2		No M&S included
OU 4	145.2		No M&S included
OU 5	197.5		excludes water treating thru 2028
Subtotal	1,238.3		
TSD	21.8		no costs included after 97
Proj Mgt			
Landlord	954.2		
Non-MSA	0.0		not included
Subtotal	976.0		
Fee & DOE Costs @ 15%	332.1		
<b>Total</b>		<b>2.5</b>	<b>3.0</b>
			Escalated @ 19.8% to mid point @ 2000
TCP costs thru 2028	(\$ in millions)		
ACWP to 94	610.1		Included in BEMR
95 baseline	284.6		Not included in plan
OU 1	372.4		added 1.5 million for M&S
OU 2	203.2		added 30.7 million for M&S
OU 3	352.2		
OU 4	148.1		added 2.9 million for M&S
OU 5	422.3		added 224.8 million for water treating & D&D of AWWT
Subtotal	2,392.9		
TSD	21.8		
Proj Mgt			added 205.3 million for outyears thru 2028
Landlord	1,159.5		included in BEMR
Non-MSA	26.7		
Subtotal	1,208.0		
Fee & DOE Costs @ 15%	540.1		
<b>Total</b>		<b>4.1</b>	<b>4.7</b>
			includes NO contingency

# 10-Year Cleanup Schedule Based On Unconstrained Funding

	FY 96	97	98	99	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
OU1	Rail upgrade																								
	Drying facility construction																								
	Pit 6 treatment/shipment																								
	Wet pits treatment/shipment Dry pits treatment/shipment D&D of drying facility																								
OU2	Design																								
	Remediation waste units																								
	Construction staging pad/haul roads																								
OU3	R/IFS																								
	Nuclear material disposition																								
	Safe Shutdown																								
	Construction vitrification plant																								
OU4	Vitrification process/offsite disposal																								
	D&D of vitrification facility																								
	Advanced Waste Treatment Facility operation and groundwater recovery well operation																								6875
Disposal Facility	Construction/placement of waste																								
	Ongoing monitoring																								

# Cost Projection with Escalation



Fiscal Year

- 1- Other costs include DOE support and fees.
- 2- Escalation estimated at 3% per annum(1995 base).
- 3- Support activities are the total of Program Management(ADS 8-B1) and Base Services(ADS 68 D-1).
- 4- Remediation category includes all Operable Units and Waste Management.

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10 YEAR COMPLETION STUDY

\$ (Millions)

FERMCO Work Scope Estimate by Activity (Unescalated)

ADS	Title	Fiscal Year											
		1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
8-B1	Program Management	58.81	58.80	56.13	55.29	54.39	53.19	51.49	50.09	48.89	48.89	0.00	0.00
68-D1	Landlord	50.97	50.70	49.97	49.32	43.75	39.94	36.31	33.69	32.33	31.21	0.00	0.00
16-C3	T/S/D	16.99	4.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49-B2	Operable Unit 4	15.96	31.81	19.10	15.58	17.86	19.59	14.45	0.00	0.00	0.00	0.00	0.00
47-B2	Operable Unit 2	12.15	11.60	16.61	15.86	17.25	21.94	16.84	15.03	26.05	19.25	0.00	0.00
46-B2	Operable Unit 1	17.25	61.76	76.30	72.53	71.47	68.29	2.71	0.58	0.00	0.00	0.00	0.00
48-B2	Operable Unit 3	30.40	41.52	49.32	49.66	46.72	44.16	31.37	11.70	2.11	0.56	0.00	0.00
50-B2	Operable Unit 5	16.40	19.06	20.38	24.18	24.83	24.70	26.28	23.98	19.13	18.47	0.00	0.00
Total FEMP Scope BA		218.93	280.04	287.80	282.42	276.27	271.81	179.45	135.07	128.51	118.38	0.00	0.00

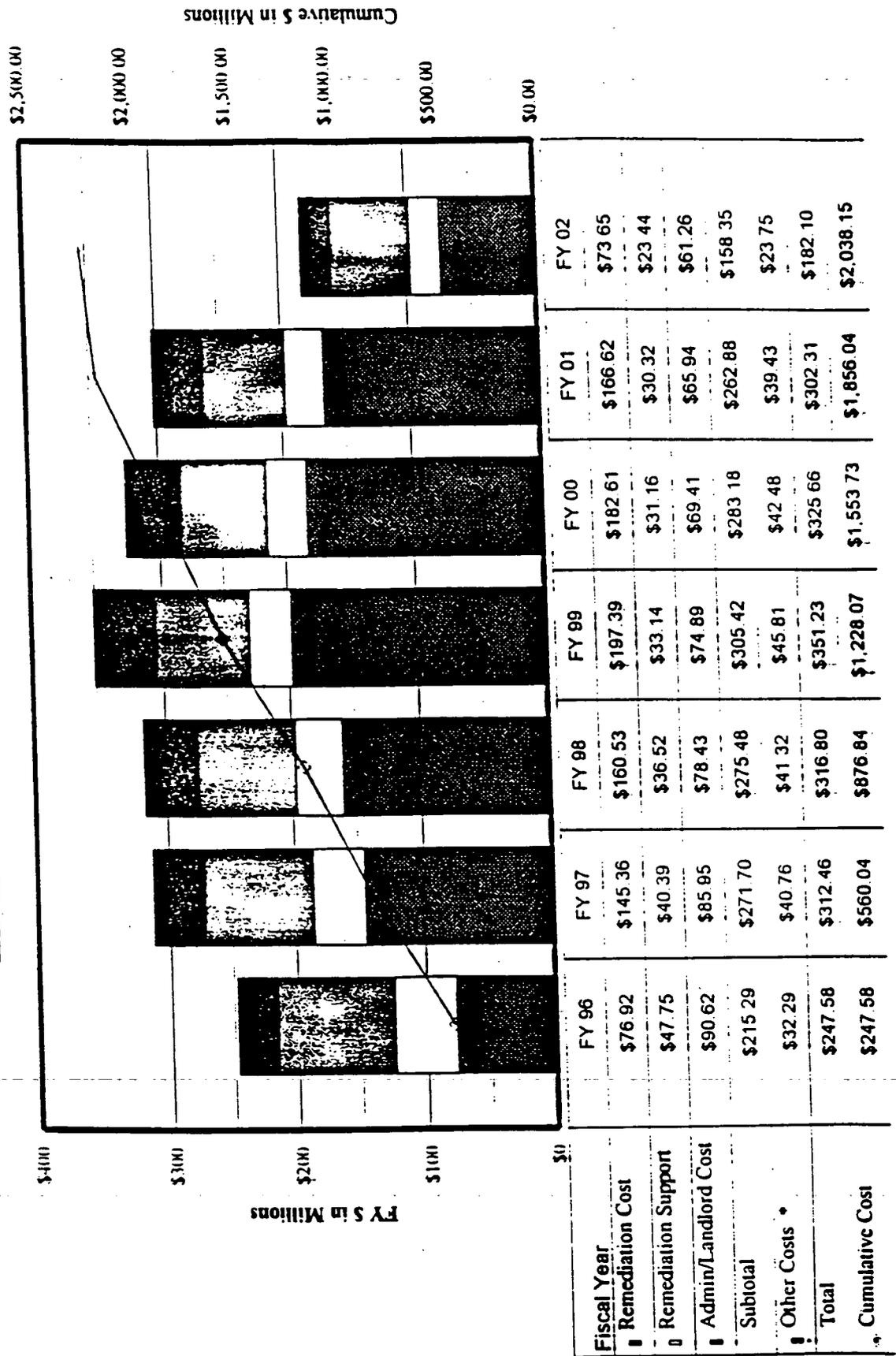
ADS	Title	Plan Total
8-B1	Program Management	535.97
68-D1	Landlord	418.19
16-C3	T/S/D	21.79
49-B2	Operable Unit 4	134.35
47-B2	Operable Unit 2	172.57
46-B2	Operable Unit 1	370.88
48-B2	Operable Unit 3	307.51
50-B2	Operable Unit 5	217.41
Grand Total FEMP BA		2179.67

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**Budget/Scenario Reconciliation**  
Backup Data

