

1982
ANNUAL REVIEW
ABERDEEN CHEMICAL PLANT
MARCH 23, 1982

AGENDA

<u>TOPIC</u>	<u>PRESENTED BY</u>
I. SAFETY	A. H. SATHER
II. COST CONTROL AND CASH CONSERVATION	S. J. VINCENT
III. ENERGY CONSERVATION	C. R. MILLER
IV. PVC EXPANSION	P. E. MARKEY
V. DEVELOPMENTAL PRODUCTS	P. J. KOBER
VI. ENVIRONMENTAL	V. E. MESSICK

DTH 000100334

DTH 000100335

SAFETY

1981 HIGHLIGHTS

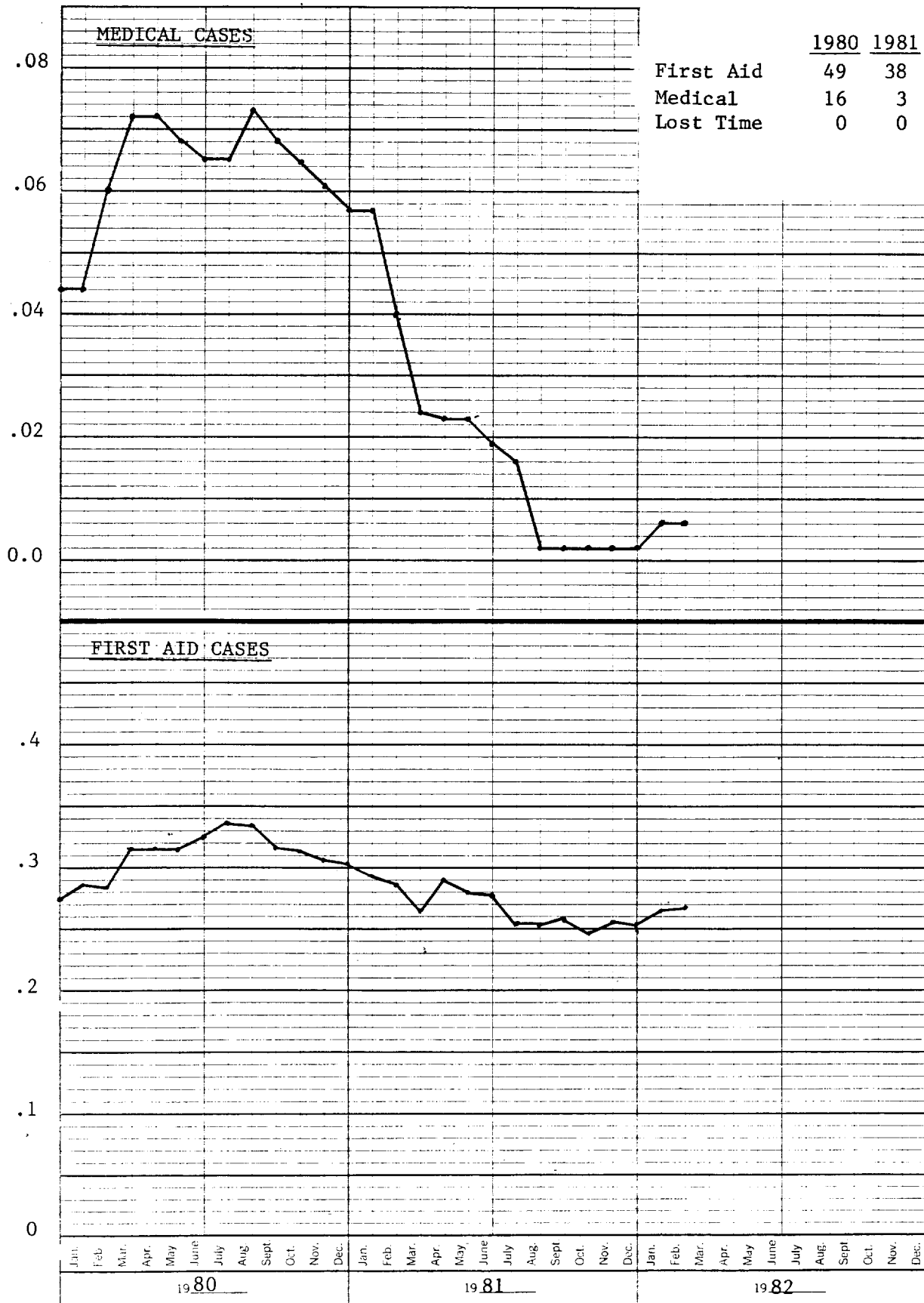
- I. INJURY TRENDS (CHART I)
- II. KEY ELEMENTS (CHART II)
- III. CHEMICAL EXPOSURE TRENDS (CHART III)
- IV. LEAD EXPOSURE CONTROL TRENDS (CHART IV)
- V. EXPANSION AND PLANT MODIFICATION SAFETY

435

CHART I

ABERDEEN CHEMICAL PLANT

INJURY PERFORMANCE



SAFETY PROGRAM

KEY ELEMENTS

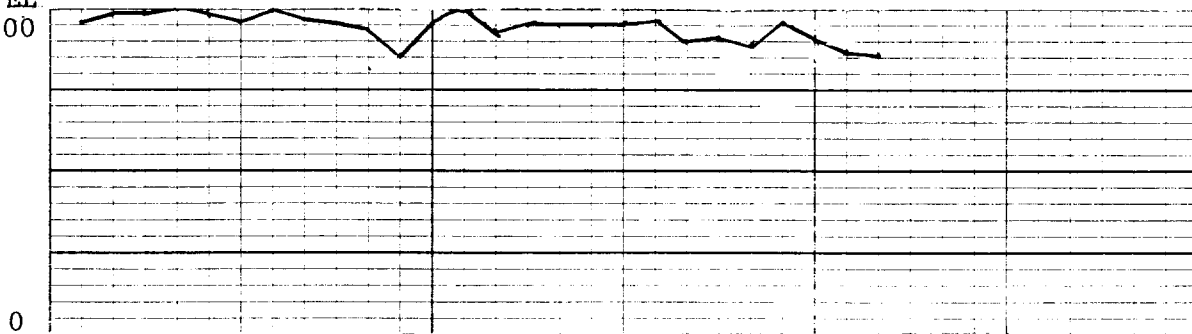
- I. JOB PLANNING
- II. TEAMWORK
- III. COMMUNICATIONS
- IV. TRAINING
- V. FOLLOW-UP

Plant Goal - Everyone goes home unhurt.

