



# Fermilab

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*Beams Division/Electron Cooling*

September 25, 2003

MEMO TO: Distribution

FROM: Jerry Leibfritz  
Project Manager

**SUBJECT: AUGUST MONTHLY REPORT  
MI-31  
FESS/Engineering Project No. 6-6-44**

Please find attached the August 2003 monthly report for this project.

Enclosure

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- Project File 6-6-44
- Chrono File



REPORTING PERIOD: August 2003

## **I. PROGRESS**

### **1.1 General Construction**

- a. Activity – Primary work activities included final grading and seeding of the excavations along the DWS water line alignment and construction of cast in place structural concrete walls.
- b. Cumulative hours worked – approximately 8110 hours through 8/30/03.
- c. Subcontractor's schedule evaluation – As of 08/30/03 the Subcontractor is approximately 2 weeks ahead of schedule. The Subcontractor's third payment update occurred on August 13, 2003 including payment for milestones 1H, 1I. See attached earned value reports and section II of this report for an earned value analysis. The Whittakers Subcontract is approximately 43% complete as of 8/30/03.
- d. Engineering Change Proposals/ Requests – See latest ECP list on Website. Supplemental Agreement numbers 1, 2 and 3 have been incorporated into the Subcontract. At this time the total subcontract amount is \$2,581,306 and the completion date is 03/24/04.
- e. Upcoming issues –More Wall Construction, backfilling, and the Phase 3 (MS 5) shutdown related activities scheduled to begin in the second week of September.
- f. Photographs:





**1.2 Project Support**

- a. Efforts this month were spent on review of submittals, field supervision and construction administration related activities.

**SCHEDULE INFORMATION AND MILESTONES:**

<b>MILESTONE</b>	<b>DEFINITION</b>	<b>BASELINE</b>	<b>PEP Dates</b>	<b>Latest Estimates</b>
Start Project	Directive signed	30 May 02	30 May 02	26 Jun 02 (actual)
T2 Design Complete	Contract documents submitted for procurement	15 Jan 03	15 Aug 02	15 Nov 02 (actual)
Begin Construction	Notice To Proceed Issued – Switch work	27 Jun 03	21 Nov 02	17 Jan 03 (actual)
Construction Complete	Final acceptance of all work	9 Jun 04	9 Dec 03	24 Mar 04
Project Complete	Project closed	30 Nov 04	10 Dec 03	24 Apr 04

## II. Overall Project Cost Summary and Earned Value Analysis:

		ORIGINAL BASELINE PROJECT COSTS (2001 dollars)	Latest Estimated Cost*
<b>1.1</b>	<b>General Construction</b>	<b>\$ 3,047,000</b>	<b>\$ 3,130,948</b>
1.1.1	Construction W / 18 % OHP	\$ 2,323,000	\$ 2,708,973
1.1.2	Construction Contingency 22%	\$ 511,000	\$ 319,748 12%
1.1.3	Construction G & A	\$ 83,000	\$ 102,227
1.1.4	Escalation (4.6 % ) 4.6%	\$ 130,000	\$ 0
<b>1.2</b>	<b>Project Support</b>	<b>\$ 763,000</b>	<b>\$ 679,031</b>
1.2.1	Project Engineering	\$ 465,000	\$ 461,687
1.2.2	Project Support Contingency 21%	\$ 99,000	\$ 87,653 19%
1.2.3	Project Support G & A	\$ 166,000	\$ 129,691
1.2.4	Escalation (4.6 % )	\$ 33,000	\$ 0
<b>Total Project Cost</b>		<b>\$ 3,810,000</b>	<b>\$ 3,810,000</b>

\*NOTE THAT 1.1 AND 1.2 HAVE BEEN REDISTRIBUTED (2/21/03) TO REFLECT USE OF MUCH OF THE ESCALATION, ACTUAL FIXED PRICE CONSTRUCTION COSTS, AND A HIGHER CONTINGENCY. Includes Supplemental Agreements 1, 2 and 3.

### TPC Earned Value Analysis as of July 31, 2003 (based on earned value reports for July 2003):

1. The Schedule Variance is \$-57,345 indicating that the project is slightly ahead of schedule.
2. The Cost Variance is \$12,762. See the detailed earned value reports for more information.