<u>7 Year Plan</u>	Unscalated 95 Estimates (\$ in billions)	Escalated (\$ in billions)	
ETC to cell closure @ 2005 (\$ in millions)			
OU 1	370.9		No M&S included
OU 2	161.5		No M&S included
OU 3	348.6		No M&S included
OU 4	145.2		No M&S included
OU 5	182.4		excludes water treating thru 2028
Subtotal	1,208.6		
TSD	21.8		no costs included after 97
Proj Mgt			
Landlord	614.8		
Non-MSA	0.0		not included
Subtotal	636.6		
Fee & DOE	276.8		
Costs @ 15%			
Total	2.1	2.4	Escalated @ 15.6% to mid point @ 1999
TCP costs thru 2028 (\$ in millions)			
ACWP to 94	610.1		Included in BEMR
95 baseline	284.6		Not included in plan
OU 1	372.4		added 1.5 million for M&S
OU 2	192.2		added 30.7 million for M&S
OU 3	348.6		
OU 4	148.1		added 2.9 million for M&S
OU 5	425.2		added 243.8 million for water treating & D&D of AWWT
Subtotal	2,381.2		
TSD	21.8		
Proj Mgt			added 208.4 million for outyears thru 2028
Landlord	823.2		included in BEMR
Non-MSA	26.7		
Subtotal	871.7		
Fee & DOE	487.9		
Costs @ 15%			
Total	3.8	4.3	includes NO contingency

**FERMCO  
7 Year Remediation Cost By Fiscal Year**



\* Other Costs are for FEMP Cost other than FERMCO BCSW

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**FUNDING PROFILES**

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**Budget/Scenario Reconciliation**

Date: 06 April 1995

Dollar Profiles  
Including DOE costs -- escalated  
\$ in millions

Year	BEMR		25 Year Case		Adjust to funding	10 Year Plan		7 Year Plan	
	Cost Profile		Cost Profile			Cost Profile		Cost Profile	
	Unescal'd	Escalated	Unescal'd	Escalated		Unescal'd	Escalated	Unescal'd	Escalated
1995	253.1	\$261.2	0.0	\$0.0		0.0	0.0	0.0	\$0.0
1996	250.0	\$267.5	198.8	228.6		218.9	251.7	215.3	\$256.8
1997	244.2	\$271.3	180.8	207.9		280.0	322.0	271.7	\$336.2
1998	265.2	\$305.5	135.2	155.5	171.0	287.8	331.0	275.5	\$353.6
1999	252.2	\$300.9	134.5	154.7	171.0	282.4	324.8	305.4	\$406.0
2000	406.5	\$502.4	133.8	153.9	171.0	276.3	317.7	283.2	\$387.6
2001	400.6	\$513.2	132.8	152.7	171.0	271.8	312.6	262.9	\$375.2
2002	393.1	\$521.6	133.7	153.8	171.0	179.5	206.4	158.4	\$234.3
2003	309.4	\$425.4	134.7	154.9	171.0	135.1	155.4		
2004	255.3	\$363.5	134.0	154.1	171.0	128.5	147.8		
2005	218.9	\$323.1	133.7	153.8	171.0	118.4	136.2		
2006	156.0	\$238.5	132.7	152.6	171.0				
2007	153.5	\$243.1	131.7	151.5	171.0				
2008	145.7	\$239.1	135.0	155.3	171.0				
2009	140.0	\$238.0	115.9	133.3	171.0				
2010	134.0	\$236.0	123.0	141.5	171.0				
2011	95.7	\$174.6	123.0	141.5	171.0				
2012	89.7	\$169.5	118.5	136.3	171.0				
2013	82.2	\$160.9	117.2	134.8	171.0				
2014	76.8	\$155.8	116.1	133.5	171.0				
2015	42.3	\$88.9	111.6	128.3	171.0				
2016	37.2	\$81.0	104.2	119.8	171.0				
2017	27.7	\$62.5	101.0	116.2	171.0				
2018	27.8	\$65.0	81.5	93.7	171.0				
2019	27.6	\$66.8	58.5	67.3					
2020	27.2	\$68.2	54.0	62.1					

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**MANPOWER**

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Date: 06 April 1995

## Budget/Scenario Reconciliation

## Manpower Analysis

Current FERMCO head count	2,400	
Contractors on Site	135	
Engineering(Parsons)	130	
allow for uncounted @ 5%	133	
	<u>2,798</u>	<u>use 2,800 people</u>

95 Baseline plus carryover = \$ 300 million

$\$300,000,000/2800 = 107,150/\text{person per year}$ (dollars include labor,  
materials, subcontract & ODC's)

## Manpower by Year

unescalated(excludes DOE costs)

Year	BEMR		25 Yr PLN		10 Yr PLN		7 Yr PLN	
	\$ in million:	people						
1996	212.5	1,983	198.8	1,855	218.9	2,043	215.3	2,009
1997	207.6	1,937	180.8	1,687	280.0	2,613	271.7	2,536
1998	225.4	2,104	135.2	1,262	287.8	2,686	275.5	2,571
1999	214.4	2,001	134.5	1,255	282.4	2,636	305.4	2,850
2000	345.5	3,225	133.8	1,249	276.3	2,579	283.2	2,643
2001	340.5	3,178	132.8	1,239	271.8	2,537	262.9	2,454
2002	334.1	3,118	133.7	1,248	179.5	1,675	158.4	1,478
2003	263.0	2,454	134.7	1,257	135.1	1,261		
2004	217.0	2,025	134.0	1,251	128.5	1,199		
2005	186.1	1,736	133.7	1,248	118.4	1,105		
2006	132.6	1,238	132.7	1,238				
2007	130.5	1,218	131.7	1,229				
2008	123.8	1,156	135.0	1,260				
2009	119.0	1,111	115.9	1,082				
2010	113.9	1,063	123.0	1,148				
2011	81.3	758	123.0	1,148				
2012	76.2	712	118.5	1,106				
2013	69.9	652	117.2	1,094				
2014	65.3	609	116.1	1,084				
2015	36.0	336	111.6	1,042				
2016	31.6	295	104.2	972				
2017	23.5	220	101.0	943				
2018	23.6	221	81.5	761				
2019	23.5	219	58.5	546				
2020	23.1	216	54.0	504				

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**ESCALATIONS**

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## Escalation Tables

Year	Rates	Cum Rate 94 Estimates	Cum Rate 95 Estimates
1994	--	1.000	--
1995	3.2%	1.032	1.000
1996	3.7%	1.070	1.037
1997	3.8%	1.111	1.076
1998	3.7%	1.152	1.116
1999	3.6%	1.193	1.156
2000	3.6%	1.236	1.198
2001	3.6%	1.281	1.241
2002	3.6%	1.327	1.286
2003	3.6%	1.375	1.332
2004	3.6%	1.424	1.380
2005	3.6%	1.476	1.430
2006	3.6%	1.529	1.481
2007	3.6%	1.584	1.535
2008	3.6%	1.641	1.590
2009	3.6%	1.700	1.647
2010	3.6%	1.761	1.706
2011	3.6%	1.824	1.768
2012	3.6%	1.890	1.831
2013	3.6%	1.958	1.897
2014	3.6%	2.029	1.966
2015	3.6%	2.102	2.036
2016	3.6%	2.177	2.110
2017	3.6%	2.256	2.186
2018	3.6%	2.337	2.264
2019	3.6%	2.421	2.346
2020	3.6%	2.508	2.430
2021	3.6%	2.598	2.518
2022	3.6%	2.692	2.608
2023	3.6%	2.789	2.702
2024	3.6%	2.889	2.800
2025	3.6%	2.993	2.900
2026	3.6%	3.101	3.005
2027	3.6%	3.213	3.113
2028	3.6%	3.328	3.225

United States Government

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Department of En

# memorandum

DATE: JAN 20 1995

REPLY TO  
ATTN OF FM-50 (C. Siegel:6-9029)

SUBJECT Economic Escalation Indices for Department of Energy Construction and Environmental Management Projects

TO: Distribution

Attached is the January 1995 update of the economic escalation price change indices for the Department of Energy construction projects and for environmental restoration and waste management projects. This distribution is the first of a new schedule of updates for the Department of Energy's Escalation Indices. In response to requests from our customers, these indices will be distributed semiannually, in January and July of each year.

This update replaces that issued previously in August 1994. These rates are to be used in any new estimate or estimate update developed between the date of this memorandum and the release of the June 1995 indices. Estimates or updates developed prior to the date of this memorandum need not be revised.

