

1983 Executive Tour

Aberdeen Chemical Plant

Aberdeen, MS



DTN 000099818

1983
ANNUAL REVIEW
ABERDEEN CHEMICAL PLANT
MARCH 15, 1983

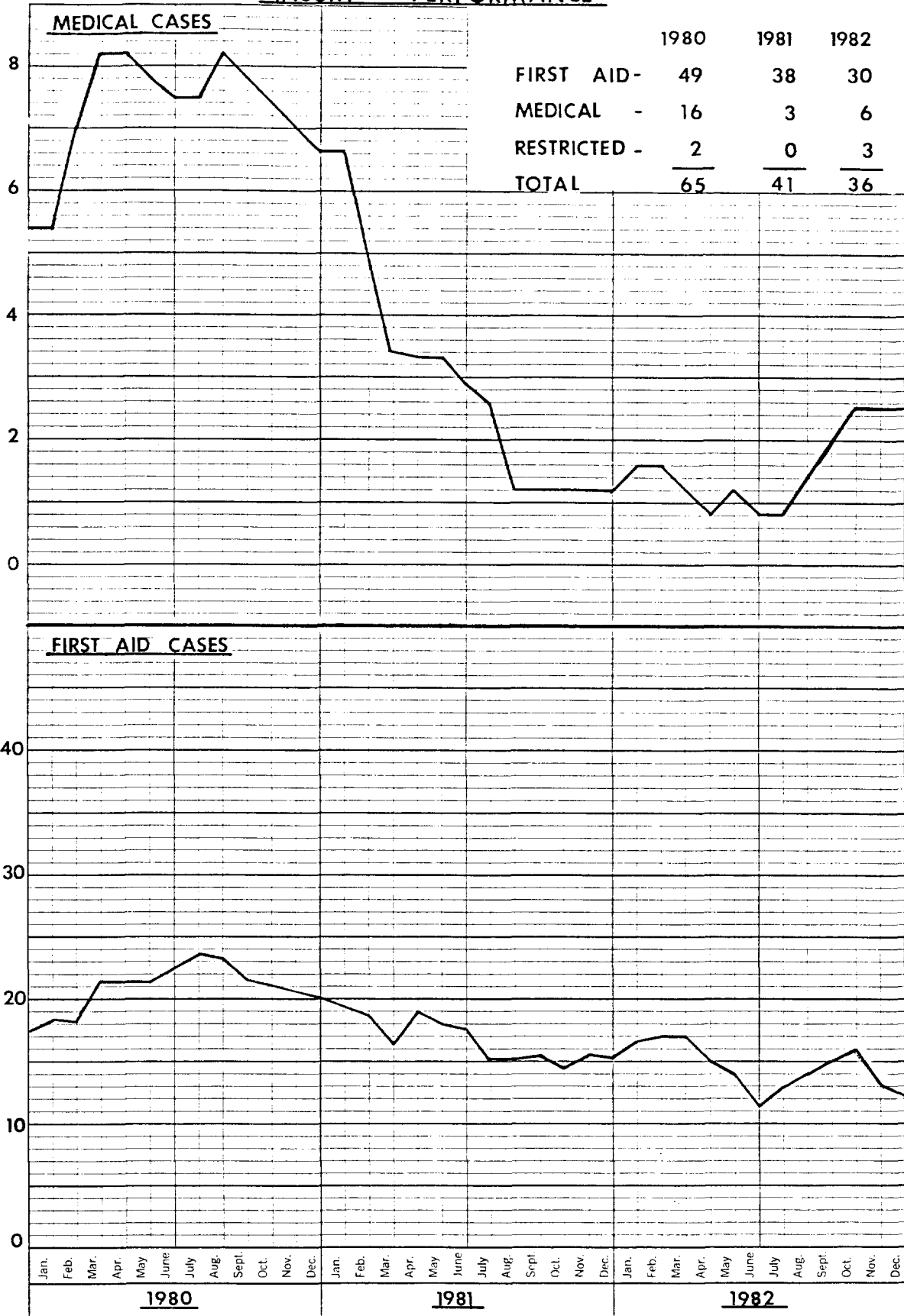
<u>TOPIC</u>	<u>PRESENTED BY</u>
I. SAFETY	AL SATHER
II. ENERGY CONSERVATION	PAUL KOBER
III. EMPLOYEE EXPOSURE ABATEMENT	PETE MARKEY
IV. CASH FLOW PROGRAMS	JOE HIGGINBOTHAM
V. MAINTENANCE IMPROVEMENT PROGRAM	RICK SNOWDEN
VI. EMPLOYEE TRAINING	PETE MARKEY
VII. PRODUCT QUALITY PROGRAM	RANDELL JACKSON
VIII. COMPOUND/DRY BLEND/PLASTICIZER STUDY	DICK FROHREICH

