

COLORED PIGMENTS - 1982 BUSINESS PLAN

R&D IMPLEMENTATION PLAN - STATUS REVIEW - JANUARY 29, 1982

INTRODUCTION (CHART 1)

THE PURPOSE OF MY PRESENTATION WILL BE TO REVIEW THE STATUS OF THE R&D IMPLEMENTATION PLAN IN SUPPORT OF THE 1982 COLORED PIGMENTS BUSINESS PLAN.

I PLAN TO COMPARE OUR ACTUAL MANPOWER AND EXPENSE FOR 1981 WITH THE 1981 AND 1982 BUDGETS. THEN I WILL DISCUSS FOURTH QUARTER 1981 ACCOMPLISHMENTS AND FIRST QUARTER 1982 OBJECTIVES FOR OUR THREE SITES: NEWARK, NEWPORT, AND JACKSON LABORATORY.

I WILL CONCLUDE WITH A STATUS REPORT ON OUR THREE MAJOR NEW PRODUCT DEVELOPMENTS.

MANPOWER (CHART 2)

OUR R&D MANPOWER TRENDS ARE SUMMARIZED ON THIS NEXT CHART.

ON JANUARY 1, 1982 WE HAD A TOTAL OF 121 PEOPLE INVOLVED IN R&D ACTIVITIES AT THE THREE SITES. THIS IS FOUR BELOW OUR SEPTEMBER FORECAST OF 125 BECAUSE 3 PROJECT ENGINEERS AND 3 DRAFTSMEN HAVE BEEN TRANSFERRED TO PRODUCTION AT NEWPORT.

BY APRIL 1 WE EXPECT TO REDUCE EXEMPT AND NON-EXEMPT HEADCOUNT BY 3 EACH AT JACKSON LAB. WE ARE CONFIDENT THAT OUR JANUARY 1, 1983 COMMITMENT OF 112 WILL BE MET.

EXPENSE (CHART 3)

OUR EXPENSE PERFORMANCE IS SHOWN ON THE NEXT CHART FOR EACH SITE. THE EXPENSES COVER ALL R&D FUNCTIONS AT THE SITE INCLUDING IEB, MTE, AND CONTROL LAB. PROJECT ENGINEERING

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EXPENSE HAS BEEN EXCLUDED FROM THE DATA SINCE THIS COST IS NOW CONTROLLED BY PRODUCTION AT BOTH NEWARK AND NEWPORT.

OUR 1982 ACTUAL EXPENSE WAS \$8.7MM WHICH WAS \$1.4MM OR 14% BELOW THE 1981 BUDGET.

OUR 1982 BUDGET IS \$9.3MM, AN INCREASE OF ABOUT 7% FROM 1981 ACTUAL. OUR CURRENT PROJECTIONS INDICATE THAT WE WILL PROBABLY UNDERRUN THE 1982 BUDGET BY ABOUT 3%.

BEFORE LEAVING THIS CHART I WOULD LIKE TO COMMENT FURTHER ON THE \$3.4MM BUDGET FOR JACKSON LABORATORY. JACKSON LABORATORY WORK HAS TRADITIONALLY BEEN CHARGED TO IEB. EARLY IN THE BUDGETING PROCESS LAST FALL AND IN THE FIRST TWO VERSIONS OF THE DEPARTMENTAL FINANCIAL FORECAST, THE TOTAL \$3.4MM FOR JACKSON LABORATORY WAS CHARGED TO IEB. WHEN THE R&D BUDGET WAS FINALIZED IN EARLY NOVEMBER, THE DECISION WAS MADE TO CHARGE THE JACKSON LABORATORY CHEMISTS ASSISTING NEWARK AND NEWPORT WITH DOCUMENTATION TO MTE. THIS DOCUMENTATION EXPENSE WAS FORECAST AT ABOUT \$1MM. IN THE FINAL VERSION OF THE FINANCIAL FORECAST, IEB EXPENSE WAS REDUCED BY \$1MM. UNFORTUNATELY, MTE EXPENSE WAS INADVERTENTLY NOT INCREASED. THIS OVERSIGHT WILL BE CORRECTED IN THE NO. 2 - 1982 FINANCIAL FORECAST.

