LOUISIANA HIGHWAY RESEARCH

PAINT STUDY

Progress Report No. 1

Louisiana HPR 1(2)

Research Project 63-1Ch

March 1965

HIGHWAY RESEARCH REPORT

PAINT STUDY
Physical Research Program
Louisiana HPR 1(2)
Research Project No. 63-1Ch
January 1964

SCOPE

The principle objectives of this study are to arrive at the most economical atmospheric paint system for structural steel and to correlate weatherometer exposure with atmospheric exposure. Three sites in Louisiana have been selected - they are Baton Rouge, Chase, and Houma.

PRESENT STATUS OF PROJECT

Approximately 600 panels have been prepared for field exposure thus far. Figure 1 shows the arrangement of the field panels on the exposure racks. Fifty panels have also been prepared for the Sunshine Carbon Arc Weatherometer, which are duplicate of the field panels. The complete listing of paints for field exposure together with thicknesses of various coatings are found in the Appendix under Tables 3 and 4 respectively. The following list represents the field panels exposed and the dates these panels were placed in the field.

Chase, Louisiana

Panels	1-82	Installed	11-23-63
	83-142		4-2-64
	143-158		5-21-64
	159-192		6-17-64

Baton Rouge, Louisiana

Panels	1-82	Installed	11-24-63
	83-142		3-31-64
	143-158		5-11-64
	159-192		6-16-64

Houma, Louisiana

Panels	1-82	Installed	11-22-63
	83-142		4-17-64
	143-158		5-13-64
	159-192		6-15-64

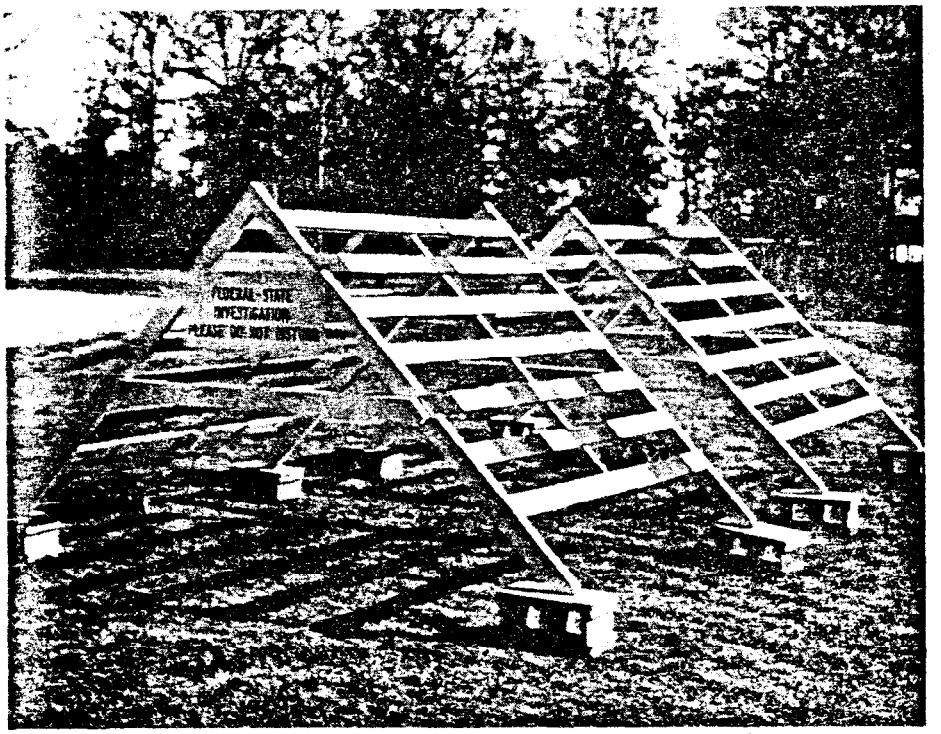

Figure 1 - Pictorial Representation of the Arrangement of Field Panels & Exposure Racks

FUTURE STATUS OF PROJECT

Since the weatherometer and field exposures have to be rated, it has been decided to use some quantitative means of measuring reflectances which are relative to individual panels. Reflectivities of paint films, at different wave lengths of light, are to be used. Readings will be taken at 50 millimicron intervals from 400 millimicrons to 650 millimicrons. The instrument used will be Bausch and Lomb Spectronic 20 (Figure 2) with reflectance attachment. These readings will be taken on panels before exposure and periodically during exposure. When the weatherometer exposure reading equals the field exposure then calibration of the weatherometer at a given cycle is complete. Different cycles on the weatherometer will be selected until calibration is complete and accurate.

Approximately 400 additional panels will be prepared with paints recently obtained. Reflectance measurements, infra-red spectrums, physical analysis will be made and weatherometer panels will be prepared.

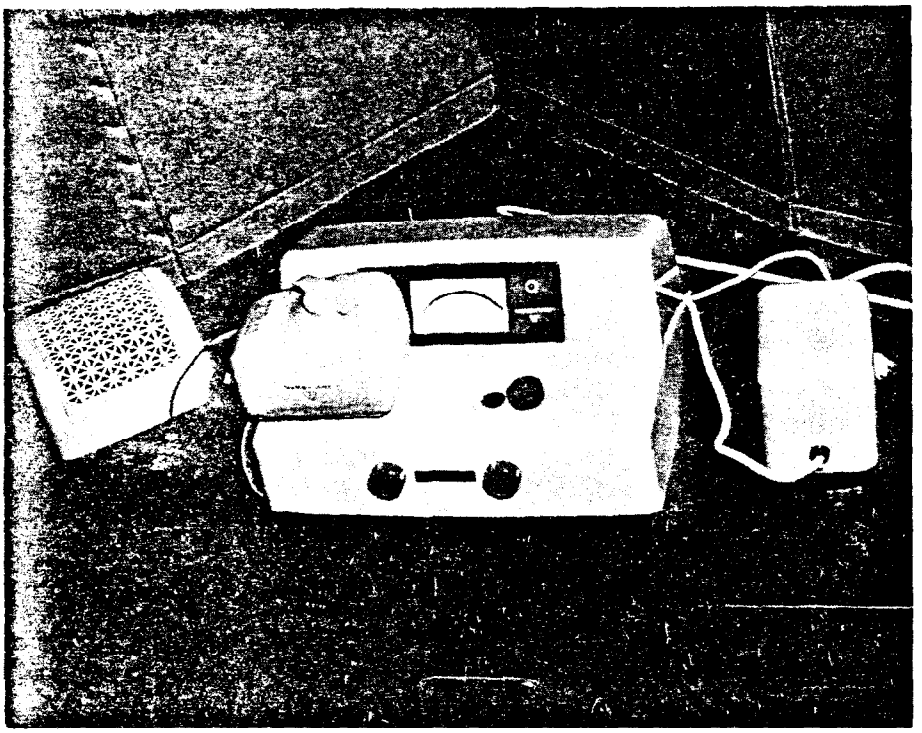

Figure 2 - Pictorial Representation of Bausch & Lomb Color Analyzer with Reflectance Attachment

TEST PROCEDURES

The physcial testing of the paints submitted is approximately 75% complete. The numerical values are listed in the Appendix under Table I. The following list includes all types of physical testing used in this reseach project.

Test	Method
Pigment (%) & Vehicle (%)	ASTM D-1208 - 52T
Volatile (%) & Non-volatile (%)	ASTM D-1208 - 52T
Viscosity	ASTM D-562 - 55
Weight/Gallon	Test I
Dry to Touch	Test II
Dry Hard	Test III

Test	Method
Flexibility	Test IV
Resistance to Alkali	Test V
Resistance to Acid	Test VI
Ease of Redistribution	Test VII
Condition in Container	Test VIII

Test I - Dry to Touch

A given coating will be brushed onto a tin panel with an approximate dry film thickness of 1.0 mils. The panel will then be allowed to dry at room conditions. When the finger is pressed upon the panel and no paint adheres, then the test is completed.

Test II - Dry Hard

The above panel from Test I will be allowed to dry hard, i.e., until no tackiness remains, under the same conditions.

Test III - Flexibility

The above panel from Test II, after drying, will be bent sharply over a 1/8" rod to determine flexibility of the coating.

Test IV - Resistance to Alkali

A panel will be prepared by brushing with a coating thickness of 1.0-1.5 mils dry film. This panel will be submerged in a 0.1 N NaOH solution for a period of 24 hours. The panel will be removed and rinsed clean with water. Any blistering, peeling or cracking will then be noted.

Test V - Resistance to Acid

A panel will be prepared by brushing with a coating thickness of 1.0-1.5 mils dry film. This panel will be submerged in a 0.1 N HCl solution for a period of 24 hours. This panel will be removed and rinsed clean with water. Any blistering, peeling or cracking will then be noted.

Test VI - Ease of Redistribution

After periodical intervals of 6 weeks, each can of paint will again be agitated by spatula until the pigment is completely dispersed in the vehicle medium. A subjective rating will be employed in order to ascertain which paint goes into solution with the least amount of energy expended.

Test VII - Condition in Container

Every 6 weeks each can of paint will be viewed to determine the condition of the paint in the container.

MATERIALS TESTED

The following is a complete list of paints presently being tested in the Paint Research Program. It includes 51 paints. Paints such as inorganic zinc, organic zinc, epoxy primers and topcoats, barium metaborate rust inhibiter primers, phenolic and alkyd topcoats, and vinyl paints are included.

PAINT NO.	TYPE OF PAINT
	LDH Specifications
1	Red Lead Paint
2	Aluminum Paint
3	Terrace Green Alkyd
	State of Florida Research Program
4	A - 1
5	B - 2
6	C - 3
7	C - 2
	Steel Structures Painting Council Paint Specifications
8	SSPC - Paint - 5 - 55T
9	SSPC - Paint - 11 - 55T
10	SSPC - Paint - 2 - 55T
11	SSPC - Paint - 8 - 55T
12	SSPC - Paint - 9 - 55T
13	SSPC - Paint - 101 - 55T
14	SSPC - Paint - 104 - 55T
15	SSPC - Paint - 105 - 55T
	Independent Manufacturers
	Glidden Paint Company
16	Vinyl Wash Primer
17	Vinyl Red Lead
18	Vinyl Brown Lead
19	Nu-Pon Epoxy
20	Vinyl Aluminum

PAINT NO.	TYPE OF PAINT
	Glidden Paint Company (Continued)
21	Vinyl Green
22	Rustmaster
23	Pheonlic Green - Gl - 68611
24	Tinted Alkyd
25	Aluminum Alkyd
	Buckman Laboratories
26	Buckman's Paint No. 8
27	Buckman's Paint No. 16
28	Buckman's Paint No. 20
29	Buckman's Paint No. 25
30	Buckman Topcoat
	Coast Paint and Lacquer Company
31	Copon CM - 4 - 20
32	Copon EA - 850
33	Copon SCZ
34	Copon MLP - 93
35	Copon Chemcure
	Dupont Chem Company
36	Dupont Black Antoxide - 373 - 844
37	Dupont Red Lead - 67 - 800
47	Dupont Dulux Topcoat
	Carbolene of Texas
38	Carbolene "Corroless"
39	Carbolene Inorganic Zinc
40	Carbolene Grey Alkyd
	National Lead Company (Defense in Depth)
41	T - 9822
42	T - 13486
43	T - 13487
	Cook Paint Company
44	Corotar Epoxy
45	Aluminum Epoxy
46	Corocryl

PAINT NO.	TYPE OF PAINT
	Tnemec Paints
48	Tnemec 69
49	Tnemec 6 - R
50	Tnemec - Grey
51	Tnemec Bridge Aluminum

The chemical specifications governing the aforementioned paints are listed in the Appendix in Table II.