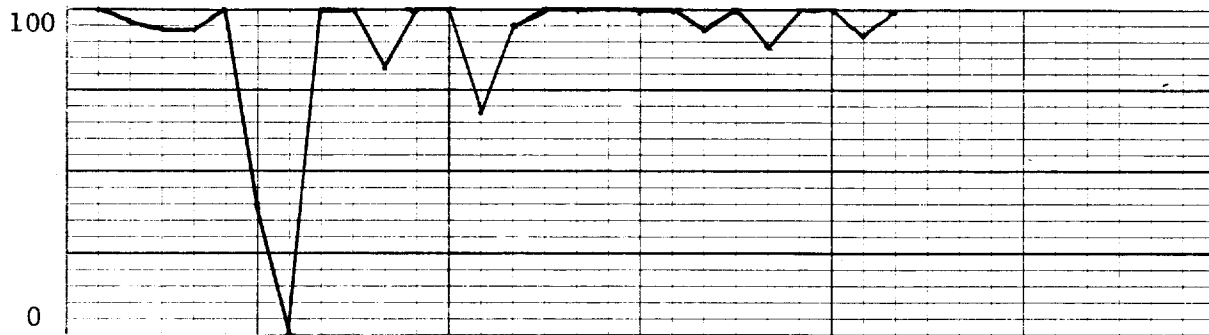
ABERDEEN CHEMICAL PLANT
PERSONNEL DOSIMETRY TRENDS

% <
PEL
100

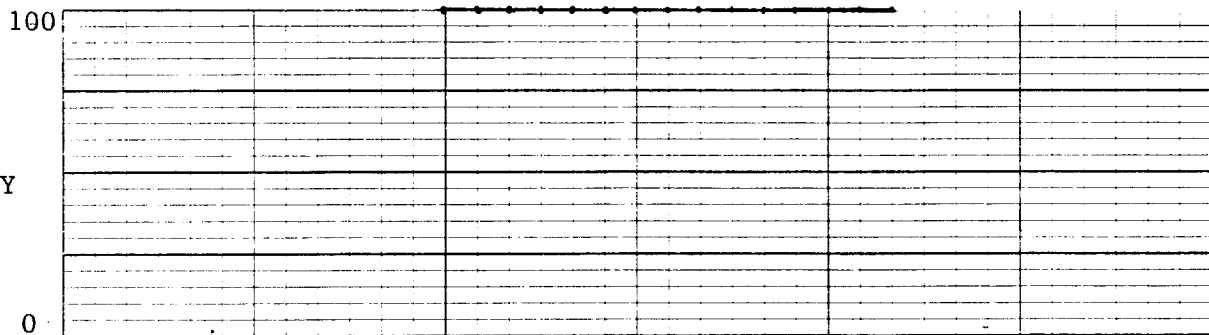
VCM



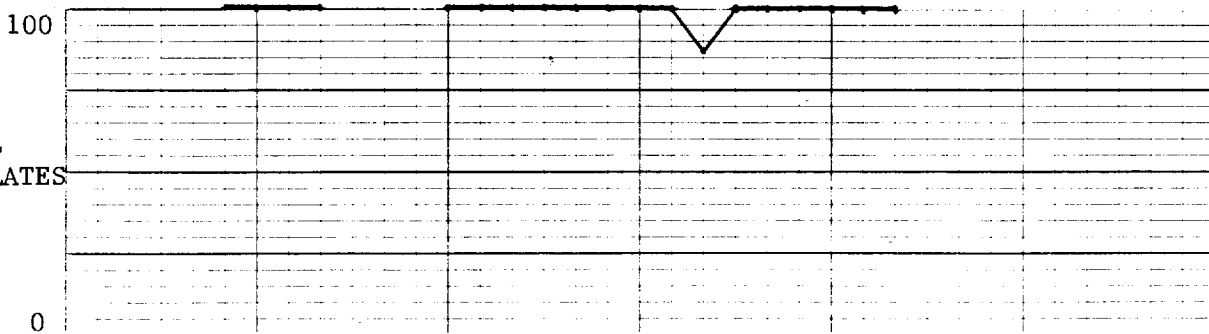
LEAD



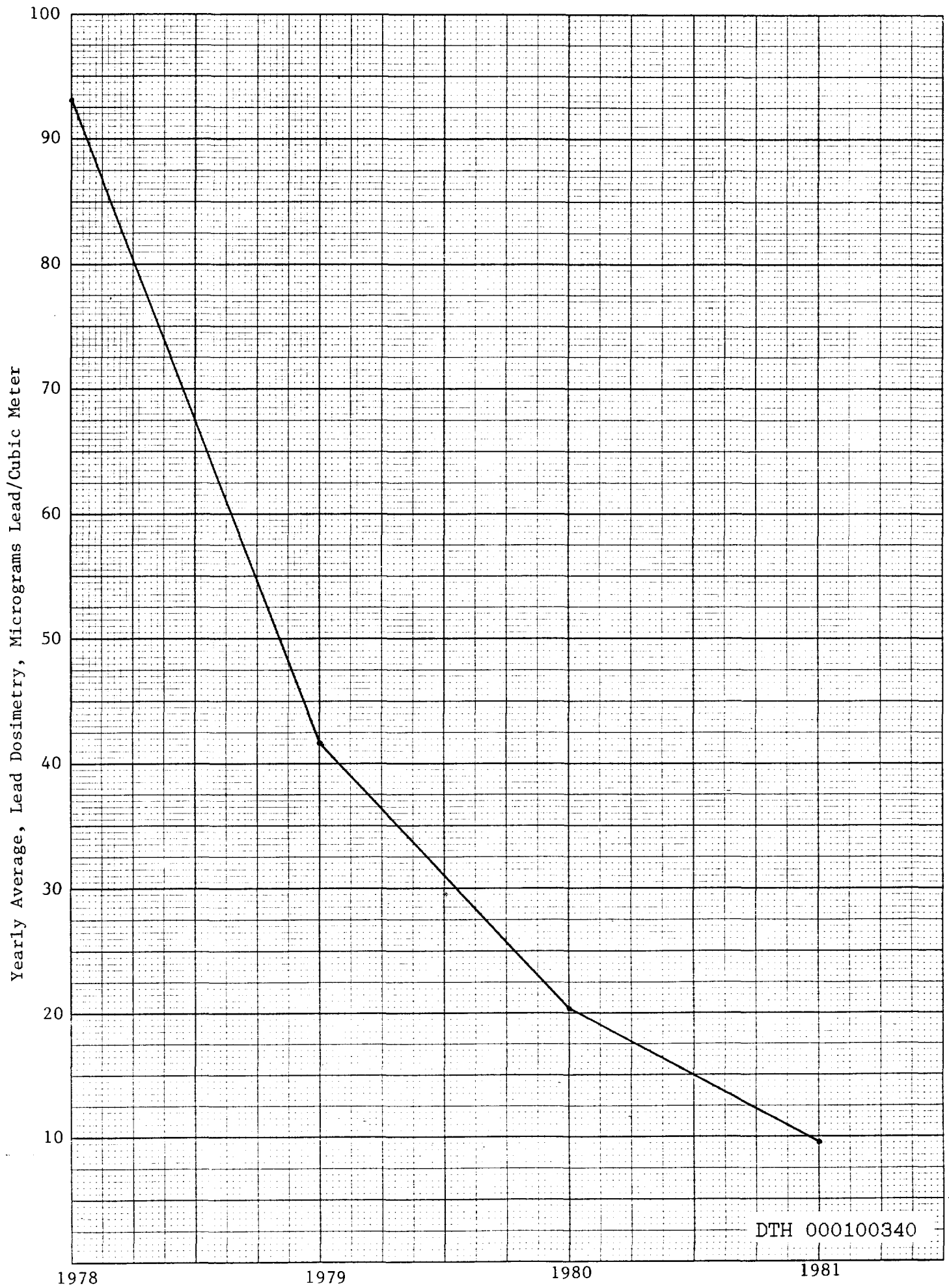
ANTIMONY



TOTAL
PARTICULATES



Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1980												1981											



DTH 000100340

SAFETY

1982 PLANS

I. INJURY GOALS

A. Lost Time	0
B. Medical	4
C. First Aid	<u>32</u>
Total	36

II. VCM OVEREXPOSURE PROGRAM

III. NOISE CONTROL PROGRAM

IV. FIRE PROTECTION IMPROVEMENT PROJECT

V. CONTRACTOR SAFETY PROGRAM

WAREHOUSE INVENTORIES

	<u>0739</u> <u>Account</u>	<u>0744</u> <u>Account</u>	<u>Total</u>
1980 Budget	\$1.330 MM	\$1.759 MM	\$3.059 MM
Actual	1.300	1.369	2.669
1981 Budget	1.491	1.390	2.881
Actual	1.495	1.177	2.672
1982 Budget	1.510	1.210	2.720

STOCKING REQUIREMENTS ANALYSIS

AS OF 3-2-82INITIAL CHANGE VERIFY XCONOCO # 1712DESCRIPTION PIPE, STEEL, BLACK 2" SCH-40UNIT OF ISSUE 21' SETWHERE USED GENEAC PLANTOPERATING IMPACT IF NOT STOCKED PREPARED BY W. J. GILBERT

19 ACTIVITY

STOCKING LEVEL: MINIMUM 6 MAXIMUM 6 RE-ORDER QUANTITY 6 LAST STOCKING LEVEL ESTABLISHED 12-17-80

PURCHASES

ANNUAL COST 414.96 ANNUAL QUANTITY 18

LAST 5 PURCHASES

QUANTITY	6	6	6	11	
DATE	10/11/81	3/6/81	9/24/80	6/8/79	

ISSUES

ANNUAL COST 592.62 ANNUAL QUANTITY 22

LAST 5 ISSUES

QUANTITY	6	7	9	11	6
DATE	3/5/81	2/25/81	11/14/81	12/24/80	9/26/80

LAST PURCHASE UNIT PRICE 23.27 AVERAGE MONTHLY PURCHASES 1.5 LAST ISSUE UNIT PRICE 26.91 AVERAGE MONTHLY ISSUES 1.8

SUPPLIER INFORMATION

	SOURCE	LOCATION	LEAD TIME	MINIMUM ORDER QNTY	UNIT PRICE	PRICE BREAK				WILL STOCK	
						\$	@	\$	@	YES	NO
PRIMARY	WHOLESALE SUPPLY	JACKSON MS	10 DAYS	✓	27.25						X
ALTERNATE	CENTRAL PIPE & SUPPLY	LOUNGBROS MS	1 WEEK	✓	28.50						X
ALTERNATE	O'NEAL STEEL	TUPELO MS	1 WEEK	✓	26.46						X
ALTERNATE	SEKERIES STEEL	TUPELO MS	SAME DAY	✓	22.58					X	

STOCKING AUTHORIZATION

	SOURCE	MINIMUM	MAXIMUM	RE-ORDER	MAX. PRICE	LPA #	REMARKS
PRIMARY	SEKERIES STEEL				22.58		
ALTERNATE	O'NEAL STEEL				26.46		DTH 000100344

APPROVALS

MECHANICAL SUPT DATE PLANT SUPERINTENDENT DATE PLANT MANAGER DATE

ROUTING

ORIGINATOR STOREKEEPER STORES SUPERVISOR PURCHASING BUYER PURCHASING FILES

RESIN REACTOR PRODUCTIVITY

PRODUCTIVITY (MM LBS. RESIN/VINYL OPERATOR)