This change will increase their usefulness in fiscal year (FY) 1997 budget formulation. The Department will repeat these same indices in its FY 1997 Unified Budget Call.

If your staff needs additional copies of the indices or wishes to be included in future direct distributions, send a CC:Mail message to FMINFO on the FM-01 server, putting "DOE JAN1995 ESCALATION" in the Subject line. Additional copies will be transmitted by return CC:Mail. Any questions may be directed to Charles Siegel, Office of Field Management, at (202) 586-9029.

Antonio F. Tavares, Director  
Office of Infrastructure Acquisition  
Office of the Associate Deputy Secretary  
for Field Management

Attachment

OPTIONAL FORM 95 (7-90)

**FAX TRANSMITTAL**

To: SANDY KELLY From: C. SIEGEL

Office/Agency: FERNALD 738-9212 Phone: 202-586-9029

Fax #: 513-738-8913

NSN 7540-01-517-7000 GENERAL SERVICES ADMINISTRATION

# of pages: 4



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DISTRIBUTION: Memorandum dated FEB 20 1995

Assistant Secretary for Fossil Energy  
Assistant Secretary for Energy Efficiency and Renewable Energy  
Assistant Secretary for Defense Programs  
Assistant Secretary for Environment, Safety and Health  
Assistant Secretary for Environmental Management  
Assistant Secretary for Human Resources and Administration  
Administrator, Energy Information Administration  
Chief Financial Officer  
Director of Energy Research  
Director of Civilian Radioactive Waste Management  
Director of Nonproliferation and National Security  
Director of Nuclear Energy  
Inspector General  
Manager, Albuquerque Operations Office  
Manager, Nevada Operations Office  
~~Manager, Chicago Operations Office~~  
Manager, Idaho Operations Office  
Manager, Oak Ridge Operations Office  
Manager, Oakland Operations Office  
Manager, Ohio Operations Office  
Manager, Richland Operations Office  
Manager, Savannah River Operations Office  
Manager, Golden Field Office  
Manager, Rocky Flats Field Office

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DEPARTMENTAL PRICE CHANGE INDEX  
January 1995 Update

FY 1997 GUIDANCE

ANTICIPATED ECONOMIC ESCALATION RATES

DOE CONSTRUCTION PROJECTS

FISCAL YEAR	ENERGY RESEARCH AND NUCLEAR		FOSSIL		CONSERVATION/SOLAR		DEFENSE PROGRAMS & GENERAL CONSTRUCTION	
	INDEX	% CHANGE	INDEX	% CHANGE	INDEX	% CHANGE	INDEX	% CHANGE
1994	0.962	NA	0.961	NA	0.902	NA	0.974	NA
1995	1.000	4.0	1.000	4.0	1.000	3.9	1.000	2.6
1996	1.039	3.9	1.039	3.9	1.030	3.8	1.030	3.0
1997	1.079	3.8	1.078	3.8	1.000	3.7	1.062	3.1
1998	1.120	3.8	1.118	3.7	1.115	3.6	1.095	3.1
1999	1.160	3.6	1.157	3.5	1.118	3.4	1.128	3.0
2000	1.202	3.6	1.197	3.5	1.112	3.4	1.162	3.0

Based on the materials and labor data contained in the Energy Supply Planning Model and appropriate escalation rates forecasted by Data Resources, Incorporated, it would be expected that DOE projects conform to those rates shown above. DOE Order 5700.2D, "COST ESTIMATING, ANALYSIS, AND STANDARDIZATION", requires that any local rates different from those above be submitted to the Office of Infrastructure Acquisition for approval, prior to their use. Additional advice and assistance can be obtained from the Associate Deputy Secretary for Field Management, Office of Infrastructure Acquisition (202) 586-9029.

DEPARTMENTAL PRICE CHANGE INDEX  
January 1995 Update

FY 1997 GUIDANCE

ANTICIPATED ECONOMIC ESCALATION RATES

ENVIRONMENTAL RESTORATION & WASTE MANAGEMENT PROJECTS

FISCAL YEAR	ENVIRONMENTAL RESTORATION INDEX	% CHANGE	ENVIRONMENTAL RESTORATION INDEX	WASTE MANAGEMENT INDEX	% CHANGE
1994	0.969	NP	0.966	NA	
1995	1.000	3.2	1.000	3.5	
1996	1.037	3.7	1.035	3.5	
1997	1.076	3.8	1.071	3.5	
1998	1.116	3.7	1.109	3.5	
1999	1.155	3.6	1.146	3.3	
2000	1.196	3.6	1.184	3.3	

Base on the materials and labor data contained in the Energy Supply Planning Model and appropriate escalation rates forecasted by Data Resources, Incorporated, it would be expected that DE projects conform to those rates shown above. DOE der 5700.2D, "COST ESTIMATING, ANALYSIS, AND STANDARDIZATION", requires that any local rates different from those above be submitted to the Office of Infrastructure Acquisition for approval, prior to their use. Additional advice and assistance can be obtained from the Associate Deputy Secretary for Field Management, Office of Infrastructure Acquisition (202) 586-9029.

*USE 3.6% per year for outyears (2001+) per verbal discussion*

*of 3/29/95 - H. Youngmeyer, R. Gates, W. Den Herder  
WYB  
3/29/95*

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ITEM 9

**DOE AGENDA/LOGISTICS FOR FY 1997 INTERNAL REVIEW  
BUDGET (IRB) HEARINGS FOR EM**

United States Government

Department of Energy

# memorandum

DATE: APR 10 1995

REPLY TO  
ATTN OF: EM-13

SUBJECT: Agenda/Logistics for the FY 1997 Internal Review Budget (IRB) Hearings for the Environmental Management Program

TO: Distribution

As you know, the Environmental Management IRB hearings are scheduled for the week of May 15-19, 1995. A memorandum from the Assistant Secretary, dated April 4, 1995, provided additional guidance and decision-aiding criteria to the Operations Offices and Headquarters programs to assist them in preparing for these hearings. Also included was a draft agenda for the week.

The goal of these hearings is to resolve which activities will comprise the FY 1997 Environmental Management program. At the conclusion of the week, we **MUST** have funding decisions (by Operations Office and program) so that detailed budget justifications may be developed for submission to the Chief Financial Officer by the Department's mid-June deadline. To ensure that we meet this goal, I wanted to discuss some meeting logistics and provide a more detailed agenda (attached).

Because of the limited seating capacity in the meeting room (Forrestal Room 1E-245), attendance must be limited to key decision makers and only essential support staff. All Operations Office Managers and/or Assistant Managers, and Deputy Assistant Secretaries are expected to attend the entire week-long session. I understand that other staff may be required during your individual presentations, however, they should plan to leave once that presentation has concluded. I apologize for any inconvenience this may cause, but please remember that this is a decision-making forum for Mr. Grumbly's "corporate board of directors."

It is absolutely imperative that we receive all Activity Data Sheet (ADS) submittals by the April 17, 1995, deadline. In the past, we have typically received 60%-70% of the ADSs on schedule with the remainder trickling in over the next 2-3 weeks. With the Department's accelerated IRB schedule, no such slippage can be accommodated this year. The complete submittal must be received on April 17 to allow the Headquarters programs sufficient time to prepare for the hearings. Given the increased competition for dwindling resources, a timely submittal will facilitate an equitable evaluation of program priorities and allow more opportunity to discuss any outstanding issues.

As stated in the November 30, 1994, Budget Formulation and Activity Data Sheet Development Field Guidance for the FY 1997 Planning and Budget Cycle,

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the ADSs (two electronic copies and one hard copy) are to be transmitted via express mail to the following address:

Director, Office of Financial Management  
c/o BDM Federal, Inc.  
1st Floor  
20300 Century Blvd.  
Germantown, MD 20874  
Attn: Phil Bennett

The transmittal memorandum, Proposed Program Summary, ADS funding summary reports, and Final Priority Lists should be sent via express mail to:

Eli B. Bronstein  
Director, Office of Financial Management  
EM-13  
U.S. Department of Energy  
1000 Independence Ave., SW  
Washington, DC 20585

In a departure from all previous guidance, to expedite review of these materials (including a hard copy of the ADSs), please copy the appropriate Headquarters program managers in EM-20, EM-30, EM-40, EM-50 and EM-60. We will also distribute this information to the programs. Operations Offices should also provide updated information to the regulator/stakeholder communities you have been working with throughout the formulation of your proposed program.