DISCUSSION OF RESULTS

Atmospheric Exposure

Chase, Louisiana: Panels were placed in the field November 15, 1963. After five months of 45° southerly exposure, all panels were in fair condition with the exception of panels 35, 36, and 37. These panels had one coat of metal conditioner primer with a vinyl topcoat. Most panels showed slight spotting with some discoloration. Panels 76 and 77, two coats of coal tar epoxy with no topcoat, showed slight chalking. Panels 61 and 62 exhibited moderate chalking.

Baton Rouge, Louisiana: Panels were placed in the field November 10, 1963. After five months of 45° southerly exposure all panels with the exception of 35, 36, 37, 61, and 62 showed signs of slight discoloration and spotting. Panels 35, 36, and 37 are metal conditioner primers with a vinyl topcoat. Panels 61 and 62 contain a two coat system of "corroless" primer which is supposed to retard corrosion with no excessive cleaning of the metal. It is to be applied after brushing off loose mill scale.

Houma, Louisiana: Panels placed in the field November 20, 1963. After 5 months of exposure, most panels were in good condition with the exception of 35, 36, and 37. This indicates that this paint system is inferior to the others. This was expected because metal conditioner primer does not possess any rust inhibitive qualities which are characteristic of the other paints. This system was tried just to observe how much difference there actually was between using just metal conditioner primer and vinyl brown and vinyl red lead as additional coatings.

Weatherometer Panels

Fifty panels were prepared for use in the Sunshine Carbon Arc Weatherometer. Figure 3 is a pictorial representation of this instrument. The coatings and their thicknesses are recorded in Table V, in the Appendix. The cam used during this study is the one recommended by ASTM Designation D-822-46T. This cam, as normally used, produces 102 minutes of light only, and 18 minutes

Figure 3 - Pictorial Representation of the Sunshine Carbon Arc Weatherometer

light with water spray. The dry bulb temperature was maintained at 121°F. This gave a relative humidity of 78% during the 102 minutes of light only. During the 18 minutes of water spray, the humidity approached 100%. The specimen temperature was kept at 130°F during the 102 minutes of light, but decreased to 110°F during the 18 minute water spray cycle. The water spray pressure was maintained at 20 pounds per square inch gauge. At the end of each period, subjective inspections were made and were as follows:

24 Hour Period: At the end of this period all panels were in good condition with some very slight water spots which were indelible.

48 Hour Period: At the end of this period all panels were in good condition with some spotting becoming moderate. Panels 31 and 32 began blistering and cracking during this period.

200 Hour Period: At the end of this period all panels deteriorated moderately. There was excessive spotting on some panels but still no evidence of rust on any panels.

291 Hour Period: At the end of this period there was evidence of primer bleeding through on panels 3, 4, 19, 20, 33, 36, and 38. Panel 8 showed approximately 90% chalking.

420 Hour Period: At the end of this period there was evidence of primer bleeding through on panels 3, 4, 19, 20, 33, 36, 38, 49, and 50. There was also evidence of bleeding and chalking on some panels. Some cracking of the coatings was noted on panels 31 and 32.

760 Hour Period: During this period panels 1, 2, 5, 6, 7, 8, 9, 10, 47, and 48 showed sign of moderate chalking. Panels 19 and 20 showed signs of heavy primer bleed, approximately 60%. Panels 25 and 26 show signs of 75% heavy rusting. Panels 21, 22, 29, 30, 35, 36, 37, and 38 showed signs of excessive chalking. The pigment from the paint was released in the form of chalkiness due to deterioration of the paint vehicle. Panels 3, 4, 39, 40, 43, and 44 showed signs of heavy primer bleeding. The remainder of the panels were in fair shape with only water spotting.

1590 Hour Period: At the end of this period the following paints showed signs of physical breakdown - panels 3, 4, 7, 8, 9, 10, 15, 16, 19, 20, 25 to 50. There were different degrees of breakdown, but the aforementioned panels were not considered to be good panels. Panels 1, 2, 5, 6, 11, 12, 13, 14, 17, 18, 21, 22, 23, and 24 showed signs of being good panels. All panels are still being exposed in the weatherometer and will be examined later under a high powered dissecting microscope.

DISCUSSION OF THE SIGNIFICANCE OF REFLECTANCE MEASUREMENTS ON WEATHEROMETER PANELS

Panel Nos. 1 & 2

These two panels are highway specification red lead (3 coats, 1 1/2 mils each) with one coat of highway specification aluminum (1 coat, 1 mil). These panels have shown no excessive wear according to the reflectance measurements and to visual observation. Only moderate spotting has occurred. The red lead rust inhibitor is retarding corrosion of the steel panel and the aluminum topcoat is reflecting from 80 to 95% of the light from the carbon arcs. Whenever the aluminum topcoat begins to fail the red color from the primer coat will begin to emerge and give low reflectance measurements in the 400-550 mu range and high reflectance measurements as the wave length approaches the near infrared absorption range. At the sign of this change, it can immediately be ascertained that the topcoat has begun to fail due to an overextended exposure.

Panel Nos. 3 & 4

These two panels are highway specification red lead (3 coats, 1 1/2 mils) with one coat of highway specification terrace green (1 coat, 1 mil). These panels have shown excessive wear. There is a great deal of primer bleed. As can be readily observed, the increase in red primer coat has caused an increase in the per cent reflected in the 650 mu range.

Panel Nos. 5 & 6

The two panels are highway specification red lead (2 coats, 1 1/2 mils) with one coat of highway specification aluminum (1 coat, 1 mil). These panels have resisted wear and are approximately in the same physical condition as panels 1 & 2. These panels were added to the study to attempt a correlation with panels 1 & 2 with one coat less of primer. The reflectance values have not indicated at this time that there was any evidence of red lead primer bleed.

Panel Nos. 7 & 8

These two panels have 2 coats of Dupont black antoxide primer. Panel 7 has in addition one coat of one mil thickness Dupont Dulux topcoat which is grey in color. As panel 7 began exposure, there was low reflectance at the lower wavelengths and higher reflectance at the higher wavelengths. During exposure as the panel began to fade, the per cent reflectance began to increase with subsequent exposure hours. Panel 8 showed increases in reflectances also especially at 650 mu. This was due to an increase in chalkiness which formed over the black surface.

Panel Nos. 9 & 10

These two panels have 2 coats of Dupont red lead primer coat. Panel 9 has in addition one coat of Dupont Dulux topcoat. Panel 9 has shown approximately the same wear as panel 7 except that the black primer coat began bleeding slightly at 530 hours on panel 7. Panel 10 reflectance measurements are indicative of red color. As exposure increased, the complete graph shifted to higher reflectance readings. This was due to discoloration and chalking.

Panel Nos. 11 to 18

These panels are Buckman Laboratories special primers containing the rust inhibition barium metaborate. The topcoat is also Buckman's recommended coating for the aforementioned primers. All these panels are showing the same amount of wear and discoloration with the exception of panels 15 and 16. These panels are showing up to 20% alligator cracking. This indicates that very shortly the primer will lose adherence to the steel and chips will begin to flake off. In all cases the topcoat seems to be wearing well although this given topcoat absorbs a great deal of ultraviolet light and heat as compared to an aluminum or white topcoat. This light and heat, in turn, is transferred by conduction to the primer coats. The reflectance values indicate that the paint of greatest reflectivity in the 400-650 mu range is 550 mu. However, the periodical readings at 650 mu only indicate that wear is taking place on the topcoat as exposure increased.

Panel Nos. 21 to 24

These panels are vinyl coated. Panels 21 and 22 have no topcoat, and as a result began discoloring rapidly. The reflectivity readings indicate that a great deal of ultraviolet light and heat are being absorbed. However, during exposure, when chalkiness appears due to this extreme light and heat, the surface becomes white, and consequently more ultraviolet light and heat are being reflected away from the primer coats. Panels 23 and 24 have a vinyl aluminum topcoat, and as a result of this high reflective surface, are still in fair condition. The reflectance values of panels 23 and 24 range up to 60% at 400 mu whereas on panels 21 and 22 the values start at 16 and after 1590 hours of exposure rise to 50 per cent reflected. This means that for 1590 hours ultraviolet light and heat were being transferred by conduction through the topcoat to the primer coats. This ultraviolet light and heat destroys the paint film.

Panel Nos. 25 and 26

These panels contain only a vinyl wash primer. This primer contains no rust inhibitors. The reflectance values indicate that at no point from

400 - 650 mu is more than 40% of the light reflected. As a result this paint film was destroyed in a very short period of time.

Panel Nos. 27 to 30

These panels contain epoxy topcoats. Panels 27 and 28 contain vinyl aluminum topcoat. They have resisted wear due to the reflected amount of ultraviolet light and heat from the aluminum surface. Panels 29 and 30 contain no topcoat and reflect only 20 - 30% of light. Panels 27 and 28 are superior to panels 29 and 30.

Panel Nos. 31 to 34

These panels contain carbolene "corroless" primer. Panels 31 and 32 contain a grey alkyd topcoat. Panels 31 and 32 reflect 50 - 60% light at all wavelengths. Panels 33 and 34 absorb 80% of the ultraviolet light and heat in the lower wavelengths, and reflect 50% light and heat at the higher wavelengths. Panels 33 and 34 are inferior to panels 31 and 32 at this present stage of exposure.

Panel Nos. 35 to 38

These panels contain a phenolic primer. Panels 35 and 37 contain a light blue alkyd topcoat, and panels 36 and 38 contain a green phenolic topcoat. Panels 35 and 37 absorb more light and heat at all respective wavelengths than do panels 36 and 38. Panels 36 and 38 seem to be in better condition than do panels 35 and 37.

Panel Nos. 39 to 42

These panels contain Tnemec primer T-69. Panels 39 and 40 contain "Bridge Grey" topcoat and panels 41 and 42 contain an aluminum topcoat formulation from the same manufacturer. Panels 39 and 40 absorb approximately 50% light whereas panels 41 and 42 absorb only 25% light. Panels 41 and 42, with the aluminum topcoat, were much superior to the grey topcoat panels at this stage of exposure.

Panel Nos. 43 to 46

These panels contain Tnemec paint T-6R primer. Panels 43 and 44 contain "Bridge Grey" topcoat and panels 45 and 46 contain an aluminum topcoat. Panels 45 and 46 containing the aluminum topcoat proved to be superior in condition, at this stage of exposure, over panels 43 and 44.

