

Armco Steel Corporation

LOCATION Middletown, Md.
PROJECT Cyanide Line Entry Repair
CONTRACTOR West Processing

DATE June 20, 1968 - Revised
PROJECT NO. R.E.S. 600
ESTIMATE NO. M-600 (Net 2/21)

SHEET 1
BY M.S. P.H. S. KIRK
NOTED W.O.L.

COST ACCOUNT SECT.	COST DET.	DESCRIPTION	QUANTITY		UNIT PRICE					LABOR MAN- HOURS	LABOR HOURS	BURDEN 10	EQUIPT. USAGES 20	MATERIAL 30	SUB- CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL
			N	L	EU	M	SC										
A13		Acid and Neutralizing Spray															
025		Relocate & Repair Entry Sheet Conv. Motor Etc.	L.S.								3,350	470	650	700			5,170
022		Remove Existing Concrete and Brick		33	47	40	11				1,320	185	365				1,870
031		Hard Excavation		75	47	00	1				750	105	75				930
035		Backfill		33	47	3.50	1.70				115	15	55				185
127		Formwork		755	47	1.80	.45				1,360	190		340			1,890
137		Reinsteel		2400	lb.	.15	.10				360	50		240			650
147		Anchor Bolts		46	ea.	3	2				140	20		95			255
157		Concrete		40	cy	10	1	15			400	55	40	600			1,095
161		Stonehard Finish - Slab		400	sf			1.25							500		500
		Stonehard Finish - Walls		500	sf			2.25							1,125		1,125
611		Replace Pickle and Neutralizing Tank	L.S.													90,000	90,000
		Purchase Equipment															
661		Set and Grout Tanks	L.S.								980	140	250	100			1,470
146		Embedded Rail (15'-0")	L.S.								80	10	20	60			170
220		Floor Plate		2100	lb.	.25	.02	.25			525	75	45	525			1,170
501		Electrical	L.S.								3,200	450		3,000			6,650
413		Piping	L.S.								2,750	385		1,500			4,635
		Total Project Section A13									15,330	2,150	1,500	7,160	1,625	90,000	117,765
A14		Fume Control System															
612		Purchase Hood	L.S.													10,000	10,000
341		Fabricate Ductwork	L.S.								700	100		150			950
622		Install Hood and Ductwork	L.S.								1,300	185					1,485
		Total Project Section A14									2,000	285		150		10,000	12,435
		Total Direct Costs									17,330	2,435	1,500	7,310	1,625	100,000	130,200
901		Construction Overhead															
		Job Supervision 6% LHM (30,200)															1,815
		Small Tools & T.C. 5% LHM (30,200)															1,510
		Engineering and Scheduling															17,000
902		Fee and Contingency															
		Fee 4 1/2% (50,525)															2,275
		Contingencies 10% (150,525)															15,000
		TOTAL															167,900
																	McGCon 2799

McGCon 2799

Armco Steel Corporation

LOCATION Middletown Works

DATE July 12, 1968

SHEET SUMMARY

PROJECT Heavy Gauge Pickler

PROJECT NO. R.E.S. 6086-1

BY N.S. F.H. I.P.

CONTRACTOR

ESTIMATE NO. M-6086 (McG 2353)

NOTED

10.1.

COST ACCOUNT	DESCRIPTION	QUANTITY	UNIT PRICE			LABOR MAN- HOURS	LABOR 00	BURDEN 10	EQUIPT USAGE 20	MATERIAL 30	SUB- CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL	
			L	EU	M									
	SUMMARY													
201	Heavy Gauge Pickler Building						76,685	10,780	15,480	43,285	7,350	2,000	155,480	
301	15 Ton Crane						9,200	1,290	1,610	10,770		27,000	49,870	
401	Powered Conveyor						10,430	1,470	1,225	3,700		29,000	45,825	
402	Replace Batch Tanks						15,190	2,140	2,550	10,440		38,000	68,320	
403	Alkali Spray System						5,665	790	440	3,800		30,000	40,695	
701	Piping Relocation						8,500	1,190	1,315	7,000		1,000	19,005	
							125,670	17,660	22,620	78,955	7,350	127,000	379,295	
901	Construction Overhead													
	Supervision and Job O.H. 6% (252,295)												15,140	
	Small Tools & Temp. Const. 5% (252,295)												12,615	
	Engineering												20,000	
902	Fees and Contingencies													
	Fee 4 1/2% (300,050)												13,500	
	Contingencies 10% (427,050)												42,700	
													483,250	
	TOTAL													McGCon 2800