I will serve as the facilitator during these hearings and will do my best to keep the discussions on track and on schedule. You can assist greatly in this endeavor by resolving as many issues as possible prior to these hearings.

Please contact Rob Muller or me at (202) 586-8899 should you have any questions about the upcoming hearings. I look forward to a very productive week and to achieving our meeting goal of delineating the FY 1997 Environmental Management program activities and their associated funding requirements.



Eli B. Bronstein  
Director  
Office of Financial Management  
Office of Environmental Management

Attachment

## Distribution:

Assistant Secretary for Environmental Management, EM-1  
 Principal Deputy Assistant Secretary for Environmental Management, EM-2  
 Deputy Assistant Secretary for Management and Finance, EM-10  
 Associate Deputy Assistant Secretary for Management and Finance, EM-10  
 Deputy Assistant Secretary for Compliance and Program Coordination, EM-20  
 Associate Deputy Assistant Secretary for Compliance and Program Coordination, EM-20  
 Deputy Assistant Secretary for Waste Management, EM-30  
 Associate Deputy Assistant Secretary for Waste Management, EM-30  
 Acting Deputy Assistant Secretary for Environmental Restoration, EM-40  
 Acting Associate Deputy Assistant Secretary for Environmental Restoration, EM-40  
 Deputy Assistant Secretary for Technology Development, EM-50  
 Associate Deputy Assistant Secretary for Technology Development, EM-50  
 Deputy Assistant Secretary for Nuclear Material and Facility Stabilization, EM-60  
 Associate Deputy Assistant Secretary for Nuclear Material and Facility  
 Stabilization, EM-60  
 Assistant Manager for Environmental Project Management, AL  
 Assistant Manager for Environmental Restoration and Waste Management, CH  
 Assistant Manager for Environmental Restoration and Waste Management, ID  
 Assistant Manager for Environmental Restoration and Waste Management, NV  
 Assistant Manager for Environmental Restoration Support, OAK  
 Assistant Manager for Environmental Restoration and Waste Management, OR  
 Manager, Ohio Field Office  
 Manager, Richland Operations Office  
 Manager, Rocky Flats Field Office  
 Manager, Savannah River Operations Office  
 Chief Financial Officer, AL  
 Chief Financial Officer, CH  
 Chief Financial Officer, ID  
 Chief Financial Officer, NV  
 Chief Financial Officer, OAK  
 Chief Financial Officer, OH  
 Chief Financial Officer, OR  
 Chief Financial Officer, RF  
 Chief Financial Officer, RL  
 Chief Financial Officer, SR

## cc:

J. Werner, EM-4  
 C. Kelly, EM-5  
 C. Henry, EM-6  
 R. Muller, EM-13  
 B. McCully, EM-131  
 J. Simpson, EM-131  
 L. Ott, EM-131  
 A. Young, EM-14  
 L. Ritchie, EM-15  
 J. Greenwood, EM-16  
 M. Kleinrock, EM-22  
 O. Thompson, EM-23  
 V. Fayne, EM-24  
 J. Legare, EM-25  
 R. Brancato, EM-26  
 G. Turi, EM-26

cc: (continued)  
J. Coleman, EM-32  
J. Turi, EM-33  
A. Griffith, EM-332  
M. Frei, EM-34  
Acting Director, EM-35  
J. Antizzo, EM-36  
J. Jicha, EM-37  
W. Murphie, EM-42  
W. Wisenbaker, EM-43  
M. Pearl, EM-432  
S. Robison, EM-44  
R. Lightner, EM-45  
R. T. Parker, EM-52  
S. Einan, EM-522  
G. Boyd, EM-54  
E. Schmitt, EM-62  
F. Butterfield, EM-62  
C. Scott, EM-63  
B. Smith, EM-64  
L. Feldt, EM-65  
P. Hanson, AL  
T. Foley, CH  
M. Ferrigan, CH  
H. Youngmeyer, FN  
J. Miller, ID  
W. Lloyd, ID  
B. Manning, NV  
C. May, NV  
B. McClure, NV  
J. Solis, OAK  
L. Martell, OAK  
P. Thrash, OAK  
P. Greenwalt, OH  
P. Van Loan, OH  
J. Penry, OR  
N. Frolio, OR  
B. Tibbatts, RL  
J. Peterson, RL  
R. Butler, RF  
D. Hauser, RF  
T. Southard, SR  
E. Smedley, CR-1  
J. Hubbard, CR-145  
F. Tooper, EH-30.2  
L. Mori, OMB  
G. Benethum, OMB  
K. Peroff, OMB  
B. Breen, EPA  
J. Thomasian, NGA

AGENDA  
FY 1997 Internal Review Budget Hearings

May 15 8:30	Introduction	T. Grumbly E. Bronstein
9:00	Office of Compliance and Program Coordination	R. Scott
9:30	Office of Waste Management	J. Lytle
10:00	Office of Environmental Restoration	J. Owendoff
10:30	Office of Nuclear Material and Facility Stabilization	W. Bixby
11:00	Office of Technology Development	C. Frank
12:30	Lunch	
2:00	Richland Presentation of Issues	
5:00	Adjourn	
May 16 8:30	Savannah River Presentation of Issues	
11:30	HQ Funded Activities	All DASs
12:30	Lunch	
2:00	Rocky Flats Presentation of Issues	
5:00	Adjourn	
May 17 8:30	Albuquerque Presentation of Issues	
10:30	Ohio Presentation of Issues	
12:30	Lunch	
2:00	Oak Ridge Presentation of Issues	
4:00	Nevada Presentation of Issues	
5:00	Adjourn	
May 18 8:30	Chicago Presentation of Issues	
10:00	Idaho Presentation of Issues	

12:00	Lunch	
1:30	Oakland Presentation of Issues	
3:00	EM-20 Wrap-up	R. Scott
3:30	EM-30 Wrap-up	J. Lytle
4:00	EM-40 Wrap-up	J. Owendoff
4:30	EM-60 Wrap-up	W. Bixby
5:00	Adjourn	
May 18		
8:30	Resolution of FY 1997 EM Program Activities and Associated Funding Decisions	T. Grumbly E. Bronstein

Adjourn when completed --

6875

ITEM 10

EM FY 1997 INTERNAL REVIEW BUDGET PREPARATION  
GUIDELINES

000100

United States Government

Department of Energy

# memorandum

6875

DATE: April 4, 1995

REPLY TO:  
ATTN OF: EM-13

SUBJECT: Environmental Management FY 1997 Internal Review Budget Preparation

TO: Distribution

On April 17, 1995, each Operations Office will submit its FY 1997 proposed Environmental Management program to Headquarters. This memorandum:

- provides, at the request of the field, clarifying guidance regarding some of the summary information to be submitted on April 17;
- transmits criteria for aiding decisions during the budget formulation process (Note that these criteria are meant to complement, not replace, the rigorous, bottom-up prioritization that has already occurred in the field);
- describes the general process to be used by Headquarters programs in reviewing the April 17 field submittals in preparation for internal EM budget hearings to be held during the week of May 15; and
- transmits a format and preliminary agenda for these budget hearings.

## Submittal of FY 1997 Proposed Program Summary

As stated in the November 30, 1994, Budget Formulation and Activity Data Sheet Development Field Guidance for the FY 1997 Planning and Budget Cycle, Operations Offices are required to submit a Proposed Program Summary along with their FY 1997 Activity Data Sheets (ADSs) on April 17, 1995. Consistent with this guidance, the Proposed Program Summary is Operations Office management's opportunity to make the strongest case for its proposed program and identify issues associated with it. The transmittal memorandum accompanying the April 17 submittal should identify specific areas of disagreement between Headquarters and the field regarding the proposed program. For example, if an integrated, cost-effective program at an Operations Office is, by necessity, inconsistent with programmatic national strategy, this should be identified. The transmittal memo also should identify how the proposed program addresses risk, compliance, efficiency, and stakeholder concerns. It should identify how the proposed program would be different if it were to be optimized against each of these factors individually.