Panel Nos. 47 to 50

The panels contain a black coal-tar epoxy primer. Panels 49 and 50

had a green epoxy topcoat. Panels 47 and 48 absorbed 80% of the light in the lower wavelength region and also absorbed 80% of the light in the higher wavelength region. Panels 49 and 50 with a dark green epoxy topcoat, also absorbed 80% light in the lower and higher wavelength regions. All four panels showed definite signs of physical breakdown.

APPENDIX

TABLE I

PHYSICAL TEST RESULTS

Paints	1	2	3	4	5	6
Pigment %	79.80	14.11	39.2	58.70	61.39	67.62
Vehicle %	20.20	85.89	60.8	41.30	38.61	32.38
Non Vol. %	30.1 (Veh)	53.49	64.5	76.28	75.67	89.52
Vol. %	69.9 (Veh)	46.51	35.5	23.72	24.33	10.48
Wt./Gallon @ 77°F	26.50	7.71	10.43	13.81	14.22	13.92
Viscosity (Ku) @ 77°F	88	73	71	74.0	116	76.0
Dry Touch (Hours)	4	3	½	8	½	6
Dry Hard (Hours)	24	8	24	24.0	72.0	72.0
Ease of Dist.	Fair	Good	Good	Good	Good	Fair
Condition of Paint	Separated	2-Components	Separated	Separated	Separated	Separated
Submerged (HCL) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (M)	Good	Good	Mod.Discolored
Submerged (NaOH) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (M)	Stripped	Stripped	Stripped
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

Paints	7	8	9	10	11	12
Pigment %	56.13	73.6	48.40	75.97		
Vehicle %	43.87	26.4	51.60	24.03		
Non Vol. %	73.91	68.70	83.96	95.08	17.39	
Vol. %	26.09	31.30	16.04	4.92	82.61	
Wt./Gallon @ 77°F	12.74	10.59	11.89	22.0	7.43	
Viscosity (Ku) @ 77°F	75.0	86	78	88.0	.65 stokes	
Dry Touch (Hours)	1½	1	4½	4½	1/5	
Dry Hard (Hours)	72.0	2	10	9.0	1/3	
Ease of Dist.	Skins Heavily	Good	Good	Good	Good	
Condition of Paint	Separated	2-Components	Good	Good	Good	
Submerged (HCL) 24 hrs.	Good	Stripped(M)	Stripped (M)	Stripped (M)	Good	
Submerged (NaOH) 24 hrs.	Good	Stripped (M)	Stripped (E)	Stripped (E)	Stripped	
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	

Paints	13	14	15	16	17	18
Pigment %	15.00	48.0	43.75	7.4	12.20	21.60
Vehicle %	85.00	52.0	56.25	92.6	87.80	78.40
Non Vol. %	55.12	74.46	78.59	18.36	32.83	40.34
Vol. %	44.88	25.54	21.41	81.64	67.17	59.66
Wt./Gallon @ 77°F	8.18	11.54	11.77	7.32	8.53	9.54
Viscosity (Ku) @ 77°F	11.0	81.0	85.0	68	70	86
Dry Touch (Hours)	11.0	4½	4½	¼	¼	¼
Dry Hard (Hours)	16.0	9.0	10.0	¼	¼	¼
Ease of Dist.	Good	Good	Good	Good	Good	Good
Condition of Paint	2-Components	Good	Good	Mod. Mix	Mod. Mix	Good
Submerged (HCL) 24 hrs.	Discolored	Stripped (M)	Discolored (S)	Stripped (E)	Very Good	Very Good
Submerged (NaOH) 24 hrs.	Stripped	Stripped (E)	Discolored (S)	Good	Very Good	Very Good
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

TABLE I (Cont.)

PHYSICAL TEST RESULTS

Paints	19	20	21	22	23	24
Pigment %	34.93	7.57	14.20	57.20	39.09	34.71
Vehicle %	65.07	92.43	85.80	42.80	60.91	65.29
Non Vol. %	66.91	24.02	47.71	77.42	67.71	77 91
Vol. %	33.09	75.98	52.29	22.58	32.29	22.09
Wt./Gallon @ 77°F	11.30	7.85	9.34	12.77	11.37	11.31
Viscosity (Ku) @ 77°F	70	60	77	77	77	89
Dry Touch (Hours)	¼	¼	1/12	½	3	3
Dry Hard (Hours)	¼	¼	¼	7½	8	11
Ease of Dist.	Fair	Good	Good	Good	Good	Good
Condition of Paint	Separated	2 Components	Good	Good	Separated	Mod. Mixed
Submerged (HCL) 24 hrs.	Stripped (S)	Good	Discolored	Stripped (E)	Good	Stripped (M)
Submerged (NaOH) 24 hrs.	Stripped (S)	Stripped (E)	Stripped	Stripped (E)	Stripped (S)	Stripped (S)
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

Paints	25	26 1st Primer	26 2nd Primer	26 3rd Primer	27 1st Primer	27 2nd Primer
Pigment %	14.11	53.28	51.99	53.39	57.80	60.82
Vehicle %	85.89	46.72	48.01	46.61	42.20	39.18
Non Vol. %	55.00	80.17	81.00	80.42	83.02	84.40
Vol. %	45.00	19.83	19.00	19.58	16.98	15.60
Wt./Gallon @ 77°F	8.26	12.31	12.29	12.49	13.32	13.47
Viscosity (Ku) @ 77°F	60.0	81.0	76.0	79.0	81.0	80.0
Dry Touch (Hours)	2½	3	3½	3	3	3½
Dry Hard (Hours)	3	6	7	7½	6	7
Ease of Dist	Good	Good	Good	Good	Fair	Good
Condition of Paint	2-Components	Separated	Separated	Separated	Separated	Separated
Submerged (HCL) 24 hrs.	Stripped (M)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)
Submerged (NaOH) 24 hrs.	Stripped (M)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

Paints	27 3rd Primer	28 1st Primer	28 2nd Primer	28 3rd Primer	29 1st Primer	29 2nd Primer
Pigment %	56.58	72.20	75.29	73.05	39.72	41.02
Vehicle %	43.42	27.80	24.71	26.95	60.28	58.98
Non Vol. %	83.01	91.94	90.81	91.47	78.79	79.24
Vol. %	16.99	8.06	8.19	8.53	21.21	20.76
Wt./Gallon @ 77°F	13.30	20.24	21.10	20.71	11.92	11.70
Viscosity (Ku) @ 77°F	79.0	80.0	79.0	78.0	73	89.0
Dry Touch (Hours)	3	3	3½	4	4	3½
Dry Hard (Hours)	7½	24	24	24	4	7
Ease of Dist.	Good	Fair	Fair	Fair	Good	Good
Condition of Paint	Separated	Separated	Separated	Separated	Slightly Mix	Slightly Mix
Submerged (HCL) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (S)	Stripped (E)	Stripped (E)
Submerged (NAOH) 24 hrs.	Stripped (M)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

TABLE I (Cont.)

PHYSICAL TEST RESULTS

Paints	29 3rd Primer	30	CM420 Mastic 31	Arocoat 32	Copon SCZ 33	Copon MLP-93 34
Pigment %	40.94	51.79		28.4	60.00	
Vehicle %	59.06	48.21		71.6	40.00	
Non Vol. %	78.75	78.82	71.63	76.31	60.00	
Vol. %	21.25	21.18	28.37	23.69	40.00	
Wt./Gallon @ 77°F	11.87	12.00	12.72	10.30	20.10	
Viscosity (Ku) @ 77°F	71.0	72		94.5	65	
Dry Touch (Hours)	4	4	1	2½	½	
Dry Hard (Hours)	7½	7	1	5	½	
Ease of Dist.	Good	Good	Fair	Good	Good	
Condition of Paint	Separated	Slightly Mix	2-Components	2-Components	2-Components	
Submerged (HCL) 24 hrs.	Stripped (E)	Stripped (M)	Good	Good	Stripped (E)	
Submerged (NaOH) 24 hrs.	Stripped (E)	Stripped (E)	Good	Good	Stripped (E)	
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	

Paints	Copon Chem-Cure 35	36	37	38	Carbolene Inorganic Zinc 39	40
Pigment %	42.0	45.42	77.90	43.19		9.95
Vehicle %	58.0	54.58	22.10	56.81		90.05
Non Vol. %	87.63	83.23	93.25	69.06		44.99
Vol. %	12.37	16.77	6.75	30.94		55.01
Wt./Gallon @ 77°F	14.08	11.20	17.97	12.27		9.29
Viscosity (Ku) @ 77°F	92	86.0	86.0	76.0		60.5
Dry Touch (Hours)	4	4	4	½		1
Dry Hard (Hours)	12	7	20	1½		1½
Ease of Dist.	Good	Good	Fair	Good		Good
Condition of Paint	2-Components	Separated	Separated	Mod. Mix		Mod. Mix
Submerged (HCL) 24 hrs.	Good	Stripped (M)	Stripped (S)	Stripped (M)		Good
Submerged (NaOH) 24 hrs.	Good	Stripped (M)	Stripped (E)	Stripped (E)		Good
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative		Negative

Paints	41	42	43	44	Aluminum Epoxy 45	Corocryl 46
Pigment %	64.99	56.25	20.04	46.82	15.0	9.8
Vehicle %	35.01	43.75	79.96	53.18	85.0	90.2
Non Vol. %	89.85	88.28	68.27	73.80	44.81	40.29
Vol. %	10.15	11.72	31.73	26.20	55.19	59.71
Wt./Gallon @ 77°F	15.40	13.57	9.92	9.12	8.35	9.07
Viscosity (Ku) @ 77°F	77.0	74.0	68.0		60	52
Dry Touch (Hours)	5	7½	7½	3	½	2
Dry Hard (Hours)	7½	12	12	Semi-hardness	½	2
Ease of Dist.	Good	Good	Good	Fair	Good	Good
Condition of Paint	Mod. Mix	Slightly Mix	Slightly Mix	Very Thick	2-Components	2-Components
Submerged (HCL) 24 hrs.	Stripped (E)	Stripped (E)	Good	Good	Stripped (S)	Stripped (E)
Submerged (NaOH) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (E)	Good	Stripped (S)	Stripped (E)
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative	Negative

TABLE I (Cont.)

