

AKM

PLASTICS PROFIT CENTER - MONTHLY REPORT

APRIL, 1971

RECEIVED

MAY 27 1971

A. K. McMILLAN

A. Ross Adams

May 21, 1971

AP00047036

TO: Richard Fleming
FROM: A. Ross Adams
RE: Plastics Profit Center - Monthly Report
April, 1971

DATE: May 18, 1971

COMPANY CONFIDENTIAL
NOT TO BE DUPLICATED

Highlights:

1. Escambia sales budget exceeded (\$628M vs. \$606M)
2. NPAT at budget (~~(\$16.5M)~~ vs. ~~(\$16.0M)~~)
3. New manufacturing record established at Calvert City (8,962,595 pounds)
4. New manufacturing record established at Pace, Florida (5,537,000 pounds)
5. Off grade at Pace again below 3%
6. GAF shipments off \$75M due to quality problem
7. A molding compound has been developed suitable for handset molding trials at Bell Labs.

April financial results were an improvement over March as indicated in Table 1 below:

	<u>Feb. Profit</u> <u>Before Fed.</u> <u>Tax</u>	<u>March Profit</u> <u>Before Fed.</u> <u>Tax</u>	<u>April Profit</u> <u>Before Fed.</u> <u>Tax</u>	<u>May</u> <u>Estimate</u>
Escambia, \$M	(77)	(30)	(32)	(46)
Calvert City, \$M	(44)	(35)	(7)	0
Total, \$M	(121)	(65)	(39)	(46)

AP00047037

The high proportion of 6180 sales (900M pounds against 6138M pounds shipped) and a \$17M favorable volume production variance brought gross profit to budget levels at Escambia. Calvert City sales were off from the \$900M projected because of a quality problem at GAF (\$75M lost business). High volume production and shipments of pipe resin contributed to a record favorable variance of \$59M for resins at Calvert City. Again pricing is the major industry problem and will continue until the new capacity of Hooker, Conoco, and B. F. Goodrich is sold out.

Table II below compares Calvert City and Escambia operations:

<u>TABLE II</u>		
<u>Significant Variances</u>		
	<u>April</u>	<u>Year-to-Date</u>
Sales Revenues, \$M		
Escambia	21	(328)
Calvert City	(96)*	(366)
Price Variance		
Escambia	(51)	(275)
Calvert City	(128)	NA
Volume Variance, \$M		
Escambia	32	(9)
Calvert City	22	NA
Production Variance, \$M		
Escambia	23	58
Calvert City	47	NA

AP00047038

	<u>April</u>	<u>Year-to-Date</u>
Resin Unit Cost of Goods Sold (¢/lb.)		
Escambia (7.96¢/lb. budget)	.38	.1
Calvert City (8.42¢/lb. budget)	.32	.0
Selling Variance		
Escambia, \$M	(4)	31
Calvert City, \$M	(8)**	NA
R & D Variance		
Escambia, \$M	7	None
Calvert City, \$M	3	15
Distribution, ¢/lb.		
Escambia (1.48 budget)	.12	.23
Calvert City (1.56 budget)	.23	.04

*Based on 8 months 1971 in Five Year Plan

Sales:

District shipments for the combined sales force are shown in Table IV.

AP00047039

AIR PRODUCTS AND CHEMICALS, INC.
CHEMICALS GROUP
PLASTICS
Pro-Forma Income Statement

TABLE III

(In Thousands of Dollars)	Escambia Plastics		Calvert City Plastics		Total Plastics	
	Current Month	Year To Date	Current Month	Year To Date	Current Month	Year To Date
Sales	\$ 628	\$ 3,958	\$ 819	\$ 2,379	\$ 1,447	\$ 6,337
Cost of Sales	437	2,926	601	1,799	1,038	4,726
Gross Profit	191	1,032	218	580	409	1,612
Operating Expenses						
Selling	49	272	28	91	77	363
Distribution	79	464	102	311	181	775
General & Administrative						
Divisional	14	96	6	24	20	120
Corporate Services Rendered	9	64	12	35	21	99
Total Operating Expense	151	896	148	461	299	1,357
Operating Profit	40	136	70	119	110	255
Research & Development Expense	(52)	(410)	(47)	(135)	(99)	(545)
Other Income (Expense)	2	23	5	24	7	47
Profit Before Allocations	(10)	(251)	28	8	18	(243)
Corporate Allocations						
Corporate Fee	11	80	14	41	25	121
Interest	9	59	21	60	30	119
State Taxes	1	7	---	(7)	1	---
Total Corporate Allocations	21	146	35	94	56	240
Profit Before Federal Income Taxes	(31)	(397)	(7)	(86)	(38)	(483)
Federal Income Taxes	(14)	(190)	(3)	(42)	(17)	(232)
NET INCOME	<u>\$ (17)</u>	<u>\$ (207)</u>	<u>\$ (4)</u>	<u>\$ (44)</u>	<u>\$ (21)</u>	<u>\$ (251)</u>