Three other elements of the Proposed Program Summary deserve particular reemphasis because they are extremely important to the justification of the proposed program:

000104

- (1) Final Priority Lists: The final priority list should describe the Operations Office request for FY 1997, integrating across all Environmental Management programs. These final prioritized lists should reflect Headquarters and field review and negotiation based on the draft lists submitted on January 27, 1995. Operations Offices should also have shared the draft priority lists with their regulators and stakeholders, and the final lists should reflect consideration of their comments and priorities.
- (2) Summary of Changes/Impacts: This section should describe:
- Changes that have been made in the proposed program for FY 1997 as compared to the FY 1996 program as reflected in the Congressional budget request.
  - The major legal, programmatic, technical, and cost-effectiveness impacts of each funding level, by line program.
  - Outstanding issues and areas of concern and disagreement raised by Headquarters, regulators, and other stakeholders on proposed priorities, proposed budget, and negotiations regarding enforceable agreements.
  - The status of progress with regulators and stakeholders on defining a proposed program, including agreement commitments, that applies EM resources wisely and on a reasonable schedule considering budget constraints.
  - For agreement negotiations, whether regulators are amenable to: (1) extending deadlines; (2) making technical/implementation improvements; and (3) using a rolling milestone approach that reflects funding constraints and other uncertainties. If the regulators are willing to make revisions, the section should identify which and how these revisions will be accomplished. Additionally, if the regulators are willing to use a rolling milestone approach, the summary should identify areas of agreement and disagreement on key parameters for the approach.
- (3) Productivity Improvement Summary: This summary should describe improvements in productivity and efficiency that are expected as the result of improved business practices, per the sample format provided with the November 30 guidance. This summary represents an opportunity to provide details confirming that the proposed program is cost effective and efficient.

These, along with the other elements of the Proposed Program Summary (Manpower Summary, Risk Activities Crosscut, Training Crosscut, Information Resources Management Crosscut, and Safety and Health Management Plan Summary) are critical to the Headquarters review of field budget submittals in preparation for budget hearings to be held the week of May 15. Therefore, the timely and accurate submission of this information is crucial

to the success of the FY 1997 budget process. Attachment 4 to this memorandum is a set of answers to frequently asked questions regarding the Proposed Program Summary.

#### Criteria for Decisionmaking

Attachment 1 presents decision-aiding criteria for use during the FY 1997 budget process. These criteria were developed through the cooperative effort of a budget process steering committee including EM Headquarters and field senior management. The criteria are designed to elicit information to help make decisions and complement ongoing prioritization efforts. They are consistent with existing policy.

#### Headquarters Review of Field Budget Submittals

The purpose of the Headquarters review to be conducted between April 17 and May 15 is twofold:

- To review the detailed information (including Activity Data Sheets) that accompanies each Operations Office proposal. This review is to verify that field review of the technical information and cost data was adequate, and to establish a level of confidence in the information on which the field proposals are based.
- To analyze the field proposals as a whole based on a national perspective. This analysis is to identify issues and develop programmatic recommendations for discussion at the budget hearings to be held May 15-19.

The first activity is relatively self-explanatory and should be conducted in accordance with programmatic and Departmental guidance on reviewing budget and cost information. Although detailed guidance is not provided here, the first activity is critical to establishing the credibility of the field proposals. The second activity deserves some additional discussion.

Each Headquarters program must do the following as FY 1997 Operations Office programs are analyzed:

- Examine the priorities proposed by the field from the viewpoint of your national program,
- Examine the funding levels proposed by the field,
- Based on your program's vision of the future, examine the long-term implications of the field proposals,
- Identify areas of agreement and disagreement, and
- Identify opportunities to shift activities and/or funding across sites in such a way as to maximize achievement of your program's and Environmental Management's goals.

During this analysis, Headquarters programs should attempt to resolve remaining disagreements. Furthermore, Headquarters should keep the field informed of the progress of its review, so that Operations Office management will be aware of national perspective going into the May 15-19 hearings. The end result of the Headquarters analysis should be a set of outstanding issues and clearly packaged recommendations for potential changes to the field budget submittals that merit high level management attention during the budget hearings. While a specific methodology for accomplishing the above analysis is not prescribed, the following suggestions should be considered.

As part of the analysis of the FY 1997 field proposals, programs may wish to consider developing a national priority list based upon the priorities submitted by each Operations Office. This national prioritization would be for analysis and discussion purposes, and would not be meant to invalidate the priorities established by the field. The use of a numerical ranking methodology may be appropriate in this effort. Examples of such methodologies include the Quantitative Risk Matrix used in the Departmental Environmental, Safety, and Health Management Planning Process, and the process developed by the Office of Nuclear Material and Facility Stabilization.

Because of the close coordination between Headquarters and Operations Offices during the development of each Operations Office's prioritized list, it is envisioned that there would be few disagreements with a national prioritization. However, any disagreements that do become apparent from prioritizing with a national focus may then become the basis for recommended changes to be discussed the week of May 15.

As the programs conduct their analysis, they should examine options for optimizing their national program against each of the following four factors: risk, compliance, stakeholder concerns, and efficiency. Because they cover precisely these four considerations, the decision criteria included here as Attachment 1 may be useful in developing these four options. These criteria also provide a guide as to the type of information that will be considered in senior management decisionmaking. Programs may wish to expand upon them to reflect their own unique perspective and characteristics.

As the individual programs near completion of their analyses and before the May 15-19 hearings, the Headquarters Site Coordinators in the Office of Compliance and Program Coordination will help identify remaining issues and focus on developing options for the resolution of these issues. Senior Headquarters management will be meeting to examine issues across programs and across sites. As in the individual program analyses, they should examine options for optimizing against: risk, compliance, stakeholder concerns, and efficiency. The goal of these discussions will be to integrate the results of each program's analysis so that the clearly packaged recommendations to be presented by each program during the week of May 15 will be reflective of a single Headquarters response to the field submittals. Site coordinators will develop a list of outstanding areas of disagreement for distribution prior to the May 15-19 hearings.

The following information and activities should inform the Headquarters analyses:

- The FY 1997 field submittals, including the transmittal memo and summary of the proposed program discussed above and supporting documentation such as ADSs.
- A summary of field budget submittals to be prepared by the Office of Financial Management by May 9, 1995.
- Ongoing discussions with regulators and other stakeholders.

#### Format and Agenda for May 15-19 Budget Hearings

The week of May 15, 1995, has been reserved for deliberations among EM senior management regarding the FY 1997 budget. A tentative agenda for these briefings is included as Attachment 2. Mr. Grumbly, Admiral Guimond, all Deputy Assistant Secretaries (DASs), and Operations Office Managers or their designees should plan to be present at all briefings. A representative of the National Governors' Association has been invited to observe the discussion and represent state perspectives, as has a representative of the U.S. Environmental Protection Agency. And as in previous years, representatives from the Office of Management and Budget and the Office of the Chief Financial Officer are invited to participate.

The hearings will begin with an overview of the total proposed EM budget and a brief presentation by each Headquarters program. The Headquarters program presentations will succinctly summarize the methodology and considerations taken into account in analyzing the field submittals. The purpose of these presentations is to provide an understanding of the basis for the programmatic recommendations to be presented during the week.

Each Operations Office will present its proposed program and budget for FY 1997. A general format for these presentations is shown in Attachment 3. These presentations should focus on the margin around the target funding level. Specifically, the presentations should center on the impacts of activities between the base program (i.e., the decrement program at 85 percent of target) and the target program and activities above the target level building up to the planning level. The presentations should also address areas of disagreement with Headquarters, regulators, or other stakeholders, regardless of whether these disagreements are associated with the funding margin.

This presentation will allow Operations Offices the opportunity to present their best case for their proposed program and convince the reviewer (i.e., the Assistant Secretary for Environmental Management) and observers of the most cost-effective and efficient level of funding. To this end, while focussing on the margin, each Operations Office presentation should:

- Briefly describe the methodology used to build the proposed program at sites under the purview of each Operations Office.
- Identify tradeoffs made between line programs (Environmental Restoration, Waste Management, Technology Development, Nuclear Material and Facility Stabilization, and Compliance and Program Coordination) in arriving at the proposed program for each site.
- Identify the impact of the proposed program on risks to safety and health and the environment, on the ability to meet legal and other programmatic commitments, and on the ability to maintain a viable program in the long term. Also comment on how your organization has restructured to "do more with less" and how your proposed program can be justified based on past results.
- Identify outstanding issues with the proposed program raised by regulators, Headquarters, or other stakeholders, including the need to reassess compliance commitments.

