

WASTE MANAGEMENT (EM-7) FAX

DATE: 8-17-93

TO: Barbara Hottelchek NMED

FAX NO.: 827-4361

VERIFICATION NO.: _____

FROM: T. L. Connors EM7

LOS ALAMOS NATIONAL LABORATORY

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665-7285

MS: E538 PHONE NO.: 665-3872

SUBJECT: _____

NUMBER OF PAGES: 7

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Los Alamos

NATIONAL LABORATORY

General

Environmental Management Division

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Refer to: EM-7b-93-805

Date: August 17, 1993

Ms. Barbara Hodtschek
State of New Mexico
Environment Department
P.O. Box 26110
Santa Fe, NM 87502

BY FAX

SUBJ: Value Engineering Study
Mixed Waste Receiving and Storage Facility

Dear Ms. Hodtschek;

Per our telephone conversation of August 11, I am forwarding you the following information on the Value Engineering Study for the Mixed Waste Receiving and Storage Facility.

Value Engineering is an evolving specialty of the engineering disciplines. It can be defined as "an organized interdisciplinary team approach, using facilitated problem solving techniques, to provide a reliable and high quality product, process or service at the lowest possible cost." The Office of Management and Budget currently requires that a Value Engineering Study be completed for all Federal projects over \$1 million.

The Mixed Waste Receiving and Storage Facility (MWR&SF) is planned as one element of the Laboratory's future mixed and hazardous waste treatment complex at Technical Area 63. Construction of the MWR&SF will be critical to meeting the Laboratory's long term mixed waste compliance commitments. The project is currently between the conceptual design and final design stages.

The VE study is being conducted by the Environmental Management and Facilities Engineering Divisions of the Laboratory. The VE Study is scheduled for the week of August 30 through September 3, and will be accomplished by a multi-discipline team of 15-20 engineering, regulatory, and operational personnel. The study will be moderated by two professional Value Engineering facilitators from outside the Laboratory.

The specific objective of the VE Study is to conduct an in depth review of the existing conceptual design of the project in order to evaluate the engineering, operational, and regulatory decisions made to date. The study will identify, evaluate, and recommend better and/or more cost effective design solutions for the project. The final report from the VE study will have a significant effect on the final design of the project.

We recently held a pre-study meeting with the two assigned facilitators in order to meet with all team members, and to better define the scope of the study. As I mentioned on the phone, during that meeting several personnel from our operations section expressed a desire to include a representative from your department as a member of the VE Team. They felt that a

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Hodtschek, August 17, 1993

NMED representative would help them to better understand the "regulatory outlook" and the public's perception of the facility when they were making decisions about its design.

For this reason we are extending you an invitation to provide one or two team members for the Value Engineering study. I realize that this is some-what short notice to be able to provide someone who can commit 4-5 days of his or her time. However, if you can provide a full time team member, I am sure the experience will be beneficial to both of our organizations.

The first time I was assigned to a VE study, I did not relish the thought of spending 4-5 days cooped up in a hotel meeting room. However, upon spending a day or two in the study I found it to be a very stimulating and exciting experience. Since the study was professionally facilitated, it flowed smoothly and was kept on track. Input was encouraged from all participants, and no one individual was allowed to dominate the proceedings. Additionally, even when there was disagreement on certain objectives or technical issues, the facilitators always seemed to bring the team to a consensus on the issue. All-in-all, I found the study to be a very rewarding and worth while experience.

We are aware that participation by your personnel in the VE study would not constitute any form of "pre-approval" of the project or any of the required environmental submittals by your department. Like wise, we would not expect to be committed to any design solution or recommendation developed by the team, since these are always subject to further evaluation and approval by the design Architect/Engineer, the Laboratory, and the Department of Energy.

For your planning purposes, the study will begin at 7:30 am, Monday August 30, and will be held in the Taos Room at the Hilltop House in Los Alamos. Normal hours for the study will be 7:30 am to 4:30 pm. The study will conclude with a presentation of the team's findings and recommendations to Laboratory and DOE managers on Friday, September 3, at 10:00 am at the same location. Attendance at this presentation would be optional for your personnel.