14
12
10
8
6
4
2
0

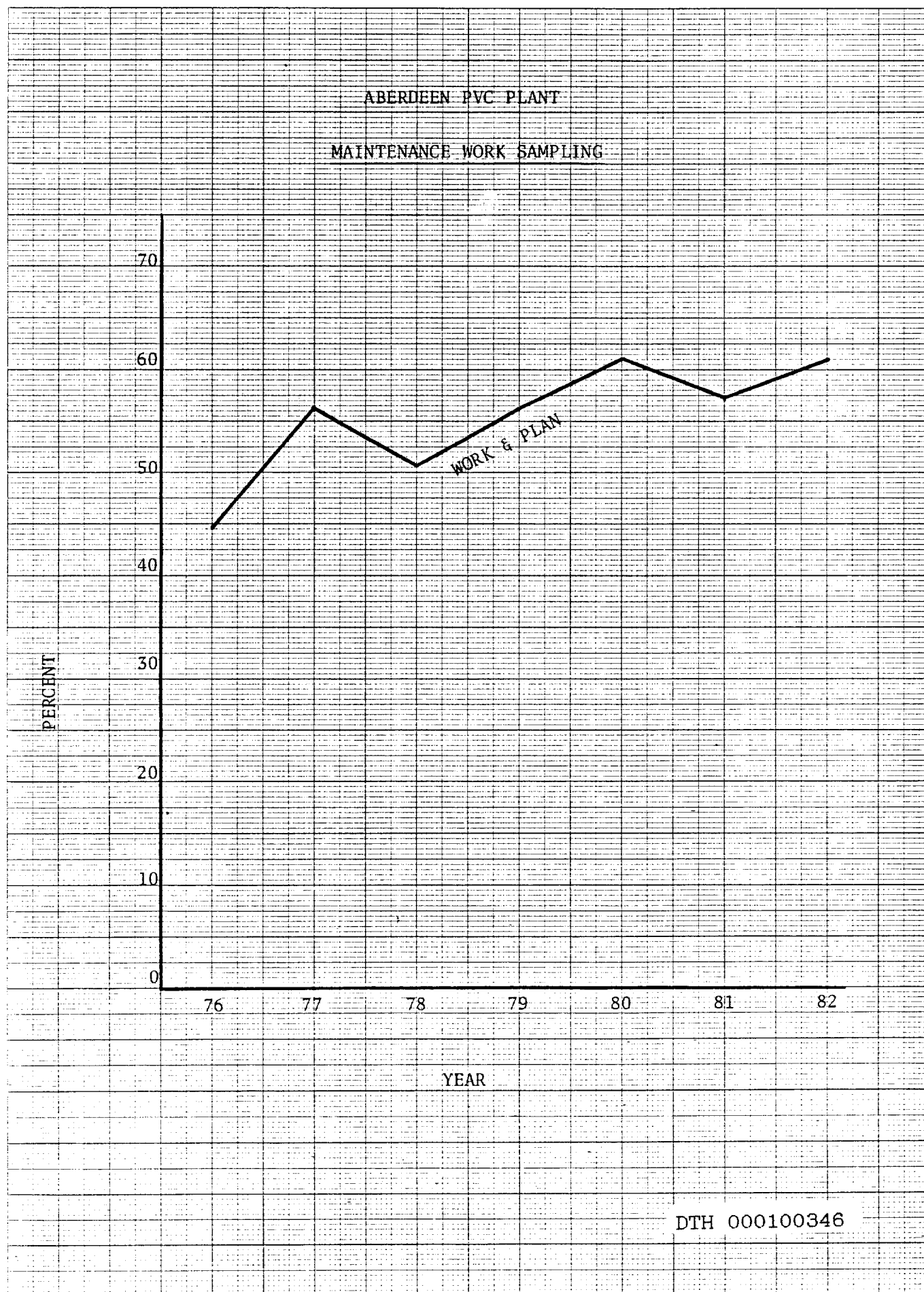
60
SMALL
REACTORS

8
LARGE
REACTORS

10
8 LARGE AND
2 EXTRA LARGE

DTH 000100345

46 1510



DTH 000100347

ENERGY CONSERVATION PROGRAM

I. ENERGY PERFORMANCE HISTORY

- A. Ten Year Performance on CMA Basis
- B. 1981 Performance

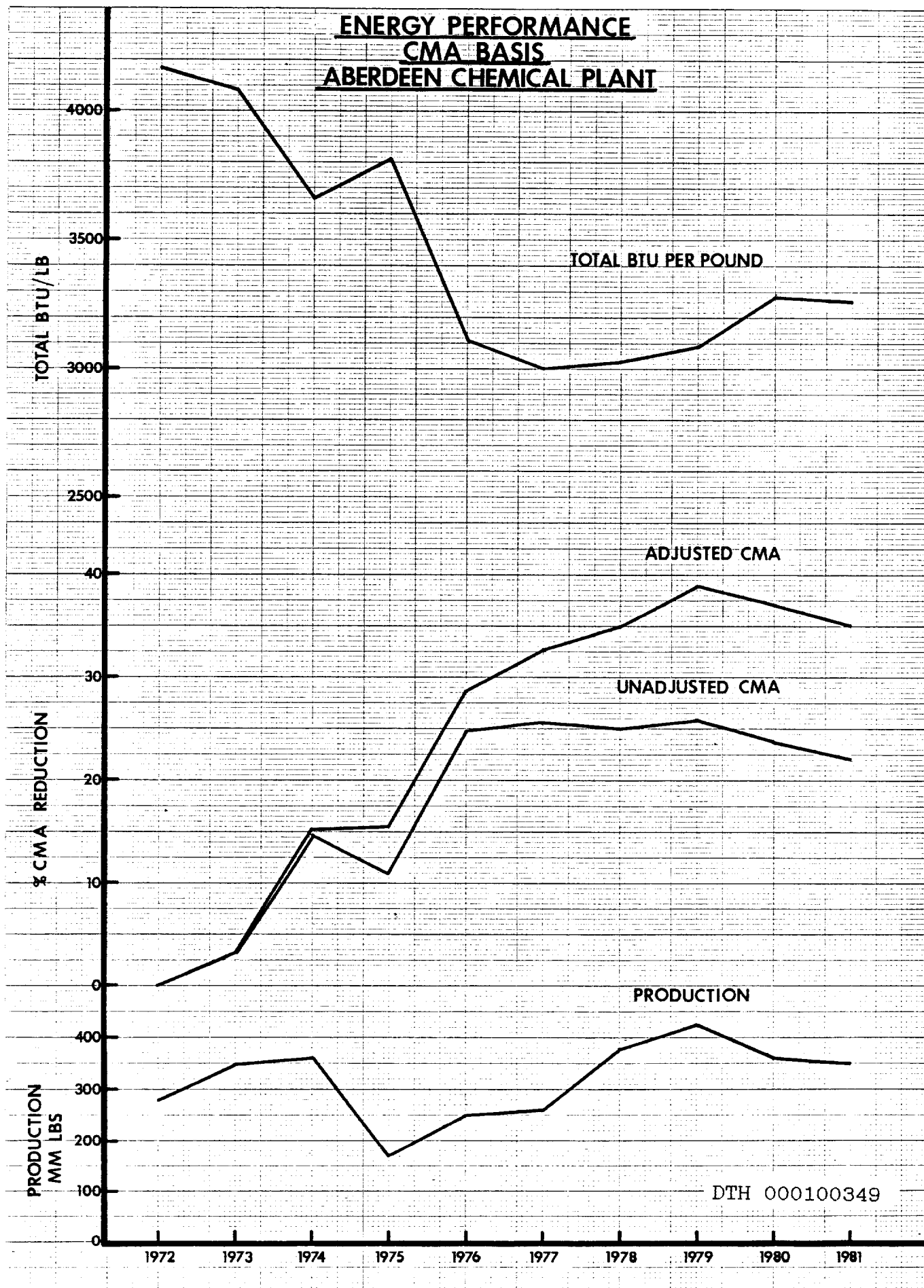
II. MAJOR 1982 PROGRAMS

- A. Reduced Operation Program
 - 1. 1980-81 Monthly Performance
 - 2. Energy Consumption Analysis
 - 3. Short Term Program
 - 4. Long Term Plan
 - 5. Shutdown Planning
- B. Boiler Operation Program
 - 1. O₂ Operating Ranges
 - 2. Refractory Inspections/Infrared Survey
 - 3. Boiler Feedwater Quality
 - 4. Economizer Operations Guidelines
 - 5. MED Consultation
 - 6. Training
- C. Steam Trap Program
 - 1. Utility Area
 - 2. Comprehensive Steam Trap Inspection
- D. Insulation Program
 - 1. Freeze Protection Plan
 - 2. Energy Related Insulation Surveys
- E. Plant Air Conservation Program
 - 1. Existing Air System
 - 2. 1982 Conservation Program
- F. Capital Projects
 - 1. V-10 Centrate Heat Recovery
 - 2. V-11 Centrate Heat Recovery
 - 3. Cooling Tower Fan Control

III. ENERGY AWARENESS

- A. Energy Consumption Monitoring
 - 1. Current Reporting
 - 2. Proposed Project
- B. Daily Accountability
- C. Employee Awareness
 - 1. Inclusion of Energy Related Topics in Operations Manuals
 - 2. Active Involvement of All Employees

IV. 1982 ENERGY CONSERVATION FORECAST

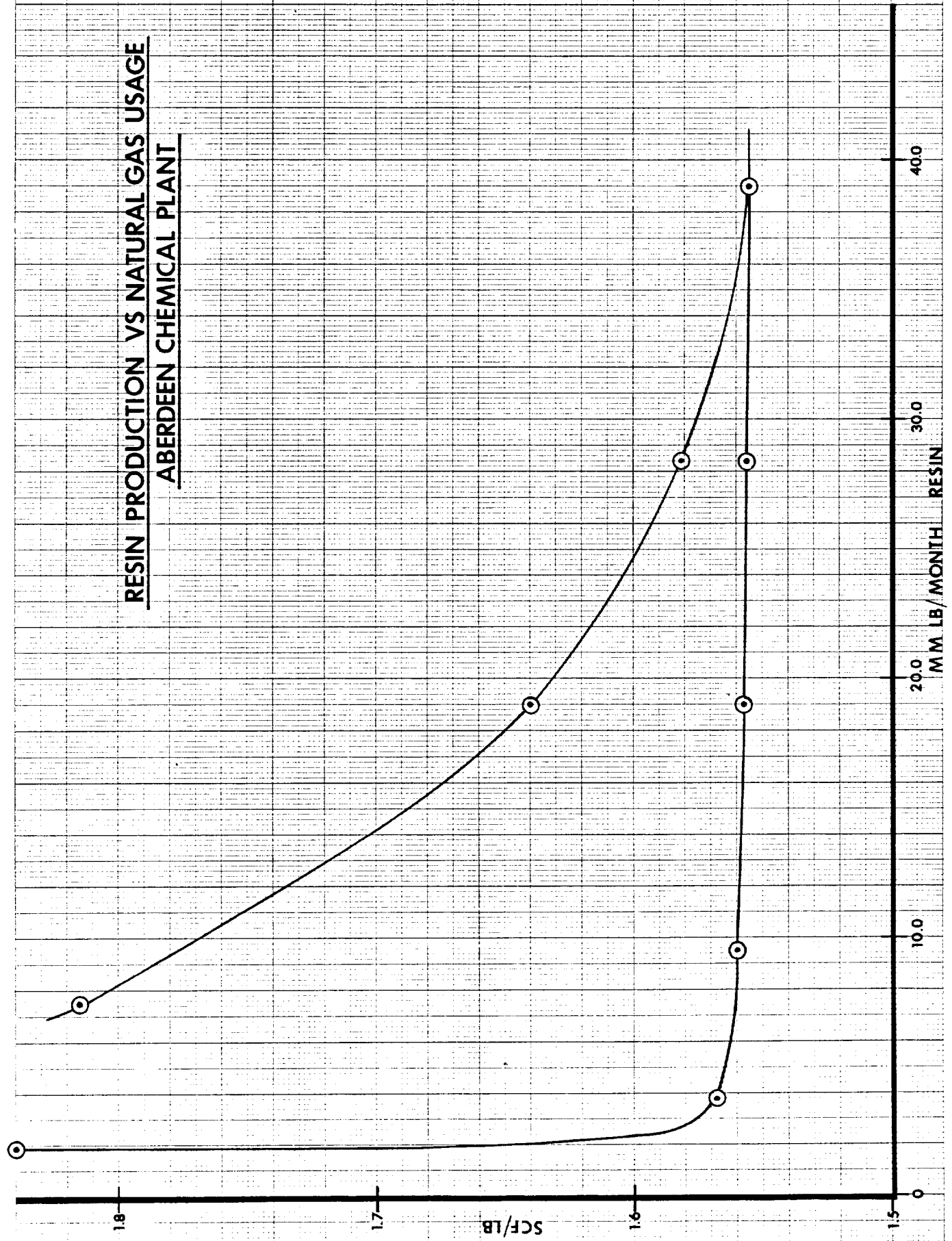


1981 BUDGET VS 1981 PERFORMANCE

ABERDEEN CHEMICAL PLANT

	<u>INCREMENTAL</u> <u>MM BTU/LB. %</u>	<u>% ADJ.</u> <u>CMA</u>
1981 Budgeted Energy Reduction		40.9
<u>1981 Changes vs 1981 Budget</u>		
Product Mix Effect	(45.6) -3.0	
Decreased Production Impact	(25.0) -1.7	
Boiler Blowdown Heat Losses	(6.3) -0.4	
Undefined Energy Consumption	<u>(4.5) -0.3</u>	
Net Change 1981 Budget vs 1981 Actual	(81.4)	35.5

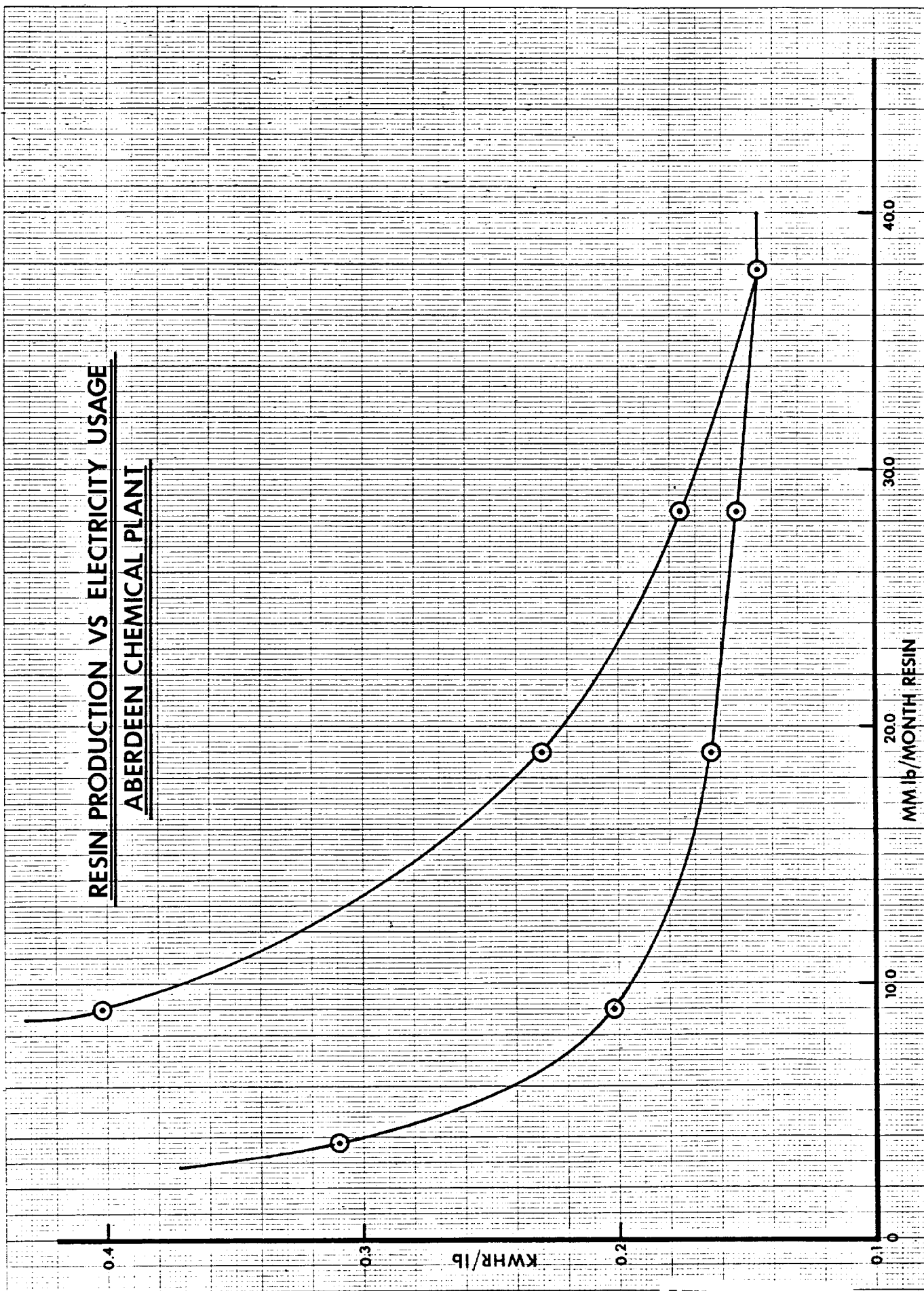
RESIN PRODUCTION VS NATURAL GAS USAGE ABERDEEN CHEMICAL PLANT



46 1510

K&S 10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

RESIN PRODUCTION VS ELECTRICITY USAGE
ABERDEEN CHEMICAL PLANT



DTH 000100352

ENERGY CONSERVATION FORECAST - 1982

ABERDEEN CHEMICAL PLANT

	<u>INCREMENTAL MMM BTU/Yr.</u>	<u>%</u>	<u>% ADJ. CMA</u>
1981 Energy Reduction vs 1972 (CMA Adjusted Basis)	-	-	35.5
<u>1982 Changes vs 1981 Performance</u>			
Product Mix Effects	33.1	2.2	
Increased Production Impact	27.0	1.8	
V-11 Centrate Heat Recovery (4 months)	13.4	0.9	
V-10 Centrate Heat Recovery (10 months)	12.5	0.8	
Boiler Blowdown Recovery (10 months)	6.7	0.4	
Cooling Tower Fan Control (11 months)	1.8	0.1	
Dryer Insulation (6 months)	1.4	0.1	
Undefined Energy Savings	<u>4.5</u>	<u>0.3</u>	
Net Change 1981 to 1982	100.4	6.6	
1982 Budget CMA Adjusted Reduction			42.1