Operations Office presenters also should be prepared to address questions regarding the impacts of cuts below the decrement level. Following each Operations Office presentation, observers will have an opportunity to comment and ask questions.

Following all of the Operations Office presentations, each Headquarters program will have an opportunity to summarize its specific recommendations to the field proposals. These recommendations should consist of clearly packaged options and be consistent with the recommendations of other Headquarters programs. Each presentation should identify the relative benefits and other issues associated with each recommendation.

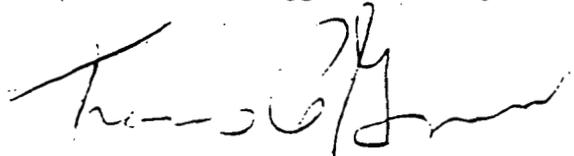
Throughout the presentations, a list of recommendations and issues will be maintained. If preliminary decisions are made, these also will be recorded. The hearings will conclude with a day of deliberations during which the Assistant Secretary will review and make decisions on any outstanding recommendations. Any preliminary decisions made earlier during the hearings will be revisited. As during internal Operations Office and Headquarters program deliberations, the decision criteria for FY 1997 budget formulation (see Attachment 2) will be applied here. Following the budget hearings, the Office of Financial Management will summarize the decisions and changes that were made as a result of the deliberations.

The success of this process hinges upon trust. Specifically, this process takes as a fundamental assumption that the program presented by each Operations Office will be consistent with the information submitted on April 17, both in terms of the funding levels presented and the activities included within each funding level. Violation of this assumption would invalidate the Headquarters analyses performed after April 17 and make it impossible for Headquarters program and staff offices to participate in the discussion in an informed manner. Furthermore, the process takes as an assumption that each Operations Office's base program is cost-effective and

assumption that each Operations Office's base program is cost-effective and consists only of the highest priority items. Without this assumption, it would be impossible to focus the discussion on activities on the margin and areas of disagreement.

The process described above should allow us to focus our attention on those issues and concerns that warrant discussion as part of the budget development process. It will not replace careful preparation and close consultation among field, Headquarters, state regulators, EPA and other stakeholders in the development of the proposed FY 1997 environmental management program.

I am looking forward to decisive and focused discussion. Please contact Eli Bronstein should you have questions or suggestions regarding FY 1997 budget formulation.



Thomas P. Grumbly  
Assistant Secretary for  
Environmental Management

#### Attachments

#### Distribution:

Deputy Assistant Secretary for Environmental Management, EM-2  
Deputy Assistant Secretary for Management and Finance, EM-10  
Deputy Assistant Secretary for Compliance and Program Coordination, EM-20  
Deputy Assistant Secretary for Waste Management, EM-30  
Acting Deputy Assistant Secretary for Environmental Restoration, EM-40  
Deputy Assistant Secretary for Technology Development, EM-50  
Deputy Assistant Secretary for Facility Transition and Management, EM-60  
Associate Deputy Assistant Secretary for Management and Finance, EM-10  
Associate Deputy Assistant Secretary for Compliance and Program Coordination, EM-20  
Associate Deputy Assistant Secretary for Waste Management, EM-30  
Acting Associate Deputy Assistant Secretary for Environmental Restoration, EM-40  
Associate Deputy Assistant Secretary for Technology Development, EM-50  
Associate Deputy Assistant Secretary for Facility Transition and Management, EM-60  
Manager, Albuquerque Operations Office  
Manager, Chicago Operations Office  
Manager, Fernald Field Office  
Manager, Idaho Operations Office  
Manager, Nevada Operations Office  
Acting Manager, Oakland Operations Office  
Manager, Oak Ridge Operations Office  
Manager, Ohio Field Office  
Manager, Richland Operations Office  
Manager, Rocky Flats Field Office  
Manager, Savannah River Operations Office  
Assistant Manager for Environmental Project Management, AL  
Assistant Manager for Environmental Restoration and Waste Management, CH

## Distribution (continued):

Assistant Manager for Environmental Restoration and Waste Management, ID  
Assistant Manager for Environmental Restoration and Waste Management, NV  
Assistant Manager for Environmental Restoration Support, OAK  
Assistant Manager for Environmental Restoration and Waste Management, OR  
Assistant Manager for Environmental Restoration, RF  
Assistant Manager for Operations Waste Management, RF  
Manager, Richland Operations Office  
Assistant Manager for Environmental Restoration and Solid Waste, SR

## cc:

J. Werner, EM-4  
C. Kelly, EM-5  
C. Henry, EM-6  
R. Gibson, EM-12  
E. Bronstein, EM-13  
B. McCully, EM-131  
J. Simpson, EM-131  
L. Ott, EM-132  
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C. Scott, EM-63  
B. Smith, EM-64  
L. Feldt, EM-65  
P. Hanson, AL  
T. Foley, CH  
M. Ferrigan, CH  
H. Youngmeyer, FN

J. Miller, ID  
W. Lloyd, ID  
B. Manning, NV  
C. May, NV  
B. McClure, NV  
J. Solis, OAK  
L. Martell, OAK  
P. Thrash, OAK  
P. Greenwalt, OH  
P. VanLoan, OH  
J. Penry, OR  
N. Frolio, OR  
B. Tibbatts, RL  
J. Peterson, RL  
R. Butler, RF  
D. Hauser, RF  
T. Southard, SR  
E. Smedley, CR-1  
J. Hubbard, CR-145  
F. Tooper, EH 30.2  
L. Mori, OMB  
G. Benethum, OMB  
K. Peroff, OMB  
B. Breen, EPA  
J. Thomasian, NGA

CRITERIA FOR DECISIONMAKING  
FY 1997 BUDGET FORMULATION

The following are criteria for use during the FY 1997 budget process. The process outlined here is a decision-aiding methodology designed to quickly identify factors that support or oppose an individual activity that may be "on the margin", the subject of disagreement, or otherwise highly visible during budget deliberations. Other than defining situations which are clearly unacceptable, these criteria do not attempt to assign values to or otherwise score activities. Instead they are designed to elicit and specify the relevant information for high-level managers to use in making decisions based on their own value judgements.

The following process presents four broad categories. Within each category, criteria designed to elicit the relevant information for decisionmaking are enumerated. The four categories are:

- Public Safety and Health, Site Personnel Safety and Health, and Environmental Protection;
- Compliance;
- Stakeholder Concerns, Values, and Beliefs; and
- Cost-Effectiveness.

For a given activity, the criteria described above could be summarized in a matrix as follows:

CRITERION	STRONGLY SUPPORT 5	CONSIDER SUPPORT 4	NEUTRAL 3	CONSIDER REJECT 2	STRONGLY REJECT 1
Public and Site Personnel S&H, and Environmental Protection			✓		
Compliance			✓		
Stakeholder Concerns, Values, and Beliefs			✓		
Cost-Effectiveness			✓		

For each of the four categories, through application of the criteria, an activity will receive a check mark in one column (1-5). Each column corresponds to a judgment regarding whether the criteria support or oppose the activity. The "strongly support" and "strongly reject" columns are distinguished from the "consider support" and "consider reject" columns in that the "strongly support/reject" criteria are based on avoiding situations that are clearly unacceptable in the absence of strong extenuating circumstances. For example, the "strongly support" column is used for activities that avoid such unacceptable outcomes as catastrophic damage to the environment. Most of the activities to prevent unacceptable results

should be in the core of the proposed program. Therefore, it is unlikely that many of the activities to which these criteria will be applied (e.g., activities on the margin or about which there is disagreement) will fall into columns 1 or 5. However, the "strongly support/reject" criteria are included here so that, in the event such activities do become the topic of deliberation, they are clearly identified for immediate attention and careful evaluation.

CRITERIA ELICIT INFORMATION TO HELP YOU MAKE A DECISION. THEY DO NOT MAKE THE DECISION FOR YOU

Decisions will not be made on the basis of the summary "check mark" information shown above, but on evaluation of the information supporting each check mark. For example, three checks in the "consider support" column and one in the "consider reject" column would not automatically lead to supporting an activity. This summary would simply indicate that there is information in favor of supporting the activity for three of the categories and information in favor of rejecting the activity for one of the categories. The activity could, in fact, be rejected if the evidence supporting the single "consider reject" was more compelling than that supporting the three "consider support" check marks.

