

INTEROFFICE MEMORANDUM

To: H. F. Roderick Date: August 11, 1966
From: T. L. Carey Copies: J. G. Gibert
L. W. Gopp
H. L. Harwell
Dr. W. M. Smith
Dr. T. H. Vaughn
J. F. Walrath
Subject: July Production Report

The production units under Mr. McMillan's direction continue to be the bright spots in our production area. The major ammonia turnaround was accomplished essentially on schedule which reflects good and careful planning. The PVC plant produced a \$22,653 positive variance which gave them a year to date total of \$113,000.

The nitrate area was essentially a zero variance and the NP-AP plant had a \$10,000 negative variance. The negative variance was entirely due to sustained test run trying to make a 20-20-0 product. The product was finally made to specification but the rates were so low as to virtually preclude this being an economic product in this plant. The first half of the month was spent in making 16-20-0 and on this product the results were very good. This is our highest production rate product.

Methanol had a negative variance of \$5,700 which was due to low volume. This because of lack of CO₂ during the ammonia plant shutdown.

The total variance for all of the above units was negative \$64,455 compared to the estimate of \$74,800.

It is expected that these plants will produce a total of \$50,000 positive in August.

Amines

The amines plants had considerable difficulty during July with a turnaround in each plant. In both plants it was necessary to make major repairs to the ammonia columns, primarily due to corrosion. A new column was ordered for the #2 plant which will be constructed of 316 stainless steel. This coupled with the unbudgeted depreciation, lower than budgeted yields and an inventory adjustment resulted in an unfavorable variance of \$138,000. Also included was \$16,400 freight cost to return unused isobutanol.

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It is estimated that the amines operations will produce a negative variance of approximately \$50,000 per month for the remainder of the year. A concerted effort will be made to reduce this to a minimum. The budget for these plants for 1966 was obviously unrealistic.

An RFE is being prepared in the amount of \$1,300,000 to debottleneck both of the amines plants to increase capacity sufficient to meet 1967's projected sales. The expenditure will show an excellent payout.

Methacrylate

This problem plant continues to show improvement. The results are still a long way from being good. However, in both MAA and MMA new production records were made. We are confident that August will produce another significant improvement.

We returned to the production of crystal HIBA in July and after considerable difficulty with pumps and flows had the mechanical aspects reasonably well straightened out. The continuous centrifuge was performing well at month's end.

At this writing a number of 23,000 to 25,000 lbs. HIBA production days had been attained. (Plant design is 33,000 #/day) Concerted efforts are being made to locate and recover losses up to this point in the HIBA purification section.

The LPD section shows yields much improved over last month. With good control of the variables, yields of 80% have been attained and we feel this can be further improved. Serious attention will soon have to be given to purge recovery from this system. Any recovery of this material will directly improve the overall yield.

The MMA section ran very well in the first part of the month. Later rather severe polymer problems occurred which resulted in considerable product loss. It is felt we know the cause of this problem and can correct it. This coupled with the conversion of the methanol stripper column to an external condenser should result in yields approaching 90% of theoretical.

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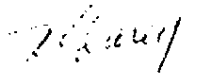
H. F. Roderick

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August 11, 1966

DNT

I call your attention to the photographs in the report showing the plant erection. It is estimated the plant will be started up about the first of October. Supervisor training has begun and operators will be assigned to the operation shortly. Chemico has been advised we will want a Biazzi representative present to assist in startup operations.


T. L. Carey

TLC/djs

AP00045568

ESCAMBIA CHEMICAL CORPORATION
INTEROFFICE MEMORANDUM

To: Mr. T. L. Carey **Date:** August 8, 1966
From: J. J. Dorsey, Jr. **Copies:**
Re: Summary of Technical Department
Monthly Reports - July 1966

Technical Summary

NEW PRODUCTS

DNT

The plant construction schedule is slightly behind, but will apparently be completed in the second half of September. It is anticipated that the plant will be ready to start about October 1, 1966, depending primarily on weather since all equipment is ready for installation. Indications are that Wyandotte will not require material for delivery before December 1, 1966. Tentative arrangements have been made for the assistance of a Biazzi representative for start-up. The training program for supervisors and operators will commence on August 15, 1966.

ADE

A detailed report of the commercial plant design basis as compared to the original proposal, and pilot plant results, is in preparation, but has been temporarily shelved due to the need to design a new alkylamines plant.

When all the data from the laboratory and pilot plant programs were evaluated, it became apparent that the equipment and conditions to produce ADE was well understood when the project was first begun, and therefore only minor changes or modifications were envisioned for the commercial plant. The only major change made based on the development work was the use of pressure distillation to break the EDA-water azeotrope instead of using caustic. The addition of this column eliminates the need for 73% caustic and its attendant equipment. Another simplification is the elimination of one of the absorbers for recovering ammonia and eliminating vinyl chloride. It was found that the small amount of vinyl chloride is easily vented without losing much ammonia.