PLASTICS DIVISION
April, 1971

AP00047040

TABLE IV

	<u>April, MM lbs.</u>	<u>Monthly Budget MM lbs.</u>
Pensacola	2.3	1.0
Philadelphia	2.0	1.6
Toledo	.9	.84
Providence	.9	1.14
Atlanta	.3	.16
Chicago	.3	-
Los Angeles	.4	-
Louisville	1.3	-
New York	.2	-
Hill Associates	.8	-
GAF	1.7	2.5
House	2.4	-
Market Development	<u>.1</u>	<u>-</u>
	13.6	12.0*

*Based on Five Year Plan

Sales Analysis:

GAF cancelled at least three rail cars of 122 because of resin quality problems at Vails Gate. Apparently, Calvert City has not made it a practice to clean out rail cars returned from GAF if these cars have been dedicated to 122 service. As a consequence, resin fines (50% on the pan) build up in the bottom of the rail car and eventually lead to problems with the user. In addition, Vails Gate complained of high volatiles. This is difficult to trace but possibly some correlation exists between the complaint and an automatic humidity system installed at Calvert City last December to break static. As a precaution the system will be turned off. Calvert City quality control personnel will visit Vails Gate May 16 to supervise the unloading and use of new material. GAF has purchased approximately 1.1 million pounds less 122 for the first four months of 1971 as compared to 1970. A meeting with GAF purchasing people is scheduled to see what can be done to pick up the deficit.

AP00047041

Conoco sales in April were two million pounds and will have to be replaced before July. A strategy has been developed to pick up some of these sales with another co-producer. Incremental business is expected at Chrysler in June and new wire and cable shipments to Phelps Dodge at DuQuoin, Illinois, and General Cable at Cass City, Michigan will help replace Conoco. A bid was made for FMC film resin requirements (new). A good base load must be developed quickly for the compound plant. Muehlstein claims that 500 pounds per month of rigid pipe compound can be moved if APCI will toll and stabilize at 7.0¢ per pound. The phonograph record market also appears to offer a target of opportunity for volume compound sales.

Pipe resin sales to Robintech continue at almost contract level (1.4 million pounds). Shipments have been primarily to Houston and Florida from Pensacola. Freight savings of 0.3¢ per pound exist at Springfield, Kentucky from Calvert City so it is imperative that good 1230P be made at Calvert City as soon as possible.

Suave Shoe sales were down slightly due to the Easter holidays. This account has purchased almost seven million pounds so a new contract must be discussed soon.

Philadelphia District Sales (F. G. Mendrey) were at a record high for the year. Tenneco and Harte received a very gratifying 700,000 pounds of 6180 and these sales are expected to remain firm until July. A quality problem developed at Harte when the customer discovered reactor glass (assumed to be from Pace, Florida) in his silo. Zapata Industries is now ready to receive 2250 via bulk rail. The first shipment should be in early June. Of significance for future sales is Escambia qualification of 1230P at Johns-Manville in Green Cove, Florida. J-M has instituted a policy of establishing one resin supplier at the nearest PVC plant and back-up approval at other production locations. We have process approval at Green Cove, Florida and should have process approval in Dennison, Texas shortly.

Prices:

Unit prices are shown in Table V:

AP00047042

TABLE V

<u>Escambia</u>	<u>April 1971</u> <u>¢/lb.</u>	<u>March 1971</u> <u>¢/lb.</u>	<u>February 1971</u> <u>¢/lb.</u>	<u>Budget Standard</u> <u>¢/lb.</u>
Bulk Resin	10.63	10.40	10.72	11.61
Bag Resin	11.59	11.24	11.46	12.32
Total Prime	11.02	10.63	11.05	11.95
Off Grade	6.30	6.93	4.92	7.25
Total Plastics	10.84	10.48	10.06	11.67

Calvert City

Total PVC Resin	9.71*	10.05
Total 400 Resin	18.03	13.00
Total Compound	33.60	33.70

*2 million pounds sold F.O.B. Calvert City in Conoco rail cars

Table VI lists the top fifteen accounts for the Profit Center.

