PLAINTIFF'S EXHIBIT
ARO-179

STANDARD DRAWINGS

7100

BLOCK OF NUMBERS AVAILABLE - 678925 THROUGH 679021

Dwg. No.	Rev.	Title	Approved
678925P		Piping Legend	
678926P	0	Valve Code	X
678927P	0	Steam - 165 P.S.I.G. at 500°F	X
678928P	0	Steam Superheated - 425 P.S.I.G. at 750°F	X
678929P	0	Well Water - Drinking Water - 150 P.S.I.G.	X
678930P	0	Contaminated Water - 150 P.S.I.G.	X
678931P	0	Contaminated Water - 300 P.S.I.G.	X
678932P		Contaminated Water - 2000 P.S.I.G.	
678933P	0	Compressed - 150 P.S.I.G.	X
678934P	0	Oxygen - 300 P.S.I.G.	X
678935P	0	Coke Oven Gas (at 200°F) and Natural Gas - 150 P.S.I.G.	X
678936P		Natural Gas - 300 P.S.I.G.	
678937P	0	Hydrogen - 150 P.S.I.G.	X
678938P	0	Nitrogen - 150 P.S.I.G.	X
678939P	0	Lube Oil - 100 P.S.I.G. at 200°F	X
678940P	0	Hydraulic Oil - 975 P.S.I.G.	X
678941P	0	Hydraulic Oil - 1500 P.S.I.G.	X
678942P	0	Hydraulic Oil - 3000 P.S.I.G.	X
678943P		Fuel Oil - 240 P.S.I.G. at 200°F	
678944P		Hydrochloric Acid - 100 P.S.I.G. at Ambient	
678945P		Hydrochloric Acid - Diluted	
678946			
678947			
678948			

BRIGHT PINK

AKE-005318

Standard Drawings (Continued)

Dwg. No.	Rev.	Title	Approved
678949			
678950	0	Standard Service Stations - Sheet No. 1	X
678951	0	Standard Service Stations - Sheet No. 2	X
678952			
678953			
678954			
678955			
678956			
678957			
678958			
678959			
678960			
678961			
678962			
678963			
678964			
678965			
678966			
678967			
678968			
678969			
678970			
678971			
678972			
678973 I	Ø⚠	Works General Instr. Installation Detail Sheet No. 1	X
678974 I	Ø⚠	Works General Instr. Installation Detail Sheet No. 2	X

BRIGHT PINK

AKE-005319

Standard Drawings (Continued)

Dwg. No.	Rev.	Title	Approved
678975I	Ø⚠	Works General Instr. Installation Detail Sh. No. 3	X
678976I	Ø⚠	Works General Instr. Installation Detail Sh. No. 4	X
678977I	0	Instrument Legend - Symbol, and Letter and Number Designations (For 7186 Only)	X
678978I	Ø⚠	Works General Instr. Installation Detail Sh. No. 5	X
678979I	Ø⚠	Works General Instr. Installation Detail Sh. No. 6	X
678980I	Ø⚠	Works General Instr. Installation Detail Sh. No. 7	X
678981SS	0	Design Std. - Anchor Bolts	X
678982SC	0	Design Stds. Curb Angles, Handrails & Heavy Railing	X
678983SS	0	Design Stds. Handrail Details	X
678984SS	0	Design Stds. Stair Details	X
678985SS	0	Design Stds. Crane Runways	X
678986SS	0	Design Stds. Safety Cable At Crane Walkway	X
678987			
678988			
678989			
678990			
678991			
678992			
678993			
678994			
678995			
678996			
678997			
678998			
678999			
679000			
679001			

BRIGHT PINK

AKE-005320

Standard Drawings (Continued)

Dwg. No.	Rev.	Title	Approved
679002			
679003			
679004			
679005			
679006			
679007			
679008			
679009			
679010			
679011			
679012			
679013			
679014			
679015			
679016			
679017			
679018			
679019			
679020			
679021			
679022			
679023			
679024			

BRIGHT PINK

AKE-005321

Standard Drawings (Continued)

Dwg. No.	Rev.	Title	Approved
574545	C	Std. Ladder & Safety Basket	- X

BRIGHT PINK

AKE-005322

DRAWING INDEX
FOR
"ACS-500 SERIES" ELECTRICAL INSTALLATION SPECIFICATIONS

Number	Title	Where Used
50001	Typical Construction of Field Fabricated Boxes	ACS-500-02
50002	Typical Solenoid Valve and Relay Panel Basic Scheme	ACS-500-13
50003	Typical Relay Cabinet Wiring Diagram	ACS-500-13
50006	Reinforcement of Nonmetallic Conduit Banks	ACS-500-04
50008	Manhole for Embedded Conduit	ACS-500-08
50009	Handhole for Embedded Conduit	ACS-500-08
50011	Typical Ground Well	ACS-500-03
50012	Typical Building Ground	ACS-500-03
50013	Typical Ground Wire Sizes	ACS-500-03 & ACS-500-08
50014	Notes Applicable to Grounding	ACS-500-03 & ACS-500-08
50015	Insulated Bushings and Ground Clamps	ACS-500-03 & ACS-500-04 & ACS-500-08
50016	Spacing Between Conduits and Dimensions of Conduit and Fittings	ACS-500-04
50017	Totally Enclosed, AISE 600 and 800 Series Standard DC Mill Motors	ACS-500-06
50018	Size Of: Feeder Cable, Conduit, & Armor Cable	ACS-500-06
50019	Derating Factors & Current Capacity of 600V Cables	ACS-500-06
50020	Quantity of Single Conductor Cables In One Conduit	ACS-500-06
50021	Quantity of 12 AWG Multiconductors Per Conduit Size	ACS-500-06
50022	Quantity of 14 AWG Multiconductors Per Conduit Size	ACS-500-06
50023	Mounting Detail for High-Bay Mercury Vapor Fixture	ACS-500-10
50024	Typical Grounding Layout	ACS-500-03 & ACS-500-08