The accountable yield loss in the pilot plant program was found to be 0.4 - 1.7%, representing an accountability of 98.3-99.6% total amines

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produced. In the original economics of the project, a 3% loss to VCl and a 5% handling loss was used to give an overall yield of 92%. The 92% yield thereby allowed 6.0 - 7.3% loss due to unexplained causes.

Material for another Struthers-Wells salt removal test is available if such a test is necessary or desirable.

This is a surprisingly simple, straightforward chemical operation which is ready for detailed plant engineering to firm up the investment, and need for additional data.

LABORATORY

Laboratory operating costs were above budget this month because of the continued work load on MMA, amines, and other areas.

The development of the necessary control and operating information for all plant operations suffers from a lack of technician and chemist manpower. This is a serious problem, and will only improve by hiring permanent technicians and additional chemists.

Laboratory work on DNT, amines, and other areas is reviewed in the laboratory summary. Individual areas of work are reported as completed in separate memoranda.

ENGINEERING

The following projects were completed in the amines area this month: amines feed preheater in the No. 2 plant, installation of two DMA check tanks, a gas fired heater and a new converter for the No. 1 amines plant.

In DNT, both Chemico and Escambia engineering work is complete except for minor items. Structural steel delivery was a little later than expected, but late receipt of engineering details caused this. The construction schedule now indicates a completion by the week of September 18, or shortly thereafter. This is dependent upon how well the prefabricated piping fits.

Approximately 80% of the piping and structural items of the new 600# boiler have been received. Piping design is about 70% complete and foundations have been installed for the main boiler feed pump, high pressure booster pumps, and the new pipe rack.

Ammo-Phos production facilities are 95% complete. Agitators for phos acid tanks and Wilfley pumps are due in August and will be installed when production permits.

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August 8, 1966

A new type 316 stainless steel ammonia column was ordered for the No. 2 amines plant to replace the corroded one repaired in July. Delivery and erection is expected in 12-14 weeks on a straight time basis.

SPECIAL PROJECTS

1. New Methylamines Plant

Design work was begun on a new 40 million lbs/yr. methylamines plant. Scale-ups on the original methylamines plant and the present No. 2 plant give almost identical equipment requirements for the proposed No. 3 plant. Stainless steel equipment is planned in the reaction system and ammonia column to minimize corrosion and insure long life.

A topping still for higher quality monomethylamine and additional trays in most of the distillation columns are provided to produce products with tighter specifications in the future. The topping still would remove the last traces of ammonia, which is difficult in our present operations. Estimated cost for the No. 3 plant is \$3.2 million.

2. Miscellaneous

A summary report from M. B. Rogers to J. J. Dorsey, Jr. is attached, giving highlights of the following special projects:

- (a) Saran Type Resin
- (b) New PVC Plant
- (c) Ammonia-Methanol Plant Information
- (d) Urea

Details of these projects are to be found in reports already issued or to be issued shortly.


J. J. Dorsey, Jr.

mdc

AP00045571

JULY, 1966

SUMMARY OF PROJECT WORK STATUS

Project No.	Title	Appropriation M\$	Committed M\$	Revised M\$	Completion Date	Remarks
6501	Water Softeners to Provide Water for Boiler	18.0	8.8	18.0	11/1/66	Expediting equipment delivery. Design and field work on schedule.
6509	Air Condition & Enclose Wet Bay Control Room	6.0	4.5	6.0	8/31/66	95% complete.
6533	Ammonia Recovery Pressure Control System	3.3	1.5	3.3	9/1/66	Waiting for material deliveries.
6565	DNT Plant	870.0	1096.0	1250.0 to 1300.0	9/18/66	98% of materials on hand and most of equipment is set. Construction schedule is complete by September 23.
6585	Equipment to Product IBN & DEA - Amines	223.9	198.5	224.0	---->	Production complete; storage by 11/1/66. Foundation will be completed in August and tank erection will start in September.
6604	New 600 psi 100,000#/Hr. Boiler	320.0	193.5	320.0	11/1/66	Expediting auxiliary equipment. Some delay possible.
6605	Upgrading Water Treatment	105.0	99.0	105.0	11/1/66	Equipment being expedited.
6613	Product Coating System -NP	15.5	4.5	15.5	9/1/66	Equipment on order. To be completed prior to resumption of NP production.
6616	Provide Offices, Locker Room and Storage	14.3	none	14.3	Indefinite	Quotes received and evaluated but approval still pending.
6640	Maintenance Shop-Area B	26.0	none	26.0	Indefinite	
6617	Additional Bulk Car Loading Facilities - PVC	10.4	6.4	10.4	9/1/66	Awaiting final material delivery and available manpower for installation.
6621	Refrigeration Unit for Cooling Solutions Tanks - PVC	12.0	8.0	12.0	9/1/66	Material scheduled for delivery in early August.
6622	Spare Block for Recovery Compressors - PVC	14.3	12.0	14.3	Indefinite	Evaluating equipment conditions for installation of spare.
6626	Packaging Equipment to Use Valve Bags for PVC	18.0	18.8	18.8	6/15/66	Completed.
6628	New Feed Preheat Exchanger, No. 2 Plant	12.0	10.8	10.8	8/1/66	Job is complete.
6631	Additional Electric Heat and New Converter for #1 Plant	8.0	55.2	55.2	7/29/66	Job complete - Report on cost to be prepared in August.
6636		15.0				
6632	H.P. Water Pump, H.P. Scrubber - No. 1 Plant	4.0	1.5	4.0	Indefinite	Installation dependent on Production's decision as to proper use.
6633	New Methylamines Check Tanks	12.4	14.3	14.3	7/28/66	Complete. Overrun due to additional fire protection.
6635	Plant Steam Recorder	1.8	1.2	1.8	Indefinite	Material received. Waiting for shutdown to install.
6641						Additional revisions being considered.
1580-80002	Crystallizer Revisions	18.3	19.7	19.7	Indefinite	
6642	Purchase of Lab Equipment	23.4	6.2	23.4	Indefinite	

