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Schedule No 77 11

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Inter Office

Car Product Development

January 11, 1984

Mr. E. T. Mabley
Mr. D. L. Rivard
Mr. R. C. Ronzi

Subject: New Asbestos Removal Objectives

As you know the Company has been working on removing asbestos from product materials since 1980. Advanced Vehicle Engineering and Technology has the responsibility of coordinating all product engineering office implementation, including preparation of specific objectives and progress reports.

Objectives were published in a Car Program Direction Letter 8/18/81. In this original letter, objective statements and completion dates were somewhat general reflecting the then unknown technical problems and costs of substitution. The direction now is that for the friction product category a definite Corporate 100% asbestos removal date is desired. To notify the engineering offices of this change we intend to issue a new Direction Letter, draft attached.

Would you please concur in the completion dates shown in Table 1 of the Program Letter that are your responsibility, and advise of exceptions or qualifications you require. Note that the friction products category now explicitly includes all uses, i.e., all clutches, brakes, etc. supplied both as loose parts to be assembled at a Ford location and as part of purchased assemblies. Bob Husen, 44134, Room 1049, Bldg. #5, can supply background and detail. Please reply by January 27, 1984.

R. E. Van House

Attachment

D2-267

010995

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Car Program Direction Letter

(CONFIDENTIAL)

☐ Initial Direction		Lense Control # _____	
☐ Supplements Lit		Date _____	
☒ Supersedes Lit		EPCOR-E-876 (8/78/P1)	
Subject: <u>Topic Substance Plan for Removing Asbestos From Product Materials</u>			
Reference Authority: <u>CEPL-10; S. M. Free review 12/16/83; EASDS recommendation 12/9/83</u>			
ENGINEERING PRIORITY	☒ Action Release	☐ Investigate Thru Feasibility	☐ Investigate Paper Study
			☐ Other (See text)
PRIMARY CAUSAL FACTOR	☐ Prod Appeal	☒ Prod Funct	☐ Cost Red
	☐ Safety	☐ Damageability	☐ Emissions
		☐ Noise	☐ Fuel Economy
PROTOTYPE EFFECT		PCR _____	
Proto Mat'l Req'd		Mkt. Proto Appeal Affected	
☐ Yes ☐ No		☐ Yes ☐ No	
CHANGE REQUEST CLASS	CHANGE TO BE EFFECTED		PULL AHEAD TO PRODUCE MODEL YEAR
Emergency	Post Job No 1 (ASAP)		COMPLEXTY
☐ Yes ☒ No	☐ Job No 1 ☐ Scrap ☒ Use/Exhaust		☐ Yes
	☐ Mid-Year		☐ No
CAP LINES			
☒ ALL	☐ Econ	☐ Mustang	☐ Granada
	☐ Lynx	☐ Capri	☐ XR-7
	☐ EXP	☐ Ford Topaz	☐ T-Bird
	☐ Lynx LH 7	☐ Merc Topaz	☐ Ford
		☐ Zephyr	☐ Lincoln Town Car
			☐ Mark
			☐ Continental
			☐ Merc
MODELS/CODES	ENGINES/CODES	TRANSMISSIONS/CODES	OPTION CODES
ALL	ALL	ALL	
Affected Application: ☒ 48 States ☒ Can. ☒ Canada ☒ Allstate ☒ Other (See Text)			
PROGRAM PURPOSE AND DIRECTION			
This letter supersedes EPCOR-E-876 with updated objective statements and timing (Table 1). These objectives are consistent with affected PEO removal plans, including Light and Heavy Truck and Tractor. Removal objectives are essentially unchanged except for friction products, specifically brakes. <u>Friction Products (Brakes)</u> Car Chassis PEO is directed to remove asbestos from all passenger car brakes per the plan approved in the referent review (Table 2). <u>General</u> Asbestos substitutes must not present an unreasonable risk of injury to health or the environment. AVET will be responsible for tracking and reporting accomplishments and for preparation of supplementary program letters directing specific accelerated actions if and where necessary. In order to consolidate actions within North America, Light and Heavy Truck and Tractor are requested to review these objectives and continue to participate in the reporting scheme. <u>Costs</u> If fixed and/or variable costs for items other than brakes appear significant or if an excessive engineering effort is required, actions should be reviewed with the Vehicle Design Office first.			
L. C. Veraldi		Date	C. L. Erighton
A. L. Gotherie		Date	H. W. Bessler
R. A. Huser		Date	Engt Pvc & Com. Mg.
44124		Date	W. E. Anderson
Pvc		Date	Mg. Priorities 12/83

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CPD
APR 84 9745

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Business Decision Summary

(CONFIDENTIAL)