NEWARK PLAN (CHART 4)

TURNING NOW TO THE NEWARK PLAN, WE STARTED THE YEAR AS FORECAST WITH TOTAL MANPOWER OF 47. WE EXPECT NO CHANGE IN HEADCOUNT DURING THE FIRST QUARTER.

LOOKING AT FOURTH QUARTER ACCOMPLISHMENTS, WE ESTABLISHED A PROCESS IMPROVEMENT GROUP WHO ARE FOCUSING ON PROGRAMS TO IMPROVE OPERATING EFFICIENCIES. THIS GROUP HAS BEEN DIVORCED FROM DAY-TO-DAY PROBLEM SOLVING AND REPORTS DIRECTLY TO THE TECHNICAL SUPERINTENDENT. A PROCESS DOCUMENTATION SCHEDULE HAS BEEN DEVELOPED COOPERATIVELY WITH PRODUCTION. I WILL DISCUSS THIS PROGRAM IN MORE DETAIL ON THE NEXT CHART IN A FEW MINUTES.

WE COMPLETED THE AUDIT OF THE COLORED PIGMENTS TSCA INVENTORY IN NOVEMBER. AS A RESULT OF THE AUDIT, WE HAVE REQUESTED THAT THE EPA ADD 16 COMPOUNDS TO OUR PRESENT LISTING OF 77. TWO COMPOUNDS HAVE REQUIRED THE FORMAL FILING OF PREMANUFACTURING NOTICES.

WE ALSO SUBMITTED THE \$350M MEMBRANE PRESS PROJECT FOR AUTHORIZATION IN DECEMBER.

OUR OBJECTIVES FOR THE FIRST QUARTER INCLUDE MEETING OUR PROCESS IMPROVEMENT COMMITMENTS AND COMPLETING BASIC DATA

FOR NEW LOW-INVESTMENT FACILITIES TO REMOVE HEAVY METALS FROM
NEWARK'S WASTE STREAM.

PROCESS IMPROVEMENT PROGRAM (CHART 5)

OUR PROCESS IMPROVEMENT PROGRAM IS SUMMARIZED ON THE
NEXT CHART. THE OBJECTIVE OF THE PROGRAM IS TO IMPROVE PROCESS
TECHNOLOGY AND OPERATING FACILITIES TO ACHIEVE >90% BLENDABLE
QUALITY WITHIN EACH CAMPAIGN OF A MAJOR BATCH PROCESS AND >95%
"OK STRAIGHT" IN A CONTINUOUS UNIT PROCESS. THIS PROGRAM
INCLUDES DEVELOPMENT OF RAW MATERIAL SPECIFICATIONS, DEFINITION
OF CRITICAL PROCESS VARIABLES AND LIMITS, DOCUMENTATION OF
PROCESS TECHNOLOGY, AND DEVELOPMENT OF FACILITIES FOR IMPROVED
REPRODUCIBILITY AND PRODUCTIVITY.

WE EXPECT TO COMPLETE DOCUMENTATION OF PROCESS TECH-
NOLOGY BY THE END OF 1982. OUR SCHEDULE FOR WRITING OVER
130 TOTAL DOCUMENTS IS SHOWN BY QUARTER AT THE BOTTOM OF THIS
CHART. ABOUT ONE-THIRD OF THESE PROCESSES WILL REQUIRE SUBSTAN-
TIAL LABORATORY WORK TO DEFINE CRITICAL PROCESS VARIABLES AND
LIMITS. WE ARE SUPPLEMENTING THE NEWARK AND NEWPORT GROUPS
WITH 4.5 CHEMISTS OR ABOUT 40% OF OUR DIRECT MANPOWER FROM
JACKSON LAB.