We can provide more detailed information concerning the Mixed Waste Receiving and Storage facility to your prospective team members if they desire. Please call if you have any questions.

Very truly yours,



Terrance L. Connors
Project Manger, EM-7

APPROVED BY: _____


Jon Mack, DOE/LAAO
Environment, Safety & Health Branch8-17-93

Date

Attachments:

1. Value Engineering definition & Information
2. Conceptual plan, Mixed Waste Receiving & Storage Facility,

CY: Joe Vozella, DOE/LAAO,A316
Ken Hargis, EM-8,
Brian Emkeit, ENG-3,M984
A. Drypolcher, EM-7,E519

DEFINITION OF VE

Value Engineering is an organized interdisciplinary team approach using facilitated problem solving technique to provide for a reliable quality product, process, or service at the lowest possible cost.

INEL and the Hanford Site

UNIQUENESS OF VALUE ENGINEERING

- **Functions**
 - Brief requirement statements - 2 words - Active Verbs
Measurable Noun
 - **Function Analysis System Technique (FAST)**
 - Shows relationship between and among functions
 - Create succinct understanding within the Team
 - Test validity of functions
 - Displays functions in a diagram or model
 - **Challenges the "WHY" as well as the "HOW"**
-

VALUE ENGINEERING JOB PLAN

- **Preparation ***
- **Information Phase ****
 - Function
 - Function Analysis System Technique (FAST)
- **Creative (Brainstorming) Phase ****
- **Evaluation Phase ****
- **Implementation Phase ****
 - Planning Phase
 - Report Phase
 - Follow Up (DOING) ***

* (16 hrs each Facilitator, Team Leader, Requestor) ** (48 hrs each 2 Facilitators, 7 to 12 Team Members)
*** (Team Member follow on based on results of study and action plan to implement recommendations)
(12 hrs Facilitator)

VALUE ENGINEERING JOB PLAN (con't)

INFORMATION PHASE

- Obtain full information
- Review Customer Needs And Requirements
- Understand Current Costs
- Determine Functions
- Develop F.A.S.T. Diagram
- Determine Cost/Function Relationships
- Review Scope

VALUE ENGINEERING

JOB PLAN (con't)

CREATIVE PHASE

- Brainstorming
- Identity Other Ways To Perform Functions

EVALUATION PHASE

- Determine If Ideas Will Work
- Identify Most Promising Concepts

Planning Phase

- Develop Recommendations
- Develop Implementation (Action) Plan
- Plan Arrangement Of Presentation

DOE - RICHLAND

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VE01-32

VALUE ENGINEERING

JOB PLAN (con't)

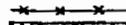
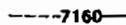
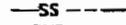
REPORT PHASE