## ATTACHMENTS

See MI-31 website

<http://www-ap.fnal.gov/ecool/internal.html>

for the following:

TSR Report for 8-03

Earned Value Reports - Cost Reports and Graphs up to 8-03

Engineering Change Proposal List

More Photographs

# Task Summary Report by Expenditure Type ("TSR")

[Enter Another Query](#)  
Fermilab Business Services

Period End: AUG-03

Report on tasks: 1

## A0201 - MI31 Ecooling Bldg

**1 - MI31 Ecooling Bldg**  
Service Type: PL-EXST PRGM  
SUPP-AIP

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
<u>Personnel Costs</u>							
FRINGE BENEFITS	284.11	-1,824.14	-1,824.14	1,947.14	1,947.14	0.00	0.00
OPTO ALLOC-MONTHLY	67.36	-127.72	-127.72	635.18	635.18	0.00	0.00
OPTO ALLOC-WEEKLY	0.00	-321.36	-321.36	65.96	65.96	0.00	0.00
OVERTIME	0.00	104.09	104.09	104.09	104.09	0.00	0.00
TIME WORKED -MONTHLY	792.50	-1,502.75	-1,502.75	8,143.32	8,143.32	0.00	0.00
TIME WORKED -WEEKLY	0.00	-3,570.57	-3,570.57	15.93	15.93	0.00	0.00
VAC EARNED ALLOC-MONTHLY	87.18	-165.29	-165.29	1,092.50	1,092.50	0.00	0.00
VAC EARNED ALLOC-WEEKLY	0.00	-392.77	-392.77	88.94	88.94	0.00	0.00
<b>Personnel Costs</b>	<b>1,231.15</b>	<b>-7,800.51</b>	<b>-7,800.51</b>	<b>12,093.06</b>	<b>12,093.06</b>	<b>0.00</b>	<b>0.00</b>
<u>Materials &amp; Services</u>							
CONSTRUCTION ENGINEERING	22,223.00	179,062.00	179,062.00	213,686.00	213,686.00	0.00	0.00
EXEMPT - CIVIL CONSTRUCTION	180,404.00	941,294.00	2,628,156.00	2,628,156.00	941,294.00	7,300.00	1,686,862.00
FEES	500.00	500.00	500.00	500.00	500.00	0.00	0.00
FREIGHT	5.57	5.57	5.57	5.57	5.57	0.00	0.00
MATERIAL PURCHASES	91.60	20,461.71	20,461.71	20,461.71	20,461.71	0.00	0.00
PHOTO/GRAPHIC SERVICES	22.00	67.00	67.00	67.00	67.00	0.00	0.00
STORES ISSUES	271.41	640.42	640.42	640.42	640.42	0.00	0.00
SUB-CONTRACT SERVICES	3,503.39	33,033.15	38,697.75	108,635.23	102,970.63	0.00	5,664.60
T&M CONSTRUCTION SVCS.	3,196.80	8,678.12	8,678.12	8,678.12	8,678.12	0.00	0.00

Period End: AUG-03

Report on tasks: 1

**1 - MI31 Ecooling Bldg**  
**Service Type: PL-EXST PRGM**  
**SUPP-AIP**

	Curr Month Costs	Curr YTD Costs	Curr YTD Obligations	Inception to Date Obligations	Inception to Date Costs	Reqs. in Process	Open Commitments
<u>Materials &amp; Services</u>							
T&M ELECTRICAL SERVICES	0.00	12,966.11	12,966.11	12,966.11	12,966.11	0.00	0.00
T&M PIPE FITTERS	2,050.86	2,050.86	2,050.86	2,050.86	2,050.86	0.00	0.00
T&M RIGGING SERVICES	9,255.60	9,255.60	24,652.60	24,652.60	9,255.60	20,112.00	15,397.00
<b>Materials &amp; Services</b>	<b>221,524.23</b>	<b>1,208,014.54</b>	<b>2,915,938.14</b>	<b>3,020,499.62</b>	<b>1,312,576.02</b>	<b>27,412.00</b>	<b>1,707,923.60</b>
<u>Indirect Cost</u>							
CSS ALLOCATION	4,339.02	31,683.42	31,683.42	41,569.96	41,569.96	0.00	0.00
G&A ALLOCATION	52.20	50,056.71	50,056.71	62,272.86	62,272.86	0.00	0.00
G&A ALLOCATION-CSS PORTION	2,779.33	20,294.52	20,294.52	20,294.52	20,294.52	0.00	0.00
G&A ALLOCATION-M&S PORTION	1,938.58	11,938.14	11,938.14	11,938.14	11,938.14	0.00	0.00
MSA ALLOCATION	1,010.64	32,290.06	32,290.06	37,849.18	37,849.18	0.00	0.00
<b>Indirect Cost</b>	<b>10,119.77</b>	<b>146,262.85</b>	<b>146,262.85</b>	<b>173,924.66</b>	<b>173,924.66</b>	<b>0.00</b>	<b>0.00</b>
1 - MI31 Ecooling Bldg SUBTOTAL:	232,875.15	1,346,476.88	3,054,400.48	3,206,517.34	1,498,593.74	27,412.00	1,707,923.60
DIST. TO ACCOUNTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>UNDISTRIBUTED BALANCE:</b>	<b>232,875.15</b>	<b>1,346,476.88</b>	<b>3,054,400.48</b>	<b>3,206,517.34</b>	<b>1,498,593.74</b>	<b>27,412.00</b>	<b>1,707,923.60</b>
<b>REPORT TOTALS</b>							
TOTAL PROJECT/TASK:	232,875.15	1,346,476.88	3,054,400.48	3,206,517.34	1,498,593.74	27,412.00	1,707,923.60
TOTAL DIST. ACCTS REC'BL:	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL UNDIST BALANCE:</b>	<b>232,875.15</b>	<b>1,346,476.88</b>	<b>3,054,400.48</b>	<b>3,206,517.34</b>	<b>1,498,593.74</b>	<b>27,412.00</b>	<b>1,707,923.60</b>