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<u>Project No.</u>	<u>Title</u>	<u>Appropriation M\$</u>	<u>Committed M\$</u>	<u>Revised M\$</u>	<u>Completion Date</u>	<u>Remarks</u>
6647	Ammo-Phos Production	220.0	192.5	200.0	10/11/66	Job complete except for three agitators and two pumps which are on order.
6649	Ammonia Reform Gas Guard Vessel	31.3	24.5	31.3	9/1/66	Piping tie-in made during shutdown. Vessel installed, Piping installation in progress.
1580-18829	Independent Raw Water Supply - PVC	9.7	.4	9.7	9/1/66	Design work and material procurement complete. No work started due to higher priorities.
1580-18839	New Blowdown Tank for Compressor Building	2.7	2.6	2.7	Indefinite	Piping revisions being scheduled as manpower is available.
1580-18862	Revise Condensate System from PVC Dryers	3.0	1.9	3.0	Indefinite	Engineering complete. Equipment ordered. Installation and fabrication will be made as manpower becomes available.
1770-6003	PVC Reactor Reglassing	38.0	23.1	38.0	Indefinite	Vessel released to Glasco for modification and reglassing.
1770-6021	Liquid Phase Dehydration System	40.0	55.6	55.6	9/15/66	Removal of old system remains to be completed.

8/5/66
/fls

AP00045573

ESCAMBIA CHEMICAL CORPORATION

Interoffice Memorandum

To: Mr. T. L. Carey

Date: August 2, 1966

From: E. M. Spurlock

Re: Monthly Report - Personnel Department - July, 1966

PERSONNEL

Activity for the Month

<u>Division</u>	<u>No. of Employees 6/30/66</u>	<u>July Additions</u>	<u>July Separations</u>	<u>No. of Employees 7/31/66</u>	<u>1966 Budget</u>
Admin. & General	57	2	3	56	56
Research	60	2	2	60	59
Agri. Chemicals	173	4	14	163	194 *
Industrial Chemicals	16	1	0	17	18
Production	<u>429</u>	<u>9</u>	<u>14</u>	<u>424</u>	<u>406</u>
Totals	735	18	33	720	733

* This includes 160 as listed on the budget sheet plus 34 temporary employees who were not shown in number on the budget sheet.

There were 215 walk-in applicants, 177 applications were issued and 7 were received by mail. Ninety-four applicants were interviewed and 55 were tested.

TRAINING

School was held for the operation of trackmobiles and 2 trackmobile operators were licensed.

SAFETY

The Corporation has worked 54 days or approximately 226,000 man-hours without a disabling injury. The various division records are as follows:

<u>Division</u>	<u>Man-hours</u>	<u>Days</u>
New York Office	350,000	1,822
Research Division	830,000	3,302
Atlanta Division	100,000	82
Pensacola Plant	138,000	54
Corporation	226,000	54

The Research Division completed nine years without a disabling injury.

Personnel

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SAFETY (Cont'd.)

Medical Section

The Medical Section treated 28 injuries for Escambia and 48 for Carroll, performed 17 pre-employment and 5 annual physicals and gave a total of 24 immunization injections.

EMPLOYEE RELATIONS

Two 5-year service awards and six 10-year service awards were presented.

INSURANCE

We paid a total of 77 claims under our Group Hospitalization program which amounted to a total of \$ 14,301.73 during the month of July.

We settled the following claims during the month of July:

Four claims amounting to \$ 680.30 under our Automobile Physical Damage Insurance.

Three claims amounting to \$ 2,375 under our Public Liability and Property Damage Insurance.


E. M. Spurlock

EMS:kc

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PRODUCTION MONTHLY REPORT

August, 1966

AP00045576

Summary

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H. F. Roderick

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September 13, 1966

Other Plants

All other units are in good shape and operating well.

Preliminary budgets for 1967 are being prepared and, as is usual, this requires a great deal of time and effort.


T. L. Carey

TLC/djs

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