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DTH 000099820

ABERDEEN CHEMICAL PLANT INJURY PERFORMANCE

INJURY FREQUENCY X 100



FREQUENCY = 12 MONTH ROLLING AVERAGE OF INJURIES (F.A. OR M.C.)
TOTAL EMPLOYEES

SAFETY

1982 HIGHLIGHTS

I. INJURY TRENDS

II. 3 YEARS – NO LOST TIME

III. PROGRAM IMPROVEMENTS

A. TEAM INVESTIGATIONS

B. SAFETY MEETING RESTRUCTURING

C. FOURTH QUARTER SAFETY REVIEW

D. EMPLOYEE INVOLVEMENT

**1. EMPLOYEE SAFETY ACTION
REQUEST (ESARS)**

2. PROJECT SAFETY AUDITS

IV. CONTRACTOR PROGRAM

A. GENERAL SERVICES CONTRACT

B. CONTRACTOR SAFETY ORIENTATION

C. SAFETY MEETINGS

SAFETY
1983 PLANS

I. TRAINING - SAFETY MEETING

**II. EMPLOYEE ENVOLEMENT /
DEPARTMENTAL EMPHASIS**

A. ESARS / SAFETY AUDITS

B. DEPARTMENTAL PROGRAM HIGHLIGHT

III. CONTRACTOR PROGRAM

**A. CONTRACTOR ORIENTATION / ACCESS
CONTROL**

B. PLANT SAFETY