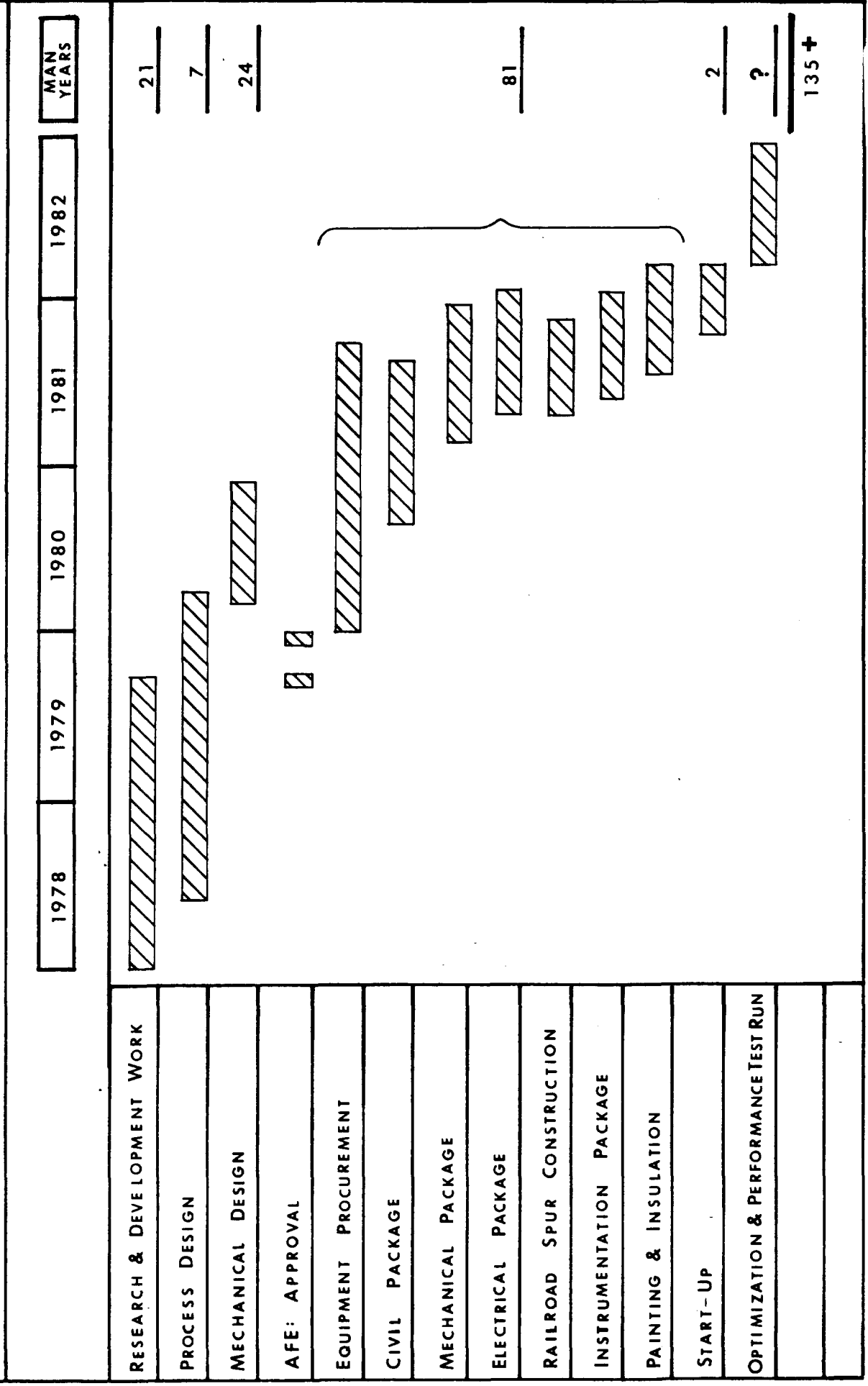
PVC
EXPANSION

DTH 000100354

ABERDEEN PVC EXPANSION PROJECT

- A. PROJECT HISTORY AND DEVELOPMENT
- B. TECHNOLOGY ADVANCEMENTS
 - 1. XXL Reactors
 - 2. Fluid Bed Dryer
- C. PROJECT COST
- D. FUTURE WORK
 - 1. Optimization and Rate Improvement
 - 2. Operator Staffing and Training Program

ABERDEEN PVC EXPANSION TIME TABLE OVERVIEW



EXPANSION START-UP

KEY ITEMS

MAJOR EQUIPMENT

START-UP DATE

FLUID BED DRYER

OCTOBER 28, 1981

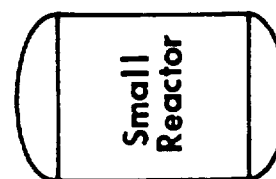
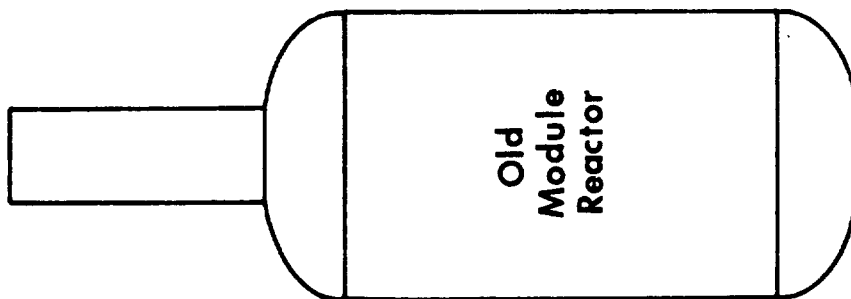
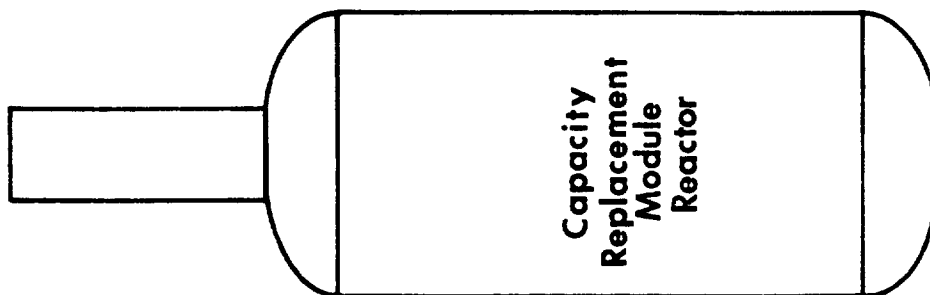
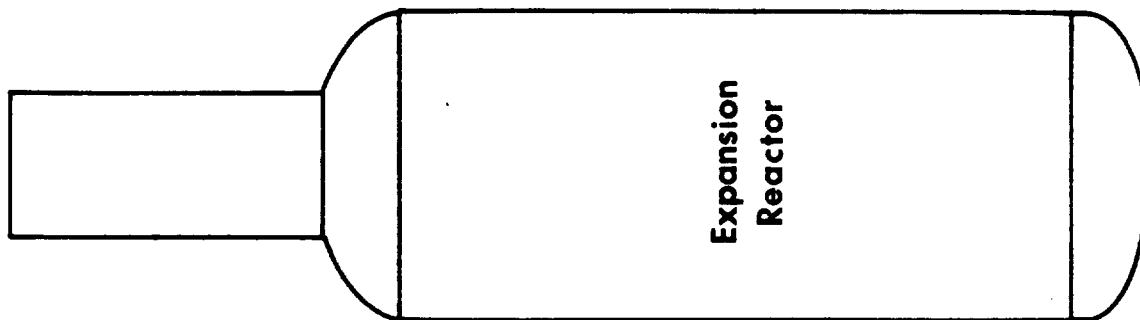
D-745 EXPANSION REACTOR

DECEMBER 17, 1981

D-700 EXPANSION REACTOR

MARCH 12, 1982

ABERDEEN CHEMICAL PLANT REACTORS



EXPANSION
REACTOR
76500
99450
22000

CRD
REACTOR
59500
71400
16400

5385 CHARGE CAPACITIES

OLD MODULE
REACTOR
49500
59400
12457

SMALL
REACTOR
6524
7828
1000

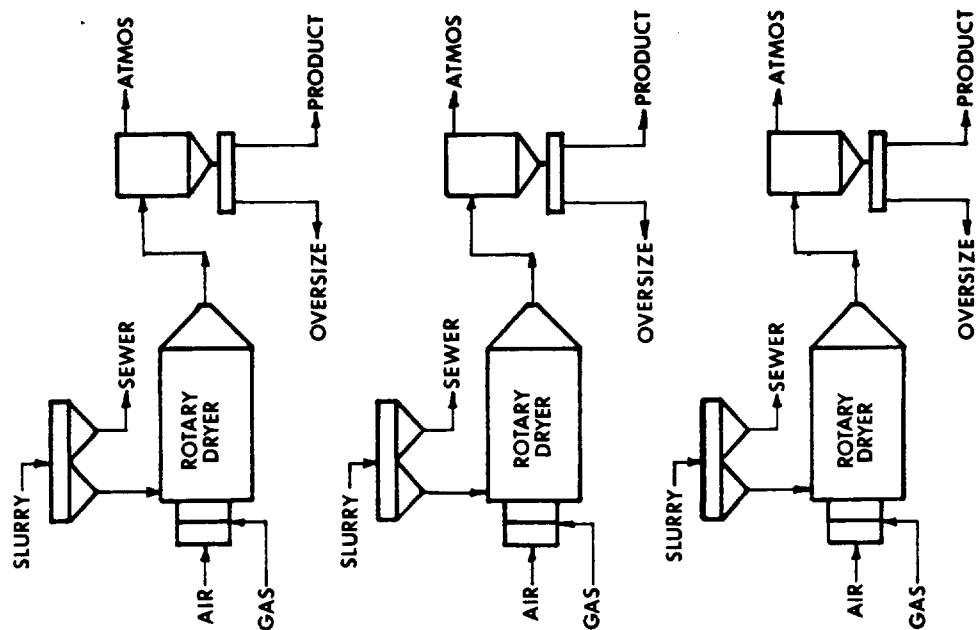
DTH 000100358

1/CM lbs.
42O lbs.
CHARGE VOL.

