

FINAL REPORT .

PROJECT 7141

HOT ROLL PROCESSING

ARMCO STEEL CORPORATION

MIDDLETOWN WORKS

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1.0 INTRODUCTION

The completion of the Hot Roll Processing Facility marks the beginning of Armco's bid for a larger market share of Hot Roll and Hot Roll Pickle. The production of Hot Roll at Middletown Works is enhanced by the ability of the 86 inch Hot Strip Mill to roll a product that is wider, of both heavier and lighter gauges, better surface quality, with larger weld free coil, than is otherwise available within the company.

The project began on October 21, 1968, with the appointment of the Task Force and continued through February 10, 1969, when the Task Force Report was approved. By October 9, 1970, the Task Force had written and received approval for their Program Request. Engineering Report approval was granted on February 24, 1971, and detailed design of the facilities structure and processing lines were initiated.

Construction broke ground on April 19, 1971, and 19 months later the first prime coil was processed on No. 5 Slitter Line. The first prime coil was rolled on No. 7 Temper Mill, four short months later.

The No. 5 Slitter Line is designed to process temper rolled and/or pickled coils - oiled or dry. The unit will process coils with entry dimensions of: widths of 24 inches to 79 inches, thickness of .050 inches to .250 inches, inside diameters of 24 inches or 30 inches, outside diameters of 36 inches to 86 inches, weights to 88,000 pounds; and deliver coils with dimensions of widths of 4 inches to 78 inches, thickness of .050 inches to .250 inches, inside diameters of 24 inches or 30 inches, outside diameters of 24 inches to 86 inches with weights to 88,000 pounds. The unit can also be used to build-up or coil at an average production rate of 47 tons per hour or about 35,000 tons per month.

The No. 7 Temper Mill is designed to process hot roll or hot roll pickled coils - oiled or dry. This unit will process coils with entry dimensions of: widths of 24 inches to 79 inches, thickness of .050 inches to .375 inches, inside diameters of 24 inches or 30 inches, outside diameters of 36 inches to 86 inches and weights to 88,000 pounds; and deliver coils with dimensions of widths of 24 inches to 79 inches, thickness of .050 to .375 inches, inside diameters of 24 inches or 30 inches, outside diameters of 24 inches to 86 inches and weights to 88,000 pounds.

The structure which houses these two processing lines is approximately 1,040 feet long. A shipping area of 11,000 square feet is located in the east end of the building. Facilities are provided for shipment by truck or rail. An additional 56,000 square feet is available throughout the building for coil storage.

Project Section	Description	Total Recorded & Committed	Appropriated Budget	(Over) Under Appropriated Budget
440	Major Mech. Slitter Equip.	1,211,229	1,220,500	9,271
441	Power & Control Equip. Slitter	270,667	296,800	26,133
442	Communication Sys. - Slitter	2,468	3,800	1,332
443	Equip. Lighting - Slitter	6,537	5,300	(1,237)
446	Slitter Grease System	31,348	21,700	(9,648)
447	Circ. Oil System - Slitter	63	6,500	6,437
448	Hydraulic Sys.	94,562	201,700	107,138
449	Strip Oil System - Slitter	227	22,000	21,773
450	Pickle & Clean - Slitter	37,834	67,000	29,166
455	Equip. Foundations - Slitter	365,045	192,200	(172,845)
456	Misc. Steel - Slitter	85,942	135,600	49,658
457	Paint, Grout Steel - Slitter	10,638	22,300	11,662
501	Handling Equipment	39,513	51,500	11,987
502	Fire Protection	21,000	51,900	30,900
503	Sump Pumps	8,582	19,200	10,618
504	Miscellaneous Equip.	16,191	30,700	14,509
505	Purchase & Install Upender	15,000	-	(15,000)
624	Vendors Assistance - Mech.	36,000	36,000	-
625	Contractors Start Up Mech.	120,000	222,000	102,000
629	Start Up	46,582	20,000	(26,582)
644	Vendors Assistance - Elect.	71,000	55,000	(16,000)
645	Contractors Start Up - Elect.	132,019	135,000	2,981
670	Misc. Equipment	40,925	31,000	(9,925)
671	Purch. & Install Equip.	571,494	350,000	(221,494)
691	Mechanical Spares	150,000	350,000	200,000
692	Electrical Spares	38,073	54,100	16,027
701	Compressed Air Piping	36,859	77,600	40,741
702	Natural Gas Piping	14,009	29,500	15,491
703	Oxygen Piping	30,639	56,400	25,761
704	Well Water Piping	34,184	83,600	49,416
705	Softened Water	44,580	91,100	46,520
706	Steam Piping	4,768	20,000	15,232
711	Storm Sewer	49,393	46,300	(3,093)
712	Sanitary Sewer	13,017	37,000	23,983
715	Paint, Color Code, Tag	7,686	16,600	8,914
720	Instrumentation	213,085	100,200	(112,885)
801	Raceways - Temper Mill			