AP00047043

TABLE VI

ACCOUNT ANALYSIS

<u>ACCOUNT</u>	<u>APRIL 1971</u>	<u>SIX MONTHS AVERAGE</u>	<u>APRIL 1970</u>	<u>VARIANCE</u>
Conoco Plastics	2062	-----	-----	-----
GAF Corporation	1694	2234	2153	-540
Universal Pipe	1413	455	252	+958
Adams Brothers	815	-----	-----	-----
Suave Shoe	531	566	169	- 35
Tenneco Chemicals	476	354	410	+122
Clopay Corporation	431	-----	-----	-----
Goodyear Tire & Rubber	388	-----	-----	-----
Glamorgan Pipe	367	94	-----	+273
Plastic Calendering	316	266	238	+ 50
Goodrich Company	308	121	120	+187
Elm Coated Fabrics	306	349	391	- 43
Continental Copper	295	-----	-----	-----
Cities Service	289	-----	-----	-----
General Cable	270	-----	-----	-----
Essex International	247	-----	-----	-----
USM Chemical	244	306	367	- 62
Harte & Company	232	80	114	-152
Southbridge Plastics	200	-----	-----	-----

AP00047044

Production:

Production of prime resin for the month of April was 5,537M pounds, versus a budget of 4,840M pounds. This represents a new all-time production record for the PVC plant, the previous record being 5,380M pounds set in December of 1970. In addition, this record was achieved while holding off-grade exclusive of tails and sweeps to 92M pounds. Total off-grade amounted to 167M pounds, 2.9% of production.

The variance for PVC bulk production is \$22,700 favorable versus \$4,000 favorable forecast. The major factors are listed below:

Raw Materials (favorable)

VCM	\$(7,148)
Vinyl Acetate	(414)
Chemicals	(1,593)
By-product Credit	8,053

Process Costs

Volume	(17,000)
Steam	(2,036)
Salaries	(3,700)
Maintenance and Repair	(1,826)
Depreciation	3,442

Escambia production statistics are shown in Table VII:

<u>Pensacola Plant</u>	<u>April</u>	<u>Budget</u>	<u>Last Month</u>
Prime Production	5535	4820	5147
Off Grade, Tails, Sweeps, M lbs.	167	312	97
Total Product, lbs/gal/yr.	1438		1322
Reactor Availability, %	86.4		86.3
Production Runs/Grade	11/17		13/13
Off grade, % Total Prime	2.9	6.0	1.8
VCM Efficiency	96.5	95.0	93.6

Bulk shipments for the month were 62.8% of prime production. Local inventory increased by 210M pounds but total inventory for the Division was reduced by 434M pounds.

AP00047045

<u>Calvert City Plant</u>	<u>April</u>	<u>Budget</u>	<u>Last Month</u>
Prime Production, M lbs.	8849	7100	7103
Off Grade, M lbs.	113	71	10
Total Product, lbs/hour/reactor	695	685	573
Reactor Availability, %	98.9		92.6
Production Runs/Grade	8/8		7/7
Off-Grade, % Total Prime	1.26	1.00	0.14
Monomer Efficiency, %	95.50	93.00	92.70

A new manufacturing record of 8,962,595 pounds was established in April. This led to a \$59M favorable variance from budget. Monomer price variance was \$13M at this production level. Compound production was 373M pounds, leading to an unfavorable variance of \$12M. Inventories increased by 1.1 million pounds, primarily because of quality problems at GAF.

Business Development:

Tariff Commission results for January 1971 showed a decline of 16.9% in domestic sales and 4.6% in export sales. (See Figures 1 and 2 attached.) The sharp drop in January sales might explain the strong months in March and April.

The phonograph record market was a major project during the month to determine the potential for in-situ record grade copolymer. It was found that the actual demand in 1970 was 40% below Tariff Commission data. There seems to be a growing shift backward to the purchase of record compound in place of in-plant compounding because of contamination and economics. Pricing for pelletized product is 18.0¢ to 18.5¢ per pound vs. 1.0¢ per pound less for dry blend.