PHYSICAL TEST RESULTS

Paints	Dupont Deluxe 47	Tnemec-69 48	Tnemec-6R 49	Tnemec Grey 50	Tnemec Bridge Aluminum 51
Pigment %	28.00	59.08	60.91	55.31	15.2
Vehicle %	72.00	40.92	39.09	44.69	84.8
Non Vol. %	64.75	85.0	87.97	84.17	80.22
Vol. %	35.25	15.0	12.03	15.83	19.78
Wt./Gallon @ 77°F	10.42	12.71	12.41	13.21	7.77
Viscosity (Ku) @ 77°F	76	72	97.5	62	61
Dry Touch (Hours)	3	4	6	6	1
Dry Hard (Hours)	4	8	9	10	1½
Ease of Dist.	Good	Good	Good	Good	Good
Condition of Paint	Separated	Separated	Separated	Mod. Mix	Separated
Submerged (HCL) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)	Mod. Discolored
Submerged (NaOH) 24 hrs.	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)	Stripped (E)
Brittleness 1/8 " rod	Negative	Negative	Negative	Negative	Negative

TABLE II
CHEMICAL SPECIFICATIONS

State of Florida

Research Program

Pigment Composition	A	B	C
Red Lead	16.0	20.0	-
Pigment M-50	-	-	55.0
Zinc Yellow	8.0	10.0	10.0
Iron Oxide	55.0	35.0	-
Zinc Oxide	4.0	-	-
Mg Silicate	-	25.0	25.0
Mica	17.0	10.0	10.0

Vehicle Composition	1	2	3
Raw Linseed Oil	-	50.0	75.0
Bodied Linseed (Z_2)	-	-	25.0
Alk. Ref. Linseed	75.0	-	-
Linseed-Tung	25.0	-	-
Phenolic Varnish	-	50.0	-

Paint No. 31
Copon Self-Priming Mastic

Base CM4-20 (852-FR9-11)

Non-Volatile Vehicle	Per Cent Wt.
Epoxy Resin	100.0%
Pigment	
Barium Sulfate	31.4
Red Lead	29.0
Iron Oxide	8.2
Magnesium Silicate	31.4
	100.0%
Volatile Vehicle	
Aromatic	48.50
Ketone	47.05
Ether Alcohol	4.45
	100.00%

Activator CM-1000 (852-FJ9-14)

Non-Volatile Vehicle	Per Cent Wt.
Epoxy Amine Adduct	100.0%
Volatile Vehicle	
Aromatic	49.6
Ketone	26.5
Ether Alcohol	7.9
Alcohol	16.0
	100.0%

TABLE II (Cont.)

Combination	
Non-Volatile Vehicle	19.7
Volatile Vehicle	31.0
Pigment	49.3
	100.0%

Viscosity: 120 ± 10 KU

Mix Ratio: 4/1 by volume base/activator

Combination	
Non-Volatile Vehicle	21.75
Volatile Vehicle	78.25
	100.00%

Viscosity: 12 ± 3 Sec. #4 Ford Cup

Wt./Gal.: 7.55 ± .18 Lb./Gal.

Paint No. 33
Self Cure Zinc

Binder 50-C9-95

Non-Volatile Vehicle	Per Cent Wt.
Sodium Silicate Cook	100.00%

Volatile Vehicle	
Water	100.00%

Combination	
Non-Volatile Vehicle	21.2
Volatile Vehicle	78.8
	100.0%

Solids: 23 ± 0.5% wt.

Wt./Gallon: 9.91 +- 0.05 lb./gal.

Mix Ratio: 1.5/1 by volume binder/zinc

Zinc 50-Z9-96

Pigment	Per Cent Wt.
Zinc Powder (total of component)	100.00%

Wt./Gallon (void free) 58.6±1.0 Lb./Gal.

Paint No. 35
Copon Chemcure 75

Blending Resin 850-HE9-324A EA1-157

Non-Volatile Vehicle	Per Cent Wt.
Mono Epoxy	1.06
Di-Epoxy	98.94
	100.00%

Green Activator 850-JG9-325 EA1-158

Non-Volatile Vehicle	Per Cent Wt.
Epoxy Amine Adduct (Curing Agent V6174A)	95.44
Pine Oil	4.56
	100.00%

TABLE II (Cont.)

Pigment	
Barium Sulfate	95.2
Silicate	4.8
	100.0%

Volatile Vehicle	
Ketone	100.00%

Combination	
Non-Volatile Vehicle	42.4
Volatile Vehicle	11.5
Pigment	46.1
	100.0%

Viscosity: 67 ± KU

Wt./Gallon: 13.45 ± .18 Lb./Gal.

Mix Ratio: 1/1 by volume
Activator/Resin

Pigment	
Chromium Oxide	47.40
Barium Sulfate	52.60
	100.00%

Volatile Vehicle	
Aromatic	14.05
Ether Alcohol	85.95
	100.00%

Combination	
Non-Volatile Vehicle	29.0
Volatile Vehicle	16.0
Pigment	55.0
	100.0%

Viscosity: 110 ± 5 KU

Wt./Gallon: 14.2 ± .18 Lb./Gal.

Paint No. 34
Copon Met-L-Pon 93

Base ZE2 - 850-HE9-335

Non-Volatile Vehicle	Per Cent Wt.
Epoxy Resin	100.0%

Pigment	
Zinc Powder	98.88
Silicate	1.12
	100.00%

Volatile	
Ketone	68.40
Ester	31.60
	100.00%

Activator ZEB - 850-HJ9-336

Non-Volatile Vehicle	Per Cent Wt.
Tolylene Di-isocyanate Adduct	100.0%

Volatile Vehicle	
Aromatic	100.0%

TABLE II (Cont.)

Combination	
Non-Volatile Vehicle	2.4
Volatile Vehicle	16.1
Pigment	81.5
	100.0%

Viscosity: 115 ± 5 KU

Wt./Gallon: 26.58 ± .30 Lb./Gal.

Mix Ratio: 4/1 by volume base/activator

Combination	
Non Volatile Vehicle	34.0
Volatile Vehicle	66.0
	100.0%

Viscosity: 12 ± 3 Sec., #4 Ford Cup

Wt./Gallon: 8.42 ± .18 Lb./Gal.

Paint No. 32
Copon Arocoat
(In accordance with U. S. Patent No. 2,980,601)

Blending Resin EA-851
855-HC9-6B

Non-Volatile Vehicle	Per Cent Wt.
Epoxy Resin	100.0%

Volatile Vehicle	
Aromatic	44.8
Ketone	38.3
Chlorinated Hydrocarbon	16.9
	100.0%

Combination	
Non-Volatile Vehicle	72.2
Volatile Vehicle	27.8
	100.0%

Activator EA-850
855-HJ9-5B

Non-Volatile Vehicle	Per Cent Wt.
Refined Coal Tar Adduct Amine	93.00
Triazine	4.07
Amine	2.93
	100.00%

Pigment	
Magnesium Silicate	69.2
Silicate	30.8
	100.0%

Volatile Vehicle	
Aromatic	68.5
Ketone	31.5
	100.0%

Combination	
Non-Volatile Vehicle	53.5
Volatile Vehicle	12.4
Pigment	34.1
	100.0%

TABLE II (Cont.)

Wt./Gallon:	9.1 ± .18 Lb./Gal.	Viscosity:	130 ± 15 KU
Mix Ratio:	1/1 by volume base/activator	Wt./Gallon:	11.24 ± .18 Lb./Gal.

Paint No. 16

Wash Primer MIL-P-15328

Paint No. 17

Red Lead MIL-P-15329

Paint No. 18

Brown Lead MIL-P-15329(mod.) or CGS-52-P-4

Paint No. 20

The vinyl aluminum topcoat meets SSPC-8-54P

Paint No. 19

The epoxy primer is a proprietary meeting the following specifications:

Componet 1 -

Pigment	41.0%
Zinc Chromate	59%
Magnesium Silicate	37.5%
Chrome Yellow, Chrome Green, Lamp Black	3.5%
Vehicle	59%
Epoxy, resin (Epon 1001 or equivalent)	32%
Urea Formaldehyde (Bettle 216-8)	1.8%
Silicone Alkyd (Glidden GRV-2180A)	5.2%
Ketone, aromatic, and alcohol solvents	61.0%

Properties - Viscosity 85-95KU; Pot Life Mixed 24 hrs. at 80°F Sheen 20-45; drying time 2 hrs. to handle; recoat in 6-36 hrs; mixed solids by volume 33.7% Grind 6 minimum.

Component 2 (to be mixed 1 - 1 by volume with Component 1)

Polyamid resin (Versamid 100 or equal)	28%
Xylene and butanol	72%

TABLE II (Cont.)

Paint No. 22

The Rustmaster Specifications are as follows:

Pigment - 56 -58%	Min.	Max.
Basic silicate lead chromate	36.5	38.0
Zinc Chromate	2.0	4.0
Iron Oxide	27.0	29.0
Zinc Oxide	3.0	4.0
Silica and silicates	29.0	31.0

Vehicle - 42 - 44%	
Alkyd resin (TT-R-266a - Type II Class B)	48.0%
#358 Phenolic wetting oil (Glidden, patented)	34.2%
Mineral Spirits and driers.	17.8%

Qualitative requirements -- weight/gallon 13.0 - 13.5#; water 1.0% max.; consistency 75-85 seconds (#4 Ford cup); Drying time 18 hours to recoat; total solids 81.2% by weight min.; solids by volume 62.7%; pigment volume concentration 38.5%; gloss 10-20; flash point 80°F minimum; grind 5 minimum.

Buckman Laboratories

Paint No. 27

Pigmentation

	Pct. by Weight
Iron Oxide	9.9
Magnesium Silicate	9.9
Basic Lead Silico Chromate	54.0
Busan 11-M1	26.2
	100.00

Ingredients

	Lb. Per 100 U.S. Gal.	Gal.	RMC
VVF B-2093-F	75	2.02	5.10
Asbestine 3X	75	3.16	1.12
Oncor M-50	412	12.06	78.28
Busan 11-M1	200	7.00	30.00
Bentone 38	5	0.33	4.00
Methyl Alcohol	1.5	0.22	0.45
Kelecin FB	3	0.38	0.45
Raw Linseed Oil	163	21.10	22.82
Beckosol P-671-50	326	42.70	50.53
Lead Naphthenate (24 pct. Pb)	6	0.63	1.32
Cobalt Naphthenate (6 pct. Co)	1	0.12	0.46
Manganese Napthenate (6pct. Mn)	1	0.12	0.28
Mineral Spirits	65.9	10.16	1.84
	1334.4	100.00	196.65

TABLE II (Cont.)

Pigment volume concentration in per cent	39
Viscosity in Krebs Units	81

Paint No. 26

Pigmentation

	Pct. by Weight
Iron Oxide	40.0
Magnesium Silicate	14.7
Mica	5.0
Busan 11-M1	40.0
Aluminum Stearate	0.3
	100.0

Ingredients

	Lb. Per 100 U.S. Gal.	Gal.	RMC
VVF B-2093-F	256	6.53	17.41
Asbestine 3X	94	3.95	1.41
325 Mesh Waterground Mica	32	1.36	2.88
Busan 11-M1	256	8.95	38.40
Aluminum Stearate # 27	2	0.17	0.80
Raw Linseed Oil	163	21.10	22.82
Beckosol P-671-50	326	42.70	50.53
Kelecin FB	3	0.38	0.45
Lead Naphthenate (24 pct. Pb)	6	0.63	1.32
Cobalt Naphthenate (6 pct. Co)	1	0.12	0.46
Manganese Naphthenate (6pct. Mn)	1	0.12	0.28
Jel-O-Mer 903	4	0.56	1.40
Mineral Spirits	87.2	13.43	2.44
	1231.2	100.00	140.60

Pigment volume concentration in per cent	35
Viscosity in Krebs Units	82

Paint No. 28

Pigmentation

	Pct. by Weight
Red Lead	86.5

TABLE II (Cont.)