BRIGHT PINK
AKE-005323

Number	Title	Where Used
50025	Sample Calculations for Pulling Tension	ACS-500-04 & ACS-500-06 & ACS-500-08
50026	Pulling Tension Formulae	ACS-500-04 & ACS-500-06 & ACS-500-08
50027	Sidewall Pressure Formulae	ACS-500-04 & ACS-500-06 & ACS-500-08
50028	Insulated Grounding Bushings	ACS-500-03 & ACS-500-08
50029	Manhole Shapes for Cables with Large Bending Radius	ACS-500-08
50031	Typical Ground Well (For Houston Works)	ACS-500-03
50032	Railroad Signal Lights for Building Entrance (Houston Works)	ACS-500-10
57007	460 Volt AC Motor Data - Continuous Duty	ACS-500-06
57011	400 Volt DC Motor Data - Continuous Duty	ACS-500-06
57012	250 Volt DC Motor Data - Continuous Duty	ACS-500-06
57013	Notes Applicable to Motor Drawings	ACS-500-06
57024	Electrical Equipment Abbreviations, Letters A to F	ACS-500-20
57025	Electrical Equipment Abbreviations, Letters G to N	ACS-500-20
57026	Electrical Equipment Abbreviations, Letters O to S	ACS-500-20
57027	Electrical Equipment Abbreviations, Letters T to Z	ACS-500-20

AKE-005324

BRIGHT PINK

WORKS DRAWINGS INCLUDED IN
"ACS-500 SERIES" ELECTRICAL INSTALLATION SPECIFICATIONS

Number		Where Used
	ASHLAND WORKS	
G05-0-39	Railroad Signal Lights for Building Entrances	ACS-500-10.
	BUTLER WORKS	
SK-7168	Railroad Signal Lights for Building Entrance	ACS-500-10.
	KANSAS CITY WORKS	
SK-7168	Track Signal System	ACS-500-10.
	MIDDLETOWN WORKS	
A-18522-33	Railroad Signal Lights for Building Entrances	ACS-500-10.

BRIGHT PINK AKE-005325

BRIGHT PINK

COST C. _____ DEPARTMENT 6000 BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

C25119
C25128

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	PSR Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6000		0000	006000	7148-201		SLAB YARD #1	
6001		0000	006001	7148-201		SLAB YARD #2	
6002		0000	006002	7148-201		HOT STRIP MILL MOTOR ROOM	
6003		0000	006003	7148-201		HOT STRIP MILL BLDG.	
6004		0000	006004	7148-201		HOT STRIP MILL FURNACE AISLE	
6005		0000	006005	7148-206		ROLL AND MAINTENANCE SHOP	
6006		0000	006006	7148-211		MAINTENANCE, SMALL TOOLS & SMALL SPARES	
6007		0000	006007	7148-208		SWITCH GEAR HOUSE-CLARIFIED WATER SYSTEM	
6008		0000	006008			LOCKER & SHOWER ROOM - SOUTH AREA (NORTH OF 6010)	
6009		0000	006009	7148-202		SLUDGE HANDLING & CHEMICAL FEED	
6010		0000	006010	7148-203		PUMP HOUSE	
6011		0000	006011			PEDESTRIAN TUNNEL	
6012		0000	006012	7148-211		OIL & GREASE HOUSE	
6013			006013				
6014			006014				
6015		0000	006015			PUMP CONTROL HOUSE AT #3 SCALE PIT	
6016		0000	006016	7148-201001		FUEL OIL PUMP HOUSE	
6017		0000	006017			GAS METERING HOUSE (NATURAL GAS)	
6018		0000	006018			GREEN COIL STORAGE - NORTH	
6019		0000	006019			GREEN COIL STORAGE - SOUTH	
6020		0000	006020			CONVEYOR BUILDING	
6021		0000	006021			PICKLER BLDG.	
6022		0000	006022			PICKLED COIL STORAGE	
6023		0000	006023			ROLL SHOP & COLD MILL BLDG.	
6024		0000	006024			COLD ROLLED STORAGE	
6025		0000	006025			HIGH BAY - COATING LINE BLDG.	
6026		0000	006026			ANNEALING BLDG.	
6027		0000	006027			ANNEALING "	
6028		0000	006028			ANNEALING "	
6029		0000	006029			CLEAN & RECOIL	
6030		0000	006030			COIL STORAGE FOR TEMPER MILLS	
6031		0000	006031			TEMPER MILLS BLDG.	
6032		0000	006032			SLIT & SHEAR ETC.	

AKE-005326

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6033		0000	006033			SHIPPING PREPARATION	
6034		0000	006034			SHIPPING	
6035		0000	006035			MAINTENANCE & STORES FOR COATING LINE	
6036		0000	006036			WASTE PICKLE LIQUOR TREATMENT PUMPHOUSE	
6037		0000	006037			SWITCH STATION METER HOUSE	
6038		0000	006038			CONVEYOR BELOW GRADE (SOUTH CONV.)	
6039		0000	006039			SLAB MILL BLDG.	
6040		0000	006040			SLAB MILL MOTOR ROOM	
6041		0000	006041			SOAKING PITS BLD'G.	
6042		0000	006042			STRIPPER BUILDING	
6043		0000	006043			RECTIFIER BUILDING AT STRIPPER BLD'G.	
6044		0000	006044			PUMP CONTROL HOUSE AT #4 SCALE PIT	
6045		0000	006045			CONVEYOR CONTROL ENCLOSURE (24X40X10) INSIDE 601A	
6046		0000	006046			WAREHOUSE BLD'G.	
6047		0000	006047			CENTRAL FIELD OFFICE	
6048		0000	006048			FIRST AID BLD'G.	
6049		0000	006049			SWITCH HOUSE FOR #36 WELL	
6050		0000	006050			CHLORINATOR HOUSE FOR #37 WELL	
6051		0000	006051			SWITCH HOUSE FOR #37 WELL	
6052		0000	006052			SLAG COOLING WATER PUMP STATION	
6053		0000	006053			SLAG PROCESSING BLDG. (AT SLAG DUMP)	
6054		0000	006054			GUARD HOUSE AT OXFORD STATE ROAD	
6055		0000	006055			CHLORINATOR HOUSE FOR #36 WELL	
6056		0000	006056			GUARD HOUSE AT LEFFERSON ROAD	
6057		0000	006057			(RAIL ROAD) TRACK SCALE HOUSE 20'X16'	
6058		0000	006058			CONTROL HOUSE FOR COLD MILL COOLING TOWERS	
6059		0000	006059			SCRAP LOAD BASIC OX. SHOP (94 X 230' L. X 32' HIGH)	
6060		0000	006060			CHARGING AISLE ~ BASIC OX. SHOP	
6061		0000	006061			FURNACE AISLE B.O.S.	
6062		0000	006062			SERVICE AISLE B.O.S.	
6063		0000	006063			TEEMING AISLE B.O.S.	
6064		0000	006064			MOLD YARD	
6065		0000	006065			OFFICE & LABORATORY & COVERED WALKWAY	

