

SPECIFICATION FOR EXTERIOR COATINGS

EL PASO PLANT - ASARCO, INC.

1. Scope and Intent

This specification provides requirements for the application of protective coatings on all types of exterior surfaces throughout the El Paso Plant of ASARCO, Inc.

It is intended that all work shall be done in a workmanlike manner with no disruption or hindrance of plant operations unless arrangements have been previously made.

2. Selection of Coating Systems

Coatings used for various types of surfaces shall be selected from the following table. Coatings listed are primarily DuPont products. No substitutions shall be made unless such substitutions are previously approved by owner. The systems shown in the table are not intended as complete instructions for required work especially in the case of surface preparation. For example, if it is obvious that solvent cleaning is desirable to eliminate the possibility of a greasy or oily film on the surface to be painted, such cleaning will precede other methods in accordance with specification SSPC-SP1-63. In all cases the work shall be done in a manner which will meet the requirements of the applicable specifications of Steel Structures Painting Council.

May 1, 1977

PLAINTIFF'S EXHIBIT

ASA-1207

<u>Type of Surface</u>	<u>Recoat</u>	<u>New Construction</u>
Structural steel, piping, tanks, and black iron siding		
Non-chemical environment to 150°F	3	4
High color retention, chemical environment	5	6
Steel with 150°F to 800°F surface temperature	7	7
Galvanized steel siding	8	8
Transite siding	9	9
Masonry surfaces and wood trim	10	10
Steel columns where attacked by corrosive deposits (bottom 6 feet)	11	11
Sulfuric Acid Plant, steel	12	12

3. Color Guidelines (DuPont Standard Colors)

Masonry and wood buildings including trim to be painted Canyon Sand.

Metal and transite siding on buildings to be Loan Brown in ore handling and other locations subject to heavy accumulations of dust from plant operations. Siding in other areas to be Desert Beige.

Structural steel to be Loan Brown in dust accumulation areas and Shale Gray in other areas. Note that a special specification is used for bottom six feet of columns in corrosive dust environments. Hot metal surfaces to be high temperature aluminum as noted in specifications.

PAINING SYSTEM FOR EXTERIOR HAND CLEANED STEEL SURFACES
(AMBIENT TO 150°F SURFACE TEMPERATURE)

Surface Preparation

Hand or power tool clean to a degree of cleanliness specified by the Steel Structures Painting Council SSPC-SP2-63 or SSPC-SP3-63. Requires removal of all loose rust, loose mill scale, dirt, grease, loose paint and other contamination.

Spot Prime

DuPont 373-851 Red Lead Primer at 1.5 to 2.0 mils dry film thickness. Allow to overnight dry.

Prime

DuPont 373-851 Red Lead Primer at 1.5 to 2.0 mils dry film thickness. Overnight dry.

Finish

2 coats 81-Line DuPont DuLux Enamel at 1.5 mils, dry film thickness.

PAINTING SYSTEM FOR EXTERIOR SANDBLASTED STEEL SURFACES
(AMBIENT TO 150°F SURFACE TEMPERATURE)
NON-CHEMICAL ENVIRONMENT

Surface Preparation

Sandblast to "Commercial Blast" as defined by Steel Structures Painting Council, SSPC-SP6-63. Requires removal of all mill scale, rust, surface contamination and old finish. Prime immediately to prevent degradation of the blasted surface.

Prime

DuPont #373-851 Red Lead Primer at 1.5 to 2.0 mils dry film thickness. Allow overnight dry to top coat.

Intermediate

DuPont #67-813 Buff Intermediate Primer at 1.5 to 2.0 mils dry film thickness. Allow overnight dry to top coat.

Finish

81-Line DuPont Dulux Enamel at 1.5 to 2.0 mils, dry film thickness.

POLYURETHANE PAINTING SYSTEM FOR HAND-CLEANED SURFACES
IN CHEMICAL ENVIRONMENTS

Due to sacrifice in surface preparation this system should only be used when it has been determined sand-blasting is impractical.

Surface Preparation

Hand clean or power-tool clean to Steel Structures Painting Council Specification SSPC-SP3-63 or SSPC-SP2-63. Remove all dirt, grease, oil, rust, loose mill scale and other surface contamination. Previously painted surfaces in good condition should be thoroughly cleaned of all contamination and dried prior to refinishing. Sand to smooth surface and to remove gloss of the old finish.