Market Development:

Western Electric (Baltimore) is running 2003A on a 24-hour basis and product appears to be running well. Oster blender base trials were unsuccessful because of what appears to be burning at the far end of the cavity and near the weld line. Fabricated Products believes that mold venting is insufficient and consequently superheated air is entrapped in the cavity with subsequent burning. Either the mold has to be altered slightly or a higher loading of titanium dioxide used in the formulation to mask the dark line. Top technical officials from General Electric visited Philadelphia for inclusion of a Kydene type product from APCI in their air conditioner housing program to replace Lexan.

AP00047046

Eye Glass Frames

Foster Grant is finalizing color matches and we expect to supply precolored 5011 by mid-summer. American Optical has molded 1000 pounds into frames for a market test.

Packaging

400 resin sales were at a low level of 120,000 pounds due to a shut down at Allied Chemical while a new extrusion was installed. Usage should hit the 300,000 pound/month level starting in May. Seagrams reports that a variation of C-345 has passed the initial 21-day screening tests. The final test lasts 90 days. A trial at Hallmark was successful and a 10,000 pound order was secured. Fiber contamination must be eliminated at Calvert City to retain the business. At Orchard our compound received approval for all characteristics except blocking. We believe this problem can be solved quickly.

Building and Construction

Pipe samples from Robintech's Florida plant have been submitted to NSF for testing and approval.

Research & Development:

Bottle Program

Compound C-345 and Hooker's compound 2117C looked better in Seagrams' organoleptic tests of octyl tin stabilized bottles after two weeks at room temperature. An extended one-month test at 110°F is underway at Seagrams.

In attempting to pin down how various octyl tin raw materials relate to organoleptic properties, we find by gas chromatography analysis that Argus dioctyl tin product is of higher purity than M&T's material. In a discussion with Argus personnel, they are striving to further improve their dioctyl tin stabilizers by increasing the flash point specification. We will be working closely with these people in an attempt to further improve taste and odor of bottles produced from C-345 type compounds.

AP00047047

Sixty pounds of B-140 compound was supplied to Wheaton Industries for conversion into a bottle to contain "Clearasil" for Vick.

An experimental lot of 2185 made in the 5000 gallon reactor at Pensacola, showing a very low gel content in a Calvert City QC analysis, gave bottles inferior to Lucovyl RB-8010 and a 400 Resin compound. The experimental 2185 was better than commercial 2185 resin but appreciably inferior to both Lucovyl RB-8010 and to the 400 Series compound in gels, imperfections and clarity. It is not recommended that we give this resin to KemaNord for evaluation.

Film and Sheet

Compound C-482, a UV stabilized version of C-373, was run successfully at Orchard Corporation. A serious contamination problem reflecting the presence of fibrous material and gels must be solved before commercial compounds can be sold. These problems relate to contamination of the 400 Resin used in the manufacture of the compound and in use of high gel containing 400 Resin. We are working closely with the plant in regard to selection and storage of the 400 Resins to be used in film and sheeting. Orchard had another problem that arose from the printing ink causing film softening due to solvents present in the ink. This problem remains to be solved.

Rigid Wire Compound

Several candidates have been prepared which lead to wire coatings with elongation values exceeding 200%. Some impact strength was traded off to obtain the increased extensibility but we believe the new formulations are satisfactory.

Saran Resin

A very critical meeting was held at W. R. Grace with respect to the future of the saran program. A full report of this meeting has been summarized by A. Ross Adams (dated May 7, 1971). As a result of a low probability of commercial success, the saran project will be disbanded and personnel used on higher priority programs.

AP00047048

Post-Chlor Program

Three chlorination processes have been studied by Group Engineering and high spot economics developed. A meeting has been arranged between APCI and B. F. Goodrich to appraise the possibility of joint development and a BFG license. A thorough and precise market definition has yet to be made and is absolutely necessary since significant development costs can come out of this project. At the bench level, chlorinations of 400 PEARLS^R have been attempted and indications are that chlorination proceeds at a much faster rate than conventional low porosity 400 resins.