BRIGHT PINK

AKE-005327

BRIGHT PINK

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6066		6000	006066			PUMP ROOM - BASIC OX. SHOP 40' X 180' LG. -	
6067		0000	006067			MASONRY OFFICE BLDG - B.O.S. - STEELOX (32X85')	
6068		0000	006068			TRANSPORTATION OFFICE - STEELOX - (20'X 60')	
6069		0000	006069			LOCKER ROOM - STEELMAKING AREA (SOUTH OF BASIC	OXYGEN)
6070		0000	006070			? GAS DISPATCHER STATION (STEELOX) WEST OF	B.O. SHOP
			6071			NOT USED	
6072		0000	006072		637019	THAW PIT VALVE CONTROL ENCLOSURE 6'X6'Y 10' Hi	
6073		0000	00 6073			WEST INGOT BUGGY DRIVE ENCLOSURE 32'X24'X10' Hi	
6074		0000	00 6074			EAST INGOT BUGGY DRIVE ENCLOSURE 32 X 24 X 10' Hi	
6075		0000	00 6075			PERSONEL OFFICE DWG 625119	
6076		0000	00 6076			CONVEYOR BELOW GRADE (NORTH CONV.)	
6077		0000	00 6077			FUME ELIMINATOR BLDG. 20 X 60	
6078		0000	00 6078			FLUX TRACK HOPPER & CONVEYOR ENCLOSURE	
6079		0000	00 6079			MOLD YARD ELECTRICAL EQUIPMENT ENCLOSURE	20'X 60'
6080		0000	00 6080			DISPOSAL WELL HOUSE #1	
6081		0000	00 6081			DISPOSAL WELL HOUSE #2	
6082		0000	006082			CONTROL HOUSE - STEELOX 6'X8' - EMERG. CAR DUMP	HT SLAG DUMP
			006083			NOT USED	
6084		0000	006084			SLURRY AREA ELECT. CONTROL ROOM B.O.P.	
6085		0000	006085			FILTER BLDG. B.O.P.	
6086		0000	006086			LUNCHROOM B.O.P.	
6087		0000	006087			LUBE OIL STORAGE BLDG. B.O.P.	
6088		0000	006088			COKE BREEZE HOPPER BLDG.	
6089		0000	006089			SLAB MILL MAINT. SHOP & OFFICES	
6090		0000	006090			SLAB TRANSFER AISLE	
6091		0000	006091			SLAB MILL SKIP HOIST BLDG.	
6092		0000	006092			HOT STRIP DRY SCALE SKIP HOIST BLDG.	
6093		0000	00 6093			INSTRUMENT REPAIR BLDG.	
6094		0000	00 6094			COMPUTER ROOM - OFFICE COMPLEX	
6095		0000	00 6095			SLAB YARD OFFICE COMPLEX	
6096		0000	00 6096			FIN. MILL THYRISTOR BLDG.	
6097		0000	00 6097			HOT STRIP MILL OFFICE COMPLEX.	
6098		0000	00 6098			DOWNCOILER MOTOR ROOM	

AKE-005328

BRIGHT PINK

COST C. _____ DEPARTMENT Buildings

EQUIPMENT IDENTIFICATION NUMBERS

FROM E.C. F/ONARD

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6099		0000	006099			DOWNCOILER MAINT. BLDG.	
6100		0000	006100			FURNACE PUSHER DIRECTOR HOUSE	
6101		0000	006101	(inside 6002)		TECHNICAL REPAIR DEPT. MAINT. SHOP	
6102		0000	006102			DISPATCHERS OFFICE BLDG.	
6103		0000	006103			CONVEYOR DIRECTOR HOUSE	
6104		0000	006104	(inside 6002)		SPARES BLDG. 20X32X10 (POWER DEPT.)	
6105		0000	006105	(INSIDE 6003)		SERVOMATION BLDG. 32'X12'X9' HIGH	
6106		0000	006106	(INSIDE 6039)		SERVOMATION BLDG. 20'X12'X8' "	
6107		0000	006107			OIL STORAGE AND LABOR BLDG. 32X24X10' HIGH	
6108		0000	006108			PUMP HOUSE - PICKLER-STRIP OIL STORAGE	
6109		0000	006109			COLD STRIP - OFFICE COMPLEX	
6110		0000	006110			ENTRY MOTOR ROOM LEANTO - #4 PICKLER	
6111		0000	006111			FUME SCRUBBER LEANTO - #4 PICKLER	
6112		0000	006112			DELIVERY MOTOR ROOM LEANTO - #4 PICKLER	
6113		0000	006113			ENTRY MOTOR ROOM LEANTO - #5 PICKLER	
6114		0000	006114			ENTRY TRANSFORMER ROOM LEANTO - #5 PICKLER	
6115		0000	006115			FUME SCRUBBER LEANTO - #5 PICKLER	
6116		0000	006116			DELIVERY MOTOR ROOM LEANTO - #5 PICKLER	
6117	—	0000	006117		7136	CASTING AISLE - CONTINUOUS CASTING	
6118	—	0000	006118		7136	SERVICE AISLE - CONTINUOUS CASTING	
6119	—	0000	006119		7136	SLAB YARD - CONTINUOUS CASTING	
6120	B.O.	0000	006120	(INSIDE 6060		HOT METAL SCALE HOUSE	
6121	B.O.	0000	006121			FILTER BLDG. - CONTINUOUS CASTING	
6122	C.S.	0000	006122			PICKLE COIL STOR. CONVEYOR LEANTO BLDG.	
6123	C.S.	0000	006123			OIL STORAGE LEANTO (N. SIDE OF 6023)	
6124	Rolls	0000	006124			ROLL BLAST LEANTO (N. SIDE OF 6023)	
6125		0000	006125			GUARD HOUSE - OXFORD STATE RD. (TO SLAG DUMP)	
6126		0000	006126			SERVICE LEANTO (WEST SIDE - HIGH BAY COAT. BLDG.)	
6127		0000	006127			LOW BAY - COATING LINE BLDG.	
6128		0000	006128			#1 MOTOR ROOM LEANTO (COATING LINE #4)	
6129		0000	006129			#2 MOTOR ROOM LEANTO (COATING " #4)	
6130		0000	006130			#3 MOTOR ROOM LEANTO (" " #4)	
6131		0000	006131			#4 MOTOR ROOM LEANTO WITH OFFICE COMPLEX (COAT. LINE #4)	

