



E. I. DU PONT DE NEMOURS & COMPANY
INCORPORATED

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CHEMICALS, DYES AND PIGMENTS DEPARTMENT
JACKSON LABORATORY

December 10, 1980

To: A. MacLachlan, B-17208

From: R. S. Weis *RSW*

CANDIDATES FOR LUNCHEON MEETINGS
RESEARCH-GENERAL MANAGEMENT

Ref: AM to HBC, et.al., 11/11/80

Attached are proposed candidates with suggested topics
for the subject luncheons during 1981.

AROMATIC PRODUCTS

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|------------------------|--|
| <u>R. L. Pedrotti</u> | - <u>Process Development in Ethylated Derivatives.</u> Research and development programs to improve process safety, and reduce manufacturing costs in MEMT/DEMT and MEA/DEA production by \$317M per year. |
| <u>K. F. Cossaboon</u> | - <u>New Reduction Catalyst Concept.</u> Noble metal on metal supports as catalysts to reduce annual Aromatics Products catalyst charges of over \$2MM. |
| <u>T. C. Chang</u> | - <u>New Approaches to Low-Cost Isomer-Specific Synthesis of Aromatic Products.</u> New catalysts and separation techniques with the potential of making Du Pont the world's lowest cost producer of key aromatic intermediates. |
| <u>Carlos Lores</u> | - <u>Diamines Yield Improvement Program.</u> Since 1979 phenylenediamine yields have been increased by 4% theory by the addition of a solid base (Na_2CO_3) to reduce acid-catalyzed tars. An additional 1% improvement is projected for 1981 raising the program value to \$1500M. |
| <u>Carlos Lores</u> | - <u>Improved Catalyst Recovery - Aromatic Products.</u> Close monitoring of spent catalyst recoveries and acquiring competition for recovery have increased precious metal recoveries for Aromatic Products. Demonstrated savings have decreased costs by \$600M/year. Opportunities for 1981 improvements are about \$200M in phenylenediamine product line. |

- R. L. Hawthorne - p-Phenylenediamine Recovery from Waste Streams. p-Phenylenediamine (a "Kevlar" precursor) has been recovered by existing distillation equipment from a m-phenylenediamine (a "Nomex" precursor) waste stream. Demonstrated value of this program is \$300M/year and improving the recovery yield can save an additional \$400M/yr. in 1981.
- Klaus Wuttke - Commercial Phthaloyl Chloride Plant. Technical liaison for the new \$28.5MM Phthaloyl Chlorides plant is nearing completion with startup scheduled for June 1981.
- Earl Woltz - Cost Reduction at Waste Water Treatment Plant. Short-term programs to reduce materials and energy costs have savings potential of \$750M/year without requiring new investment.
- R. W. Soderberg - Solids Handling Improvement Program at Waste Water Treatment Plant. Program to optimize carbon regeneration and reduce materials handling costs have \$1MM savings potential.
- M. T. Gordon - Nitration Program. Cost reduction in existing equipment without major investment is attained by improving nitrator agitation, maximizing the desired isomer, reducing solubility losses and using the most cost-effective mixed acids.
- D. C. Robertson - PNBA Safety, Capacity and Cost Improvement Program. Basic data development in support of the PNBA Process Hazards Review, and for use as the technical basis for improvement programs resulting in a 20% capacity increase and a reduction of operating costs by \$0.15 per pound.
- M. E. Dergosits - 3,4-DCA Purification. Capacity increase (CL-70 replacement and startup).

Cost reduction (AM Stabilizer - TMR/TA-future program).
- J. R. Kosak - Precious Metal Catalyst Optimization. Eliminate Pd Cat. 15

Reduce Cat. 18 (Fe) consumption.
- K. K. Lin - Hexachloroacetone Crude and Distilled. Crude and distillation capacity have been significantly improved with major new investment postponed beyond five years.

W. L. Evans

- "Avitex" NA Quality. Less than 70% of our production has historically met required storage stability for export shipment. Chemical cause of the instability has been defined and is being corrected.

COLORED PIGMENT PRODUCTS

E. F. McBride

- New, Higher Value Pigment Product Forms. High solids pigment dispersions and resin extended pigments are being developed. These products offer our customers in trade sales and plastics higher value-in-use than conventional product forms and improve departmental pretax earnings.

A. J. Taggi

- New Quinacridone Gold Pigment. Development of a durable quinacridone gold pigment for automotive top coats.

W. M. Williams

- Newport Process Development Documentation. Review of new process documentation requirements at Newport. Discussion of long-range goals and progress toward those goals.

D. Gray

- Lead Chromate Dust and Effluent Control. Low cost investment routes are being developed to meet stringent lead dust and chromium effluent limits.

JACKSON LABORATORY - ANALYTICAL

R. K. Miller

- Fourier Transform Infrared (FTIR) Spectroscopy. Advances in computer technology have made the use of FTIR a practical tool for routine analytical service. An FTIR spectrometer has been in use in Jackson Laboratory for the past two years. The economics of operation and utilization for problem solving will be discussed.

M. S. Yllo

- Application of Atomic Absorption Spectroscopy (AAS) to the Analysis of Metallic Priority Pollutants. The analysis of metallic pollutants is an important parameter in the NPDES permit for the discharge of Chambers Works waste water. The application of AAS to the analysis of waste water from Chambers Works and other C&P sites will be discussed.

JACKSON LABORATORY - ANALYTICAL - (Contd.)

- R. J. Passarelli - Cost Savings in the General Analytical Laboratory. A routine control laboratory using well documented procedures has little opportunity to reduce costs in a dramatic fashion. However, careful study will reveal small savings that in total are significant. Dramatic cost savings can be achieved when whole laboratories are combined. The Water Lab/G.A.L. consolidation cost savings as well as routine cost savings will be discussed.

SPECIALTY CHEMICAL PRODUCTS

- R. H. Dettre - Surface Chemistry Relative to Specialty Chemical Products Business. Specialty Chemicals sells a diverse line of fluorochemicals which all derive their value from some type of surface modification. Product development requires translation of the effect desired into the surface properties required followed by chemical optimization to generate an appropriate surface in the customers application. Textile repellents, carpet anti-soil finishes and surfactants are major examples.
- E. J. Greenwood - "Torvex" Catalyst Development. The discussion will emphasize new catalyst development, concentrating on catalysts for the abatement of nitrogen oxides emitted from stationary engines and on systems for the control of organosulfur emissions.
- J. D. Patton - "Krytox" Process Improvements. Evaluation of process conditions, operating practices and equipment design have resulted in significant improvements in process controllability and reduction in raw material consumption.

RSW:gmd