Busan 11-M1	13.0
Aluminum Stearate	0.5
	100.0

Ingredients

	100 U.S. Gal.	Gal.	RMC
Superfine Red Lead	1324	17.87	178.74
Busan 11-M1	200	7.00	30.00
Aluminum Stearate # 27	7.4	0.89	2.96
Raw Linseed Oil	276	35.75	38.64
Alinco Z	83	10.35	15.36
Lead Naphthenate (24 pct. Pb)	8	0.83	1.76
Cobalt Naphthenate (6 pct. Co)	1	0.12	0.46
Manganese Naphthenate (6 pct. Mn)	1	0.12	0.28
Mineral Spirits	175.7	27.07	4.92
	2076.1	100.00	273.12

Pigment volume concentration in per cent 36

Viscosity in Krebs Units 83

Paint No. 29

Pigmentation

	Pct. by Weight
Rutile Titanium Dioxide	30.2
Magnesium Silicate	21.2
Mica	5.0
Busan 11-M1	40.3
Litharge	3.3
	100.0

Ingredients

	Lb. Per 100 U.S. Gal.	Gal.	RMC
Titanox-RANC	180	5.15	49.50
Asbestine 3X	126	5.39	1.89
325 Mesh Waterground Mica	30	1.28	2.70
Busan 11-M1	240	8.40	36.00
Litharge	18	0.23	0.59
Bentone 38	3.6	0.24	2.88
Methyl Alcohol	1	0.15	0.30

TABLE II (Cont.)

Raw Linseed Oil	163	21.10	22.82
Beckosol P-671-50	326	42.70	50.53
Lead Naphthenate (24 pct. Pb)	6	0.63	1.32
Cobalt Naphthenate (6 pct. Co)	1	0.12	0.46
Manganese Napthenate (6 pct. Mn)	1	0.12	0.28
Mineral Spirits	94	14.49	2.63
	1189.6	100.00	171.90

Pigment volume concentration in per cent 35

Viscosity in Krebs Units 80

Paint No. 30

Pigmentation

	Pct. by Weight
Rutile Titanium Dioxide	55.5
Busan 11-M1	44.5
	100.0

Ingredients

	Lb. Per 100 U.S. Gal.	Gal.	RMC
Ti-Pure R-900	250	7.15	68.75
Busan 11-M1	200	7.00	30.00
Beckosol P-470-70-EL	500	62.50	87.50
Zirco (6 pct. Zr)	5	0.69	2.52
Cobalt Naphthenate (6 pct. Co)	3	0.38	1.40
M-P-A	6	0.90	3.60
ASA	1	0.13	1.02
Mineral Spirits	137.9	21.25	3.86
	1102.9	100.00	198.65

Pigment volume concentration in per cent 26

Viscosity in Krebs Units 93

TABLE II (Cont.)

Paint 36

Pigment	43.3 ± 2.5%
Titanium Dioxide	20% Min.
Barium Sulfate	67% Max.
Magnesium Silicate	16% Max.
Tinting Colors	5% Max.
Vehicle	56.7 ± 2.5%
Synthetic Resin Solids (Alkyd type)	54.9 ± 2.5%
Drier and Thinner	45.1 ± 2.5%
Properties of Synthetic Resin Solids	
1 - Phthalic Anhydride	22% Min.
2 - Rosin, rosin derivatives, natural resins, other than alkyd type	not present
3 - Acid Number	8 Max.
4 - Volatile Thinner	absence of alchol & ester
5 - Moisture on Paint	2.5% Max.
Physical Properties of Paint	
Weight per gallon	11.8 Min.
Viscosity (A.S.T.M. #10)	55 ± 5 secs. @ 25°C
Coarse Particles	0.5% by Weight (Max.)
Odor	Normal
Flash Point (Tag Open Cup)	26.7°C Min.
Skinning	Very Slight @ 24 hrs.
Working Properties	Satisfactory
Drying Time for Recoating	18 hours
Gloss	Medium

Paint 37

Pigment	80.0 ± 2.5%
(a) Red Lead (97%)	75.0 ± 2.5%
(b) Iron Oxide (75% Fe_2O_3)	25.0 ± 2.5%
Vehicle	20.0 ± 2.5%
(a) Linseed Oil and Synthetic Resin Solids (aldyd type)	80.6 ± 2.5%
(b) Drier and Thinner	19.4 ± 2.5%
Physical Properties of Combined Linseed Oil and Synthetic Resin	
Glyceryl Phthalate	9 - 12%
Rosins, Rosin Derivatives, or any type of resins other than alkyd resin	not present

TABLE II (Cont.)

Acid Number	5 Max.
Volatile Thinner shall consist of Petroleum Hydrocarbons	
(a) Alcohol and Ester Solvents	not present
(b) Per cent Moisture	1% Max. on total paint
Physical Properties of Paint	
Weight per gallon	24.6 pounds Min.
Viscosity (26.7°C)(Ford #4 Cup)	23 secs. Min.
Coarse Particles	0.5% by weight Max.
Odor	Normal
Flash Point (Tag Open Cup)	26.7°C Min.
Skinning	Very Slight at 24 hours
Working Properties	Satisfactory
Drying Time for Recoating	18 hours Max.
Gloss	Dull

TABLE III

ARRANGEMENT OF PAINT PANELS AND THEIR RESPECTIVE COATINGS

Panel No.	Prime Coat Paint No.	Prime Coat No. Coats	Topcoat Paint No.	Topcoat No. Coats
1	1	3	2	1
2	1	3	3	1
3	4	2	25	1
4	4	2	24	1
5	4	2	23	1
6	4	2		
7	4	3	25	1
8	4	3	24	1
9	4	3	23	1
10	4	3		
11	5	2	25	1
12	5	2	24	1
13	5	2	23	1
14	5	2		
15	5	3	25	1
16	5	3	24	1
17	5	3	23	1
18	5	3		
19	6	2	25	1
20	6	2	24	1
21	6	2	23	1
22	6	2		
23	6	3	25	1
24	6	3	24	1
25	6	3	23	1
26	6	3		
27	7	2	25	1
28	7	2	24	1
29	7	2	23	1
30	7	2		
31	7	3	25	1
32	7	3	24	1
33	7	3	23	1
34	7	3		
35	16	1		
36	16	1	20	1
37	16	1	21	1
38	16 & 17	2		
39	16 & 17	2	20	1
40	16 & 17	2	21	1
41	16, 17 & 18	3		
42	16, 17 & 18	3	20	1
43	16, 17 & 18	3	21	1
44	41 & 42	2	43	1
45	41 & 42	2	43	1
46	41 & 42	2	43	1
47	19	3		
48	19	3	21	1
49	19	3	20	1
50	19	2		
51	19	2	21	1
52	19	2	20	1
53	26	3	30	1
54	26	3	30	1
55	27	3	30	1
56	27	3	30	1
57	28	3	30	1
58	28	3	30	1
59	29	3	30	1
60	29	3	30	1
61	38	2		
62	38	2		
63	38	2	40	1
64	39	1	40	1
65	39	2	40	1
66	39	2		
67	36	2		
68	36	2		
69	37	2		
70	37	2		
71	31	2		
72	31	2		
73	31	2	35	1
74	31	2	35	1
75	32	2	35	1
76	32	2		
77	32	2		
78	33	2		
79	33	1	35	1
80	34	1	35	1
81	34	1		
82	34	2		
83	1	3	2	1
84	1	3	2	1
85	1	3	2	1
86	1	3	2	1
87	1	2	2	1
88	1	2	2	1
89	1	2	3	1
90	1	2	3	1
91	4	3	25	1
92	4	2	25	1
93	4	3	24	1
94	4	2	24	1
95	4	3	23	1
96	4	2	23	1
97	4	3		
98	4	2		
99	7	2	25	1
100	7	3	25	1
101	7	3	24	1
102	7	2	24	1

TABLE III (Cont.)

ARRANGEMENT OF PAINT PANELS AND THEIR RESPECTIVE COATINGS

Panel No.	Prime Coat Paint No.	Prime Coat No. Coats	Topcoat Paint No.	Topcoat No. Coats
103	7	3	23	1
104	7	2	23	1
105	7	2		
106	7	3		
107	6	2	25	1
108	6	3	25	1
109	6	3	24	1
110	6	2	24	1
111	6	3	23	1
112	6	2	23	1
113	5	2	25	1
114	5	3	25	1
115	5	2	24	1
116	5	3	24	1
117	5	2	23	1
118	5	3	23	1
119	5	2		
120	5	3		
121	16,17,&18	3	20	1
122		3	20	1
123		3		
124		3		
125	19	2		
126		2	20	1
127		3		
128		3	20	1
129	36	2	47	1
130	36	2	47	1
131	37	2	47	1
132	37	2	47	1
133	38	2	40	1
134	39	1	40	1
135	39	2		
136	39	2	40	1
137	33	2		
138	34	1	35	1
139	33	1	35	1
140	34	1		
141	34	2		
142	32	2	35	1
143	22	2	23	1
144	22	2	23	1
145	22	2	24	1
146	22	2	24	1
147	22	2	25	1
148	22	2	25	1
149	22	2		
150	22	2		
151	22	3	23	1
152	22	3	23	1
153	22	3	24	1
154	22	3	24	1
155	22	3	25	1
156	22	3	25	1
157	22	3		
158	22	3		
159	44	2	46	1
160	44	2	46	1
161	44	3	46	1
162	44	3	46	1
163	44	2	45	1
164	44	2	45	1
165	44	3	45	1
166	44	3	45	1
167	44	2		
168	44	2		
169	48	2	50	1
170	48	2	50	1
171	48	2	51	1
172	48	2	51	1
173	48	2		
174	48	2		
175	48	3	50	1
176	48	3	50	1
177	48	3	51	1
178	48	3	51	1
179	48	3		
180	48	3		
181	49	2	50	1
182	49	2	50	1
183	49	2	51	1
184	49	2	51	1
185	49	2		
186	49	2		
187	49	3	50	1
188	49	3	50	1
189	49	3	51	1
190	49	3	51	1
191	49	3		
192	49	3		