AKE-005329

BRIGHT PINK

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6132		0000	006132			#5 MOTOR ROOM LEANTO-LAB & OIL STOR. (CONTING LINE #4)	
6133		0000	006133			PYROMETER LEANTO (EAST SIDE ANNEAL. BLDG. 6026)	
6134		0000	006134			GAS MIXING LEANTO (" " " " 6026)	
6135		0000	006135		7132	VACUM DEGASSING BLDG	

AKE-005330

TO: E. O. JOHNSON

INLAND-RYERSON CONSTRUCTION PRODUCTS COMPANY
1600 NORTH 25TH AVENUE, MELROSE PARK, ILLINOIS 60160 312-921-7311

January 28, 1970

Mr. John O'Leary
Kaiser Engineers
35 East Wacker Drive
Chicago, Illinois 60601

Subject: Armco Steel Corporation
Your P.O. #7136
Our SW 528531

Dear Mr. O'Leary:

In reference to our shop details, you have assigned to us a block of Armco drawing numbers 682500 through 682799. To date we have detailed approximately 564 shop details excluding erection diagrams. We estimate an additional 140 or more numbers will be used for the details on additional design releases, fieldwork drawings, and erection diagrams.

Therefore in view of the above facts, would you release to us additional Armco numbers to be applied to the remaining numbers above 682799.

If possible we would like to block out additional numbers as far as 683299.

Please advise.

Very truly yours,

Paul C. Blouin

Paul Blouin
Project Engineer

PB:jl

BRIGHT PINK

TRANSMITTAL SLIP

TO: M. T. Zennie

FROM: T. R. Foley

DATE: 7-24-69

		Pass Successively to:
For Your Signature		
Please Handle		
Information	✓	
Approval		
Comment		Remarks
Draft Reply		
See Me		
Return to Me		
File		
Mail		

S-12299

BRIGHT PINK

AKE-005332

Armco Steel Corporation

July 23, 1969

To: See Distribution

From: T. R. Foley

Subject: Drawings and Central File Transmittal

The following will be the standard operating procedures for transmitting Drawings, Bills of Materials, and Vendor Information to Middletown Works:

1. Approved for Construction drawings to be transmitted only after Final Inspection is made and approved, for each project and section.

2. Approved for Construction drawings to be forwarded only after certified as "as-built".

3. Drawings are not to be held until all are complete as final "as-builts", but will be forwarded in numerical groups as soon as possible.

4. Drawings are to be forwarded by letter of transmittal with appropriate Project and Armco Engineer on distribution of transmittal letter.

5. General Arrangements and Sketches are not be to forwarded until all Approved for Construction drawings, Bills of Material, and Vendor Information are forwarded.

Tracings

Tracings to be forwarded along with shipping document and letter of transmittal, showing drawing number, job number and drawing title. At the same time, the Armco Form M-3595-S should be completed with same information as above, and forwarded to Armco Data Processing for complete run and key punched card.

Vendor Information

The same procedure should apply as for tracings, except vendor prints and reproducibles will be marked by Armco drawing number (excluding manuals) and letter of transmittal to include vendor name, vendor drawing number, purchase order number, inquiry number, job number and cost code. In addition to appropriate engineers receiving copy of transmittal, one copy to Central File.

Bills of Material

Transmittal of Bills of Material to follow same procedure as that for Vendor Information.

OUR GOAL IS TOTAL CUSTOMER SERVICE

BRIGHT PINK

AKE-005333

The following will be the standard operating procedure for transmitting Central Files:

1. Central Files to be transmitted to James T. Gillespie.

2. Responsible project engineer and/or his representative along with assigned Armco engineer will screen the Central File pertaining to their job, and discard any information not pertinent.

3. Files to be forwarded by letter of transmittal with copy to appropriate project engineer.

4. Files to be forwarded in groups with each folder containing information by cost code number.

5. After microfilming, James T. Gillespie will transmit drawings to Middletown Works Engineering.

T. R. Foley
Chief Engineer - Projects

TRF:ldl

Distribution:

Armco	Kaiser
J. E. Anderson	J. B. Cochran
J. T. Gillespie	D. A. Daly
C. G. Kramer	S. G. Imherr
J. M. Thomas	H. J. Johnson
	M. T. Zennie

INTER-OFFICE MEMORANDUM

TO File
AT

DATE July 24, 1969

FROM H. C. Boucher

COPIES TO

AT Middletown

JOB NO. 6471

SUBJECT TIME CARD CODING
EXEMPT AND NON EXEMPT EMPLOYEES.

Employees are submitting time cards that are erroneously coded. These coding errors are causing added work that is unnecessary. Most coding errors are in reporting vacation, sick leave, excused absence, and holiday time.

