PLAINTIFF'S EXHIBIT
BIR-232

3906A

MEMORANDUM

In reply to _____ *Date* 7/31/75 *From* BBH *To* MS- Mr. Colvin

Subject ACCELERATED WEATHERING OF COATING ASPHALTS

BB- Mr. Hixon
BBR- Mr. Frazier
BBQ- Mr. Homan
MB- Mr. Clay
MK- Mr. Powers
MJ- Mr. Miller
MP- Mr. Suva
PB- Mr. Koval
PK- Mr. Zinkowski
PS- Mr. Marsh
PJ- Mr. Dickinson
PBL- Mr. Clark
PKL- Mr. Price
PSL- Mr. Kirklin
PJL- Mr. Sutton

Pacific Division

Mr. Wood
Mr. FitzPatrick
Mr. McClung
Mr. McAnulty
Mr. Koopmann
Mr. Costa

Accelerated weather testing of unfilled and filled asphalts, representing the coatings being used by the various mills during early 1975 have been completed. The tests were run on 28 ±1 mil coatings applied to aluminum panels. The weathering took place in a Model DMC-R Weather-Ometer according to ASTM D 529-62, Cycle A.

Cycles to failure were as follows:

Unfilled Coatings	
FK	46
FS	46
FB	46
FJ	40
FW	25
FO	21
FM	20

53% Filled Coatings	
FK	99
FJ	74
FS	74
FB	71
FW	58
(a) FM	38
(b) FM	38
FO	35

(a) Fair Oaks Filler
(b) Limestone Filler

Conclusions:

1. Among the better unfilled coatings, those from FK, FS and FB were equal in durability. This gives a relatively higher ranking to unfilled FS coating than has been observed in previous comparisons. The coating from FJ failed somewhat sooner than usual.

3906A

MEMORANDUM

In Reply to _____ *Date* _____ *From* _____ *To* _____

Subject _____

2. When these four coatings were combined with their respective fillers at a level of 53%, the durability of the FK asphalt was enhanced very considerably while the other three asphalts lasted for just over seventy cycles which is a satisfactory but not unusually good performance.

3. The unfilled Californian coating from FW failed somehat sooner than in the mid-1974 weathering series (25 cycles compared with 34 cycles). The filled versions were equally durable in both instances.

4. The catalysed Iranian coatings from FM and FO showed early failure whether filled or unfilled. During the past few months Shell has replaced the Iranian coating with Merban (formerly identified as Persian).

PSHoye/yp
Attach.

BIRD 010987

ASPHALT COATING DURABILITY - CYCLES TO FAILURE IN AWT

Series #r Texas Stain		S.P. °F.	Pen 0.1 mm	Unfilled Sample	Unfilled Cycles	53% Filled Sample	53% Filled Cycles
3.5	Perth Amboy	227	17	712-1	42	713	74
	Trumbull Venez.			-2	38		
	Average				40		
	Filler						GAF B 65
3.3	Charleston	224.5	17	714-1	46	715	99
	Exxon Venez.			-2	46		
	Average				46		
	Filler						FKW Dust
4.0	Martinez	223	20	716-1	19	717	38
	Shell Iranian, Cat.			-2	21		
	Average				20		
	Filler						Fair Oaks
	Martinez	223	20			718	38
	Shell Iranian, Cat.						
	Average						
	Filler						Limestone
4.3	Portland	232	22.5	719-1	21	720	35
	Shell Iranian, Cat.			-2	21		
	Average				21		
	Filler						Limestone
2.8	Shreveport	221.5	14	721-1	46	722	74
	E. Texas, Arkansas			-2	46		
	Average				46		
	Filler						Glenwood
4.8	Wilmington	230	17	723-1	25	724	58
	S. Californian, Cat.			-2	25		
	Average				25		
	Filler						3M Filler
3.5	Norwood	226	17.5	725-1	46	726	71
	Exxon Shell Venez.			-2	46		
	Average				46		
	Filler						FBW Dust

PSHoye/rp
7/31/75

BIRD 010988