



UNION CARBIDE CORPORATION
CHEMICALS & PLASTICS
ENGINEERING DEPARTMENT

SEP 1 1977

C. A. KEIL

CAPITAL WORK ORDER 930-02589
Job No's 38127, 24780, 87066 & 87093

PAGE 1 OF 11

TITLE: DISTRIBUTION FACILITIES VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT		REQUEST OR JOB NO.: 514-0102	
OPR. DPT. SYS 22800 PROFIT CENTER 381		DEPARTMENT SPONSOR RECEIVED Solvent Vinyl Resins EP 6 1977 T. D. EPPS	BUDGET NUMBER 77-WM-004 PRIORITY (A,B,C,D)
LOCATION: 514 So. Chas., WV	BLDG. NO. N. Chas.	ADMINISTERED BY: (X) 938 (AD. CODE 1) () PLANT (AD. CODE 2) () DISTRIBUTION (AD. CODE 3)	
7-9		930 #	DATE AUTHOR.
660		50-56 57-61 62-65 66-70	\$ (71-80)
DIST VCM-EPA PROJECT		9300000 02589 8067 07297	146000 .00
This Work Order Request confirms \$150,000 preapproval funds authorized on 4-25-77 on 930 Work Order No. 2589, Budget No. 77-WM-004.			
This project is to provide facilities in order to comply with the Environmental Protection Agency's (EPA) National Emission Standards for hazardous pollutants. The South Charleston Distribution Facilities must meet these standards in order for the Solvent Vinyl Resins Manufacturing operation to continue production.			
The project will be accomplished by modifying existing equipment to minimize fugitive emissions of VCL to the atmosphere, and is composed of four (4) separate jobs. Approximately \$8 M has been committed through June for the purchase of equipment.			
This Work Order will be administered by South Charleston Plant Engineering and carried on Location 511 Books.			
PRINCIPAL TYPE OF PROJECT Environmental Control		NPV M\$:	
CAPITAL COST		RANGE ± 10 2 : CR ISSUE 146000	
PREL. ENG. ORDER NO. 4984 EXPENDED TO DATE \$6,051		INCLUDES: AIR POLLUTION CONTROL WATER POLLUTION CONTROL RESIDUE (SOLIDS) DISPOSAL OCC. HEALTH SAFETY NOISE CONTROL TOTAL SHARE DEPT. 146000	
666	RETIREMENT OF PROPERTY (1)	8380000	8067
660	EXPENSE (REARRANGEMENTS, REVISIONS, ETC.) (2)	8380000 02080	8067 6400
EST. CONSTR. COMP. DATE 4th Quarter 1978		TOTAL ESTIMATE \$ 152400	
DISTRIBUTION OF APPROVED WORK ORDER:		DATE	APPROVALS
MR. W. T. GRAY, JR.	MR. C. A. KEIL	8/1/77	J. C. Nelson
MR. R. W. ANNONIO	MR. R. L. KENNEY	8/2/77	A. L. W.
MR. L. L. BANFIELD (2)	MR. J. C. NELSON	8/1/77	W. T. GRAY, JR.
MR. R. N. BATES	MR. L. W. PHAIR	8/3/77	J. C. Nelson
MR. D. B. CARMODY	MR. G. M. ROSENGARTEN, JR.	8/7/77	C. A. Keil
MR. G. H. DOW	MR. J. B. SAPP	8/22/77	R. W. Annonio
MR. G. E. LEWIS	MR. L. S. SLAUGHTER	8/24/77	A. Ricciardi
MR. H. L. WISE	MR. D. I. J. WANG	8/24/77	D. J. Wang
MR. G. F. HAYES	MR. R. N. WHEELER		
MR. C. E. FRY	MR. R. L. MORGAN		
MR. J. H. BARRETT	Mr. A. G. Ricciardi		
COST SUMMARY TO: MR. J. C. NELSON (2)		8/24/77	J. C. Nelson

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

CAPITAL ORDER 930-2589
ESTIMATE OF COST Job No. 38127

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TITLE: DISTRIBUTION FACILITIES VCM-EPA VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-0102				
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcheson				