There should not be a 7100 prefix number used in reporting the above mentioned hours. Coding applicable to hours subject to wages other than hours worked should be coded as follows:

VACATION HOURS	227-002
SICK LEAVE HOURS	227-003
HOLIDAY HOURS	227-004
APPROVED LEAVE	227-009

Please note, do not prefix a project number or any other number to these accounts.

/rr

cc: D. A. Daly
V. L. Frankson
R. C. Hulseman
S. G. Imherr
H. J. Johnson
C. M. Mandell
D. R. McSparrin
Fred Norton
C. H. Swain
E. Ward

J. R. Farra - Foothill

BRIGHT PINK

AKE-005335

ARMCO PROJECT "600"
KAISER ENGINEERS, INC.
MIDDLETOWN, OHIO

APPROVED FOR CONSTRUCTION DWGS.
CERTIFIED VENDOR DRAWINGS
DATE: May 20, 1969

PROJECT	APP/CONST.	S.C.	S.S.	ARCH	MECH	CIVIL	PIPG	INSTR	ELEC.	TOTAL A/C	VENDOR	TOTAL VEN.
7100		1	5	14		5	20	8	14	67	ALL DISCPL.	30
7104		30	2			38	10		8	88		7
7105		25	21	3	1	71	36	1	63	221		250
7105	DRAVO	23	29	4	97	19	0	10	71	253		
7106						8	10	1	2	21		30
7108		3		1		18	1		6	29		16
7109		3		2		44	9	3	9	70		16
7110		14	1	3		2			133	153		100
7111						26			1	27		
7112				4		134			5	143		25
7113		2	3	4		109			13	131		75
7114		2	2	8		2	9		4	27		
7115												
7116		4	1	2		42	4		19	72		11
7121			2		ALLIS - CHALMERS				27	29		
7128		71	83	61	57	14	122	11	301	730		6970
7128	CHEMICAL	27	6		72		382	32	48	567		
7132												
7136			3							3		4
7143		58	63	28	38	8	40		67	302		1412
7143	LOFTUS	10	106		49	0	19	12	160	356		
7144												
7145		3	17	9	3		3		11	46		559
7146		21	56	37	35	9	35	2	79	274		4357
7146	MESTA	168	115	0	21	5	150	0	442	901		
7148		654	184	109	194	5	568	41	1021	2776		14199
7148	DRAVO	0	20	0	74	86	0	9	62	251		
7150		13	33	8	10		7		23	94		740
7156		86	45	19	25	2	126	26	253	582		
7159		59	27	9	3		55		216	369		6379
7160		123	71	26	59		187		179	645		5332
7164		13	25	6	3		30		29	106		150
7176			38	11						49		
7182		5	4	1		3	15	4	35	67		150
7185		3	2	4					18	27		50
7186		17	16	5		5	53	22	67	185		280

BRIGHT PINK

AKE-005336

KAISER ENGINEERS

PROJECT "600"

June 5, 1969

SCOPE DRAWINGS

PROJECT	STRUCT.	ARCH.	MECH.	CIVIL	PIPING	INSTR.	ELEC.	TOTAL
CHARGE NO. 7128	13	9	18		3	2	11	56
7136	6	2	7	1	6		11	33
7143	4	2	8		1		3	18
7146	9		28	2	4		27	70
7148	8		15		14		27	64
7156	2		14		1		13	30
7159	2		17		2		8	29
7156-7159								
7160	3		7	1	6		12	29
7164	2		2	1	5	1	4	15
7176	4		14	1	6		23	48
7186				1	2		1	4

BRIGHT PINK

AKE-005337

KAISER ENGINEERS

PROJECT "600"

June 5, 1969

9 x 12 SKETCHES

8 to 1 Ratio

PROJECT	STRUCT.	ARCH.	MECH.	CIVIL	PIPING	INSTR.	ELEC.	TOTAL
CHARGE NO. 7128	4		78		1		4	87
7136								
7143	2		4		2		8	16
7146	2	1	15		9		23	52
7148	13	10	54	2	63		39	181
7156	7	1	6		1			15
7159	4							4
7156-7159	1		1		3			5
7160	1				1			2
7164	1		2		1		3	7
7176			2				3	5
7186	6						3	9

BRIGHT PINK

AKE-005338

KAISER ENGINEERS

PROJECT "600"

June 5, 1969

12 x 18 SKETCHES

6-1 Rate

PROJECT	STRUCT.	ARCH.	MECH.	CIVIL	PIPING	INSTR.	ELEC.	TOTAL
CHARGE NO. 7128	20	12	34	3	1		3	73
7136								4
7143	13	2	21		22		6	64
7146	30	13	41	1	6		8	99
7148	36	55	109	7	39		50	296
7156	9	17	1		2		2	31
7159	2	2	1					5
7156-7159		3	1		6			10
7160	1	3	1		2			7
7164		14					1	15
7176	1		11				3	15
7186					1		1	2

BRIGHT PINK

AKE-005339

KAISER ENGINEERS

PROJECT "600"

June 5, 1969

24 x 36 SKETCHES

2-1 Ratio

PROJECT	STRUCT.	ARCH.	MECH.	CIVIL	PIPING	INSTR.	ELEC.	TOTAL
CHARGE NO. 7128	16	55	162	2	9	8	1	253
7136			1		1		1	3
7143	12	8	123	1	1			145
7146	12	20	119	2	4		5	162
7148	70	112	215	4	29	9	84	523
7156	2	11	35		3		13	64
7159			3		4		5	12
7156-7159	1	1	7		20		4	33
7160	6	3	34	4	12		1	60
7164	3	11	7	6	4		3	34
7176		2	22				1	25
7186		1	1		4	1	3	10

BRIGHT PINK

AKE-005340

Distribution:
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T. H. Campbell
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M. D. Wilson
H. T. Zennie
Kaiser Reading File
Armco Reading File
Central File

KAISER ENGINEERS, INC.