TABLE IV

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (CHASE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
1	1.50	1.50	1.50	1.00	5.50
2	1.50	1.50	1.50	1.25	5.75
3	2.25	1.75	-	1.25	5.25
4	2.25	1.50	-	1.25	5.00
5	2.00	1.75	-	1.25	5.00
6	2.00	2.25	-	NTC	4.25
7	2.00	1.50	1.25	1.25	6.00
8	2.00	1.50	1.25	1.00	5.75
9	2.00	1.50	1.25	1.00	5.75
10	2.00	1.75	1.50	NTC	5.25
11	1.50	1.00	-	1.00	3.50
12	1.50	1.00	-	1.25	3.75
13	1.50	1.25	-	1.00	3.75
14	1.50	1.50	-	NTC	3.00
15	1.50	1.00	1.00	1.00	4.50
16	1.50	1.25	1.00	1.00	4.75
17	1.50	1.25	1.25	1.00	5.00
18	1.50	1.50	1.50	NTC	4.50
19	2.00	1.75	-	1.25	5.00
20	2.00	1.75	-	1.00	4.75
21	1.75	2.00	-	1.25	5.00
22	2.00	2.00	-	NTC	4.00
23	2.25	1.75	1.25	1.00	6.25
24	2.25	1.50	1.00	1.00	5.75
25	2.25	1.75	1.25	1.00	6.25
26	2.25	1.75	1.25	NTC	5.25
27	1.75	1.75	-	1.25	4.75
28	1.75	2.00	-	1.25	5.00
29	2.00	1.50	-	1.00	4.50
30	2.00	2.00	-	NTC	4.00
31	2.00	1.75	1.50	1.25	6.50
32	1.75	1.75	1.50	1.00	6.00
33	1.75	1.75	1.50	1.00	6.00
34	2.00	1.75	1.75	NTC	5.50
35	1.25	-	-	NTC	1.25
36	1.00	-	-	0.75	1.75
37	1.00	-	-	0.75	1.75
38	1.25	1.25	-	NTC	2.50
39	1.25	1.00	-	1.00	3.25
40	1.25	1.00	-	1.00	3.25
41	1.00	1.25	1.25	NTC	3.50
42	1.00	1.00	1.25	1.00	4.25
43	1.00	1.00	1.25	1.00	4.25
44	1.50	1.25	-	1.00	3.75
45	1.75	1.50	-	1.25	4.50
46	1.75	1.25	-	1.00	4.00
47	1.00	0.75	0.75	NTC	2.50
48	1.00	1.00	1.00	0.75	3.75
49	1.00	1.00	1.00	1.25	4.25
50	1.25	1.00	-	NTC	2.25
51	1.25	1.25	-	1.00	3.50
52	1.25	1.00	-	1.25	3.50
53	1.75	1.75	1.75	1.00	6.25
54	1.75	1.50	1.75	1.00	6.00
55	1.75	1.50	1.75	1.00	6.00

PAINT PANELS (CHASE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
56	1.75	1.50	1.50	1.00	5.75
57	1.75	1.50	1.50	1.00	5.75
58	1.75	1.50	1.75	1.00	6.00
59	1.75	1.50	1.50	1.00	5.75
60	1.75	1.75	1.50	1.00	6.00
61	2.00	1.00	-	NTC	3.00
62	1.75	1.00	-	NTC	2.75
63	1.50	1.00	-	1.00	3.50
64	0.75	-	-	0.75	1.50
65	1.25	1.00	-	1.00	3.25
66	1.50	1.00	-	NTC	2.50
67	2.00	2.00	-	NTC	4.00
68	2.25	2.00	-	NTC	4.25
69	1.50	1.25	-	NTC	2.75
70	1.50	1.25	-	NTC	2.70
71	2.50	2.00	-	NTC	4.50
72	2.50	2.00	-	NTC	4.50
73	2.50	2.00	-	1.00	5.50
74	2.50	2.00	-	1.00	5.50
75	2.50	2.50	-	1.00	6.00
76	2.50	2.50	-	NTC	5.00
77	2.50	2.50	-	NTC	5.00
78	1.50	1.00	-	NTC	2.50
79	1.75	-	-	1.00	2.75
80	1.50	-	-	1.00	2.50
81	1.25	-	-	NTC	1.25
82	1.50	1.00	-	NTC	2.50
83	2.00	2.00	2.00	1.50	7.50
84	2.00	2.00	2.00	1.00	7.00
85	2.00	2.00	2.00	1.00	7.00
86	2.00	2.00	2.00	1.00	7.00
87	2.00	2.00	-	1.50	5.50
88	2.00	2.00	-	1.00	5.00
89	2.00	2.00	-	2.00	6.00
90	2.00	2.00	-	2.00	6.00
91	2.00	2.00	2.00	2.00	8.00
92	1.50	1.50	-	1.00	4.00
93	2.00	2.00	2.00	1.00	7.00
94	1.00	1.00	-	1.00	3.00
95	2.00	2.00	2.00	1.50	7.50
96	1.50	1.50	-	1.50	4.50
97	2.00	2.00	2.00	-	6.00
98	2.00	2.00	-	-	4.00
99	2.00	2.00	-	1.00	5.00
100	1.50	1.50	1.50	1.00	5.50
101	2.00	1.50	1.50	1.00	6.00
102	2.00	1.50	-	1.50	5.00
103	1.50	1.50	1.50	1.50	6.00
104	1.50	1.50	-	1.00	4.00
105	2.00	1.50	-	-	3.50
106	1.50	1.50	1.50	-	4.50
107	2.00	2.00	-	2.00	6.00
108	2.00	2.00	2.00	1.00	7.00
109	2.00	2.00	1.50	1.00	6.50
110	2.00	2.00	-	1.50	5.50

TABLE IV (Cont.)

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (CHASE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
111	2.00	2.00	1.50	1.50	7.00
112	2.00	2.00	-	1.50	5.50
113	1.50	1.00	-	1.00	3.50
114	1.50	1.50	1.50	1.50	6.00
115	1.00	1.00	-	1.00	3.00
116	2.00	1.50	1.50	1.50	6.50
117	1.00	1.00	-	1.00	3.00
118	2.00	1.50	1.50	1.50	6.50
119	2.00	1.50	-	-	3.50
120	2.00	1.50	1.50	-	5.00
121	1.50	1.00	1.00	1.00	4.50
122	1.00	1.00	1.00	1.00	4.00
123	1.00	1.00	1.00	-	3.00
124	1.50	1.50	1.50	-	4.50
125	1.50	1.50	-	-	3.00
126	1.50	1.25	-	1.00	3.75
127	1.50	1.50	1.50	-	4.50
128	1.50	1.50	1.50	1.00	5.50
129	2.00	2.00	-	1.00	5.00
130	2.00	2.00	-	1.50	5.50
131	2.00	2.00	-	1.00	5.00
132	2.00	2.00	-	2.00	6.00
133	1.50	1.50	-	1.50	4.50
134	2.00	-	-	2.00	4.00
135	2.50	3.00	-	-	5.50
136	3.00	3.00	-	1.50	7.50
137	1.50	1.00	-	-	2.50
138	3.00	-	-	2.50	5.50
139	3.00	-	-	3.00	6.00
140	1.50	-	-	-	1.50
141	1.50	1.00	-	-	2.50
142	4.00	4.00	-	2.00	10.00
143	2.00	2.00	-	1.50	5.50
144	2.00	1.75	-	1.00	4.75
145	2.00	2.00	-	1.00	5.00
146	2.00	2.00	-	1.25	5.25
147	2.00	2.00	-	1.00	5.00
148	2.00	1.75	-	1.00	4.75
149	1.75	1.50	-	-	3.25
150	1.75	1.50	-	-	3.25
151	2.00	2.00	2.00	2.00	8.00
152	2.00	2.00	2.00	2.00	8.00
153	2.00	2.00	2.00	2.00	8.00
154	2.00	2.00	2.00	1.50	7.50
155	2.00	2.00	2.00	1.00	7.00
156	2.00	2.00	2.00	1.00	7.00
157	2.00	2.00	1.75	-	5.75
158	2.00	2.00	1.75	-	5.75
159	1.50	0.75	-	2.75	5.00
160	1.50	0.75	-	2.25	4.50
161	1.50	0.75	0.75	2.00	5.00
162	1.50	0.75	0.75	2.00	5.00
163	1.50	0.75	-	2.25	4.00
164	1.50	0.75	-	2.50	4.75
165	1.50	0.75	0.75	2.25	5.25
166	1.50	0.50	0.50	2.50	5.00

PAINT PANELS (CHASE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
167	1.50	0.75	-	-	2.25
168	1.50	1.00	-	-	2.50
169	0.50	1.75	-	2.50	4.75
170	0.75	1.50	-	2.75	5.00
171	0.75	1.50	-	2.25	4.50
172	0.50	1.50	-	2.50	4.50
173	0.75	1.25	-	-	2.00
174	0.75	1.25	-	-	2.00
175	0.50	1.75	1.75	2.75	6.75
176	0.75	1.75	1.75	2.75	7.00
177	0.75	1.50	2.00	1.75	6.00
178	0.50	1.75	2.00	1.50	5.75
179	0.50	1.75	1.50	-	3.75
180	0.75	1.50	2.00	-	4.25
181	0.50	1.25	-	3.25	5.00
182	0.75	1.00	-	2.75	4.50
183	0.50	1.25	-	2.25	4.00
184	0.75	1.25	-	2.25	4.25
185	0.50	1.25	-	-	1.75
186	0.50	1.25	-	-	1.75
187	0.50	1.25	0.75	3.75	6.25
188	0.50	1.25	1.00	3.00	5.75
189	0.75	1.00	1.00	2.75	5.50
190	0.50	1.25	1.00	2.25	5.00
191	0.75	1.00	0.75	-	2.50
192	0.50	1.50	0.75	-	2.75

TABLE IV (Cont.)