Wherever possible the criteria seek indication of where quantification will be helpful in informing the decision at hand. In keeping with the Departmental Principles for Risk Analysis, evaluation of each of the criteria should employ the best available scientific, economic, and policy information with an awareness of data quality and significant assumptions and uncertainties. For this reason, the criteria include a final step which asks the decisionmaker to consider, among other things, the quality of the information and the credibility of the performing organization based on past performance.

THESE CRITERIA ARE CONSISTENT WITH EXISTING POLICY

The categories and criteria were drawn from several sources, including:

- Environmental Management guidance on prioritization, including the November 30, 1994, budget formulation guidance and February 13, 1995, memorandum transmitting guidelines for budget formulation;
- Criteria developed for the Departmental Environment, Safety, and Health Management Planning Process;
- The Environmental Management Strategic Plan and the associated six goals of the Environmental Management Program;
- The DOE Strategic Plan, particularly the strategies for the Environmental Quality Core Business Area and the Environment, Safety, and Health Critical Success Factor;

- Departmental Principles for Risk Assessment, Management, and Communication, and Priority Setting promulgated by the Under Secretary of Energy;
- Clinton Administration guidance on risk and cost-benefit analysis;
- The principles of the National Performance Review and the Government Performance and Results Act;
- Discussions with decisionmakers about the criteria they use to make decisions; and
- Criteria used to develop Operations Office priority lists.

THESE CRITERIA ARE A COMPLEMENT TO RIGOROUS, BOTTOM-UP PRIORITIZATION

The process outlined here is for use in aiding individual high-level decisions. The purpose here is not to develop a complete program starting from zero, neither to generate a priority list nor to rank activities on a numerical basis nor to optimize benefits against costs. These criteria are consistent with existing guidance on prioritization and with the actual prioritization methods used by Operations Offices in developing draft priority lists for FY 1997. They are a complement to these prioritization efforts, but should not replace these efforts or existing EM and DOE prioritization methodology.

In short, the field, in close consultation with Headquarters programs, regulators and other stakeholders, develops a proposed program for FY 1997 and beyond. That proposed program is developed based on careful consideration of EM priorities. Methodologies for prioritization include the approach promulgated in the Environment, Safety and Health Management Plan process, using the prioritization process developed by the Office of Nuclear Material and Facility Stabilization, or applying the processes used by the field in developing their FY 1997 priority lists earlier this year. These processes help build a program from the bottom up.

Once the proposed program is built, these criteria can be applied to sensitive, visible decisions at the margin, to areas of disagreement, or to build consensus on program justification. The criteria outlined here can also be useful in guiding the evaluation of the proposed program, particularly if expanded to reflect a program's unique perspective and characteristics. For example, the Office of Environmental Restoration may wish to expand the criteria to more explicitly consider small geographically distributed sites.

A. PUBLIC SAFETY AND HEALTH, SITE PERSONNEL SAFETY AND HEALTH, AND ENVIRONMENTAL PROTECTION

Strongly support if:

- The activity is necessary to prevent immediate loss of life, injury, or illness of members of the public or workers.
- The activity is necessary to prevent catastrophic (i.e., irreversible or widespread and long-term) damage to the environment.

Consider support if:

- The activity would decrease risk to members of the public, workers, or the environment.

*Quantify, where information is readily available (for example from EM-6 risk evaluation), using information on: timing (i.e., whether risks are averted now or in the future), severity, likelihood, magnitude, and target population.*

- The activity would reduce uncertainty about risks to the public, workers, or the environment.

Neutral if:

- The activity is neutral with regard to or has no effect on risk to members of the public, workers, or the environment.

Consider rejection if:

- The activity would increase risk to members of the public, workers, or the environment. (For example, if risk to workers during activity is much greater than overall risk reduction gained upon activity completion.)

*Quantify, where information is readily available (for example from EM-6 risk evaluation), using information on: timing (i.e., whether risks are averted now or in the future), severity, likelihood, magnitude, and target population.*

Strongly reject if:

- The activity would result in immediate loss of life, injury, or illness of members of the public or workers.
- The activity would result in catastrophic (i.e., irreversible or widespread and long-term) damage to the environment.

**B. COMPLIANCE**

Strongly support if:

- The activity is necessary to avoid enforcement action associated with violation of Federal, State, or local law or failure to meet the requirements of enforceable agreements and renegotiation is not feasible. (The evaluation of whether or not renegotiation is feasible should be based on careful consideration of all possible alternatives. Furthermore, it should be based on the assumption that regulators are reasonable and aware of the fiscal constraints facing the EM program.)

Consider support if:

- The activity is necessary to avoid renegotiation of an enforceable agreement or regulatory relief under Federal, State, or local law.

*Identify the requirement, the likelihood of successful renegotiation, and expected penalty if renegotiation is unsuccessful.*

- The activity is necessary to avoid noncompliance with DOE Orders or DNFSB Recommendations.

*Identify requirement.*

- The activity would prevent a marginal noncompliance (i.e., one not likely to result in fines or penalties) with Federal, State, or local law or an enforceable agreement, or prevent a delay in compliance.

*Identify requirement.*

- The activity would prevent noncompliance with non-legally binding agreements (such as Agreements-in-Principle).

*Identify requirement.*

Neutral if:

- The activity has no effect on compliance.

**B. COMPLIANCE (continued)**

Consider rejection if:

- The activity would require renegotiation of an enforceable agreement or regulatory relief under Federal, State, or local law.

*Identify the requirement, the likelihood of successful renegotiation, and expected penalty if renegotiation is unsuccessful.*

- The activity would cause noncompliance with DOE Orders or DNFSB Recommendations.

*Identify requirement.*

- The activity would create a marginal noncompliance (i.e., one not likely to result in fines or penalties) with Federal, State, or local law or an enforceable agreement, or cause delay in compliance.

*Identify requirement.*

- The activity would cause noncompliance with non-legally binding agreements (such as Agreements-in-Principle).

*Identify requirement.*

Strongly reject if:

- The activity would result in enforcement action associated with violation of Federal, State, or local law or failure to meet the requirements of enforceable agreements and renegotiation is not feasible.

**C. STAKEHOLDER CONCERNS, VALUES, AND BELIEFS**

Strongly support if:

- The activity is necessary to satisfy commitments made by senior Department officials and avoid an irreversible loss of public confidence.

Consider support if:

- The activity is supported by regulators, elected officials, or other stakeholders (including for reasons of equity across sites) or supports another Departmental program.

*Identify the specific stakeholders and the extent of their support.*

Neutral if:

- Regulators, elected officials, and other stakeholders have no opinion regarding the activity.

Consider rejection if:

- The activity would be counter to the expressed preferences, values, or beliefs of regulators, elected officials, or other stakeholders (including for reasons of equity across sites) or would be detrimental to the mission of another Departmental program.

*Identify the specific stakeholders and, where information is readily available, characterize their expected response.*

Strongly reject if:

- The activity would conflict with commitments made by senior Department officials and result in an irreversible loss of public confidence.

**D. COST EFFECTIVENESS**

Strongly support if:

- The activity is necessary to avoid a catastrophic and permanent loss of efficiency or investment.

Consider support if:

- The activity would result in net cost reduction through improved efficiency or use of more cost-effective alternatives (including cases where near-term investment will lead to long-term savings).

*Quantify in dollars and identify the expected time frame for realizing the reduction where information is available.*

- The activity would result in increased performance or output with no net increase in cost.

*Quantify the increase in output and identify the expected time frame where information is readily available.*

- The activity is necessary to avoid a net cost increase, loss of efficiency, or loss of investment.

*Quantify in dollars where information is readily available.*

Neutral if:

- The activity has no impact on cost effectiveness or efficiency.

Consider rejection if:

- The activity would accomplish results in an ineffective manner, would be highly cost inefficient, or would likely have to be repeated in the future.

*Identify in what way the activity would be inefficient or ineffective and quantify in dollars where information is readily available.*

Strongly reject if:

- The activity would be entirely redundant with another, more efficient activity already underway.