Ltr #

Date

ENGINEERING SUMMARY

Parameter	Projected Effect of Program Direction (To be completed by letter originator)			Amount of Change/ Source of Estimate
	Projected Improvement	Projected Deterioration	No Significant Change Anticipated	
Vehicle Weight	☐	☐	☐	
Fuel Economy	☐	☐	☐	
Reliability	☐	☐	☐	
Serviceability	☐	☐	☐	
End Item Count	☐	☐	☐	
New Tooling Parts	☐	☐	☐	
Electrical Load	☐	☐	☐	
Vel Eval Rating	☐	☐	☐	
Scheduled Maintenance/Other	☐	☐	☐	

COST SUMMARY

(To be completed by letter originator)

O/U Prior
Release
\$(Per Unit)

Annual
Effect
\$(000's)

Source

Design			
A&D Labor			
Warranty			
Cust' Loys'			
Complexity			
Total Net Svcs / (Pen)	\$	\$	
	\$ (000)	Source	
Tooling	800	CF20 est.	
Facilities			
Launch			
Engineering	1,300	CF20 est.	
Obsolescence			
Competition			
Total Investment	\$ 2,100	CF20 est.	
Life Cycle Assumption			
1st Year Payback Ratio			
Cycle Payback Ratio			

FUNDING SUMMARY

(To be completed by letter originator)

☐ Features \$ Approved by Date

CAR PROGRAMS

- ☐ New Options
- ☐ Freshening
- ☐ Appearance Cost Reduction

VEHICLE ENGINEERING

- ☐ Minor Product Improvements
- ☐ Functional Cost Reductions

(To be completed by Engrg Planning & Control)

- ☐ Base Budget
- ☐ Normal Design & Development
- ☐ Added Starter \$ Cost Est. Date
- ☐ Emergency (Responsible Activity)

Comments/Added Starter Effects

PROFITABILITY SUMMARY -- Required only for new options and price related content changes (To be completed by Car Programs)

Car Line/Model Application				
Proposed WSC Price				
Variable Cost				
Unit Economic Profit				
Rate % of Car Line				
Annual Volume (000)				010997
Annual Economic Profit				
After Tax Return on Assets				
Payback Period				

TECHNICAL SUMMARY (To be completed by Program Timing Activity)

Proposed By	D/C INFO	OK TOOL	END REL	DIE MODEL	PROTO PART	REQ'D FOR FUNCTIONAL	REQ'D FOR AP	ESTIMATED	EFF. ADD
Date									

Entered
Remarks

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TABLE 1

NORTH AMERICAN PRODUCT ENGINEERING OFFICE ASBESTOS REMOVAL OBJECTIVES

Product Material Applications Containing Asbestos		Planned Asbestos Removal Date by Application (Calendar Year End)			
		Passenger Car	Light Truck	Heavy Truck	Tractor
Friction Products [All]	Wet Clutch	Complete 1983	1984	Compl. 1983	Compl. 1983
	Manual Trans. Clutch	1985	Compl. 1983	1985	1987
	Brakes	1989 (see Table 2)	1984	1985	1989
Gaskets & Shaft Seals (except PIA)	Non-Critical	1985	1985	1985	1986
	Critical (significant performance issues, e.g. temp, pressure)	1989	1989	1989	1989
Bulk Sealers, Adhesives, Tapes, Thread Sealers, & Acoustic Mts (except PIA)	Non-Critical	1985	1985	1985	1985
	Critical (significant performance issues, e.g. temp, viscosity)	First major respecification opportunity (ref. CEPL-10)			
Other Material (except PIA)	Plastic Fillers & Misc.	1985	1985	1985	1985
Purchased in Assembly (PIA)	1/	No substitution action req'd - suppliers are to be requested to work toward minimizing asbestos but allowed to establish their most suitable compliance plan.			
General	All	All asbestos to be encapsulated or resin coated and appropriate warnings included in service literature and containers.			
Service Parts	Past Models	No reengineering of after market service parts specifically to delete asbestos is req'd. Service literature and parts containers to be marked with appropriate warnings.			
All Newly Designed Components	New Parts/Uses	The non-asbestos requirements of CEPL-10 (12/79) are to be adhered to in new designs.			

1/ Purchased assemblies for which detailed part composition is left to the outside supplier. Note: No friction products applications in this category.

TABLE 2

Car Chassis Engineering Dept.
Asbestos Removal PlanX = Introduction of 100% Non-Asbestos Brakes
(Model Year)

Vehicle	1984	1985	1986	1987	1988	1989	1990
Escort/Lynx Tempo/Topaz <u>a/</u>				X			
Crown Vic/ Grand Marq Town Car <u>b/</u>				X			
Mark				X			
LTD/Marquis <u>c/</u>			X (DN-5)				
Mustang/Capri						Drop	
T'Bird/Cougar					X (FN-12)	X	(FN-10)
Continental				X (FN-9)			

a/ Non-asbestos brakes for current FWD vehicles will use DN-5 technology.b/ Complete design and development for a non-asbestos Panther car brake system is proposed to be sourced outside. An alternative plan for Town Cars is a 4 wheel disc system like FN-9 & Mark for 1987.c/ LTD/Marquis currently uses non-asbestos front disc pads w/asbestos composition backing.