A. Ross Adams

ARA/acw

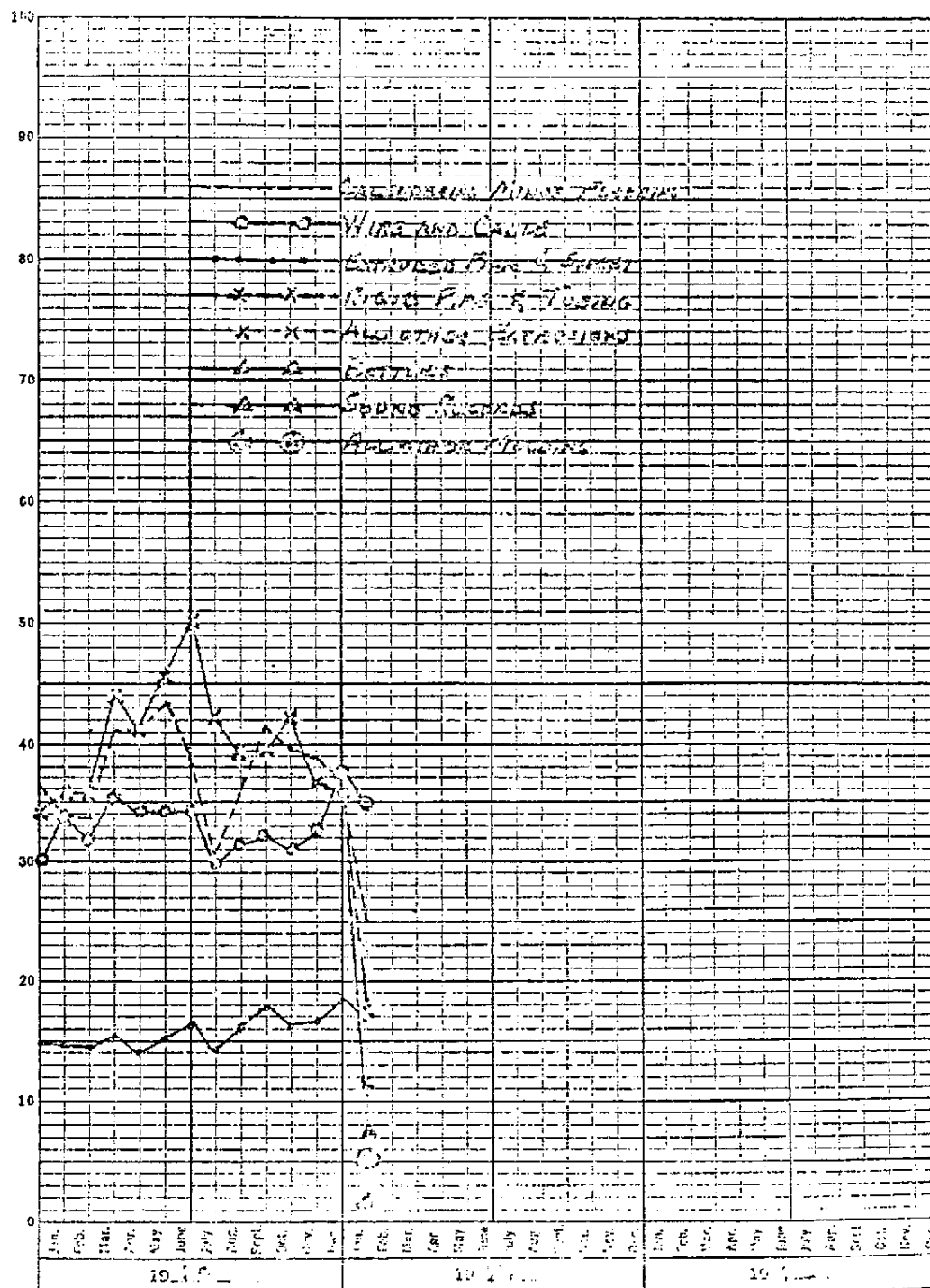
Distribution:

John Barr
R. W. Beech
W. R. Byrnes
T. L. Carey
J. M. Davidson
A. R. Donaghy
M. H. Danzig
C. A. Heiberger
G. J. Mantell
D. J. Mann
A. K. McMillan✓
H. L. Watson
W. M. Smith
J. Tinnon
W. R. Whitaker