Primer Coat

BASE STEEL - DuPont 373-851 Rust Resistant Metal Primer at a dry film thickness of 1.5 to 2.0 mils. Allow overnight dry to top coat. PREVIOUSLY PAINTED SURFACES - No primer required.

FINISH COAT(S)

Two coats IRON Polyurethane Enamel (326-Line) at a minimum dry film thickness of 1.5 mils per coat.

EPOXY/POLYURETHANE PAINTING SYSTEM FOR EXTERIOR SANDBLASTED
STEEL SURFACES
(AMBIENT TO 200°F SURFACE TEMPERATURE)
CHEMICAL ENVIRONMENT

Surface Preparation

Sandblast to "Commercial Blast" as defined by Steel Structures Painting Council SSPC-SP6-G3. Requires removal of all mill scale, rust, surface contamination, and old finish. Prime immediately to prevent degradation of the blasted surface.

Prime

DuPont #825-8031/VG-8339 Corlar Epoxy Primer at 1.5 to 2.0 mils dry film thickness. Allow 4 hours dry to top coat by spray - 10 hours to top coat by brush or roll.

Finish

Apply one coat of DuPont #369 Line Iron Rich Build Enamel of the color desired to obtain a dry film thickness of 5.0 to 6.0 mils D.F.T.

PAINTING SYSTEM FOR HIGH TEMPERATURE SERVICE
150°F-800°F SURFACE TEMPERATURE

Surface Preparation

Sandblast to "White Metal" as described by Steel Structures Painting Council SSPC-SP5-67. Requires removal of all mill scale, rust, dirt, grease, old paint, rust stains, gray oxide and other contamination. Prime immediately to prevent degradation of the blasted surface.

Prime

DuPont 347-931 "Ganicin" Self-Cure Inorganic Zinc at 2.5 to 3.0 mils dry film thickness. Allow overnight cure.

Finish

DuPont 612-706 Silicone High Temperature Aluminum at a dry film thickness of 0.6 to 0.8 mils.

PAINTING SYSTEM FOR GALVANIZED STEEL SIDING

Surface Preparation

GALVANIZED METAL - Surface must be clean and dry. Wipe surface clean with a suitable solvent to remove oil, grease and other contamination. Remove white deposit on weathered galvanized metal with soap and water then thoroughly rinse with clear water. New galvanized sheets are frequently coated at the mill to prevent "white rust." Consult the supplier regarding necessity for removal prior to painting.

Prime

DuPont 823-Line/VG-8339 Corlar Epoxy Enamel at 1.5 to 2.0 mils dry film thickness. Top coat within 72 hours using 81 line or 310 line.

Finish

Gloss - Apply two coats of DuPont 81 line Dulux Gloss Enamel of the color indicated in the color scheme to obtain 2.5 to 3.0 mils dry film thickness.

Flat - Apply two coats of DuPont 310 line Lucite Acrylic Latex Flat of the color indicated in the color scheme to obtain a dry film thickness of 2.5 to 3.0 mils.

PAINTING SYSTEM FOR TRANSITE SIDING

Surface Preparation

Water wash and hand clean to remove all dirt, grease, ore deposits, chalk or other contamination.

Finish

Apply two coats of DuPont 310 line Lucite Acrylic Finish Flat of the color indicated in the color scheme.

PAINING SYSTEM FOR EXTERIOR WOOD AND MASONRY SURFACES

Surface Preparation

Clean thoroughly to remove all grease, dirt, loose paint, chalk, mildew and other contamination. New masonry should be allowed to completely cure and dry before painting.

Prime

NEW WOOD

Apply one coat of DuPont #51 Acrylic Latex Wood Primer. Allow 1 hour dry to recoat.

NEW BLOCK

Apply one coat of DuPont 389-263 Acrylic Block Filler at a spreading rate to obtain the degree of filling desired.

OTHER SURFACES

No primer.

Finish

Apply one or more coats of DuPont "Lucite" 310 Line Acrylic Flat or "Lucite" 315 Line Acrylic Enamel of the color desired. Allow 2 hours dry between coats.