Armco Steel Corporation

LOCATION Middletown, Mo.
PROJECT Heavy Gauge Pickler

DATE June 20, 1948
PROJECT NO. R.E.S. 6086-1
ESTIMATE NO. M-6086 (McG 2353)

Job # 241
SHEET 1
BY N.S.P.H., L.P.
NOTED W.O.L.

CONTRACTOR

COST- ACCOUNT SECT. DET.	DESCRIPTION	QUANTITY				UNIT PRICE			LABOR MAN- HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB- CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL	
		U	N	I	T	L	E	M									
201	Heavy Gauge Pickler Building																
027	Remove Existing Building and Equipment																
	Remove Wood Walkway at Picklers	L.S.								400	55	80				535	
	Remove Structural Steel	75 Tons	85	20						6,375	895	1,500				8,770	
	Remove Blower Plate	5 Tons	65	20						325	45	100				470	
	Remove Cradle Rocker	L.S.								200	30	25				255	
	Remove Blower at Exhaust Stack	L.S.								200	30	25				255	
	Remove Fan at Column C-17	L.S.								200	30	25				255	
	Remove Hoist at Column C-14	L.S.								75	10	10				95	
	Remove Brick	450 cy	25	5						11,250	1,575	2,300				15,125	
	Remove Concrete	125 cy	35	10						4,375	615	1,250				6,240	
	Fill Picklers with Brick	600 cy	1	1						600	85	600				1,285	
	Remove Existing Roof	4310 sf	.75	.25						3,235	455	1,080				4,770	
	Remove Ductwork (155 l.f.)	L.S.								300	45	50				395	
	Remove Windows	16 ea.	5	.50						80	15	10				105	
	Remove Sheathing and Siding	180 sf	.50	.05						90	15	10				115	
	Remove Wooden Monitors on Roof	68 lf	5	.50						340	50	35				425	
	Remove Corr. Steel Ceiling	420 sf	.12	.10						50	10	45				105	
	Remove Wood Exhaust Stack	L.S.								200	30	50				280	
	Remove Manholes (2)	L.S.								200	25	40				265	
	Remove Gutter on Pickler Line	L.S.								100	15	10				125	
	Sub Account 027									28,595	4,030	7,245				39,870	
025	Relocate Equipment																
	Relocate Existing Tanks	35 Ton	70	20						2,450	345	700				3,495	
	Relocate Sheet Lifter Frames	5 Ton	60	20						300	45	100				445	
	Sand Fill-Pickler Tank and Depressed Track	170 cy	1.50	.50	2					255	35	85	340			715	
	Remove Pickler Tank Brick	60 cy	25	5						1,500	210	300				2,010	
	Relocate Misc. Cabinets (7)	L.S.								400	55	50				505	
	Relocate Meters and Lab Sink	L.S.								100	15	10				125	
	Repair Brickwork	L.S.								825	115	100				1,040	
	Relocate Cyanide Tank (8 ton)	L.S.								865	120	120				1,105	
	Brick up Windows (Col. Row M)	L.S.								315	45					360	
	Repair Existing Floor Slabs	L.S.								1,025	145		750			1,920	
	Relocate Misc. Items (Unit Heater, Etc.)	L.S.								300	45	25				370	
	Remove Crane from Building 63-H	L.S.								1,000	140	250				1,390	McGCon 2801
	TOTAL									9,535	1,315	1,740	1,090			13,680	
	Sub Total Account 025																

SHEET 2 Job #1241 OF

BY **H. S. F. H. L. P.**

NOTED W.O.I.