ABERDEEN CHEMICAL PLANT DRYERS

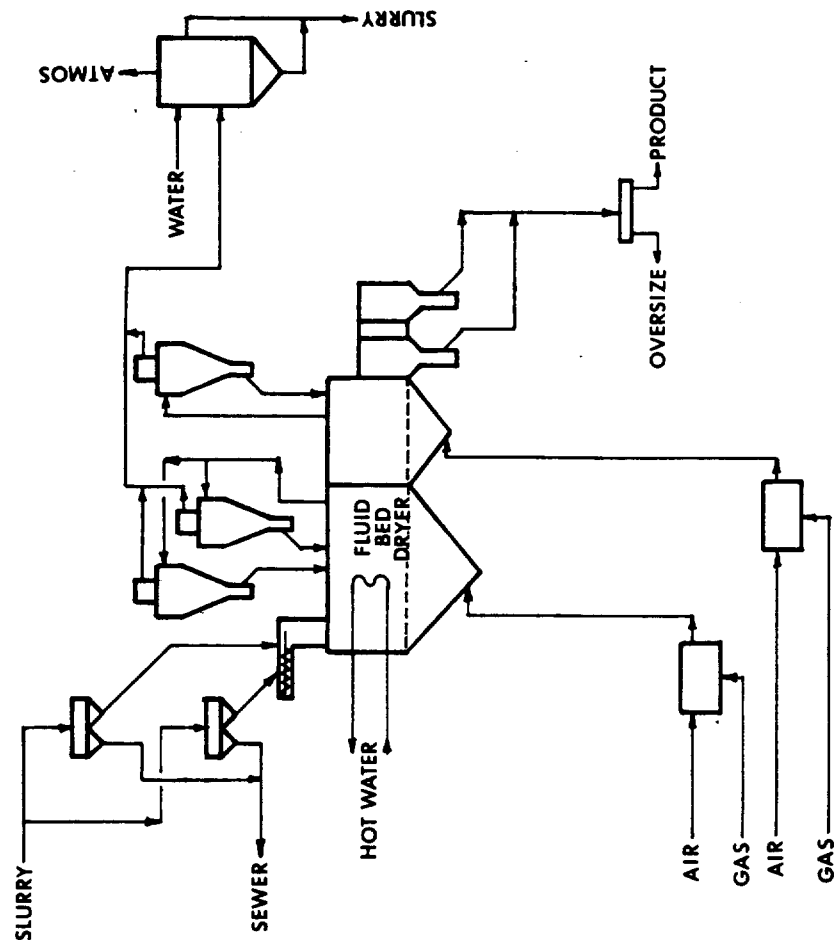
ROTARY DRYERS

RATE = 6000LB/HR



FLUID BED DRYER

RATE = 19000 LB/HR

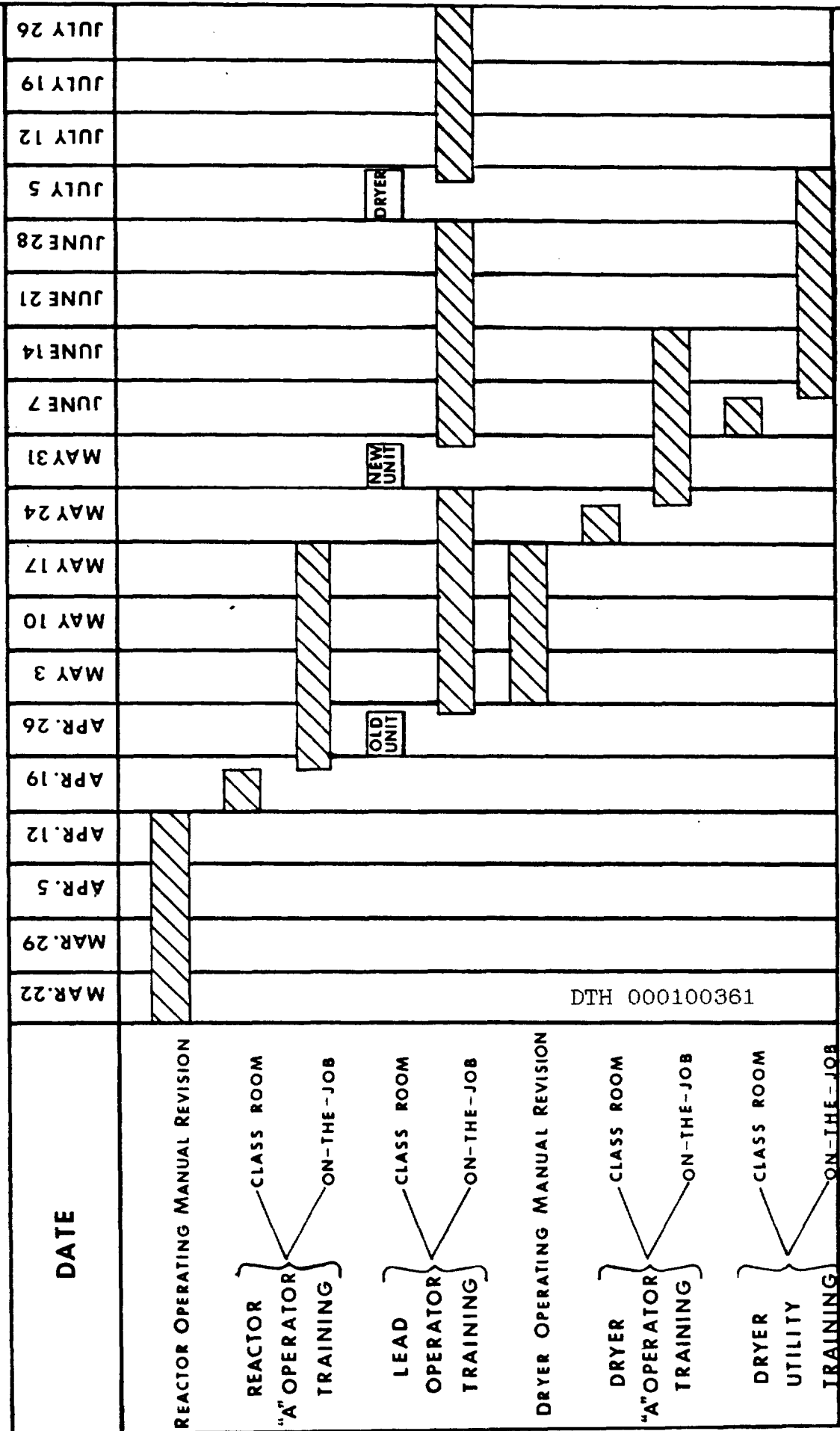


ABERDEEN PVC EXPANSION PROJECT

AFE 9719 & 9759

	<u>BUDGET ALLOCATION</u>	<u>PREDICTED TOTAL</u>	<u>(OVER) UNDER</u>
EQUIPMENT	3,385,000	3,248,000	137,000
BULK MATERIALS	1,650,000	1,787,000	(137,000)
OUTSIDE ENGINEERING	1,367,900	1,058,000	309,900
FIELD CONTRACTS	4,048,900	3,293,900	755,000
CONT.-EXTRA FIELD WORK	161,000	409,100	(248,100)
CONT.-FIELD CHANGE ORDERS	150,000	88,300	61,700
CONOCO FIELD COST	170,000	215,000	(45,000)
UNALLOCATED CONTINGENCY	691,900	121,600	570,300
PERFORMANCE BOND	103,000	15,800	87,200
ALL RISK INSURANCE	24,300	10,500	13,800
SALES TAX	248,000	58,000	190,000
CHANGE ORDERS #1 - 12	<u>0</u>	(<u>1,236,800</u>)	(<u>1,236,800</u>)
TOTAL	\$12,000,000	\$11,542,000	\$458,000

ABERDEEN PVC EXPANSION NEW OPERATOR TRAINING



DTH 000100361

DEVELOPMENTAL PRODUCTS

I. 5265 RESIN

- A. Fittings Market
- B. CTA
- C. Plant Production

II. 90172 DRY BLEND

- A. Fittings Dry Blend
- B. Field Trials
- C. Plant Scale Test Run

III. RP-100 PROGRAM

- A. Compounded Pellet Replacement
- B. Twin Screw Formulation
- C. Single Screw Formulation
- D. Plant Production

ENVIRONMENTAL
1 2 3 4 5 6 7 8 9 10 11 12

DTH 000100364

1981/82 KEY ENVIRONMENTAL FACTORS

I. PROJECTS COMPLETED

- Reactor Double Rupture Disc Replacement
- Improved Rupture Disc Holders
- Batch Water Strippers
- Diking and Curbing

II. COMPLIANCE TESTS CONDUCTED

- Batch Water Strippers
- Fluid Bed Dryer
- New Module Expansion Reactor

III. OPERATING PERMITS RECEIVED

- NPDES
- RCRA

IV. OTHER

- State of Mississippi has NESHAPS authority for the vinyl chloride standard.

CURRENT ENVIRONMENTAL PROJECTS

<u>PROJECT</u>	<u>AFE DATE</u>	<u>EXPECTED START-UP</u>	<u>CAPITAL COST, \$M</u>
<u>VCM CONTAINMENT</u>			
SPARE INCINERATOR	1/80	4/82	650
EMERGENCY AMS KILL SYSTEM	11/80	6/82	325
FIXED POINT MONITOR DATA COMPUTER & WARNING LIGHTS	9/80	4/82	113
EMERGENCY COOLING FOR REACTORS	5/81	5/82	400
REACTOR HIGH LEVEL ALARMS	11/80	1/83	100
RVCM RECEIVER HIGH LEVEL ALARMS	4/81	11/82	16
STEAM STRIPPING INSTRUMENTATION	4/81	11/82	25
BLEND TANK EXHAUSTERS	12/81	9/82	24
<u>WATER-NPDES PERMITTING</u>			
WASTE WATER TREATMENT REVISIONS	6/81	9/82	560
PLASTICIZER SPILL CONTAINMENT	4/81	10/82	50
PLASTICIZER IRRITANT CONTROL	12/80	6/82	80
<u>SOLID WASTE</u>			
RESIN RECLAIM SYSTEM	12/80	6/82	727
<u>1983 CAPITAL BUDGET</u>			
VCM RELIEF VALVE CONTAINMENT			

DTH 000100366

DTH 000100368

SAFETY

1981 HIGHLIGHTS

- I. INJURY TRENDS (CHART I)
- II. KEY ELEMENTS (CHART II)
- III. CHEMICAL EXPOSURE TRENDS (CHART III)
- IV. LEAD EXPOSURE CONTROL TRENDS (CHART IV)
- V. EXPANSION AND PLANT MODIFICATION SAFETY