ZINC EPOXY PAINTING SYSTEM FOR CHEMICAL ENVIRONMENTS
(EXCEPT STRONG ACID)
(AMBIENT TO 200°F SURFACE TEMPERATURE)

Surface Preparation

Sandblast to "Near White Metal" as designated by Steel Structures Painting Council SSPC-SP10-63T. Requires the removal of all rust, mill scale, paint, oil, grease and other contaminants to the gray oxide binder. Prime immediately to prevent degradation of the blasted surface.

Prime

DuPont #347-931 "Ganicin" Self-Cure Inorganic Zinc at a dry film thickness of 2.5 to 3.0 mils. Allow overnight cure.

Finish

DuPont 823 Line/VF 519 "Corlar" Catalyzed Epoxy, Color selected to obtain a dry film thickness 5.0 mils.

ZINC/VINYL PAINTING SYSTEM FOR ACETIC CHEMICAL ENVIRONMENT
(AMBIENT TO 150°F SURFACE TEMPERATURE)

Surface Preparation

Sandblast to "Near White Metal" as designated by Steel Structures Painting Council SSPC-SP10-63T. Requires the removal of all rust, mill scale, paint, oil, grease, and other contaminants to the gray oxide binder. Prime immediately to prevent degradation of the blasted surface.

Prime

DuPont #347-931 "Ganicin" Self-Cure Inorganic Zinc at a dry film thickness of 2.5 to 3.5 mils. Allow overnight cure.

Finish

Two coats DuPont 802-Line "Imlar" High Build Vinyl white, black, or gray to obtain a dry film thickness 6.0 mils minimum.

Raybestos Manhattan Industrial Products Company

Raybestos Manhattan Industrial Products Company, Inc.

North Carolina Division, P.O. Box 744-323

PBI Composites Group

July 18, 1977

ASARCO, Inc.
500 Crandall Bldg.
Salt Lake City, Utah 84101

Attn: Mr. A. O. Marsh

Ref: P.O. 37H-0698
Req. CE-77-EP-2 (M)

Dear Mr. Marsh:

Attached are 1 set of final transparencies for our SUPERSPAN Expansion Joints we are furnishing on your above referenced Purchase Order.

Drawings are as follows:
RL-5117-848
RL-5117-848-EJD
RL-5117-848-BU

Please return one set of drawings signed with your approval.