McGCon 2802

Armco Steel Corporation

LOCATION: Middletown Works
PROJECT: Heavy Gauge Pickler Relocation
CONTRACTOR:

DATE: June 26, 1968
PROJECT NO. R.E.S. #6086-1
ESTIMATE NO. M-6086 (McG 2353)

Job #124
SHEET 1
BY: N.S. P.H. U.L.
NOTED: M.O.L.

COST ACCOUNT	DESCRIPTION	QUANTITY				UNIT PRICE				LABOR MAN-HOURS	LABOR 00	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB-CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL		
		U	N	L		L	E	M	SC										
301	15-Ton Crane																		
601	Purchase and Install New Crane										2,000	280	500	250		27,000	30,030		
210	Runway Girders and Rails (Incl. Painting)										3,000	420	480	7,320			11,220		
641	Main Conductors										3,600	505	500	3,000			7,605		
642	Install A. C. Feeder										600	85	130	200			1,015		
	Total Project Section 301										9,200	1,290	1,610	10,770		27,000	49,870		
401	Powered Conveyor																		
022	Excavate Concrete Floor - Concrete Floor)										750	105	150				1,005		
	Excavation)										225	35	225				485		
	Backfill)										105	15	140				260		
140	Embedded Metals and Misc. Steel (Incl. Plates)										600	85		600			1,285		
610	Concrete in Place										3,000	420	100	2,000		27,000	31,520		
	Purchase Conveyor																27,000		
620	Install Conveyor										3,600	505	500	100			4,705		
630	Electrical Equipment - Purchase															1,800	1,800		
640	Install Electrical										2,100	295	100	1,000			3,495		
650	Purchase and Install Motor										50	10	10			200	270		
	Total Project Section										10,430	1,470	1,225	3,700		29,000	45,825		
402	Replace Batch Tanks																		
610	Purchase 4 Tanks - Shell															36,000	36,000		
	Rubber Lining)																		
	Brick Lining)																		
620	Install Tanks (4)										1,600	225	400				2,225		
401	Tank Spargers and Jets (4 Tanks)										385	55	50	50		2,000	2,540		
402	Drain Piping - 4" ø Rubber Lined (1)										75	10	15	100			200		
403	Drain Valves - 8" ø Rubber Lined (4)										300	45	60	1,680			2,085		
	Dump Valve Assembly)																		
201	Replace Spreader Beams (5)										3,300	465	600	2,000			6,365		
202	Relocate Cyanide Tank (1)										600	85	100	100			885		
177	Foundations										7,000	980	200	4,500			12,680		
	Piling (12" ø Butt)										1,260	180	1,125	1,125			3,690		
621	Exterior Painting										430	60		285			775		
622	Redwood Bumper (4 Tanks)										240	35		600			875		
	Total Project Section 402										15,190	2,110	2,550	10,440		38,000	68,320		McGCon 2803
	TOTAL																		

Armco Steel Corporation

LOCATION - Middletown Works

DATE - June 26, 1968

JOB # 1341

PROJECT - Heavy Gauge Pickler Relocation

PROJECT NO. E.E.S.#6086-1

BY RS.FH.LP

CONTRACTOR -

ESTIMATE NO. M-6086 (McG 2813)