CHART I

ABERDEEN CHEMICAL PLANT
INJURY PERFORMANCE

Frequency = $\frac{\text{No. of Injuries} \times 12}{\text{Total Employees}}$

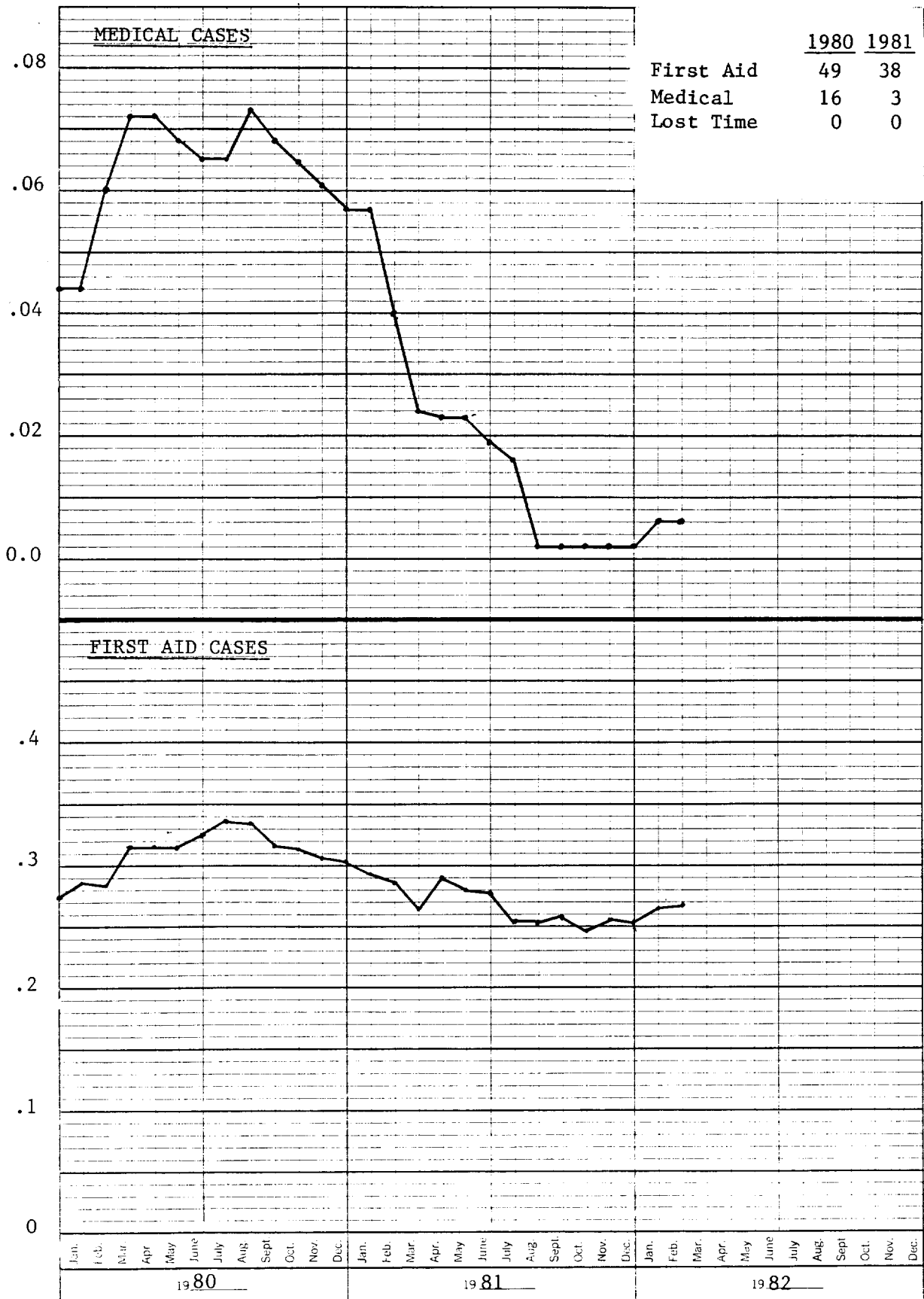


CHART II

SAFETY PROGRAM

KEY ELEMENTS

- I. JOB PLANNING
- II. TEAMWORK
- III. COMMUNICATIONS
- IV. TRAINING
- V. FOLLOW-UP

Plant Goal - Everyone goes home unhurt.

CHART III

ABERDEEN CHEMICAL PLANT
PERSONNEL DOSIMETRY TRENDS

% <
PEL
100

VCM

0

100

LEAD

0

100

ANTIMONY

0

100

TOTAL
PARTICULATES

0

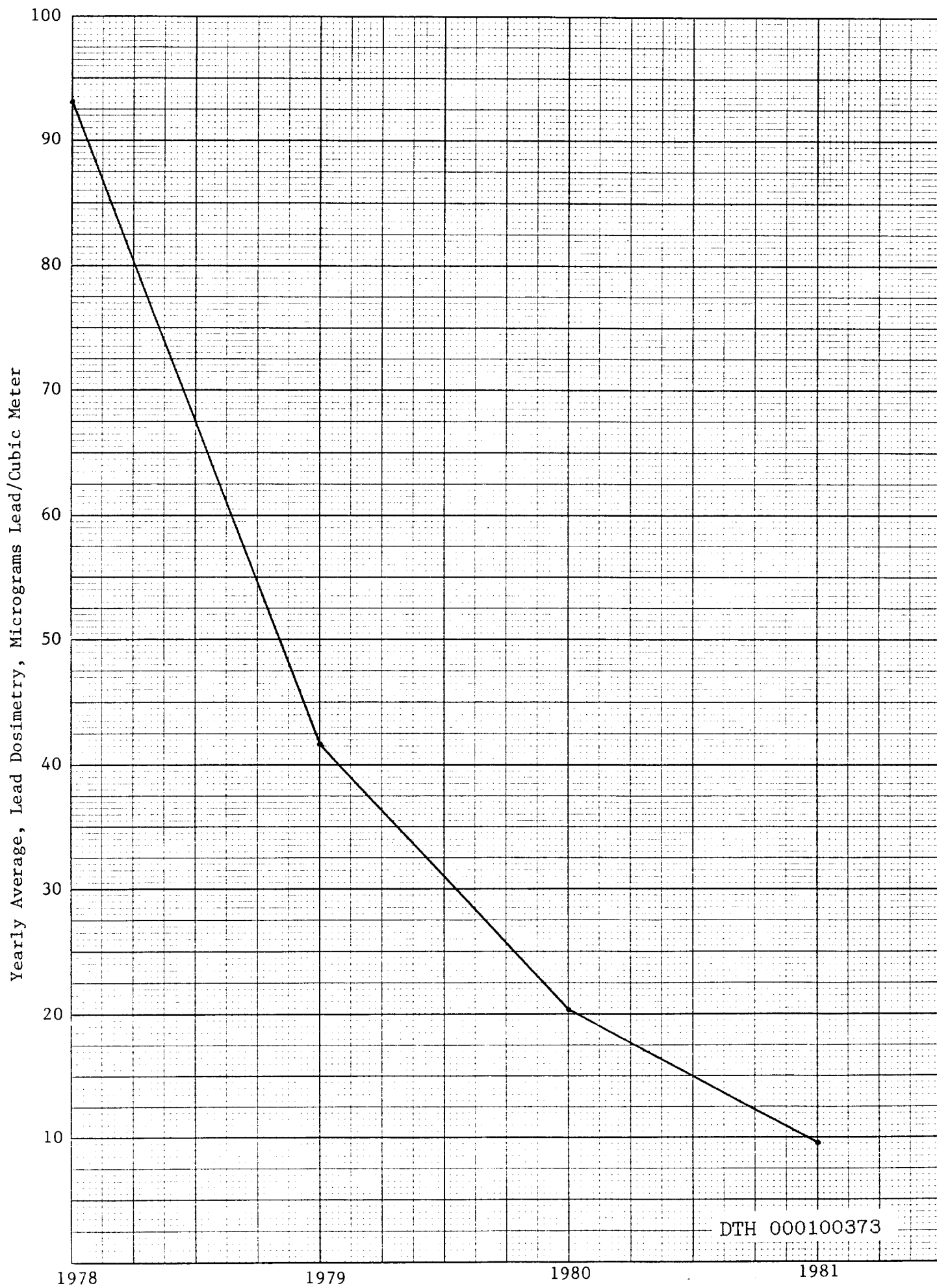
Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.												
1980												1981												1982											

PEL = Permissible Exposure Limit

DTH 000100372

CHART IV

LEAD EXPOSURE CONTROL TRENDS



DTH 000100373

SAFETY

1982 PLANS

I. INJURY GOALS

A. Lost Time	0
B. Medical	4
C. First Aid	<u>32</u>
Total	36

II. VCM OVEREXPOSURE PROGRAM

III. NOISE CONTROL PROGRAM

IV. FIRE PROTECTION IMPROVEMENT PROJECT

V. CONTRACTOR SAFETY PROGRAM

COST CONTROL AND
CASH CONSERV.

DTH 000100375

COST CONTROL AND CASH CONSERVATION

I. 1981 ABERDEEN COST PERFORMANCE

A. Variable Cost Variance

Due to Efficiency	\$ 455 M
Due To Price	\$12,859 M

B. Fixed Cost Variance	\$ 2,266 M
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II. 1981 PROFITABILITY IMPROVEMENT ITEMS	Target	\$1,129 M
	Actual	\$2,463 M

A. PVC Variable Cost

B. Upgrade H-Grade Resin

C. Reduce Sifter Overflow Production

D. Use of 5425 Resin in 18031 Compound

E. Compound Stream Factor

F. Utility Costs

G. Plant Fixed Costs

III. 1982 CASH CONSERVATION IMPROVEMENT (First Six Months)

A. Payroll and Benefits	\$ 80 M
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B. Maintenance and Contract Costs	135 M
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C. Antioxidants for PVC	40 M
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D. Reduction of H-Grade Resin Production	80 M
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E. Capital Project Delays	
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DTH 000100376

COST CONTROL AND CASH CONSERVATION (Continued)

IV. INVENTORY CONTROL - WAREHOUSE AND RAW MATERIALS

- A. 0739 Inventory
 - 1. Warehouse Stock Levels
 - 2. Price Competition
 - 3. Cost Analysis

- B. 0744 Inventory

V. PRODUCTIVITY IMPROVEMENTS

- A. Resin
- B. Compound
- C. Maintenance
- D. Labor Agreement
- E. Energy

WAREHOUSE INVENTORIES

	<u>0739</u> <u>Account</u>	<u>0744</u> <u>Account</u>	<u>Total</u>
1980 Budget	\$1.330 MM	\$1.759 MM	\$3.059 MM
Actual	1.300	1.369	2.669
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1982 Budget	1.510	1.210	2.720

DTH 000100378

STOCKING REQUIREMENTS ANALYSIS

AS OF 3-2-82INITIAL CHANGE VERIFY XDESCRIPTION PIPE, STEEL, BLACK 2" SCH-40CONOCO # 1212UNIT OF ISSUE 21' SECTWHERE USED GENERAL PLANTOPERATING IMPACT IF NOT STOCKED

19 ACTIVITY

PREPARED BY W. H. H. H. H.STOCKING LEVEL: MINIMUM 6 MAXIMUM 6 RE-ORDER QUANTITY 6 LAST STOCKING LEVEL ESTABLISHED 12-17-80

PURCHASES

ANNUAL COST 414.96 ANNUAL QUANTITY 18

LAST 5 PURCHASES

ISSUES

ANNUAL COST 92.02 ANNUAL QUANTITY 22

LAST 5 ISSUES

QUANTITY	6	6	6	11		QUANTITY	6	7	9	11	6
DATE	10/11/81	3/6/81	9/29/80	6/8/79		DATE	3/5/81	2/25/81	1/14/81	12/24/80	9/26/80

LAST PURCHASE UNIT PRICE 23.44 AVERAGE MONTHLY PURCHASES 1.5 LAST ISSUE UNIT PRICE 22.91 AVERAGE MONTHLY ISSUES 1.8

SUPPLIER INFORMATION

	SOURCE	LOCATION	LEAD TIME	MINIMUM ORDER QNTY	UNIT PRICE	PRICE BREAK				WILL STOCK	
						\$	@	\$	@	YES	NO
PRIMARY	Wholesale Supply	Lakewood, MS	10 DAYS	✓	27.25						X
ALTERNATE	Central Pipe & Supply	Lumbardus, MS	1 WEEK	✓	28.50						X
ALTERNATE	O'NEAL STEEL	TURKEY, MS	1 WEEK	✓	26.46						X
ALTERNATE	Seaver's Steel	Turkey, MS	Same Day	✓	22.58						X

STOCKING AUTHORIZATION

	SOURCE	MINIMUM	MAXIMUM	RE-ORDER	MAX. PRICE	LPA #	REMARKS
PRIMARY	Seaver's Steel				22.58		
ALTERNATE	O'NEAL STEEL				26.46		DTH 000100379

APPROVALS

MECHANICAL SUPT DATE PLANT SUPERINTENDENT DATE PLANT MANAGER DATE

ROUTING

ORIGINATOR STOREKEEPER STORES SUPERVISOR PURCHASING BUYER PURCHASING FILES

46 1510

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFEL & ESSER CO. MADE IN U.S.A.