THIS PROCESS DEVELOPMENT WORK WILL DEFINE ADDITIONAL
FACILITIES THAT MAY BE REQUIRED FOR THE ATTAINMENT OF OUR
REPRODUCIBILITY GOALS. WE EXPECT TO COMPLETE INSTALLATION OF
THESE IMPROVEMENT FACILITIES BY MID-1984 CONTINGENT ON CAPITAL
AVAILABILITY.

NEWPORT PLAN (CHART 6)

TURNING NOW TO THE NEWPORT PLAN, WE STARTED THE YEAR WITH A TOTAL HEADCOUNT OF 39 WHICH IS 5 BELOW FORECAST. THE REASON FOR THE VARIANCE IS THAT 3 PROJECT ENGINEERS AND 3 DRAFTSMEN WERE REASSIGNED TO PRODUCTION AS A RESULT OF OUR OCTOBER 1 REORGANIZATION. THIS ORGANIZATIONAL CHANGE ALSO MADE POSSIBLE THE ELIMINATION OF 1 SENIOR SUPERVISOR - TECHNICAL POSITION.

WE EXPECT NO CHANGE IN HEADCOUNT DURING THE FIRST QUARTER.

LOOKING AT FOURTH QUARTER ACCOMPLISHMENTS, WE ESTABLISHED A PROCESS IMPROVEMENT GROUP SIMILAR TO NEWARK'S AND DEVELOPED THE PROCESS DOCUMENTATION SCHEDULE WHICH I HAVE JUST REVIEWED. IN ADDITION WE EXPEDITED INSTALLATION OF THE NEW \$180M ECONOMIZER FOR THE POWERHOUSE THAT WILL GENERATE \$120M SAVINGS DURING THE 1981-82 WINTER SEASON AND \$240M ANNUALLY.

OUR OBJECTIVE FOR THE FIRST QUARTER IS TO MEET OUR PROCESS IMPROVEMENT COMMITMENTS.

JACKSON LABORATORY PLAN (CHART 7)

TURNING NOW TO THE JACKSON LAB PLAN, WE STARTED THE YEAR WITH A TOTAL HEADCOUNT OF 35 WHICH WAS 1 OVER OUR FORECAST. DURING THE FIRST QUARTER WE EXPECT TO REDUCE EXEMPT AND NON-EXEMPT MANPOWER BY 3 EACH. TWO CHEMISTS ARE SCHEDULED FOR TRANSFER TO BIOCHEM IN FEBRUARY AND 1 CHEMIST WILL RETIRE THE END OF MARCH. OUR TECHNICIAN FORCE WILL BE REDUCED AS THE CHEMISTS LEAVE.

LOOKING AT OUR FOURTH QUARTER ACCOMPLISHMENTS WE ASSISTED NEWARK AND NEWPORT IN DEVELOPING THEIR PROCESS

DOCUMENTATION SCHEDULES. JACKSON LAB PERSONNEL WILL WRITE 73 OF THE 131 TOTAL DOCUMENTS TO BE COMPLETED BY 12/82. WE ALSO MET OUR FORECAST TIMETABLE FOR THE 3 NEW PRODUCT DEVELOPMENTS WHICH I WILL DISCUSS IN A FEW MINUTES. AND FINALLY DURING THE FOURTH QUARTER WE PROVIDED EXTENSIVE ASSISTANCE TO LEGAL IN DEVELOPING EVIDENCE TO SUPPORT OUR KROLOR® PATENT INFRINGEMENT SUITS IN JAPAN.