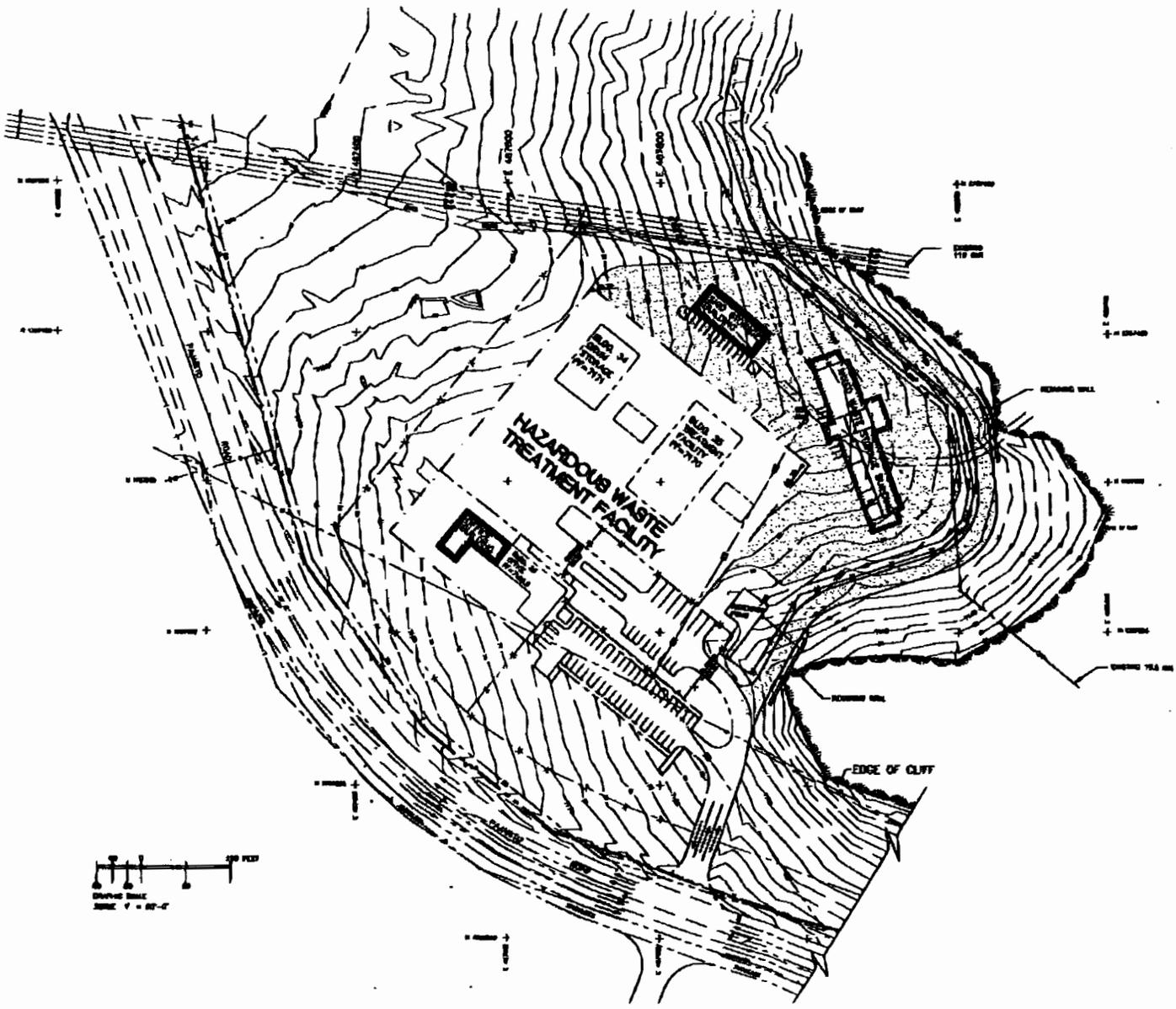
- Present Ideas To Management—Show Pro's & Con's, cost before & after

IMPLEMENTATION/FOLLOW-UP PHASE

- Approve Action Plan
- Develop Implementation Schedule
- Direct Implementation Of The Action Plan