RESIN REACTOR PRODUCTIVITY

PRODUCTIVITY (MM LBS. RESIN/VINYL OPERATOR)

14
12
10
8
6
4
2
0

60
SMALL
REACTORS

8
LARGE
REACTORS

10
8 LARGE AND
2 EXTRA LARGE

DTH 000100380

46 1510



DTH 000100382

DTH 000100383

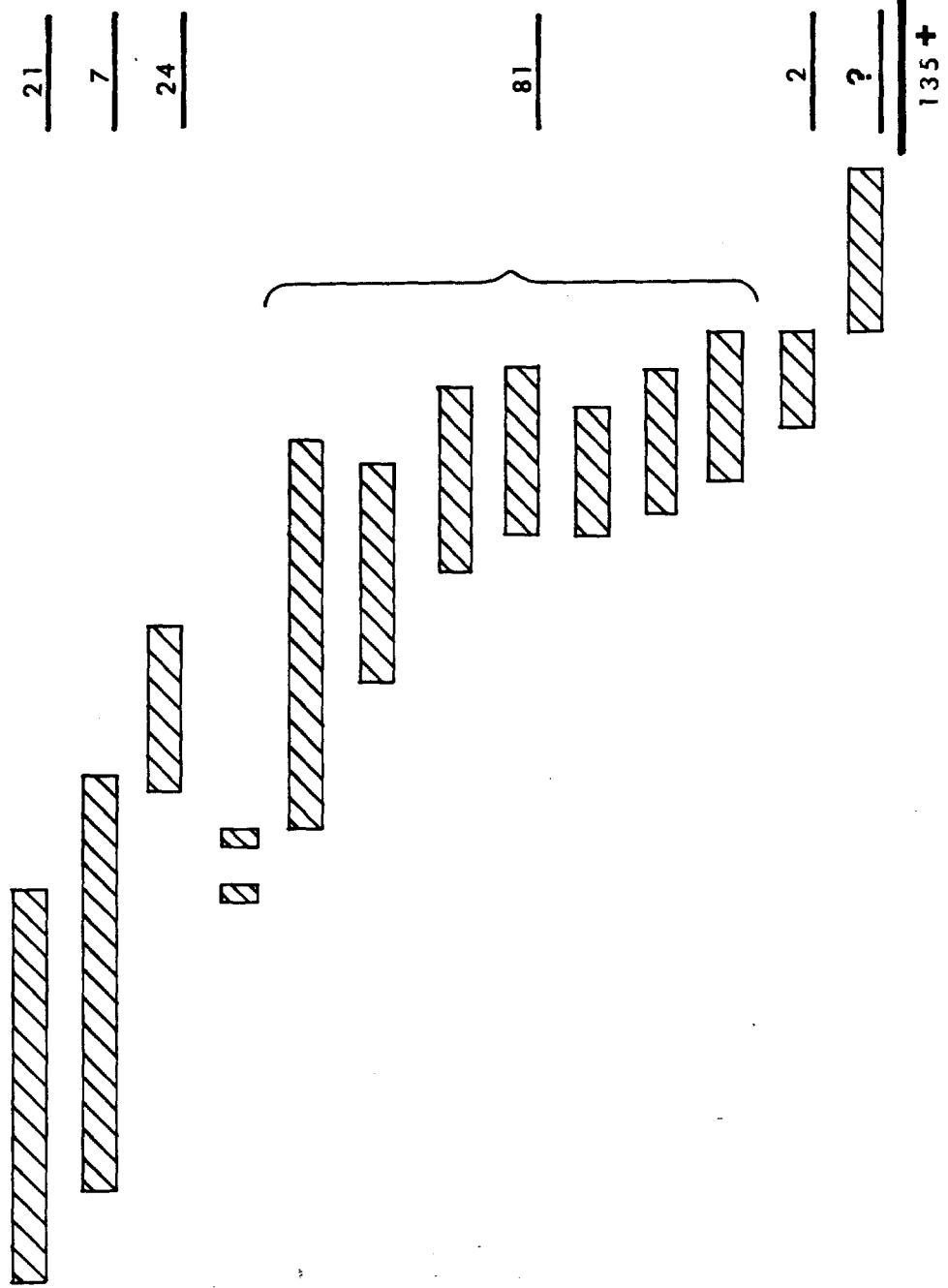
ABERDEEN PVC EXPANSION PROJECT

- A. PROJECT HISTORY AND DEVELOPMENT
- B. TECHNOLOGY ADVANCEMENTS
 - 1. XXL Reactors
 - 2. Fluid Bed Dryer
- C. PROJECT COST
- D. FUTURE WORK
 - 1. Optimization and Rate Improvement
 - 2. Operator Staffing and Training Program

ABERDEEN PVC EXPANSION **TIME TABLE OVERVIEW**

1978	1979	1980	1981	1982	MAN YEARS
------	------	------	------	------	--------------

RESEARCH & DEVELOPMENT WORK	
PROCESS DESIGN	
MECHANICAL DESIGN	
AFE: APPROVAL	
EQUIPMENT PROCUREMENT	
CIVIL PACKAGE	
MECHANICAL PACKAGE	
ELECTRICAL PACKAGE	
RAILROAD SPUR CONSTRUCTION	
INSTRUMENTATION PACKAGE	
PAINTING & INSULATION	
START-UP	
OPTIMIZATION & PERFORMANCE TEST RUN	



EXPANSION START-UP

KEY ITEMS

MAJOR EQUIPMENT

START-UP DATE

FLUID BED DRYER

OCTOBER 28, 1981

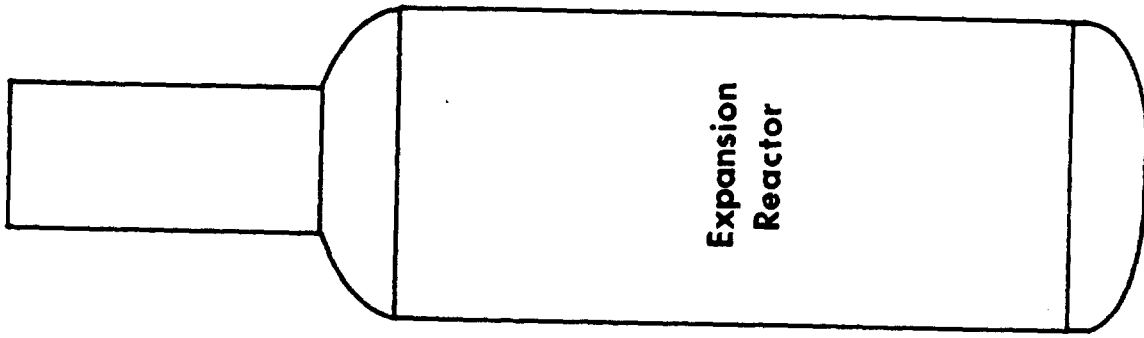
D-745 EXPANSION REACTOR

DECEMBER 17, 1981

D-700 EXPANSION REACTOR

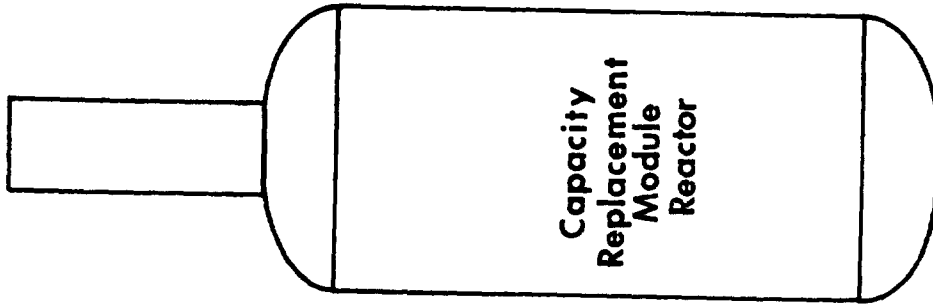
MARCH 12, 1982

ABERDEEN CHEMICAL PLANT REACTORS



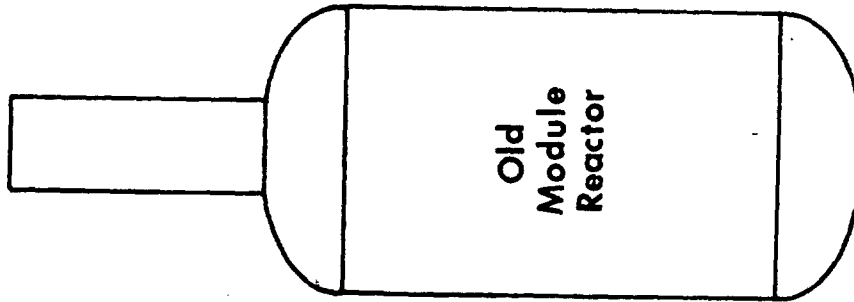
Expansion
Reactor

<u>EXPANSION REACTOR</u>	
	76500
	<u>99450</u>
	22000



Capacity
Replacement
Module
Reactor

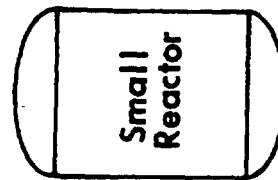
<u>CRD REACTOR</u>	
	59500
	<u>71400</u>
	16400