Sincerely,

Richard R. Cunliffe
Sales Correspondent

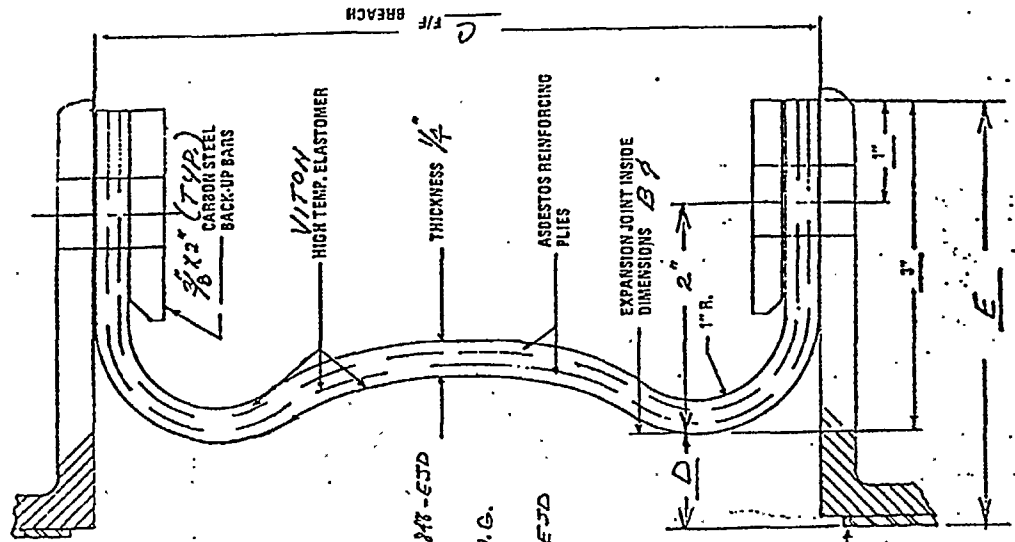
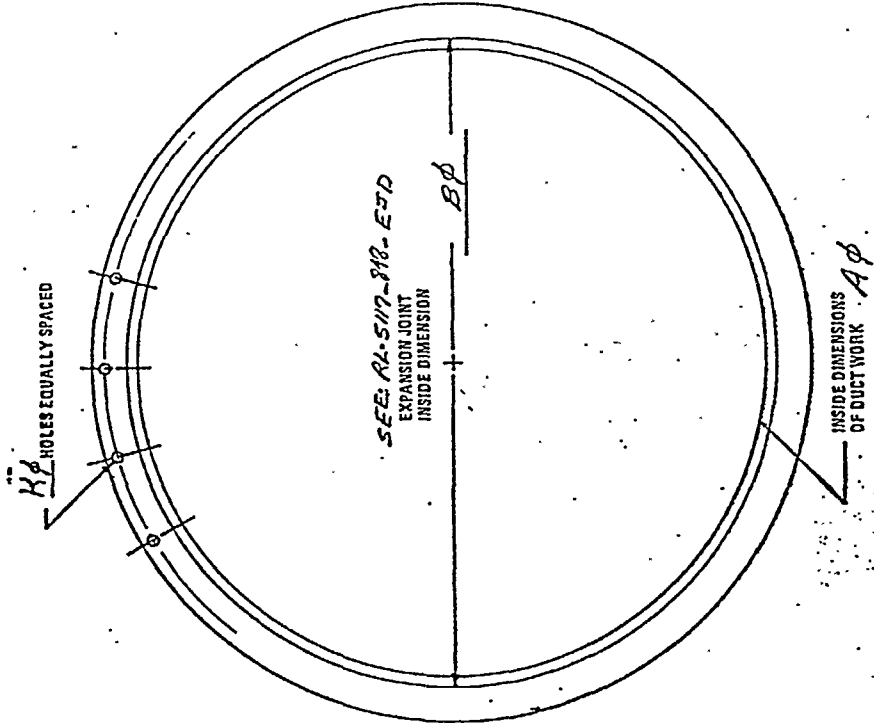
mm
cc:
ASARCO, Inc.
P. O. Box 1111, El Paso, Texas
Attn: Mr. W. R. Kelly, Manager

ASARCO, Inc.
P. O. Box 1111
Purchasing Dept.
120 Broadway
New York, N. Y. 10005

RECEIVED
JUL 21 1977
W. R. KELLY
P.A. DeSANTIS

Packings - Seals - Insulation materials - High temperature/stress composites

ASARCO ELP 0002165



MANUFACTURED: F/F
 SERVICE CONDITIONS: SEE: RL-5117-818-E3D
 Temperature Operating _____
 Design _____
 Pressure Operating _____
 Design _____
 MOVEMENT SEE: RL-5117-818-E3D
 Axial Compression _____
 Extension _____
 Lateral - Shortside Offset _____
 Longside Offset _____

BASE BID EX-7

NO. REQ'D - SEE: RL-5117-818-E3D
 Raybestos Manhattan Industrial Products Company
 A Division of Raybestos Corporation, Inc. North Canton, O.C. 23405 CDD 744-1225

EXPANSION JOINT MARK		ASARCO INC. - E.L. 8050	SCALE	DATE
DRAWN		R.H.	11/01	2-16-77
CHECKED		T.J.	11/01	2-16-77
SIGNATURE				
DATE				
DESCRIPTION				