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (BATON ROUGE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
1	1.75	1.75	1.50	1.00	6.00
2	1.75	1.50	1.50	1.00	5.75
3	2.50	2.50	-	1.00	5.50
4	2.00	2.00	-	1.00	5.00
5	2.00	2.00	-	1.00	5.00
6	2.50	2.00	-	NTC	4.50
7	2.00	1.50	1.50	1.50	6.50
8	2.00	1.75	1.75	1.25	6.75
9	2.00	1.75	1.75	1.25	6.75
10	1.75	2.00	2.00	NTC	5.75
11	1.50	1.25	-	1.00	3.75
12	1.50	1.25	-	1.00	3.75
13	1.50	1.25	-	1.00	3.75
14	1.50	2.00	-	NTC	3.50
15	1.50	1.00	1.00	1.00	4.50
16	1.50	1.00	1.00	1.00	4.50
17	1.50	1.25	1.00	1.00	4.75
18	1.50	1.50	1.50	NTC	4.50
19	1.75	2.50	-	1.25	5.50
20	2.00	2.50	-	1.25	5.75
21	2.00	2.25	-	1.25	5.50
22	2.00	3.00	-	NTC	5.00
23	2.25	1.75	1.50	1.25	6.75
24	2.25	1.75	1.50	1.25	6.75
25	2.00	1.75	1.75	1.25	6.75
26	2.25	2.00	2.00	NTC	6.25
27	1.75	1.75	-	1.25	4.75
28	2.00	1.75	-	1.25	5.00
29	1.75	1.50	-	1.25	4.50
30	2.25	2.25	-	NTC	4.50
31	2.25	1.75	1.50	1.00	6.50
32	2.00	1.50	1.50	1.00	6.00
33	2.25	1.50	1.25	1.00	6.00
34	1.75	2.00	1.75	NTC	5.50
35	1.00	-	-	NTC	1.00
36	1.00	-	-	0.75	1.75
37	1.25	-	-	1.25	2.25
38	1.25	1.25	-	NTC	2.50
39	1.25	1.25	-	1.00	3.50
40	1.25	1.25	-	1.00	3.50
41	1.00	1.25	1.25	NTC	3.50
42	1.00	1.00	1.25	1.00	4.25
43	1.00	1.00	1.25	1.00	4.25
44	1.50	1.50	-	1.00	4.00
45	1.75	1.50	-	1.00	4.25
46	1.75	1.50	-	1.00	4.25
47	1.00	1.00	1.00	NTC	3.00
48	1.00	1.00	1.00	1.00	4.00
49	1.00	1.00	1.00	1.25	4.25
50	1.00	1.00	-	NTC	2.00
51	1.00	1.00	-	1.00	3.00
52	1.00	1.00	-	1.25	3.25
53	1.50	1.75	1.75	1.00	6.00
54	1.50	1.75	1.75	1.25	6.25
55	1.50	1.75	1.75	1.00	6.00

PAINT PANELS (BATON ROUGE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
56	1.50	1.75	1.75	1.00	6.00
57	1.50	1.75	1.75	1.00	6.00
58	1.50	1.75	1.75	1.00	6.00
59	1.50	1.75	1.75	1.00	6.00
60	1.50	1.75	1.75	1.00	6.00
61	2.00	1.50	-	NTC	3.50
62	2.00	1.75	-	NTC	3.75
63	1.50	1.50	-	1.00	4.00
64	0.75	-	-	0.75	1.50
65	1.00	1.00	-	1.00	3.00
66	1.50	1.50	-	NTC	3.00
67	2.00	1.75	-	NTC	3.75
68	2.00	2.00	-	NTC	4.00
69	1.75	1.75	-	NTC	3.50
70	1.75	1.50	-	NTC	3.25
71	3.50	2.00	-	NTC	5.50
72	3.50	2.00	-	NTC	5.50
73	2.50	2.50	-	1.00	6.00
74	2.50	2.50	-	1.00	6.00
75	2.50	2.50	-	1.00	6.00
76	2.75	2.75	-	NTC	5.50
77	2.75	2.75	-	NTC	5.50
78	1.50	1.50	-	NTC	3.00
79	1.75	-	-	2.25	4.00
80	2.00	-	-	1.50	3.50
81	2.00	-	-	NTC	2.00
82	1.75	1.00	-	NTC	2.75
83	2.00	2.00	2.00	2.00	8.00
84	2.00	2.00	2.00	1.00	7.00
85	2.00	2.00	2.00	1.00	7.00
86	2.00	2.00	2.00	1.00	7.00
87	2.00	2.00	-	1.00	5.00
88	2.00	2.00	-	1.00	5.00
89	2.00	2.00	-	2.00	6.00
90	2.00	2.00	-	2.50	6.50
91	2.00	2.00	2.00	1.00	7.00
92	1.50	1.50	-	1.00	4.00
93	2.00	1.50	1.50	1.50	6.50
94	1.50	1.50	-	1.00	4.00
95	2.00	2.00	2.00	1.00	7.00
96	2.00	2.00	-	1.00	5.00
97	2.25	2.00	2.00	-	6.25
98	2.00	2.00	-	-	4.00
99	2.00	2.00	-	1.00	5.00
100	1.50	1.50	1.50	1.00	5.50
101	2.00	2.00	2.00	1.50	7.50
102	2.00	1.50	-	1.00	4.50
103	1.50	1.50	1.50	1.00	5.50
104	1.50	1.50	-	1.00	4.00
105	2.00	1.50	-	-	3.50
106	1.50	1.50	1.50	-	4.50
107	2.00	2.00	-	2.00	6.00
108	2.00	2.00	2.00	1.50	7.50
109	2.00	1.50	1.50	1.50	6.50
110	2.00	2.00	-	1.50	5.50

TABLE IV (Cont.)

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (BATON ROUGE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
111	2.00	2.00	2.00	1.00	7.00
112	2.00	2.00	-	2.00	6.00
113	1.50	1.00	-	1.00	3.50
114	2.00	1.50	1.50	1.00	6.00
115	1.00	1.00	-	1.00	3.00
116	1.50	1.50	1.50	1.00	5.50
117	1.00	1.00	-	1.00	3.00
118	1.50	1.50	1.50	1.00	5.50
119	1.50	1.50	-	-	3.00
120	1.50	1.50	1.50	-	4.50
121	1.50	1.00	1.00	1.00	4.50
122	1.50	1.00	1.00	1.00	4.50
123	1.00	1.00	1.00	-	3.00
124	1.00	1.00	1.00	-	3.00
125	1.50	1.50	-	-	3.00
126	1.50	1.00	-	1.00	3.50
127	1.50	1.50	1.50	-	4.50
128	1.50	1.50	1.50	1.00	5.50
129	1.50	1.50	-	1.50	4.50
130	2.00	2.00	-	2.00	6.00
131	1.50	1.50	-	1.50	4.50
132	2.00	2.00	-	2.50	6.50
133	2.00	2.00	-	1.00	5.00
134	2.00	-	-	1.50	3.50
135	2.50	2.50	-	-	5.00
136	3.00	3.00	-	2.00	8.00
137	1.25	1.25	-	-	2.50
138	3.00	-	-	3.00	6.00
139	2.50	-	-	2.50	5.00
140	1.50	-	-	-	1.50
141	1.50	1.25	-	-	2.75
142	4.00	4.00	-	2.00	10.00
143	1.50	1.50	-	1.00	4.00
144	1.50	1.50	-	1.00	4.00
145	1.50	1.50	-	1.50	4.50
146	1.50	1.50	-	1.50	4.50
147	1.50	1.50	-	1.50	4.50
148	1.50	1.50	-	1.50	4.50
149	1.50	1.00	-	NTC	2.50
150	1.50	1.25	-	NTC	2.75
151	2.00	2.00	2.00	1.75	7.75
152	2.00	2.00	2.00	1.75	7.75
153	1.75	1.75	1.75	1.50	6.75
154	1.75	1.75	1.75	1.50	6.75
155	1.75	1.75	1.75	1.75	7.00
156	1.75	1.75	1.75	1.50	6.75
157	2.00	1.75	1.75	NTC	5.50
158	2.00	1.75	1.75	NTC	5.50
159	1.50	0.75	-	2.75	5.00
160	1.50	0.50	-	3.50	5.50
161	1.50	0.75	0.50	2.25	5.00
162	1.50	0.75	0.50	2.25	5.00
163	1.50	0.75	-	2.25	4.50
164	1.50	0.75	-	2.50	4.75
165	1.50	0.75	0.50	2.50	5.25
166	1.50	0.75	0.50	2.25	5.00

PAINT PANELS (BATON ROUGE, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
167	1.50	0.75	-	-	2.25
168	1.50	1.00	-	-	2.50
169	0.75	1.25	-	2.75	4.75
170	0.50	1.75	-	2.75	5.00
171	0.75	1.25	-	2.50	4.50
172	0.75	1.50	-	2.25	4.50
173	0.75	1.25	-	-	2.00
174	0.75	1.25	-	-	2.00
175	0.75	1.50	1.75	2.75	6.75
176	0.50	1.75	1.75	3.00	7.00
177	0.75	1.75	2.00	1.50	6.00
178	0.50	2.00	2.00	1.25	5.75
179	0.75	1.50	2.00	-	4.25
180	0.50	1.75	1.75	-	4.00
181	0.50	1.25	-	3.25	5.00
182	0.50	1.25	-	2.75	4.50
183	0.75	1.00	-	2.25	4.00
184	0.75	1.25	-	2.00	4.00
185	0.75	1.00	-	-	1.75
186	0.50	1.50	-	-	2.00
187	0.50	1.25	0.75	3.75	6.25
188	0.75	1.00	0.75	3.25	5.75
189	0.75	1.00	1.25	2.50	5.50
190	0.50	1.25	1.00	2.25	5.00
191	0.75	1.00	1.00	-	2.75
192	0.50	1.25	1.00	-	2.75

TABLE IV (Cont.)

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (HOUMA, LOUISIANA)

Panel No.	1st. Coat	2nd Coat	3rd Coat	Topcoat	Total
1	1.50	1.00	1.00	1.00	5.50
2	1.50	1.00	1.00	1.25	5.75
3	2.00	1.50	-	1.00	4.50
4	2.00	1.25	-	1.00	4.25
5	2.00	1.25	-	1.00	4.25
6	2.00	2.00	-	NTC	4.00
7	2.00	1.50	1.50	1.00	6.00
8	2.00	1.50	1.25	1.00	5.75
9	2.00	1.50	1.25	1.00	5.75
10	2.00	1.75	2.00	NTC	5.75
11	1.50	1.00	-	1.00	3.50
12	1.50	1.00	-	1.00	3.50
13	1.50	1.25	-	1.00	3.75
14	1.50	2.00	-	NTC	3.50
15	1.50	1.25	1.00	1.00	4.75
16	1.50	1.25	1.00	1.00	4.75
17	1.50	1.25	1.25	1.00	5.00
18	1.50	1.50	1.50	NTC	4.50
19	2.00	2.00	-	1.00	5.50
20	2.25	1.50	-	1.00	4.75
21	2.00	2.00	-	1.00	5.00
22	2.00	2.25	-	NTC	4.25
23	2.25	1.50	1.50	1.00	6.25
24	2.00	1.50	1.25	1.00	5.75
25	2.00	1.75	1.50	1.00	6.25
26	2.00	2.00	1.75	NTC	5.25
27	1.75	2.00	-	1.00	4.75
28	1.75	2.00	-	1.25	5.00
29	1.75	1.75	-	1.00	4.50
30	2.00	2.25	-	NTC	4.25
31	1.75	1.75	1.50	1.25	6.25
32	1.50	1.75	1.75	1.25	6.25
33	2.00	1.75	1.50	1.00	6.25
34	1.75	1.75	2.00	NTC	5.50
35	1.25	-	-	NTC	1.25
36	1.00	-	-	0.75	1.75
37	1.00	-	-	0.75	1.75
38	1.25	1.25	-	NTC	2.50
39	1.25	1.00	-	1.00	3.25
40	1.25	1.00	-	1.00	3.25
41	1.25	1.00	1.00	NTC	3.25
42	1.25	1.00	1.00	1.00	4.25
43	1.25	1.00	1.00	1.00	4.25
44	1.50	1.25	-	1.00	3.75
45	1.75	1.75	-	1.00	4.50
46	1.50	1.50	-	1.00	4.00
47	1.00	0.75	0.75	NTC	2.50
48	1.00	1.00	0.75	0.75	3.50
49	1.00	1.00	1.00	1.25	4.25
50	1.25	1.25	-	NTC	2.50
51	1.25	1.25	-	1.00	3.50
52	1.25	1.25	-	1.00	3.50
53	1.50	1.75	1.75	1.00	6.00
54	1.50	1.75	1.75	1.25	6.25
55	1.50	1.25	1.25	1.00	5.00

