



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED
WILMINGTON, DELAWARE 19898

cc: J. G. Ishikawa, B-16234
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CHEMICALS AND PIGMENTS DEPARTMENT
JACKSON LABORATORY

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PERSONAL & CONFIDENTIAL

To: J. P. Glas, B-17206

From: R. S. Weis *RSW*

CONOCO R&D MANAGEMENT VISIT TO WILMINGTON

Attached is background information covering Aromatic
Products, Colored Pigments and Specialty Chemicals for your
Conoco talk.

RSW:gmd
Att. (6)

N 26945

PRODUCT LINES vs R&D SUPPORT

	1982 BUDGET, \$ MM (MP)	
	<u>IEB</u>	<u>MTE</u>
<u>CATEGORY I - FULL SUPPORT</u>		
SPECIALTY CHEMICALS	5.5 (31)	2.7 (13)
<u>CATEGORY II - SELECTIVE SUPPORT</u>		
AROMATIC PRODUCTS	4.1 (20)	3.4 (20)
<u>CATEGORY III - LIMITED SUPPORT</u>		
NONE	-	-
<u>CATEGORY IV - MINIMAL SUPPORT</u>		
COLORED PIGMENTS	2.4 (11)	4.8 (28)
TOTAL	12.0 (62)	10.9 (61)

RSW-1
3/16/82

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MAJOR TECHNOLOGIES

AROMATIC PRODUCTS

- NITRATION
- ISOMER SEPARATION
- CATALYTIC HYDROGENATION
- PHOSGENATION

COLORED PIGMENTS

- PARTICLE SIZE CONTROL
- PARTICLE SIZE DISPERSION
- PARTICLE SURFACE MODIFICATION

SPECIALTY CHEMICALS

- ESTERIFICATION
- TELOMERIZATION
- EMULSIFICATION

RSW-2
3/16/82

MAJOR R&D THRUST
AROMATIC PRODUCTS

	<u>1982 BUDGET</u>		<u>INCENTIVE</u>
	<u>MP</u>	<u>\$M</u>	
<u>STRATEGIC R&D</u>			
● 3,4-DICHLOROANILINE - DEVELOP NEW CATALYST	1.0	140	\$1MM/YR. SAVINGS
● 4,4'-OXYDIANILINE - DEVELOP NEW TECHNOLOGY	0.9	160	\$3MM/YR. SAVINGS
● EVALUATE NEW PRODUCT OPPORTUNITIES	1.5	310	\$2MM/YR. EARNINGS
<u>TACTICAL R&D</u>			
● PHTHALOYL CHLORIDE - USE DU PONT RAW MATERIAL	0.5	85	\$3MM/YR. SAVINGS
● PHTHALOYL CHLORIDES - SUPPLY TO PLASTICS MANUFACTURERS	0.8	135	\$2.4MM/YR. SAVINGS
● PHENYLENEDIAMINES - IMPROVE YIELD AND REDUCE ENERGY	2.3	430	\$1.2MM/YR. SAVINGS
● 3,4-DICHLOROANILINE - IMPROVE MATERIALS UTILIZATION	1.0	180	\$1MM/YR. SAVINGS
● 4,4'-OXYDIANILINE - IMPROVE MATERIALS UTILIZATION	0.8	145	\$1MM/YR. SAVINGS
● NITROTOLUENES - IMPROVE YIELD AND REDUCE ENERGY	1.4	250	\$1.3MM/YR. SAVINGS
● NITRATORS - DEVELOP DEHYDRATING TECHNOLOGY	0.8	140	\$1.1MM/YR. SAVINGS
<u>MANUFACTURING TECHNICAL</u>			
● 3,4-DICHLOROANILINE - CAPACITY OPTIMIZATION	0.8	120	\$1.9MM/YR. EARNINGS