FOR APPROVAL: 5-26-77
 FINAL DWGS. 7/6/77
 CERTIFIED FOR CONSTRUCTION
 11.1.1 10.1.1 11.1.1

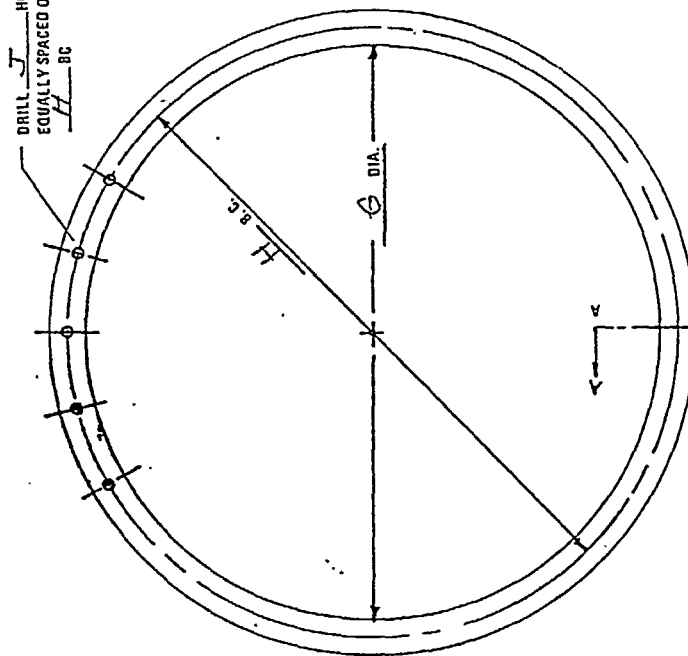
EXPANSION JOINT DIMENSIONS

RAYBESTOS MANHATTAN JOINT NO.	CUSTOMER PIECE MARK-- EJ-NO.	DUCT INSIDE DIMENSIONS X x Y or A x B	JOINT INSIDE DIMENSIONS L ₁ x L ₂ or B x D	C	D	E	F	MOVEMENTS		K	TEMP °F	QUANTITY REQUIRED
								AXIAL	LATERAL			
								COMP.	EXT.			
RL-5117-848	2-04-7	6'-4"	6'-6"	15"	1"	4"		1 1/8"	3/16"	13/16"	142°	2.
	2-04-8							2 1/8"	0			2.
	2-04-9							2 3/16"	0			2.
	2-04-10							2 3/16"	0			2.
	2-04-11							2 3/16"	0			2.
	2-04-12							2 3/16"	0			2.
	2-04-13							2 3/16"	0			2.
	2-04-14							2 3/16"	0			2.
	2-04-15							2 3/16"	0			2.
	2-04-16							2 3/16"	0			2.
	2-04-17							2 3/16"	0			2.
RL-5117-849	2-04-18							2 3/16"	0			2.
RL-5117-850	2-04-19							2 3/16"	0			2.
RL-5117-851	2-04-20							2 3/16"	0			2.
RL-5117-852	2-04-21							2 3/16"	0			2.
RL-5117-853	2-04-22							2 3/16"	0			2.
RL-5117-854	2-04-23							2 3/16"	0			2.
RL-5117-855	2-04-24							2 3/16"	0			2.
RL-5117-856	2-04-25							2 3/16"	0			2.
RL-5117-857	2-04-26							2 3/16"	0			2.
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RL-5117-859	2-04-28							2 3/16"	0			2.
RL-5117-860	2-04-29							2 3/16"	0			2.
RL-5117-861	2-04-30							2 3/16"	0			2.
RL-5117-862	2-04-31							2 3/16"	0			2.
RL-5117-863	2-04-32							2 3/16"	0			2.
RL-5117-864	2-04-33							2 3/16"	0			2.
RL-5117-865	2-04-34							2 3/16"	0			2.
RL-5117-866	2-04-35							2 3/16"	0			2.
RL-5117-867	2-04-36							2 3/16"	0			2.
RL-5117-868	2-04-37							2 3/16"	0			2.
RL-5117-869	2-04-38							2 3/16"	0			2.
RL-5117-870	2-04-39							2 3/16"	0			2.
RL-5117-871	2-04-40							2 3/16"	0			2.
RL-5117-872	2-04-41							2 3/16"	0			2.
RL-5117-873	2-04-42							2 3/16"	0			2.
RL-5117-874	2-04-43							2 3/16"	0			2.
RL-5117-875	2-04-44							2 3/16"	0			2.
RL-5117-876	2-04-45							2 3/16"	0			2.
RL-5117-877	2-04-46							2 3/16"	0			2.
RL-5117-878	2-04-47							2 3/16"	0			2.
RL-5117-879	2-04-48							2 3/16"	0			2.
RL-5117-880	2-04-49							2 3/16"	0			2.
RL-5117-881	2-04-50							2 3/16"	0			2.
RL-5117-882	2-04-51							2 3/16"	0			2.
RL-5117-883	2-04-52							2 3/16"	0			2.
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RL-5117-897	2-04-66							2 3/16"	0			2.
RL-5117-898	2-04-67							2 3/16"	0			2.
RL-5117-899	2-04-68							2 3/16"	0			2.
RL-5117-900	2-04-69							2 3/16"	0			2.
RL-5117-901	2-04-70							2 3/16"	0			2.
RL-5117-902	2-04-71							2 3/16"	0			2.
RL-5117-903	2-04-72							2 3/16"	0			2.
RL-5117-904	2-04-73							2 3/16"	0			2.
RL-5117-905	2-04-74							2 3/16"	0			2.
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RL-5117-915	2-04-84							2 3/16"	0			2.
RL-5117-916	2-04-85							2 3/16"	0			2.
RL-5117-917	2-04-86							2 3/16"	0			2.
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RL-5117-925	2-04-94							2 3/16"	0			2.
RL-5117-926	2-04-95							2 3/16"	0			2.
RL-5117-927	2-04-96							2 3/16"	0			2.
RL-5117-928	2-04-97							2 3/16"	0			2.
RL-5117-929	2-04-98							2 3/16"	0			2.
RL-5117-930	2-04-99							2 3/16"	0			2.
RL-5117-931	2-04-100							2 3/16"	0			2.