FOR THE FIRST QUARTER WE PLAN TO CONDUCT A SECOND PLANT TRIAL TO CONFIRM PROCESS TECHNOLOGY FOR OUR NEW DEEP GOLD QA. THIS TEST WAS STARTED AT NEWPORT DURING THE SECOND WEEK OF JANUARY AND WILL BE FINISHED AT NEWARK IN MID-FEBRUARY. PRELIMINARY ANALYSIS OF THE 5M LBS. OF NEWPORT CRUDE LOOKS GOOD. THE NEXT PHASE OF THE YT-915 DEVELOPMENT IS TO NEGOTIATE A SUPPLY CONTRACT FOR ANILINOACRIDONE, A KEY RAW MATERIAL, WITH A TOLL MANUFACTURER, BLACKMAN-UHLER.

QA PRODUCT DEVELOPMENT (CHART 8)

LET'S TURN NOW TO AN OVERVIEW OF THE FIRST OF 3 NEW PRODUCT DEVELOPMENTS HIGHLIGHTED IN THE BUSINESS PLAN.

THE OBJECTIVE OF THIS PROGRAM IS TO DEVELOP NEW QA PRODUCTS THAT HAVE THE RHEOLOGICAL PROPERTIES REQUIRED BY HIGH SOLIDS ENAMEL SYSTEMS. WE HAVE LISTED THE INCENTIVES, TIMING, AND REQUIRED RESOURCES AT THE TOP OF THE CHART FOR YOUR REFERENCE.

DURING THE FOURTH QUARTER WE SUBMITTED SAMPLES OF THE NEW LOW RHEOLOGY QA PRODUCT, XRT-343-D, TO 18 CUSTOMERS WORLDWIDE FOR QUALITY EVALUATION. THE PRELIMINARY FEEDBACK HAS BEEN VERY ENCOURAGING. WE COMPLETED PREPARATION OF THE BASIC DATA FOR ACETONE MILLING FACILITIES TO MAKE THESE NEW PRODUCTS AT NEWPORT.

AND WE COMPLETED A PLANT TEST OF THE FIRST STEP IN THE NEW RT-343 PROCESS WHICH IS STANDARD PREMILLING IN EXISTING EQUIPMENT.

DURING THE FIRST QUARTER WE HAD PLANNED TO CONTINUE THE TRIAL TO DEMONSTRATE THE COMPLETE TECHNOLOGY ON A PLANT SCALE AND TO PREPARE 1M LBS. OF RT-343 FOR SAMPLING TO CUSTOMERS FOR LARGER SCALE QUALITY EVALUATION. THE SECOND STEP IN THE PROCESS, ACETONE MILLING, WAS TO HAVE BEEN CONDUCTED IN EXISTING CPC BLUE FACILITIES. BECAUSE OF CAPITAL CONSTRAINTS THIS PLANT TEST WILL BE DEFERRED UNTIL AFTER COMPLETION OF THE TWO OTHER PROGRAMS LISTED.

TO PERMIT INTRODUCTION OF LIMITED QUANTITIES OF OUR NEW PRODUCTS TO THE MARKET FOR LESS THAN \$600M NEW INVESTMENT, WE ARE DEVELOPING SCOPE AND AN ESTIMATE FOR INTERIM ACETONE MILLING FACILITIES.

IN ADDITION WE HAVE SOME ENCOURAGING LEADS IN THE LABORATORY WHICH MAY ENABLE US TO MAKE THE NEW LOW RHEOLOGY QA'S USING AN AQUEOUS MILLING PROCESS THAT WOULD FURTHER REDUCE CAPITAL NEEDS. WE EXPECT TO DEVELOP THIS NEW AQUEOUS PROCESS THROUGH THE SEMI-WORKS STAGE BY THE END OF MARCH.

QA ALTERNATE FACILITIES (CHART 9)

THIS NEXT CHART SUMMARIZES THE ALTERNATE FACILITIES THAT ARE BEING EVALUATED FOR THE PRODUCTION OF LOW RHEOLOGY QA'S.