IV. FIRE PROTECTION

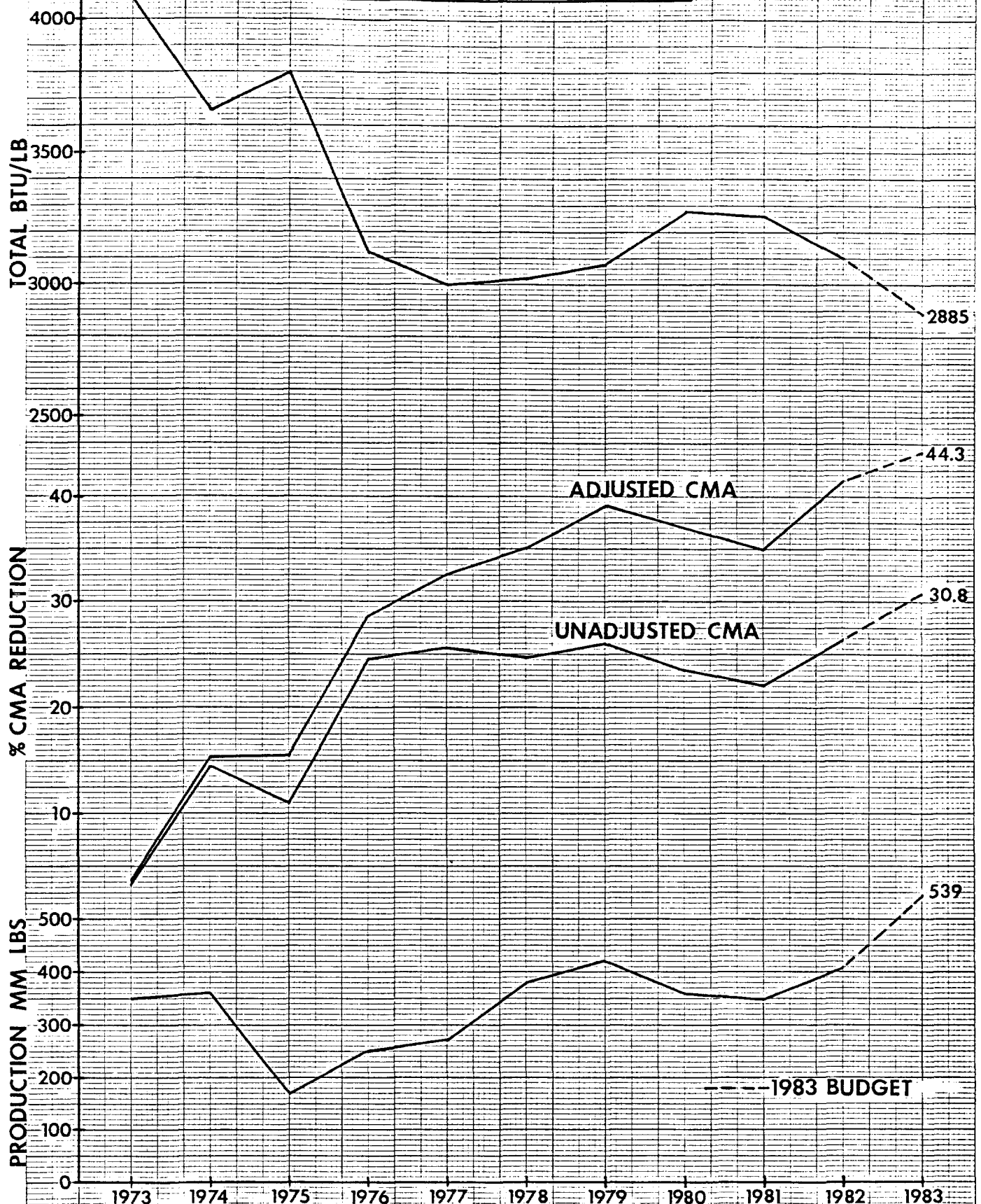
A. IMPROVEMENT PROJECT

B. P.M. PROGRAM

ENERGY PERFORMANCE HISTORY

- TEN YEAR PERFORMANCE**
- 1982 PERFORMANCE**
- 1981 vs 1982**

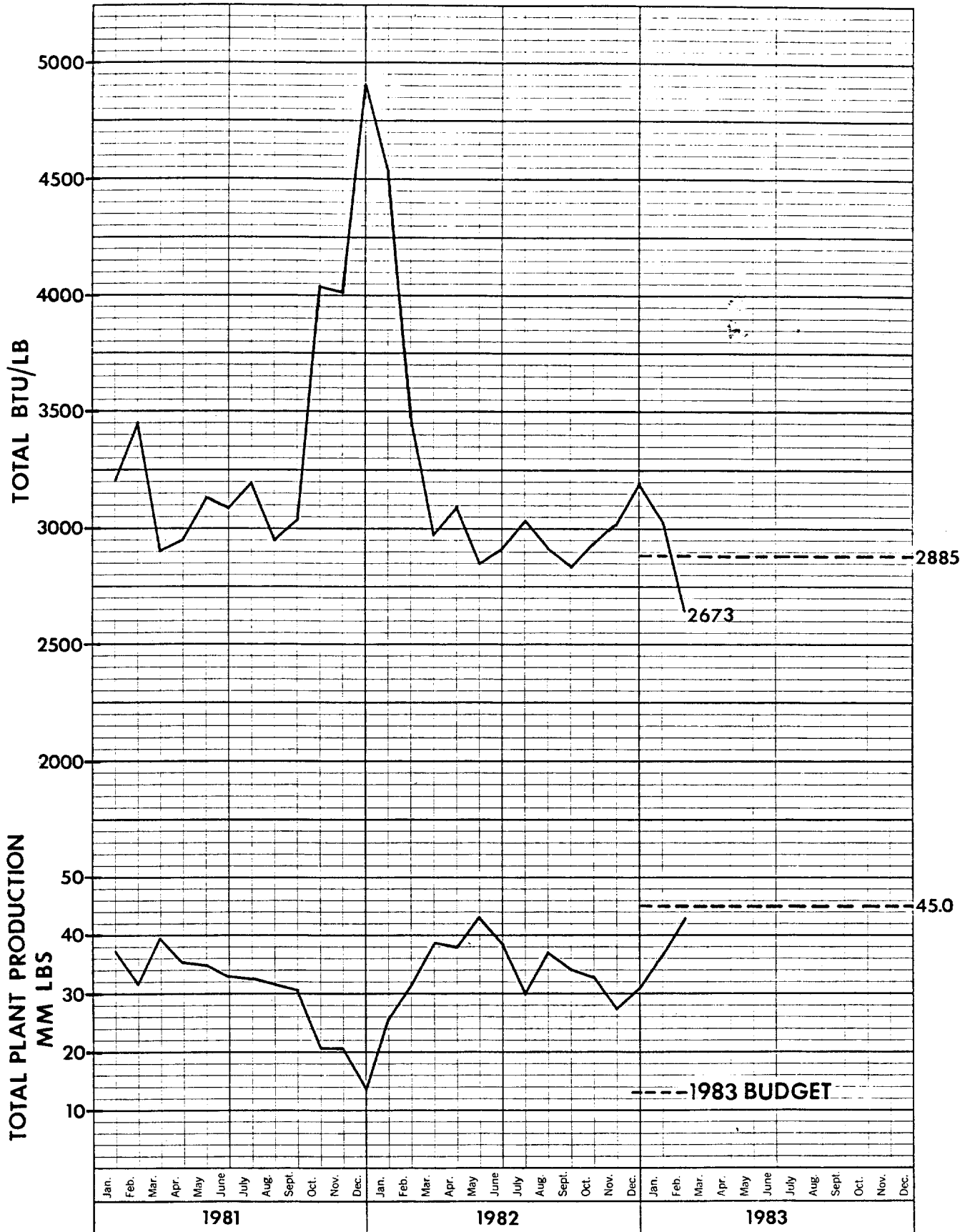
**ENERGY PERFORMANCE
CMA BASIS
ABERDEEN CHEMICAL PLANT**



1982 BUDGET vs 1982 PERFORMANCE
ABERDEEN CHEMICAL PLANT

	<u>INCREMENTAL</u>		<u>% ADJ.</u>
	<u>MMM BTU/YR.</u>	<u>%</u>	<u>CMA</u>
1982 BUDGETED ENERGY PERFORMANCE (PRODUCTION BASIS: 454.2 MM LBS.)			42.1
PRODUCT MIX EFFECT	17.4	(0.9)	
PRODUCTION LEVEL EFFECT	24.4	(1.2)	
V-11 CENTRATE PROJECT DELAY	13.4	(0.7)	
V-10 CENTRATE HEAT RECOVERY	3.8	(0.2)	
FLUID BED ECONOMIZER	(3.8)	0.2	
<u>ENERGY CONSERVATION ADMINISTRATIVE PROGRAMS</u>			
1. STEAM LEAK REPAIR PROGRAM, STEAM TRAP SURVEY PROGRAM, INSULATION PROGRAM	(5.7)	0.3	
2. REDUCED AIR COMPRESSOR USAGE	(12.3)	0.6	