## MI-31 Engineering Change List

ECP #	Description	Date Issued from CMO	Anticipated Credit, Extra or No Cost	Associated Sketch Number	Actual Credit, Extra or No Cost	Associated Payment Milestone	Overall Schedule Impact In Days	Whittaker Proposal Date	Accepted / Rejected or Pending	Req. #	Req. Approval Date	SA #	Date Work Complete	Comments
01	Holeless elevator instead of single cylinder elevator and add pit ladder	3/12/03	Extra - \$5000	SK-1...	\$19,390	3a	0	4/17/03	Accepted	163820	5/6/03	2		
01a	Full width doors on elevator	3/12/03	Extra - \$3000	SK-1...	\$3080	3a	0	4/17/03	Accepted	163822	5/6/03	2		
02	Watermain valve clarifications/ modifications and installation of flushing hydrants.	3/12/03	No Cost	SK-2	\$1665	1e	1	3/19/03	Accepted	163549	4/15/03	1	7/15/03	
03	Reduce shut down schedule from 6 weeks to 5 weeks	3/12/03	Extra- \$12,000	None	\$7527	5a	0	3/28/03	Rejected					May be required in the future. Directorate asked that we sit on this one for a while.
04	Earth retention changes – including bottom of soldier piles to elevation 698 and shielding distance of 18.4 feet.	3/12/03	No Cost	SK-4	\$0	1b	1	3/28/03	Accepted	---	4/4/03	1	4/30/03	
05	Temporary Bulkhead Door	3/21/03	Extra - \$7000	SK-5	\$10,231	5a	1	4/14/03	Accepted	163802	4/25/03	1	9/11/03	
06	Modifications to MI Ducts	6/26/03	Extra – \$30,000	SK-6	\$46,117	5a	5	7/21/03	Accepted	165776	8/1/03	4		
07	Install 6 Atlas Piles at MI-30	From Subcontractor	Extra - \$25,000	See Excavation Plan Submittal	\$26,180	1a	3	3/28/03	Accepted	163420	5/1/03	1	5/7/03	Rush Requisition, added because excavation plan required supporting building. Approval by CCB required
08	Credit for Wall Panel Coating change – three coat system to two coat system	4/22/03	Credit – \$3500	None	-\$3500	2h	0	4/25/03	Accepted	--	4/25/03	2		
09	Credit for substitute damp proofing product	4/22/03	Credit- \$7000	None	-\$7500	1i	0	4/25/03	Accepted	--	4/25/03	2		
10	Temporary Work Platform on MI-30	5/5/03	Extra - \$3500	Page 1 of 1	\$4610	1b	1	5/14/03	Accepted	164321	5/19/03	3	6/1/03	Field Directed on 5/15/03 - Required for maintenance of MI-30 HVAC units
11	Relocation of Building Sump	6/10/03	No Cost	SK ECP-10	\$0	1d	0	6/24/03	Approved	--		4	6/7/03	
12	Rad. Detector Platform/ Relocation	From Subcontractor	-	None	\$733		0	6/19/03	Approved	165153	6/27/03	4	6/14/03	Field Directed , noted incorrectly in the requisition as ECP 11. Time and Material.
13	Extra for Concrete Mix Design 71	From Subcontractor	\$7300	None	\$5625	1k	0		Approved	165389	7/14/03	4	8/29/03	See letter from Mike Botts on 6/25/03
14	Connecting Enclosure Mods	7/28/03	\$1500	SK-14	\$1755	5b	0	9/02/03	Approved	166707	9/9/03	4		
15	Credit for PVC in lieu of Rigid Conduit for ducts on sheet E-6	From Subcontractor	\$10,000	None	-\$10,000	5b	0	9/02/03	Approved			4		
16	Topsoil for MI Stockpile	9/12/03	\$2500	None										
17	Painting of Cast In Place Walls in Lieu of Concrete Sealer	9/12/03	\$10,000	None										

**\$105,973**