P. O. BOX F

MIDDLETOWN, OHIO 45042

December 2, 1968

Salem-Brosius, Inc.
P. O. Box 2222
Pittsburgh, Pennsylvania (15230)

Attention: Mr. N. Gidwani, Product Manager

Subject: Armco Steel Corporation, Project "600"
94 Annealing
Annealing Equipment
Project No. 7164.401
Our Subcontract No. 7164-2047
Your Job No. 3647

7164
7164

Gentlemen:

(676701 THRU 676775)

Confirming our telephone conversation of December 2, 1968, we are assigning twenty-five (25) additional Armco drawing numbers for your use on this job. These numbers are 676751 through 676775.

In regard to our reminder concerning the dividing line between the numerator and denominator in common fractions, please refer to Armco's Schedule I defining the Minimum Drafting Standards for microfilm practice. Item 7, under "A-Lettering", states the following, "The dividing line between the numerator and denominator, in common fractions, shall be horizontal if hand lettered". A copy of Schedule I was sent to you with our Inquiry No. 7164-1067A, dated November 29, 1967, and referred to in Sub-Contract No. 7164-2047, dated August 6, 1968, under Exhibit "D", Special Provisions, paragraph No. 8.

The purpose of establishing drafting standards is for microfilming purposes. In photographic reduction, details not clearly defined tend to lose their identity in reproduction.

Very truly yours,

KAISER ENGINEERS, INC.