AP00047049

PVC+SALES FOR SELECTED PRODUCTS

QUANTITY OF SALES - MILLIONS OF POUNDS

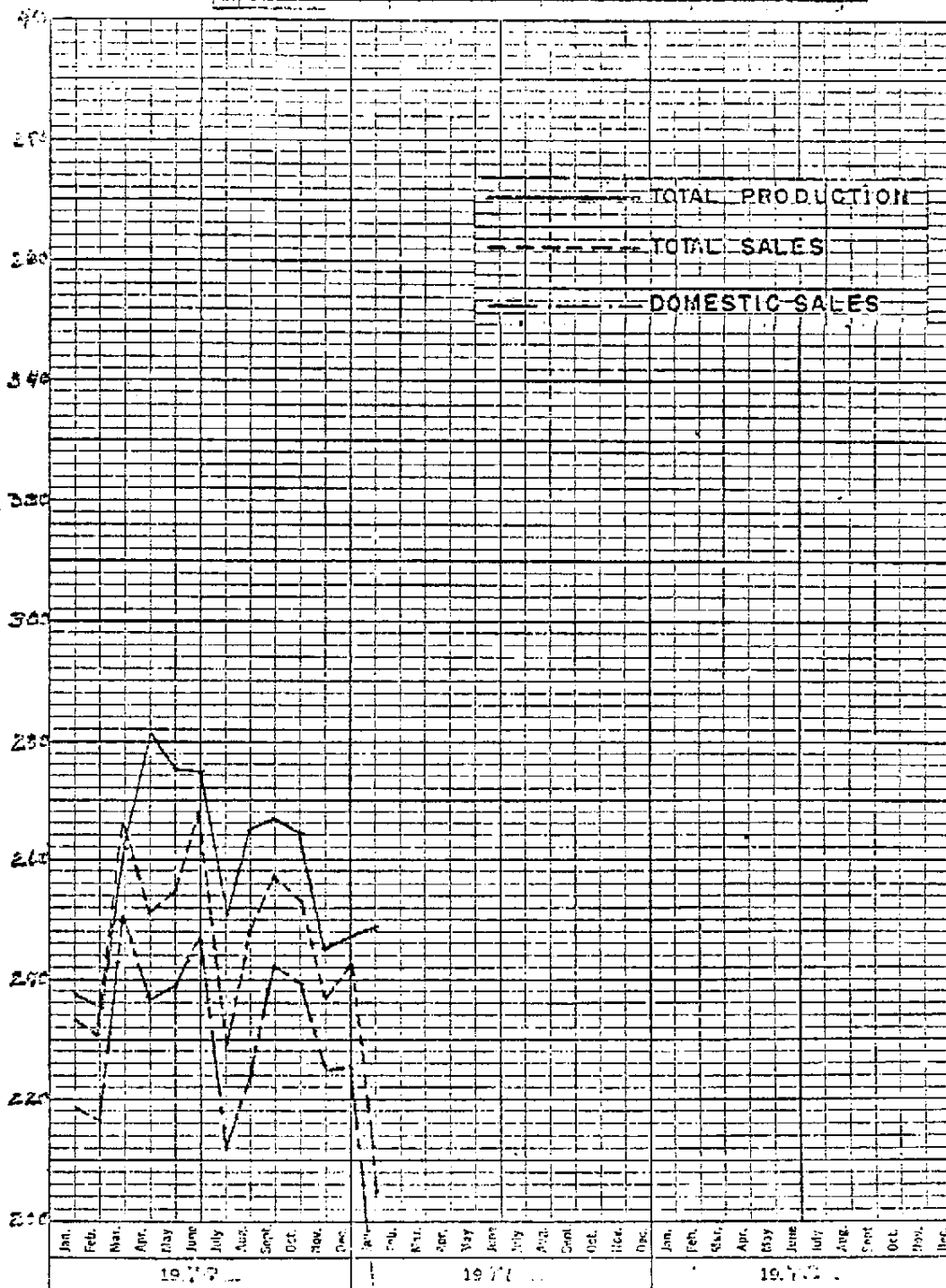


SOURCE - TARIFF COMMISSION U.S. DEPT. OF COMMERCE

AP00047050

PVC PRODUCTION & SALES BY MONTH

QUANTITY PRODUCED OR SOLD — MILLIONS OF POUNDS



SOURCE—TARIFF COMMISSION—U.S. DEPT. OF COMMERCE

AP00047051