RSW-3
3/16/82

MAJOR R&D THRUST

COLORED PIGMENTS

	<u>1982 BUDGET</u>		<u>INCENTIVE</u>
	<u>MP</u>	<u>\$M</u>	
<u>TACTICAL RESEARCH</u>			
● DEVELOP NEW, IMPROVED QA PRODUCTS TO MEET CHANGING AUTOMOTIVE END-USE TECHNOLOGY AND MAINTAIN OUR COMPETITIVE POSITION	3.1	650	● \$4.7MM EARNINGS DURING 1983-1986. ● PROTECTION OF OUR QA COMPETITIVE POSITION.
● DEVELOP NEW NON-QA PRODUCT FORMS THAT IMPROVE VALUE-IN-USE IN CRITICAL PAINT AND PLASTICS APPLICATIONS	2.7	550	● \$4.0MM EARNINGS DURING 1983-1986.
● DEVELOPMENT OF NEW ENVIRONMENTALLY ACCEPTABLE YELLOW-RED PIGMENTS FOR PAINTS AND PLASTICS	1.2	250	● IMPROVED MARKET IMAGE
<u>MANUFACTURING TECHNICAL</u>			
● UPGRADE AND DOCUMENT OPERATING TECHNOLOGY AND FACILITIES TO ALLOW MORE RELIABLE OPERATION OF MANUFACTURING PROCESSES	18.0	2790	● \$1.5MM/YR. IN INVENTORY AND REPROCESSING COSTS. ● ALLOWS ACHIEVEMENT OF COLORED PIGMENTS ZERO BASED MANAGEMENT.

RSW-4
3/16/82

MAJOR R&D THRUST
SPECIALTY CHEMICALS

	<u>1982 BUDGET</u>		<u>INCENTIVE</u>
<u>TITANATES</u>	<u>MP</u>	<u>\$M</u>	
<u>STRATEGIC RESEARCH</u>			
● DEFINE FACTORS CONTROLLING REACTIVITY OF ORGANIC TITANATES IN CROSSLINKING REACTIONS.	1.0	200	● STRENGTHEN COMPETITIVE POSITION. ● \$68MM EARNINGS DURING 1983-86.
● DEVELOP NEW TITANATES WITH BROADER UTILITY IN OIL WELL SERVICE APPLICATIONS.	1.4	270	● PROJECTED \$30MM/YR. NEW BUSINESS OPPORTUNITY BY 1990.
● EXPLORE NEW LOWER COST ROUTE TO TITANATES.	1.7	340	● REDUCE MILL COST BY 20% AND NEW INVESTMENT BY \$10MM.
<u>MANUFACTURING TECHNICAL</u>			
● PROVIDE BASIC DATA FOR EXPANSION PROJECTS.	1.8	350	● INSURE SUPPLY.
<u>FLUOROchemicals</u>			
<u>STRATEGIC RESEARCH</u>			
● DEVELOP MORE DURABLE CARPET ANTISOIL PRODUCTS.	9.6	1850	● REDUCE FLUORINE LOSSES FROM 65% TO 10%.
● EVALUATE NEW EMULSION TECHNOLOGY.	0.8	150	● IMPROVE EFFICIENCY BY 20% TO GENERATE \$3MM EARNINGS FROM 1983-86.
<u>TACTICAL RESEARCH</u>			
● PROVIDE TECHNICAL SUPPORT FOR EXISTING TEXTILE PRODUCT LINE AND DEVELOP IMPROVED PRODUCTS.	6.0	1160	● \$16MM EARNINGS FROM 1983-86.
<u>MANUFACTURING TECHNICAL</u>			
● INCREASE INTERMEDIATES CAPACITY.	2.5	480	● MEET FORECAST NEEDS.

RSW-5
3/16/82

POTENTIAL AREAS OF SYNERGISTIC EFFORT

AROMATIC PRODUCTS

- CATALYTIC HYDROGENATION
- ISOMER SEPARATION

COLORED PIGMENTS

NONE

SPECIALTY CHEMICALS

- OIL WELL SERVICE CHEMICALS
 - TITANATES
 - ALSYLS
 - FLUROSURFACTANTS
- BASIC TITANATE CHEMISTRY

RSW-6
3/16/82