LEGEND

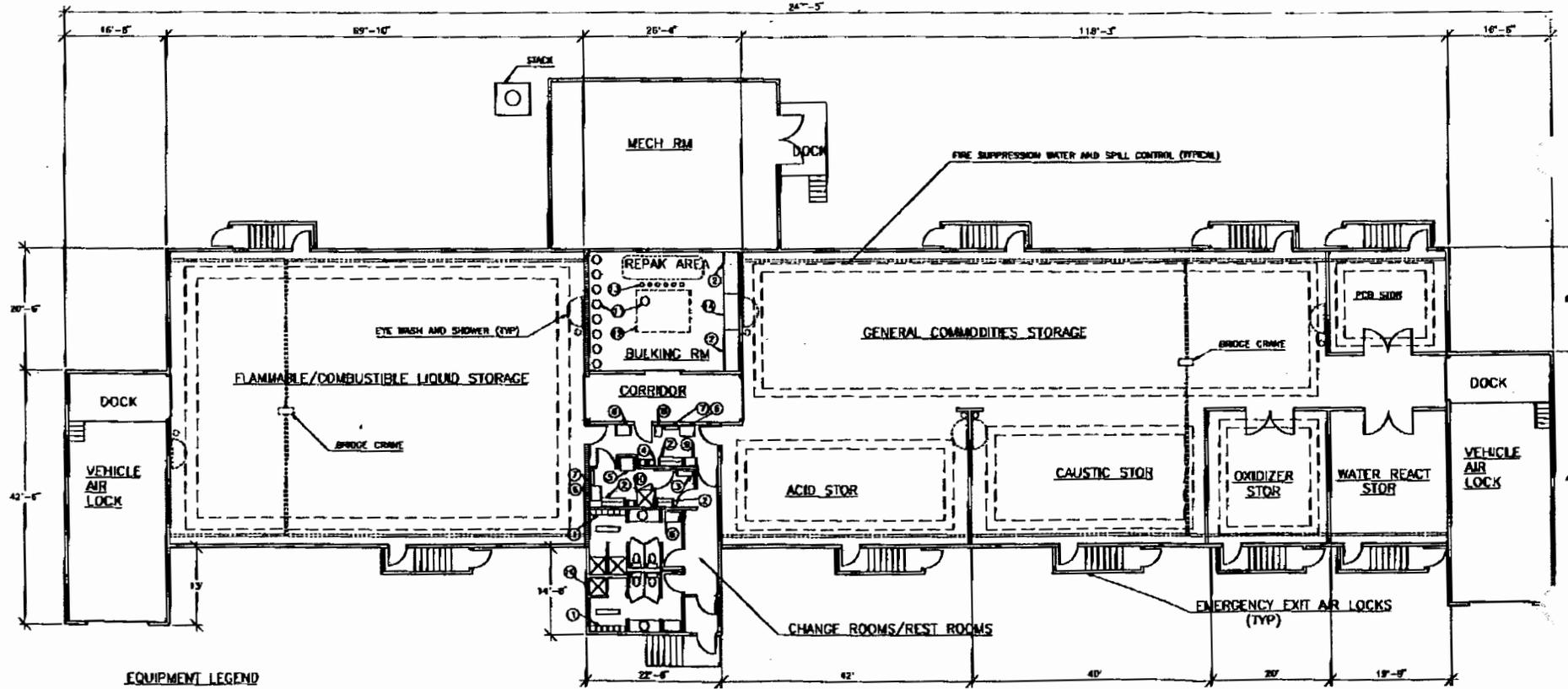
-  NEW CONSTRUCTION
-  NEW FENCE LINE
-  ASPHALT PAVEMENT
-  EXISTING CONSTRUCTION
-  EXISTING CONTOURS
-  EXISTING WATER LINE
-  EXISTING GAS LINE
-  EXISTING SANITARY SEWER LINE
-  EXISTING OVERHEAD POWER LINES



**MIXED WASTE RECEIVING
AND STORAGE FACILITY**

CIVIL SITE PLAN
Los Alamos Los Alamos National Laboratory
Los Alamos, New Mexico 87545
PI 1081 ENG-PL 4089

ENTIRE SHEET SHOWN



EQUIPMENT LEGEND

1. LOCKERS AND BENCHES
2. CABINETS (GFE)
3. BENCH AND COAT HOOKS
4. SINKS
5. STEP-IN RADIATION MONITOR (GFE)
6. LAUNDRY
7. PAPER ROLL
8. HAND AND FOOT MONITOR (GFE)
9. STEP-IN HAND AND FOOT MONITOR (GFE)
10. DECON SHOWER
11. PUMPING STATIONS (GFE)
12. HOOD (GFE)
13. PUMP
14. FUME HOOD (GFE)

FLOOR PLAN

SCALE: 1/16" = 1'-0"
 0 5 10 15 20



MIXED WASTE RECEIVING AND STORAGE FACILITY
ARCH FLOOR PLAN
MIXED WASTE STORAGE BLDG.
Los Alamos Los Alamos National Laboratory
 Los Alamos, New Mexico 87545
 PI 10161 ENG-PL 408

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10:00:00 06/26/92 0859