3. REDUCED COOLING TOWER PUMP USAGE	(19.7)	1.0	
1982 ACTUAL ENERGY PERFORMANCE (ACTUAL PRODUCTION: 406.4 MM LBS.)			41.2

1981 - 1983



1983 PLANS

- REDUCED OPERATION PLAN**
- BOILER OPERATION**
- AIR CONSERVATION**
- DRYER IMPROVEMENT**
- CAPITAL PROJECTS**

ENERGY CONSERVATION FORECAST - 1983

	<u>INCREMENTAL</u> <u>MMM BTU/YR.</u> <u>%</u>		<u>% ADJ.</u> <u>CMA</u>
1982 ENERGY REDUCTION vs 1972 (CMA ADJUSTED BASIS)			41.2
<u>1983 CHANGES vs 1982 PERFORMANCE</u>			
V-11 CENTRATE HEAT RECOVERY (7 MONTHS)	33.4	1.8	
BOILER BLOWDOWN HEAT REC. (4 MONTHS)	2.7	0.2	
V-10 CENTRATE HEAT RECOVERY (6 MONTHS)	4.2	0.2	
FLUID BED ECONOMIZER (6 MONTHS)	3.6	0.2	
COLD WATER RINSE (3 MONTHS)	6.0	0.3	
ENERGY CONSERVATION ADMINISTRATIVE PROGRAMS	8.0	0.4	
1. STEAM LEAK REPAIR PROGRAM, STEAM TRAP SURVEY PROGRAM, INSULATION PROGRAM			
1983 BUDGETED ENERGY REDUCTION			44.3