NOTED MDL

COST ACCOUNT	DESCRIPTION	QUANTITY			UNIT PRICE			LABOR MAN-HOURS	LABOR	BURDEN	EQUIPT. USAGE	MATERIAL	SUB CONTRACT	ENGINEERED EQUIPMENT	TOTAL	
		N	L	T	L	E	M									
103	Alkali Spray System															
177	Foundations	1S							1,800	250		500			2,650	
611	Alkali System - Purchase													30,000	30,000	
620	Install Alkali System	1S							1,500	210	200				2,010	
501	Electrical	1S							1,225	170		3,000			4,395	
413	Piping	1S'							540	75		200			4,395	
024	Retire Exist Gravity Conveyor	1S							600	85	100				815	
	Total Project Section 403								5,665	790	440	3,800		30,000	40,595	
701	Piping Relocation															
027	Remove Existing Piping	1200 LF			.90	.16			1,080	150	190				1,420	
401	Relocate Supply (Temporary)															
	4" Steam Line w/Insulation	60 LF			4.20	.75	2.60		255	35	155				445	
	4" - 90° Elbow	4 ea			17.50	3.40			70	10	160				240	
	2" - Air Line	40 LF			1.20	.20	.60		50	10	25				85	
	2" - 90° Elbow	4 ea			11.70	2.1	1.75		45	10	10				65	
	Sub Total Account 401								1,500	215	540				2,255	
410	Air, Water and Gas Piping															
	6" S.O. - Coated and Wrapped	65 LF			2.85	.25	1.90		185	25	15	125			350	
	4" Galvanized Pipe	66 LF			2.10	.25	2.		140	20	15	135			310	
	2" Std. Steel Piping	250 LF			1.20	.30	.60		300	40	75	150			565	
	1" Std. Steel Pipe	120 LF			.86	.14	.40		100	15	15	50			180	
	6" Flanged Gate Valves	2 ea			36	3.30	101.30		75	10	10	205			300	
	4" Lubr. Four Way Plug Valve	1 ea			50	10	350		50	10	10	350			420	
	4" Flanged Gate Valves	1S							115	20	25	635			765	
	2" Flanged Gate Valves	1S							205	25	25	600			865	
	Misc. Fittings 6" and 4"	30 ea			28	3	14		850	110	90	450			1,500	
	Misc. Fittings 2" and Under	60 ea			11	2	3		660	85	120	180			1,045	
	Air Spargers	4 ea			50	10	500		240	35	40	2,000			2,315	
	Sub Total Account 410								2,920	395	440	4,860			8,515	
	TOTAL															McGCon 2804

Armco Steel Corporation

LOCATION Middlestown Works

DATE June 26, 1968

JOB #1241

SHEET 55

OF

PROJECT Heavy Gauge Pickler Relocation

PROJECT NO. E.S. 76086-1

BYS.F.H.P.

CONTRACTOR

ESTIMATE NO. E-6086 (McG 2353)

NOTED

COST ACCOUNT SEC. DET.	DESCRIPTION	QUANTITY			UNIT PRICE			LABOR MAN- HOURS	LABOR 50	BURDEN 10	EQUIPT. USAGE 20	MATERIAL 30	SUB- CONTRACT 50	ENGINEERED EQUIPMENT 60	TOTAL	
		U	L	M	L	EU	M									
420	Steam Piping															
	4" Steam Pipe w/Insulation	110	1		4.20	.75	2.50		460	65	85	290			900	
	Valves	4	ea	33	3	120		135	20	20	15	180			650	
	Misc. Fittings	15	ea	28	3	15		420	60	60	45	225			750	
	Steam Joints	3	ea	33	3	100		100	15	15	10	300			425	
	Sub Total Account 420							1,115	160	160	155	1,295			2,725	
450	Acid Piping															
	2" Acid Line	250	1		1.20	.20	.60		300	40	50	150			540	
	2" Flanged Gate Valves	4	ea	22	2	30		90	15	15	5	120			230	
	Misc. Fittings	25	ea	11	1	3		275	40	40	25	75			415	
	Flow Metering	1S						600	85	85	100	100		1,000	1,885	
	Sub Total Account 450							1,265	180	180	180	445		1,000	3,070	
480	Pipe Hangers and Supports	1S														
490	Color Code and Tagging	1S														
	Total Project Section 701							8,500	1,190	1,190	1,315	7,000		1,000	19,005	
	TOTAL															McGCon 2805