**FINAL STEP: CONSIDER ALTERNATIVES**

After application of the criteria and prior to finalizing a decision based on the information elicited, alternatives to the activity should be examined. Specifically, the following questions should be considered:

- Is the activity supported by and are expectations realistic based on the past performance of the performing organization in terms of the ability to accomplish results, meet commitments, and do so efficiently?
- Is there a way to achieve the benefits (i.e., the results that generate a "consider support" response) without the negative consequences (i.e., the "consider rejection" responses)?
- Is there a way to achieve equal or greater benefits at a lower cost in dollars (for example, through introducing competition, putting customers first, cutting red tape, or empowering employees)?
- Do the benefits justify the costs (measured both quantitatively and qualitatively)? Does the activity generate a sufficient return on investment?
- Is the information elicited by the criteria and the data on the activity's cost of high enough quality to make a credible decision? Is additional information needed before a decision can be made?

COMMON QUESTIONS ON THE CRITERIA FOR DECISIONMAKING

- Q. I'm confused. What's the difference between these criteria and my priority list?
- A. The criteria are meant to complement what you've done in your priority list. Your priority list builds a proposed program up in detail starting from zero. Presumably, in the process of doing this, you've come up with some sensitive issues on the margin or areas of disagreement about the priorities that require senior management attention. The criteria are a simple aid that senior management will use to help resolve these individual issues and finalize the priority list.
- Q. The process of applying these criteria is too time consuming.
- A. If the criteria were applied to each activity in the EM program individually, the process would indeed be time consuming. For this reason the process outlined here must be used in conjunction with the rigorous prioritization that has already occurred. These criteria should be applied to resolve issues on the margin, settle disagreements, reach consensus on program justification, or evaluate other highly visible activities. For these individual, sensitive decisions, the time required to apply these criteria is justifiable.
- Q. Why not just use the Environment, Safety, and Health Risk Based Priority Model?
- A. The Environment, Safety, and Health Risk Based Priority Model is a sophisticated process by which a variety of disparate data for an activity are synthesized to a single score. This is ideal when you have a long list of activities to compare and rank against one another. On the other hand, the criteria are designed to elicit the same data for examination, but leave the synthesis and weighting to the decisionmaker. When considering an individual, high-level, visible, and sensitive decision, this less sophisticated approach is more appropriate, because the decision process remains open and transparent to the observer, particularly in the case of outside stakeholders. Note that the criteria and the risk model are consistently based on the same values and goals (i.e., public safety and health, compliance, etc.). The risk principles are embodied in the criteria.
- Q. These criteria ignore legitimate programmatic needs and the particulars of my situation.
- A. The criteria are designed to elicit all the relevant information for consideration in making a decision. In the process, the particulars of a given situation will be brought forward and included in the body of evidence. This includes the considerations unique to each program with regard to risk, compliance, stakeholder concerns, cost-effectiveness, and program goals.

- Q. Is there a relative priority to the criteria?
- A. No. The criteria are to elicit information for high-level managers to use in making decisions based on their own value judgements about the relative priority of the criteria.

DRAFT AGENDA FOR FY 1997 BUDGET FORMULATION  
May 15-19, 1995

Monday, May 15 - Thursday, May 18

Introductory Remarks

National Budget Overview  
Key EM Strategic-Level Issues

Headquarters Presentations: To provide perspective for any comments to be made during the week, each Headquarters program will be allotted one half hour to succinctly summarize the methodology and considerations taken into account in analyzing the field submittals.

Compliance and Program Coordination  
Waste Management  
Environmental Restoration  
Nuclear Materials and Facility Stabilization

Operations Office Presentations: Each Operations Office will be allotted between one and three hours to present its proposed program. Observers may comment following each Operations Office presentation. Order and length to be determined.

Technology Development  
Richland  
Savannah River  
Oak Ridge  
Rocky Flats  
Albuquerque  
Idaho  
Ohio  
Chicago  
Oakland  
Nevada  
Headquarters-funded Activities

Program Recommendations: Each Headquarters program will be allotted one to two hours to summarize its recommendations regarding the Operations Office proposals.

Compliance and Program Coordination  
Waste Management  
Environmental Restoration  
Nuclear Materials and Facility Stabilization

Friday, May 19

Summary of outstanding issues, recommendations and preliminary decisions; deliberations and decisionmaking on recommendations; revisiting preliminary decisions.

## ATTACHMENT 3

## Operations Office PRESENTATION OF FY 1997 PROPOSED PROGRAM

(\$ in millions)	FY 1995 Approp.	FY 1996 Request	FY 1997 Request		
			Decrement	Target	Planning
Corrective Activities	\$	\$	\$	\$	\$
Environmental Restoration	\$	\$	\$	\$	\$
Waste Management	\$	\$	\$	\$	\$
Nuclear Materials & Facility Stabilization	\$	\$	\$	\$	\$
Transportation Management	\$	\$	\$	\$	\$
Compliance & Program Coordination	\$	\$	\$	\$	\$
Total	\$	\$	\$	\$	\$

(\$ in millions)	FY 1997 Target	FY 1998	FY 1999	FY 2000	FY 2001
Corrective Activities	\$	\$	\$	\$	\$
Environmental Restoration	\$	\$	\$	\$	\$
Waste Management	\$	\$	\$	\$	\$
Nuclear Materials & Facility Stabilization	\$	\$	\$	\$	\$
Transportation Management	\$	\$	\$	\$	\$
Compliance & Program Coordination	\$	\$	\$	\$	\$
Total	\$	\$	\$	\$	\$

The budget proposal presented must be consistent with that submitted on April 17.

## Operations Office PRESENTATION OF FY 1997 PROPOSED PROGRAM

## Methodology

Succinctly describe:

- Process, including that for integrating programs and incorporating stakeholder views
- Assumptions
- Decision logic, criteria and relative emphasis

Include the logic behind any tradeoffs between Headquarters programs, the associated benefits, any outstanding concerns or criticisms.

## Impacts

Focussing on the margin, identify the significant impacts of decrement, target, and planning level funding on optimizing against risk, compliance, efficiency, and stakeholder concerns, specifically address:

- Public and site personnel safety and health,
- Environmental protection,
- Meeting current and projected legal requirements,
- Meeting other programmatic commitments, and
- Ability to maintain a viable program over the long term (including under the likely continuation of restricted funding in the future).

Identify how your program has restructured to "do more with less" and mitigate the impacts of funding restrictions by using resources effectively.

## Outstanding Issues

Identify outstanding issues and areas of concern raised by:

- Headquarters, including areas of disagreement with the program as proposed,
- Regulators, including agreements that may require review or renegotiation, and
- Other stakeholders.

Include discussion of obstacles other than funding.

ATTACHMENT 4  
FY 1997 PROPOSED PROGRAM SUMMARY:  
FREQUENTLY ASKED QUESTIONS

- Q: What information is the Summary of Changes supposed to compare?
- A: The Summary of Changes/Impacts should summarize the significant differences between the proposed program for FY 1997 and the President's Budget for FY 1996. It is also an opportunity for the Operations Office to justify its proposed program and identify major issues that have arisen during discussions with Headquarters, regulators, and other stakeholders, in addition to issues of a compliance, technical, or financial nature.
- Q: Should we include subcontractor information in the Manpower Summary?
- A: We are trying to get as accurate a picture of the work force as possible. Therefore, if you have subcontractor data, submit it and break it out separately from the M&O data (i.e., by adding columns to the manpower spreadsheet).
- Q: Given that the Office of Integrated Risk Management (EM-6) is visiting the field to collect risk data, do we still have to complete the Risk Activities Crosscut?
- A: Yes. The crosscut is to collect information on the budget for risk assessment type activities for FY 1997. The EM-6 field visits are to quantify actual risk reduction activities for FY 1996.
- Q: The Training Crosscut asks for the budget for specific types of Federal training. What, if any contractor training, should we include?
- A: In the contractor columns of the Training Crosscut, break out your entire contractor training budget.
- Q: Is the Information Resources Management (IRM) Crosscut in the EM guidance something additional to that in the Unicall?
- A: No. The IRM Crosscut is mentioned in the EM guidance to reemphasize that you should follow the direction in the Unicall and make sure you copy EM on what you prepare.
- Q: Is there a strawman format for the Safety and Health Management Plan Summary?

A: Yes. The Office of Safety and Health (EM-23) has developed and distributed a sample format for this section.