BASE END

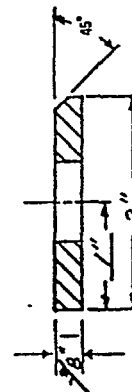
Raybestos Manhattan Industrial Products Company A Division of Raybestos Manhattan, Inc. North Charleston, S.C. 29405 803 744-6769		EXPANSION JOINT (Rectangle or Round) SCALE: NONE DATE: 2-16-77	
DRAWN: R.H. TRACED: R.H. CHECKED: T.Y. APPROVED:		ASARCO INC. - ELP 8856 DRAWING NO. RL-5117-848 - EJP CONT. ON SH. FINAL SH. NO.	
FOR APPROVAL: 5-26-77 FINAL DWG. 7/6/77 CERTIFIED FOR CONSTRUCTION 7/6/77			

DRILL $\frac{J}{H}$ HOLES, $\frac{L}{H}$ $\frac{\phi}{BC}$
EQUALLY SPACED ON



NOTE: SLIT BETWEEN
HOLES INTO $\frac{W}{H}$
EQUAL SECTIONS

CHAMFER ON
INSIDE EDGE



SECTION AA

DIMENSIONS OF BACK-UP BARS									
RL NO.	EXP. JT. NO.	EXP. JT. QTY.	G	H	J	L	W		
5117-848	2-04-7	2	6'-8"	6'-10"	64	9 1/2	4		
	2-04-9	2							
	2-04-10	2							
	2-04-11	2							
	2-04-12	2							
	2-04-13	2							
	2-04-14	2							
	2-04-15	2							
	2-04-50	2							
	2-04-16	2							
5117-849	2-04-17	2							
5117-924	2-04-41	1	✓	✓	✓	✓			
5117-850	2-15-20	2	6'-4"	6'-6"	60				
5117-851	2-15-21	2	✓	✓	✓				
5117-852	2-09-18	2	✓	✓	✓				
5117-853	2-09-49	1	8'-4"	8'-6"	80				
5117-854	2-10-19	1	✓	✓	✓				
5117-855	2-05-30	1	3'-4"	3'-6"	32	✓	2		
5117-925	2-08-40	1	7'-3"	7'-5"	68	1 1/8	4		
5117-857	2-09-42	1	7'-0"	7'-2"	✓	✓	✓		
5117-858	2-07-43	1	5'-9"	5'-11"	52	1 3/8	2		
5117-926	2-14-52	1	1'-4"	1'-6"	14	1 1/8	2		
	2-05-35	1	4'-0"	4'-2"	36	1 3/8	2		

MATERIAL: CARBON STEEL
PRIME COAT WITH RUST
RESISTANT PAINT.