2nd No. Breakdown		Description			Order No.	2nd No.	Date	Budget No.
	1	7-9	10-30	31	50-56	57-61	62-65	66-70
								71-73
								74-80
ACCOUNT	3	040	COMPRESSORS	1	9300000	02589	5130	
LAB. EST.		640					"	640 00
MAT. EST.		641					"	510 00
ACCOUNT	3	040	PIPING				5635	
LAB. EST.		640					"	190 00
MAT. EST.		641					"	270 00
ACCOUNT	3	040	INSTRUMENTATION				5730	
LAB. EST.		640					"	680 00
MAT. EST.		641					"	1260 00
ACCOUNT	3	040	PAINTING				6100	
LAB. EST.		640					"	80 00
MAT. EST.		641					"	70 00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00
ACCOUNT	3	040					"	
LAB. EST.		640					"	00
MAT. EST.		641					"	00

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only.	DATE	JOB NO. 38127	- Labor	-	1590
			Material	-	2110
			Overhead	-	--
			Engineering	-	--
			Contingency	-	--
			Total	-	3700

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

CAPITAL ORDER 930-2589
ESTIMATE OF COST Job. No. 24780

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TITLE: DISTRIBUTION FACILITIES VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-Q102				
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcheson				

2nd No. Breakdown		Description			Order No.	2nd No.	Date	Budget No.
	1	7-9	10-30	31	50-56	57-61	62-65	66-70
	71-73	74-80						
ACCOUNT	3	040	COMPRESSOR	1	930 0000	02589	5120	07297
LAB. EST.		640						330 00
MAT. EST.		641						2250 00
ACCOUNT	3	040	CAPACITY TANK				5121	
LAB. EST.		640						170 00
MAT. EST.		641						1310 00
ACCOUNT	3	040	FOUNDATIONS				5325	
LAB. EST.		640						740 00
MAT. EST.		641						880 00
ACCOUNT	3	040	CYLINDER RACK				5420	
LAB. EST.		640						140 00
MAT. EST.		641						120 00
ACCOUNT	3	040	PIPING				5620	
LAB. EST.		640						31070 00
MAT. EST.		641						17280 00
ACCOUNT	3	040	INSTRUMENTATION				5720	
LAB. EST.		640						2850 00
MAT. EST.		641						7970 00
ACCOUNT	3	040	ELECTRICAL				5825	
LAB. EST.		640						3120 00
MAT. EST.		641						2500 00
ACCOUNT	3	040	INSULATION				5920	
LAB. EST.		640						60 00
MAT. EST.		641						80 00
ACCOUNT	3	040	PAINTING				6120	
LAB. EST.		640						1500 00
MAT. EST.		641						1410 00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only.	DATE	JOB. NO. 24780	- Labor	-	39980
			Material	-	33800
			Overhead	-	--
			Engineering	-	--
			Contingency	-	--
			Total	-	73780

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

CAPITAL ORDER 930-2589
ESTIMATE OF COST Job No. 87066

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TITLE: DISTRIBUTION FACILITIES VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-0102				
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcheson				
2nd No. Breakdown			Description			Order No.	2nd No.	Date	Budget No.	
	1	7-9	10-30	31	50-56	57-61	62-65	66-70	71-73	74-80
ACCOUNT	3	040	CIRCULATING UNIT	1	930 0000	02589	5111			
LAB. EST.		640					"			330 00
MAT. EST.		641					"			3990 00
ACCOUNT	3	040	SUPPLY TANK				5112			
LAB. EST.		640					"			150 00
MAT. EST.		641					"			720 00
ACCOUNT	3	040	PUMPS				5113			
LAB. EST.		640					"			2620 00
MAT. EST.		641					"			3450 00
ACCOUNT	3	040	FOUNDATIONS				5315			
LAB. EST.		640					"			260 00
MAT. EST.		641					"			290 00
ACCOUNT	3	040	SUPPORT STEEL				5410			
LAB. EST.		640					"			210 00
MAT. EST.		641					"			190 00
ACCOUNT	3	040	PIPE FABRICATION				5610			
LAB. EST.		640					"			170 00
MAT. EST.		641					"			1030 00
ACCOUNT	3	040	PIPE INSTALLATION				5615			
LAB. EST.		640					"			1080 00
MAT. EST.		641					"			3050 00
ACCOUNT	3	040	INSTRUMENTATION				5710			
LAB. EST.		640					"			750 00
MAT. EST.		641					"			2000 00
ACCOUNT	3	040	ELECTRICAL				5815			
LAB. EST.		640					"			5110 00
MAT. EST.		641					"			6720 00
ACCOUNT	3	040	PAINTING				6110			
LAB. EST.		640					"			120 00
MAT. EST.		641					"			120 00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only.	DATE	JOB NO. 87066	- Labor	-	10800
			Material	-	21560
			Overhead	-	--
			Engineering	-	--
			Contingency	-	--
			Total	-	32360