PAINT PANELS (HOUMA, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
56	1.50	1.25	1.25	1.00	5.00
57	1.50	1.75	1.75	1.00	6.00
58	1.50	1.75	1.75	1.00	6.00
59	1.50	1.50	1.75	1.00	5.75
60	1.50	1.75	1.75	1.00	6.00
61	1.50	1.00	-	NTC	2.50
62	1.50	1.25	-	NTC	2.75
63	1.50	1.25	-	1.00	3.50
64	0.75	-	-	0.75	1.50
65	1.00	1.00	-	1.00	3.00
66	1.50	1.50	-	NTC	3.00
67	2.00	2.00	-	NTC	4.00
68	2.25	2.00	-	NTC	4.25
69	1.50	1.25	-	NTC	2.75
70	1.50	1.00	-	NTC	2.50
71	2.25	2.25	-	NTC	4.50
72	2.25	2.25	-	NTC	4.50
73	2.25	2.25	-	1.00	5.50
74	2.25	2.25	-	1.00	5.50
75	2.25	2.25	-	1.25	5.75
76	2.50	2.50	-	NTC	5.00
77	2.50	2.50	-	NTC	5.00
78	1.50	1.00	-	NTC	2.50
79	1.50	-	-	1.25	2.75
80	1.50	-	-	1.00	2.50
81	1.25	-	-	NTC	1.25
82	1.25	1.25	-	NTC	2.50
83	2.00	2.00	2.00	1.00	7.00
84	2.00	2.00	2.00	1.00	7.00
85	2.00	2.00	2.00	1.50	6.50
86	2.00	2.00	2.00	1.50	6.50
87	2.00	2.00	-	1.00	5.00
88	2.00	2.00	-	1.00	5.00
89	2.00	2.00	-	3.00	7.00
90	2.50	2.50	-	3.00	8.00
91	2.00	2.00	2.00	1.00	7.00
92	1.50	1.50	-	1.00	4.00
93	2.00	2.00	2.00	1.00	7.00
94	1.50	1.50	-	1.00	4.00
95	2.00	2.00	2.00	1.50	7.50
96	1.50	1.50	-	1.00	4.00
97	2.25	2.25	2.00	-	6.50
98	1.50	1.50	-	-	3.00
99	1.50	1.50	-	1.50	4.50
100	1.50	1.50	1.50	1.00	5.50
101	2.00	1.50	1.50	1.00	6.00
102	2.00	2.00	-	1.00	5.00
103	1.50	1.50	1.50	1.00	5.50
104	1.50	1.50	-	1.00	4.00
105	2.00	1.50	-	-	3.50
106	2.00	1.50	1.50	-	5.00
107	2.00	2.00	-	2.00	6.00
108	2.00	2.00	2.00	1.00	7.00
109	2.00	2.00	1.50	1.00	6.50
110	2.00	2.00	-	1.50	5.50

TABLE IV (Cont.)

THICKNESSES OF COATINGS FOR FIELD PANELS

PAINT PANELS (HOUMA, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
111	2.00	1.50	1.50	1.50	6.50
112	2.00	2.00	-	1.50	5.50
113	1.50	1.00	-	1.00	3.50
114	2.00	1.50	1.50	1.00	6.00
115	1.00	1.00	-	1.00	3.00
116	2.00	2.00	2.00	2.00	8.00
117	1.50	1.00	-	1.00	3.50
118	2.00	1.50	1.50	1.50	6.50
119	2.00	1.50	-	-	3.50
120	2.00	2.00	1.50	-	5.50
121	1.50	1.00	1.00	1.00	4.50
122	1.00	1.00	1.00	1.00	4.00
123	1.50	1.00	1.00	-	3.50
124	1.00	1.00	1.00	-	3.00
125	1.50	1.50	-	-	3.00
126	1.25	1.00	-	1.00	3.25
127	1.75	1.50	1.50	-	4.75
128	1.50	1.50	1.50	1.00	5.50
129	2.50	2.00	-	2.00	6.50
130	2.00	2.00	-	1.50	5.50
131	2.50	2.00	-	2.00	6.50
132	2.00	2.00	-	1.50	5.50
133	1.50	1.50	-	1.50	4.50
134	2.00	-	-	1.50	3.50
135	2.50	2.00	-	-	4.50
136	2.50	2.50	-	2.50	7.50
137	1.50	1.00	-	-	2.50
138	3.50	-	-	2.00	5.50
139	3.50	-	-	2.00	5.50
140	1.50	-	-	-	1.50
141	1.00	1.00	-	-	2.00
142	4.00	4.00	-	2.00	10.00
143	2.00	2.00	-	1.00	5.00
144	2.00	2.00	-	1.00	5.00
145	2.00	2.00	-	1.25	5.25
146	2.00	1.75	-	1.00	4.75
147	2.00	1.50	-	1.00	4.50
148	2.00	1.75	-	1.00	4.75
149	1.50	1.50	-	-	3.00
150	1.50	1.50	-	-	3.00
151	2.00	2.00	2.00	2.00	8.00
152	2.25	2.00	2.00	2.00	8.25
153	2.25	2.00	2.00	2.00	8.25
154	2.00	2.00	2.00	1.50	7.50
155	2.00	2.00	2.00	1.50	7.50
156	2.00	2.00	2.00	1.00	7.00
157	1.75	1.75	1.75	-	5.25
158	2.00	2.00	2.00	-	6.00
159	1.50	0.75	-	2.75	5.00
160	1.50	0.75	-	2.25	5.50
161	1.50	0.75	0.50	2.25	5.00
162	1.50	0.75	0.75	2.00	5.00
163	1.50	0.75	-	2.25	4.50
164	1.50	0.75	-	2.50	4.75
165	1.50	0.75	0.50	2.50	5.25

PAINT PANELS (HOUMA, LOUISIANA)

Panel No.	1st Coat	2nd Coat	3rd Coat	Topcoat	Total
166	1.50	0.75	0.50	2.25	5.00
167	1.50	0.75	-	-	2.25
168	1.50	1.00	-	-	2.50
169	0.75	1.50	-	2.50	4.75
170	0.50	1.75	-	2.75	5.00
171	0.75	1.25	-	2.50	4.50
172	0.50	1.50	-	2.50	4.50
173	0.75	1.25	-	-	2.00
174	0.75	1.25	-	-	2.00
175	0.75	1.25	2.00	2.75	6.75
176	0.50	1.75	1.75	3.00	7.00
177	0.75	1.75	1.75	1.75	6.00
178	0.75	1.50	2.00	1.50	5.75
179	0.50	1.75	2.00	-	4.25
180	0.75	1.75	1.75	-	4.25
181	0.50	1.25	-	3.25	5.00
182	0.50	1.25	-	2.75	4.50
183	0.50	1.25	-	2.25	4.00
184	0.50	1.25	-	2.25	4.00
185	0.75	1.00	-	-	1.75
186	0.50	1.50	-	-	2.00
187	0.50	1.25	0.75	3.75	6.25
188	0.75	1.00	1.00	3.00	5.75
189	0.75	1.25	1.00	2.50	5.50
190	0.50	1.25	1.00	2.25	5.00
191	0.50	1.25	0.75	-	2.50
192	0.50	1.25	1.25	-	3.00

TABLE V

FIRST WEATHEROMETER PANELS (50) EXPOSED

DRY BULB TEMPERATURE - 121° F

WET BULB TEMPERATURE - 112° F

WATER HEATER DIAL SET AT 70

BLACK PANEL TEMPERATURE - 130° F

RELATIVE HUMIDITY - 78%

Panel No.	Primer No.	(Thickness) 1st	2nd	3rd	Number Topcoat	Thickness Mils	Total Thickness
1	1	1.50	1.50	1.50	2	1.00	5.50
2	1	1.50	1.50	1.50	2	1.00	5.50
3	1	1.50	1.50	1.50	3	1.00	5.50
4	1	1.50	1.50	1.50	3	1.00	5.50
5	1	1.50	1.50	-	2	1.00	4.00
6	1	1.50	1.50	-	2	1.00	4.00
7	36	2.00	2.00	-	47	1.00	5.00
8	36	2.00	2.00	-	-	-	4.00
9	37	2.00	2.00	-	47	1.00	5.00
10	37	2.00	2.00	-	-	-	4.00
11	26	1.50	1.50	1.00	30	1.00	5.00
12	26	1.50	1.50	1.00	30	1.00	5.00
13	27	1.50	1.25	1.25	30	1.00	5.00
14	27	1.50	1.25	1.25	30	1.00	5.00
15	28	1.75	1.50	1.50	30	1.00	5.75
16	28	1.75	1.50	1.50	30	1.00	5.75
17	29	1.50	1.25	1.25	30	1.00	5.00
18	29	1.50	1.25	1.25	30	1.00	5.00
19	41, 42	2.00	1.75	-	43	1.00	4.75
20	41, 42	2.00	2.00	-	43	1.00	5.00
21	16, 17, 18	1.00	1.00	1.00	-	-	3.00
22	16, 17, 18	1.00	1.00	1.00	-	-	3.00
23	16, 17, 18	1.00	1.00	1.00	20	1.00	4.00
24	16, 17, 18	1.00	1.00	1.00	20	1.00	4.00
25	16	1.00	-	-	-	-	1.00
26	16	1.00	-	-	-	-	1.00
27	19	1.25	1.25	-	20	1.00	3.50
28	19	1.25	1.25	-	20	1.00	3.50
29	19	1.50	1.25	-	-	-	2.75
30	19	1.50	1.50	-	-	-	3.00
31	38	1.25	1.25	-	40	1.00	3.50
32	38	1.25	1.25	-	40	1.00	3.50
33	38	1.25	1.25	-	-	-	2.50
34	38	1.25	1.25	-	-	-	2.50
35	22	1.50	1.25	-	23	1.00	3.75
36	22	1.50	1.25	-	24	1.00	3.75
37	22	1.50	1.25	-	23	1.00	3.75
38	22	1.50	1.25	-	24	1.00	3.75
39	T-69	2.00	1.50	-	50	1.25	4.75
40	T-69	2.00	1.50	-	50	1.25	4.75
41	T-69	1.75	1.50	-	51	1.00	4.25
42	T-69	1.75	1.50	-	51	1.00	4.25
43	T-6R	1.75	1.50	-	50	1.25	4.50
44	T-6R	1.75	1.50	-	50	1.25	4.50
45	T-6R	1.50	1.50	-	51	1.00	4.00
46	T-6R	1.75	1.50	-	51	1.00	4.25
47	32	4.00	4.00	-	-	-	8.00
48	32	4.00	4.00	-	-	-	8.00
49	32	4.00	4.00	-	35	2.00	10.00
50	32	4.00	4.00	-	35	2.00	10.00