ABERDEEN PLANT EMPLOYEE CHEMICAL EXPOSURE REDUCTION PROGRAMS

I. 1982 & 1983 Y.T.D. Exposure Statistics

- A. VCM
- B. Lead
- C. Particulates
- D. Other Sampling

II. VCM Exposure Problem Area & Programs

- A. Employee & Supervisory Awareness
- B. Employee Training
- C. Detection Problems
- D. Equipment Related Problems

III. Capital Project Work

- A. Recovery System Revisions
- B. Experimental RVCM Backflush Filter
- C. Exposure Reduction Project
- D. Emission Recovery System Upgrade
- E. 1984 Capital Projects Under Study

IV. Overview

- A. Where We Are
- B. 1983 Goals

1982 & 1983 Y.T.D. PERSONNEL
DOSIMETRY DATA

<u>VCM</u>	<u>% PERSONNEL DOSIMETERS ABOVE PEL</u>	<u>% OVEREXPOSED W/OUT RESPIRATORY PROTECTION</u>
1 ST 6-MONTHS,1982	11.4	6.3
2 ND 6-MONTHS,1982	8.4	4.6
JANUARY, FEBRUARY 1983	8.2	1.0

LEAD

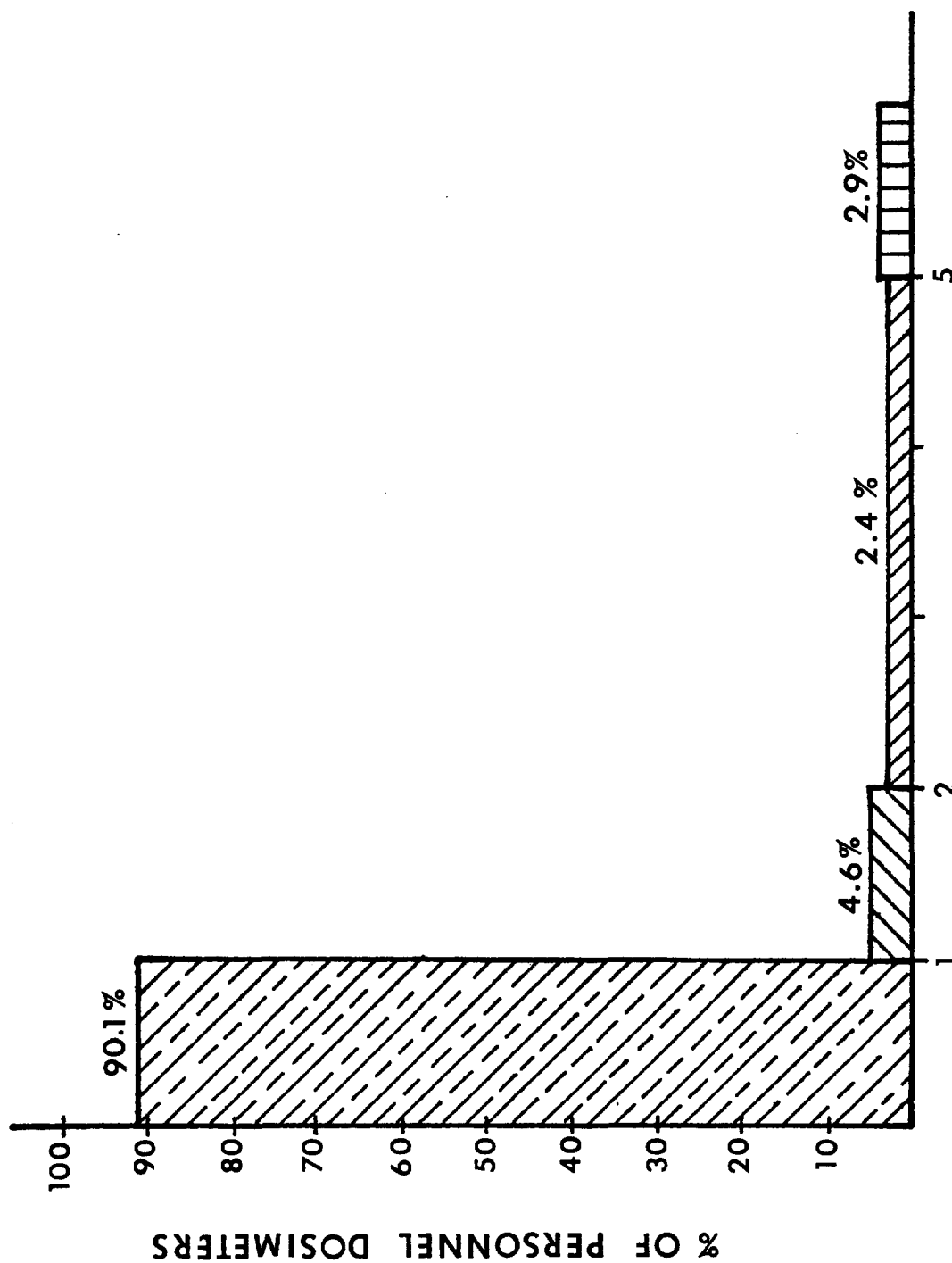
1 ST 6-MONTHS,1982	5.3	0
2 ND 6-MONTHS,1982	4.0	0
JANUARY, FEBRUARY 1983	3.4	0