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

CAPITAL ORDER 930-2589
ESTIMATE OF COST Job No. 87093

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TITLE: DISTRIBUTION FACILITIES VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-0102				
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcheson				

2nd No. Breakdown		Description			Order No.	2nd No.	Date	Budget No.
	1	7-9	10-30	31	50-56	57-61	62-65	66-70
	71-73	74-80						
ACCOUNT	3	040	SAFETY VALVES	1	930 0000	02589	5645	
LAB. EST.		640				"		700 00
MAT. EST.		641				"		2500 00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00
ACCOUNT	3	040						
LAB. EST.		640				"		00
MAT. EST.		641				"		00

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only.	DATE	JOB NO. 87093	- Labor	-	700
			Material	-	2500
			Overhead	-	--
			Engineering	-	--
			Contingency	-	--
			Total	-	3200

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

CAPITAL ORDER
ESTIMATE OF COST (Job No's. 24780, 38127
87066 & 87093)
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TITLE: DISTRIBUTION FACILITIES VCM-EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-0102			
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcherson			

2nd No. Breakdown		Description			Order No.	2nd No.	Date	Budget No.
	1	7-9	10-30	31	50-56	57-61	62-65	66-70
ACCOUNT	3	040	GEN ADM. OH	1	9300000	02589	9900	1
LAB. EST.		640						00
MAT. EST.		641						1260 00
ACCOUNT	3	040	POST CBP ENG.			8067		
LAB. EST.		640						00
MAT. EST.		641						13700 00
ACCOUNT	3	040	DOF ENG.			8066		
LAB. EST.		640						00
MAT. EST.		641						3600 00
ACCOUNT	3	040	CONTINGENCIES			9999		
LAB. EST.		640						00
MAT. EST.		641						14400 00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00
ACCOUNT	3	040						
LAB. EST.		640						00
MAT. EST.		641						00

UCC 105240

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only. <i>L. Lander 8/29/77</i>	DATE	TOTAL ESTIMATE - Labor	53070
		Material	59970
		Overhead	1260*
		Engineering	17300
		Contingency	14400
		Total	146000

UNION CARBIDE CORPORATION
CHEMICALS AND PLASTICS
ENGINEERING DEPARTMENT

EXPENSE ORDER 838- 02080
ESTIMATE OF COST

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TITLE: EXPENSE WORK ASSOCIATED WITH DISTRIBUTION FACILITIES VCM- EPA COMPLIANCE PROJECTS SOUTH CHARLESTON PLANT						REQUEST OR JOB NO.: 514-0102				
						ESTIMATED BY: T. R. Bailey, Jr./G. D. Hutcheson				
2nd No. Breakdown			Description			Order No.	2nd No.	Date	Budget No.	
	1	7-9	10-30	31	50-56	57-61	62-65	66-70	71-73	74-80
ACCOUNT	3	040	PIPING (24780)	1	8380000		5620			
LAB. EST.		640					"			1510 00
MAT. EST.		641					"			1950 00
ACCOUNT	3	040	COMPRESSORS (38127)				5130			
LAB. EST.		640					"			640 00
MAT. EST.		641					"			510 00
ACCOUNT	3	040	ENGINEERING				8066			
LAB. EST.		640					"			00
MAT. EST.		641					"			1200 00
ACCOUNT	3	040	CONTINGENCIES				9999			
LAB. EST.		640					"			00
MAT. EST.		641					"			600 00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00
ACCOUNT	3	040					"			00
LAB. EST.		640					"			00
MAT. EST.		641					"			00

The signature below certifies that funds are available under the budget indicated. To be signed by the office of Capital Planning Coordinator only.	DATE	TOTAL ESTIMATE - Labor	-	2150
		Material	-	2460
		Overhead	-	*
		Engineering	-	1200
		Contingency	-	590
		Total	-	6400