M. J. Plesa

M. J. Plesa,
Project Engineer

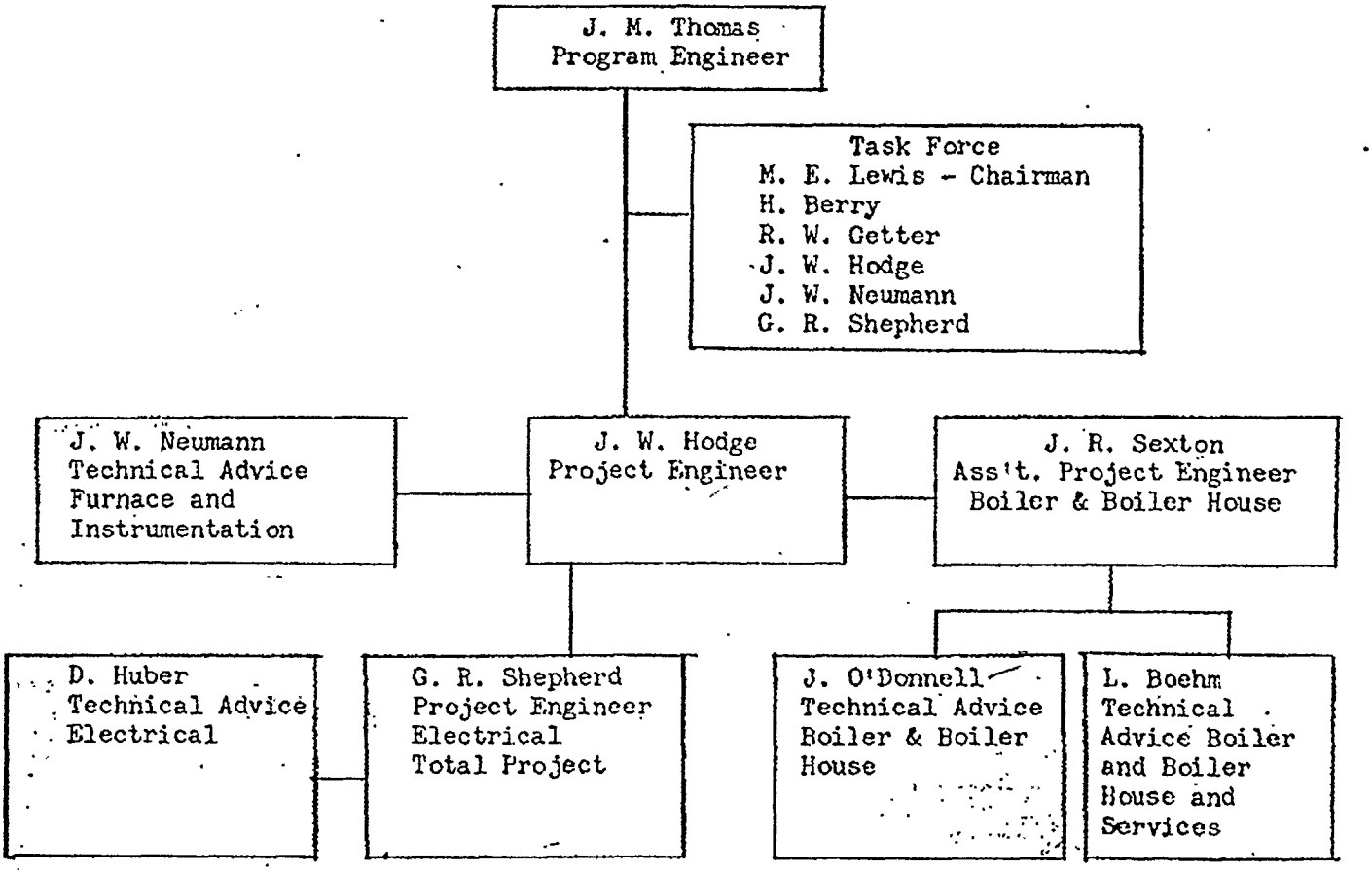
MJP:ma

BRIGHT PINK

AKE-005341

#4 Slab Furnace and Boiler

Project Organization
Project # 7147



J. M. Thomas
10-14-69

AKE-005342

BRIGHT PINK

COST C. _____ DEPARTMENT 600 BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	P3E Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6000		0000	006000	7148-201		SLAB YARD #1	
6001		0000	006001	7148-201		SLAB YARD #2	
6002		0000	006002	7148-201		HOT STRIP MILL MOTOR ROOM	
6003		0000	006003	7148-201		HOT STRIP MILL BLDG.	
6004		0000	006004	7148-201		HOT STRIP MILL FURNACE AISLE	
6005		0000	006005	7148-206		ROLL AND MAINTENANCE SHOP	
6006		0000	006006	7148-211		MAINTENANCE, SMALL TOOLS & SMALL SPARES	
6007		0000	006007	7148-208		SWITCH GEAR HOUSE - CLARIFIED WATER SYSTEM	
6008		0000	006008			LOCKER & SHOWER ROOM - SOUTH AREA (NORTH OF 6010)	
6009		0000	006009	7148-202		SLUDGE HANDLING & CHEMICAL FEED	
6010		0000	006010	7148-203		PUMP HOUSE	
6011		0000	006011			PEDESTRIAN TUNNEL	
6012		0000	006012	7148-211		OIL & GREASE HOUSE	
6013			006013				
6014			006014				
6015		0000	006015			PUMP CONTROL HOUSE AT #3 SCALE PIT	
6016		0000	006016	7148-201001		FUEL OIL PUMP HOUSE	
6017		0000	006017			GAS METERING HOUSE (NATURAL GAS)	
6018		0000	006018			GREEN COIL STORAGE - NORTH	
6019		0000	006019			GREEN COIL STORAGE - SOUTH	
6020		0000	006020			CONVEYOR BUILDING	
6021		0000	006021			PICKLER BLDG.	
6022		0000	006022			PICKLED COIL STORAGE	
6023		0000	006023			ROLL SHOP & COLD MILL BLDG.	
6024		0000	006024			COLD ROLLED STORAGE	
6025		0000	006025			HIGH BAY - COATING LINE BLDG.	
6026		0000	006026			ANNEALING BLDG.	
6027		0000	006027			ANNEALING "	
6028		0000	006028			ANNEALING "	
6029		0000	006029			CLEAN & RECOIL	
6030		0000	006030			COIL STORAGE FOR TEMPER MILLS	
6031		0000	006031			TEMPER MILLS BLDG.	
6032		0000	006032			SLIT & SHEAR ETC.	

AKE-005343

BRIGHT PINK

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6033		0000	006033			SHIPPING PREPARATION	
6034		0000	006034			SHIPPING	
6035		0000	006035			MAINTENANCE & STORES FOR COATING LINE	
6036		0000	006036			WASTE PICKLE LIQUOR TREATMENT PUMPHOUSE	
6037		0000	006037			SWITCH STATION METER HOUSE	
6038		0000	006038			CONVEYOR BELOW GRADE (SOUTH CONV.)	
6039		0000	006039			SLAB MILL BLDG.	
6040		0000	006040			SLAB MILL MOTOR ROOM	
6041		0000	006041			SOAKING PITS BLDG.	
6042		0000	006042			STRIPPER BUILDING	
6043		0000	006043			RECTIFIER BUILDING AT STRIPPER BLDG.	
6044		0000	006044			PUMP CONTROL HOUSE AT #4- SCALE PIT	
6045		0000	006045			CONVEYOR CONTROL ENCLOSURE (24X60X10) INSIDE 6018	
6046		0000	006046			WAREHOUSE BLDG.	
6047		0000	006047			CENTRAL FIELD OFFICE	
6048		0000	006048			FIRST AID BLDG.	
6049		0000	006049			SWITCH HOUSE FOR #36 WELL	
6050		0000	006050			CHLORINATOR HOUSE FOR #37 WELL	
6051		0000	006051			SWITCH HOUSE FOR #37 WELL	
6052		0000	006052			SLAG COOLING WATER PUMP STATION	
6053		0000	006053			SLAG PROCESSING BLDG. (AT SLAG DUMP)	
6054		0000	006054			GUARD HOUSE AT OXFORD STATE ROAD	
6055		0000	006055			CHLORINATOR HOUSE FOR #36 WELL	
6056		0000	006056			GUARD HOUSE AT LEFFERSON ROAD	
6057		0000	006057			(RAIL ROAD) TRACK SCALE HOUSE 20'X16'	
6058		0000	006058			CONTROL HOUSE FOR COLD MILL COOLING TOWER	
6059		0000	006059			SCRAP LOAD BASIC OX. SHOP (94'X230' L. X 32' HIGH)	
6060		0000	006060			CHARGING AISLE "BASIC OX. SHOP	
6061		0000	006061			FURNACE AISLE B.O.S.	
6062		0000	006062			SERVICE AISLE B.O.S.	
6063		0000	006063			TEEMING AISLE B.O.S.	
6064		0000	006064			MOLD YARD	
6065		0000	006065			OFFICE & LABORATORY & COVERED WALKWAY	