ROUGHLY HALF THE CAPITAL INVESTMENT CAN BE AVOIDED BY ELIMINATING FACILITIES TO RECOVER PURE ACETONE ON SITE, RELYING INSTEAD ON TOLL RECOVERY OF ACETONE FROM ACETONE/WATER MIXTURE OBTAINED BY SIMPLE DISTILLATION AT NEWPORT. MOST OF THE INVESTMENT FOR THIS INTERIM FACILITY CAN BE USED IN THE PERMANENT FACILITY. PRODUCT QUALITY WOULD BE UNAFFECTED IN THIS ALTERNATE PRODUCTION SCHEME.

AVOIDING ACETONE COMPLETELY BY CONVERTING TO AQUEOUS MILLING WILL REDUCE INVESTMENT TO ABOUT \$100M. LABORATORY PRODUCTS MADE BY THIS PROCESS SHOW RHEOLOGY COMPARABLE TO ACETONE MILLING BUT SEMI-WORKS SCALE-UP IS REQUIRED TO CONFIRM THAT PRODUCT QUALITY IS EQUAL TO ACETONE MILLING.

CPC PRODUCT DEVELOPMENT (CHART 10)

LET'S TURN NOW TO OUR NEXT NEW PRODUCT DEVELOPMENT. THE OBJECTIVE OF THIS SECOND PROGRAM IS TO DEVELOP IMPROVED VALUE-IN-USE PRODUCTS TO INCREASE OUR CPC SALES TO THE PLASTICS INDUSTRY.

DURING THE FOURTH QUARTER, WE COMPLETED A THIRD PLANT TRIAL TO OPTIMIZE THE RESIN CONTENT OF OUR NEW CPC BLUE PRODUCT, XBP-565-D. A RESIN LEVEL OF 45% IS REQUIRED TO INSURE GOOD DISPERSIBILITY IN POLYPROPYLENE.

DURING THE FIRST QUARTER WE EXPECT TO COMMERCIALIZE BP-565 BY SHIPPING 8.5M LBS. TO AMPACET IN JANUARY. WE ANTICIPATE RECEIVING MONTHLY ORDERS OF 10M LBS. STARTING IN FEBRUARY FROM AMPACET. LATE IN THE QUARTER WE WILL BEGIN SAMPLING OTHER PLASTIC ACCOUNTS TO EXPAND OUR VOLUME FOR THIS NEW PRODUCT WHICH IS MADE IN EXISTING CPC EQUIPMENT.

DALAMAR® PRODUCT DEVELOPMENT (CHART 11)

LET'S TURN NOW TO OUR FINAL NEW PRODUCT DEVELOPMENT.
THE OBJECTIVE OF THIS THIRD PROGRAM IS TO DEVELOP HIGH SOLID
DISPERSIONS TO MEET THE INCREASING DEMAND IN THE TRADE SALES
PAINT INDUSTRY FOR PREDISPERSED VERSUS DRY PIGMENT PRODUCTS.

DURING THE FOURTH QUARTER WE COMPLETED A PLANT TEST OF
YW-958-P, WHICH IS A HIGHER STRENGTH VERSION OF CURRENT DALAMAR®
(YW-869-P) DESIGNED TO IMPROVE OUR COMPETITIVE POSITION.

DURING THE FIRST QUARTER WE PLAN TO RUN A CONFIRMING
PLANT TEST OF YW-911-P TO PRODUCE AN ETHYLENE GLYCOL MODIFIED
PRODUCT WITH IMPROVED GRIT PERFORMANCE. IN ADDITION WE ARE
ATTEMPTING TO DEVELOP ALTERNATE PRODUCTION CAPABILITY THAT
WOULD AVOID THE \$200M CAPITAL EXPENDITURE FOR SAND MILLING
FACILITIES AT NEWARK WHEN THE GENERAL PRODUCTS BUILDING AT
CHAMBERS WORKS IS DISCONTINUED. F&F AT PARLIN ARE CONDUCTING
A FEASIBILITY STUDY.

THAT CONCLUDES MY PRESENTATION. ARE THERE ANY QUESTIONS?

RSW:gmd
1-20-82