Old
Module
Reactor

5385 CHARGE CAPACITIES

<u>OLD MODULE REACTOR</u>	
	49500
	<u>59400</u>
	13657



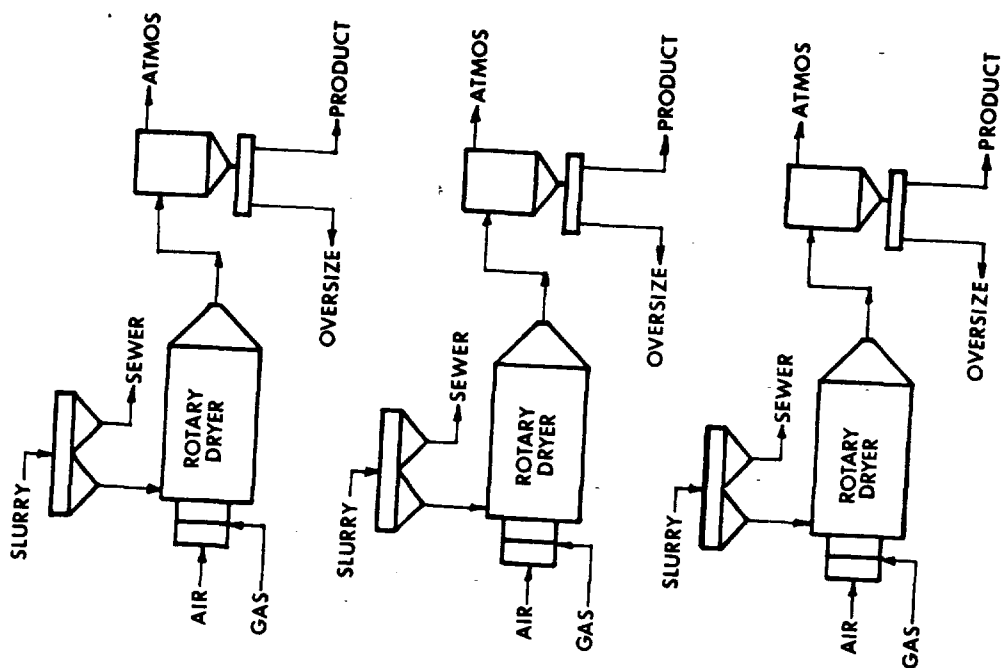
Small
Reactor

<u>SMALL REACTOR</u>	
	6524
	<u>7828</u>
	1800

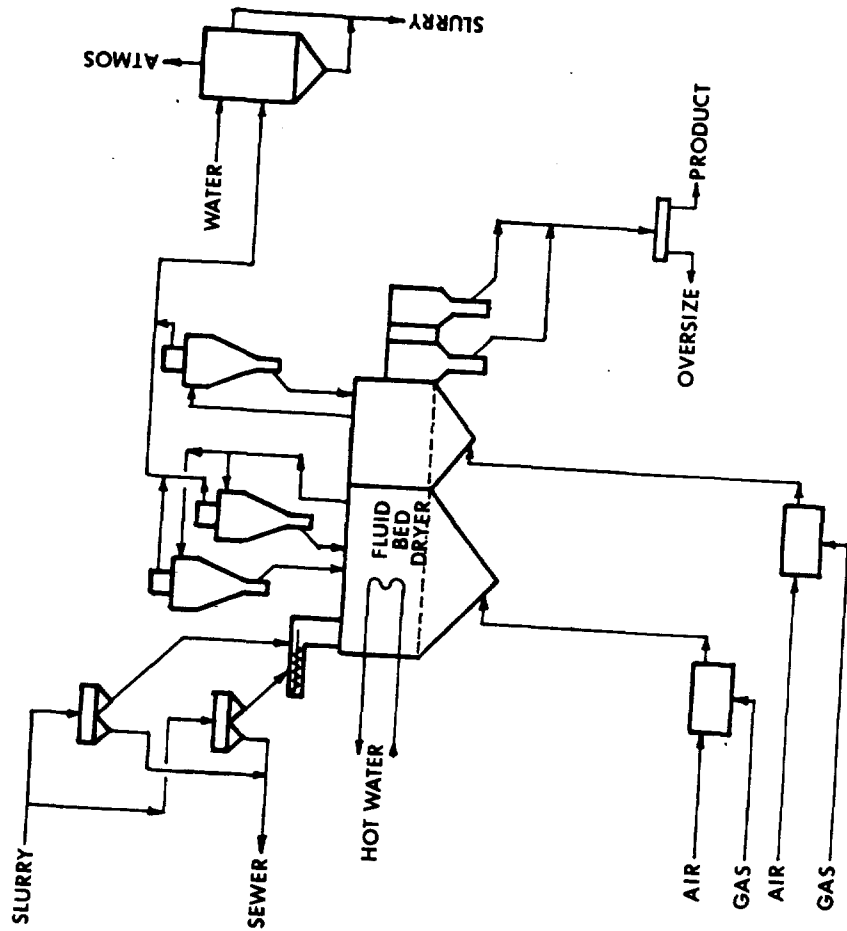
√CM lbs.
+20 lbs.
CHARGE VOL.
GALLONS

ABERDEEN CHEMICAL PLANT DRYERS

ROTARY DRYERS
RATE = 6000 LB/HR



FLUID BED DRYER
RATE = 19000 LB/HR



ABERDEEN PVC EXPANSION PROJECT

AFE 9719 & 9759

	<u>BUDGET ALLOCATION</u>	<u>PREDICTED TOTAL</u>	<u>(OVER) UNDER</u>
EQUIPMENT	3,385,000	3,248,000	137,000
BULK MATERIALS	1,650,000	1,787,000	(137,000)
OUTSIDE ENGINEERING	1,367,900	1,058,000	309,900
FIELD CONTRACTS	4,048,900	3,293,900	755,000
CONT.-EXTRA FIELD WORK	161,000	409,100	(248,100)
CONT.-FIELD CHANGE ORDERS	150,000	88,300	61,700
CONOCO FIELD COST	170,000	215,000	(45,000)
UNALLOCATED CONTINGENCY	691,900	121,600	570,300
PERFORMANCE BOND	103,000	15,800	87,200
ALL RISK INSURANCE	24,300	10,500	13,800
SALES TAX	248,000	58,000	190,000
CHANGE ORDERS #1 - 12	<u>0</u>	(<u>1,236,800</u>)	(<u>1,236,800</u>)
TOTAL	\$12,000,000	\$11,542,000	\$458,000

ABERDEEN PVC EXPANSION NEW OPERATOR TRAINING

DATE	MAR. 22	MAR. 29	APR. 5	APR. 12	APR. 19	APR. 26	MAY 3	MAY 10	MAY 17	MAY 24	MAY 31	JUNE 7	JUNE 14	JUNE 21	JUNE 28	JULY 5	JULY 12	JULY 19	JULY 26
REACTOR OPERATING MANUAL REVISION																			
REACTOR "A" OPERATOR TRAINING																			
LEAD OPERATOR TRAINING																			
DRYER OPERATING MANUAL REVISION																			
DRYER "A" OPERATOR TRAINING																			
DRYER UTILITY TRAINING																			

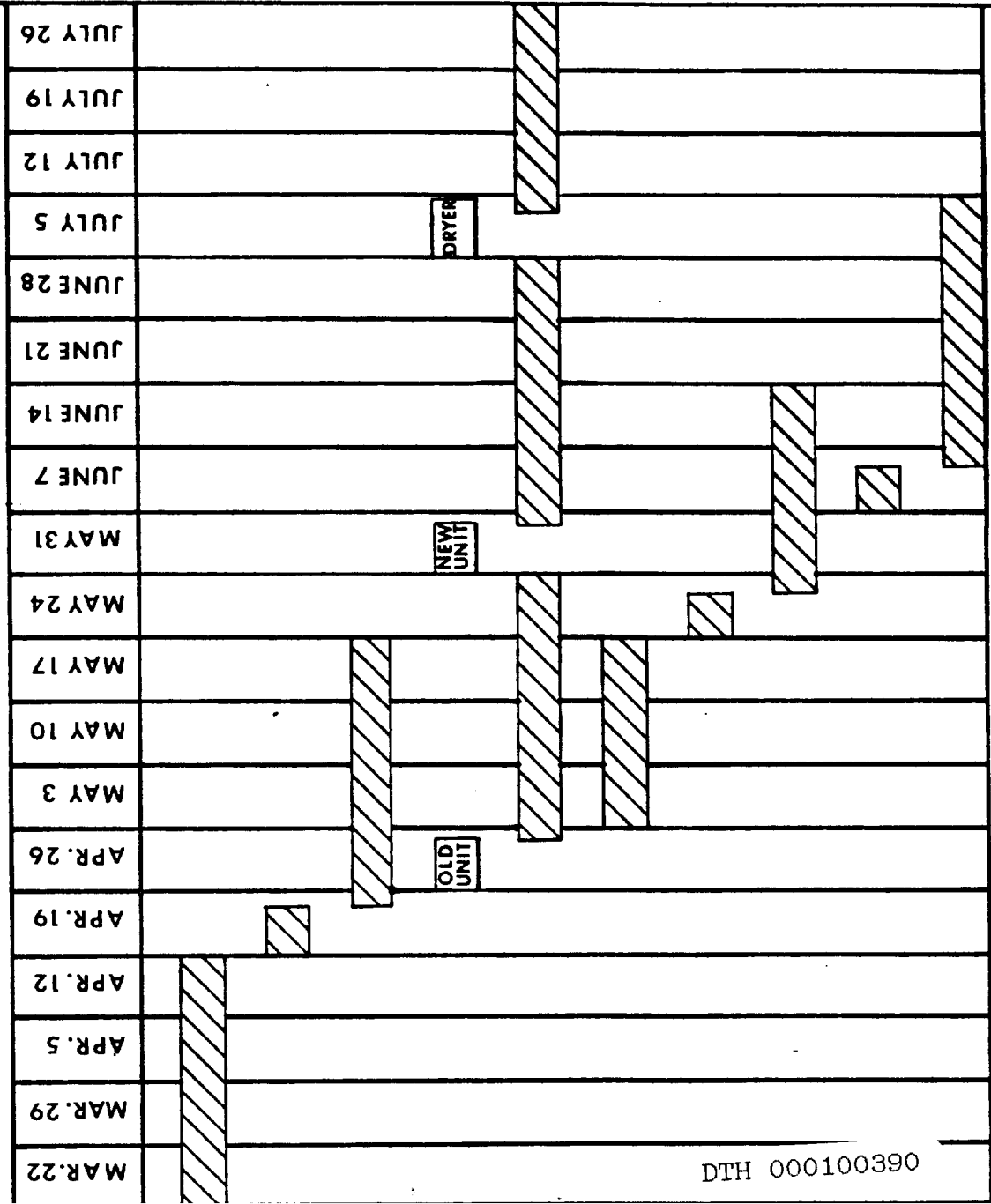
DTH 000100390

DRYER

NEW UNIT

OLD UNIT

ABERDEEN PVC EXPANSION EW OPERATOR TRAINING



DTH 000100390

DTH 000100391

DEVELOPMENTAL PRODUCTS

I. 5265 RESIN

- A. Fittings Market
- B. CTA
- C. Plant Production

II. 90172 DRY BLEND

- A. Fittings Dry Blend
- B. Field Trials
- C. Plant Scale Test Run

III. RP-100 PROGRAM

- A. Compounded Pellet Replacement
- B. Twin Screw Formulation
- C. Single Screw Formulation
- D. Plant Production

DTH 000100393

1981/82 KEY ENVIRONMENTAL FACTORS

I. PROJECTS COMPLETED

- Reactor Double Rupture Disc Replacement
- Improved Rupture Disc Holders
- Batch Water Strippers
- Diking and Curbing

II. COMPLIANCE TESTS CONDUCTED

- Batch Water Strippers
- Fluid Bed Dryer
- New Module Expansion Reactor

III. OPERATING PERMITS RECEIVED

- NPDES
- RCRA

IV. OTHER

- State of Mississippi has NESHAPS authority for the vinyl chloride standard.

CURRENT ENVIRONMENTAL PROJECTS

<u>PROJECT</u>	<u>AFE DATE</u>	<u>EXPECTED START-UP</u>	<u>CAPITAL COST, \$M</u>
<u>VCM CONTAINMENT</u>			
SPARE INCINERATOR	1/80	4/82	650
EMERGENCY AMS KILL SYSTEM	11/80	6/82	325
FIXED POINT MONITOR DATA COMPUTER & WARNING LIGHTS	9/80	4/82	113
EMERGENCY COOLING FOR REACTORS	5/81	5/82	400
REACTOR HIGH LEVEL ALARMS	11/80	1/83	100
RVCM RECEIVER HIGH LEVEL ALARMS	4/81	11/82	16
STEAM STRIPPING INSTRUMENTATION	4/81	11/82	25
BLEND TANK EXHAUSTERS	12/81	9/82	24
<u>WATER-NPDES PERMITTING</u>			
WASTE WATER TREATMENT REVISIONS	6/81	9/82	560
PLASTICIZER SPILL CONTAINMENT	4/81	10/82	50
PLASTICIZER IRRITANT CONTROL	12/80	6/82	80
<u>SOLID WASTE</u>			
RESIN RECLAIM SYSTEM	12/80	6/82	727
<u>1983 CAPITAL BUDGET</u>			
VCM RELIEF VALVE CONTAINMENT			

DTH 000100395