AKE-005344

BRIGHT PINK

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
2066		0000	006066			PUMP ROOM ~ BASIC OX. SHOP 40' X 180' LG.	
2067		0000	006067			MASONRY OFFICE BLDG ~ B.O.S. ~ STEELOX (32X35')	
2068		0000	006068			TRANSPORTATION OFFICE ~ STEELOX ~ (20'X60')	
2069		0000	006069			LOCKER ROOM ~ STEELMAKING AREA (SOUTH OF BASIC OXYGEN)	
2070		0000	006070			? GAS DISPATCHER STATION (STEELOX) WEST OF B.O. SHOP	
			6071			NOT USED	
2072		0000	006072		637019	THAWI PIT VALVE CONTROL ENCLOSURE 6'X6'X10' HI	
2073		0000	00 6073			WEST INGOT BUGGY DRIVE ENCLOSURE 32'X24'X10' HI	
2074		0000	00 6074			EAST INGOT BUGGY DRIVE ENCLOSURE 32 X 24 X 10' HI	
2075		0000	00 6075			PERSONEL OFFICE DWG 625119	
2076		0000	00 6076			CONVEYOR BELOW GRADE (NORTH CONV.)	
2077		0000	00 6077			FUME ELIMINATOR BLDG. 20 X 60	
2078		0000	00 6078			FLUX TRACK HOPPER & CONVEYOR ENCLOSURE	
2079		0000	00 6079			MOLD YARD ELECTRICAL EQUIPMENT ENCLOSURE	20'X60
2080		0000	00 6080			DISPOSAL WELL HOUSE #1	
2081		0000	00 6081			DISPOSAL WELL HOUSE #2	
2082		0000	006082			CONTROL HOUSE - STEELOX 6'X8' - EMERG. CAR DUMP	RT SLAG DUMP
			006083			NOT USED	
2084		0000	006084			SLURRY AREA ELECT. CONTROL ROOM B.O.P.	
2085		0000	006085			FILTER BLDG. B.O.P.	
2086		0000	006086			LUNCHROOM B.O.P.	
2087		0000	006087			LUBE OIL STORAGE BLDG. B.O.P.	
2088		0000	006088			COKE BREEZE HOPPER BLDG.	
2089		0000	006089			SLAB MILL MAINT. SHOP & OFFICES	
2090		0000	006090			SLAB TRANSFER AISLE	
2091		0000	006091			SLAB MILL SKIP HOIST BLDG.	
2092		0000	006092			HOT STRIP DRY SCALE SKIP HOIST BLDG.	
2093		0000	00 6093			INSTRUMENT REPAIR BLDG.	
2094		0000	00 6094			COMPUTER ROOM - OFFICE COMPLEX	
2095		0000	00 6095			SLAB YARD OFFICE COMPLEX	
2096		0000	00 6096			FIN. MILL THYRISTOR BLDG.	
2097		0000	00 6097			HOT STRIP MILL OFFICE COMPLEX	
2098		0000	00 6098			DOWNCOILER MOTOR ROOM	

AKE-005345

BRIGHT PINK

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
099		0000	006099			DOWNCOILER MAINT. BLDG.	
100		0000	006100			FURNACE PUSHER DIRECTOR HOUSE	
101		0000	006101	(inside 6002)		TECHNICAL REPAIR DEPT. MAINT. SHOP	
102		0000	006102			DISPATCHERS OFFICE BLDG.	
103		0000	006103			CONVEYOR DIRECTOR HOUSE	
104		0000	006104	(inside 6002)		SPARES BLDG. 20X32X10 (POWER DEPT.)	
105		0000	006105	(INSIDE 6003)		SERVOMATION BLDG. 32'X12'X8' HIGH	
106		0000	006106	(INSIDE 6039)		SERVOMATION BLDG. 20'X12'X8' "	
107		0000	006107			OIL STORAGE AND LABOR BLDG. 32X24X10' HIGH	
108		0000	006108			PUMP HOUSE - PICKLER-STRIP OIL STORAGE	
109		0000	006109			COLD STRIP - OFFICE COMPLEX	
110		0000	006110			ENTRY MOTOR ROOM LEANTO - #4 PICKLER	
111		0000	006111			FUME SCRUBBER LEANTO - #4 PICKLER	
112		0000	006112			DELIVERY MOTOR ROOM LEANTO - #4 PICKLER	
113		0000	006113			ENTRY MOTOR ROOM LEANTO - #5 PICKLER	
114		0000	006114			ENTRY TRANSFORMER ROOM LEANTO - #5 PICKLER	
115		0000	006115			FUME SCRUBBER LEANTO - #5 PICKLER	
116		0000	006116			DELIVERY MOTOR ROOM LEANTO - #5 PICKLER	
117		0000	006117			CASTING AISLE - CONTINUOUS CASTING	
118		0000	006118			SERVICE AISLE - CONTINUOUS CASTING	
119		0000	006119			SLAB YARD - - - CONTINUOUS CASTING	
120	B.O.	0000	006120	(INSIDE 6040)		HOT METAL SCALE HOUSE	
121	B.O.	0000	006121			FILTER BLDG. - CONTINUOUS CASTING	
122	C.S.	0000	006122			PICKLE COIL STOR. CONVEYOR LEANTO BLDG.	
123	C.S.	0000	006123			OIL STORAGE LEANTO (N. SIDE OF 6023)	
124	Rolls	0000	006124			ROLL BLAST LEANTO (N-SIDE OF 6023)	
125		0000	006125			GUARD HOUSE - OXFORD STATE RD. (TO SLAG DUMP)	
126		0000	006126			SERVICE LEANTO (WEST SIDE - HIGH BAY COAT. BLDG.)	
127		0000	006127			LOW BAY - COATING LINE BLDG.	
128		0000	006128			#1 MOTOR ROOM LEANTO (COATING LINE #4)	
129		0000	006129			#2 MOTOR ROOM LEANTO (COATING " #4)	
130		0000	006130			#3 MOTOR ROOM LEANTO (" " #4)	
131		0000	006131			#4 MOTOR ROOM LEANTO WITH OFFICE COMPLEX (COAT. LINE #4)	

AKE-005346

COST C. _____ DEPARTMENT BUILDINGS

EQUIPMENT IDENTIFICATION NUMBERS

Bldg. No.	Dept.	Equip. Ident. Cost C	Equip. Ident. No.	Reference No.	Arrg't. Dwg. No.	EQUIPMENT DESCRIPTION	B. M. No.
6132		0000	006132			#5 MOTOR ROOM LEANTO-LAB & OIL STOR. (CONTING LINE #4)	
6133		0000	006133			PYROMETER LEANTO (EAST SIDE ANNEAL. BLDG. 6026)	
6134		0000	006134			GAS MIXING LEANTO (" " " " 6026)	
6135		0000	006135			VACUM DEGASSING BLDG	

BRIGHT PINK

AKE-005347

TOTAL NUMBER APPROVED FOR CONSTRUCTION DRAWINGS
ISSUED AS OF APRIL 8, 1970
7136 - ~~BASIC OXYGEN PLANT~~ CONTINUING

	Total	SS	SC	ARCH	MECH	CIVIL	PIPING	HV & AC	ELECT	INSTR.
Multiple	9					6			3	
Middletown	3									3
Pittsburgh	111	4	36	4	6		27		34	
Chicago	105	86		16			3			
Sub-Total	228	90	36	20	6	6	30		37	3
DEMAG	451									
TOTAL	679									
PSR List INSTR. Shts.	62									62