PARTICULATES

1 ST 6-MONTHS,1982	5.1	0
2 ND 6-MONTHS,1982	4.0	0
JANUARY, FEBRUARY 1983	0	0

1982 VCM OVEREXPOSURE

DISTRIBUTION



LEVEL OF VCM EXPOSURE (PPM)

SAMPLED: 1072

V C M EXPOSURE REDUCTION TASK FORCE

- SAFETY
- OPERATION
- MAINTENANCE
- ENGINEERING

VCM EXPOSURE REDUCTION

- EMPLOYEE & SUPERVISORY AWARENESS
- EMPLOYEE TRAINING
- DETECTION PROBLEMS
- EQUIPMENT RELATED PROBLEMS

VCM EXPOSURE REDUCTION
EMPLOYEE & SUPERVISORY AWARENESS

- IMPROVING LEAK RESPONSE
- GETTING LEAKS REPAIRED ON A TOP PRIORITY BASIS
- UPGRADING VCM EXPOSURE PRIORITY WITH RESPECT TO OTHER PRIORITIES
- DEMONSTRATING MANAGEMENT COMMITMENT

VCM EXPOSURE REDUCTION EMPLOYEE TRAINING

- 12 HOUR JOB STUDIES, ONE ON ONE.
- JSA's & PROCEDURE IMPROVEMENTS.
- MECHANICAL SEAL TRAINING.
- PORTABLE VCM DETECTOR TRAINING
 - OPERATORS.
 - I&E PERSONNEL.
- FIXED POINT MONITOR TRAINING
 - I&E PERSONNEL.

VCM EXPOSURE REDUCTION DETECTION IMPROVEMENTS

- INVESTIGATING ALTERNATE PORTABLE MONITOR
- RESOLUTION OF FIXED POINT MONITOR COMPUTER PROBLEMS
 - COMPUTER PROBLEMS.
 - BEACON ALERT PROBLEMS
- IMPROVEMENTS TO FIXED POINT MONITOR
 - VCM TANK FARM TUBING.
- ROUTINE LEAK SURVEYS
 - WEEKLY SURVEYS
 - 6-MONTH COMPREHENSIVE SURVEY.
 - LEAK RESPONSE.
- SPECIAL DOSIMETRY STUDIES
 - PERSONNEL UNLOADING VCM CARS.
 - SPECIFIC JOBS (I.E. FILTER PACK CHANGES, CONDENSER CLEANINGS)