BASE BID

NO. REQ'D-(2) FRAMES FOR
EACH EXP. JOINT

Raybestos Manhattan Industrial Products Company
A Division of Raybestos Manhattan, Inc. North Charleston, S.C. 29405 B03 744-6783

BACK-UP BARS FOR EXPANSION JOINT			
DATE	SCALE	DATE	SH. NO.
5/26/77	1/16"	2-16-77	
SYN	TRACED	DRAWING NO.	
DATE	CHECKED	5117-848 - BU	
SIGNATURE	APPROVED	CONT. ON SH. FINAL	

FINAL DWG. 7/6/77
CERTIFIED FOR CONSTRUCTION
7/6/77 [Signature]

CHANGE ORDER

PAGE 1 OF

DATE
12/27/77

ORDER NO.
3 7 E - 0 6 9 8

ASARCO Incorporated

PURCHASING DEPARTMENT
120 BROADWAY, NEW YORK, N.Y. 10005

PLANT JOB/APPROPRIATION NO.

REQUISITION NO.

CE-77-EP-2 (M)

to: Raybestos Manhattan Industrial
Products Co.
Div. Raybestos Manhattan, Inc.
No. Charleston, S.C. 29406

FINAL DESTINATION-PLEASE NOTE CONSIGNMENT AS
INDICATED ON ORIGINAL ORDER

El Paso, Texas

(79550)

CE77EP2

DATE REQUIRED AT DESTINATION
See Original Order

SHIPPING INTERVAL PROMISED

SELLER WILL SHIP BEFORE

QUANTITY	UNIT	SPECIFICATIONS	ITEM NO.	UNIT PRICE
THE PURPOSE OF THIS CHANGE ORDER NO. 2 IS:				
(CO-77-871)		To amend the prices on two (2) items as follows:		
		Expansion Joint 2-05-35		
		From: \$1,525.00 Ea.		
		To: \$1,954.00 Ea.	6	
		Expansion Joint 2-04-41		
		From: \$3,742.00		
		To: \$2,919.00	1	
		Confirms telephone conversation of December 16, 1977 with your Mr. Richard Conliffe		

ajn



IMPORTANT

This change order is not binding on purchaser unless the
attached Acknowledgment Card is signed by an authorized
agent of seller and returned promptly to purchaser.

FOR PURCHASING DEPARTMENT USE ONLY

⊕

TVO ☐ URGER ☐ CC 906 PC 206

DISTRIBUTION: 1-G.D.Martin/1-E.S.Godsey

1-E.H.C. Haug / 1-A.O.Marsh/1-W.R.Kelly

1-W.R.Mahoney/1-M.L.Leary/2-L.Green

ASARCO 1-W.R.Nasmyth/3-R.O.Covington

PLEASE ENTER OUR CHANGE ORDER FOR THE ITEMS SPECIFIED ABOVE
SUBJECT TO ALL INSTRUCTIONS AND PROVISIONS ON REVERSE SIDE.

By _____
PURCHASING AGENT

ASARCO ELP 0002169

cc - E. H. Haug/W. T. Sweat
A. O. Marsh, Jr.
W. R. Mahoney
W. R. Kelly
W. R. Nasmyth
R. H. Hunt

September 7, 1977

Mr. Richard C. Cliffe
Raybestos Manhattan
Industrial Products Co.
P. O. Box 5202
North Charleston, S. C. 29406

CE77EP2

REFERENCE: Order 37H-0638
Reqs. CE-77-MF-2 (M)
FRP Plug System Expansion Joints

Dear Mr. Cliffe:

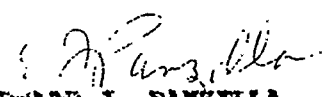
We have been advised by Mr. Frank Baer of our Central Engineering Department that we may release the Joints as listed on the enclosed data sheet.

Joints 2-09-48
2-09-49, your RL-5117-851, previously released with our letter of June 30th, 1977.

Joint 2-09-42, your RL-5117-925 will not be required and should be deleted from our order.

We would appreciate your reviewing this matter, furnishing us with the anticipated delivery date and the revision in price for the deletion of Joint Number 2-09-42.

Very truly yours,


EDWARD J. PANZELLA
Assistant Purchasing Agent

EJP:WJS
Enclosure