VCM EXPOSURE REDUCTION EQUIPMENT RELATED PROBLEMS

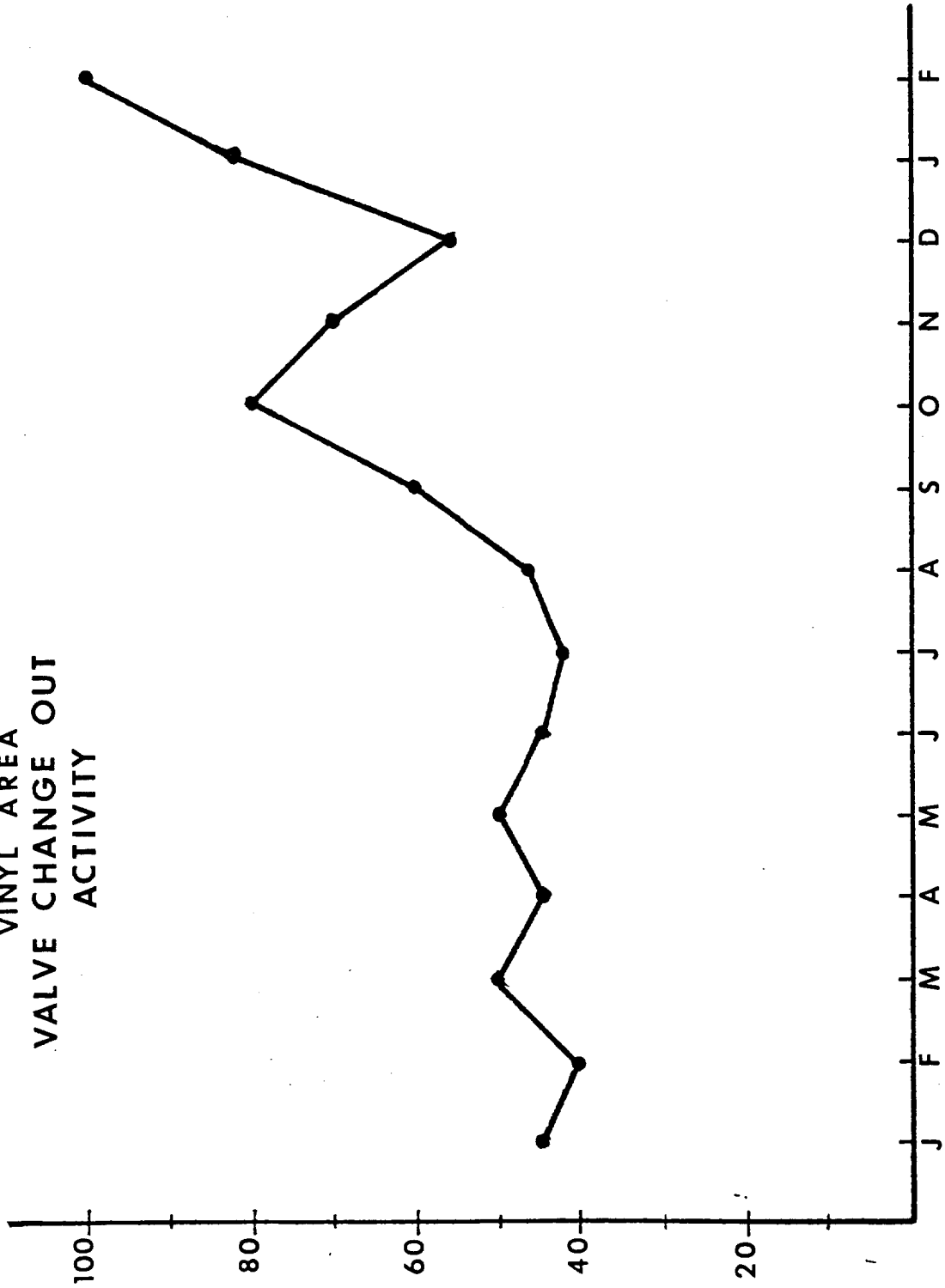
- VALVE & PIPING RELATED PROBLEMS
 - VALVE CHANGE OUT ACTIVITY.
 - IMPROVE IN-HOUSE VALVE REBUILDING TECHNIQUES.
 - IMPROVE VALVE TO FACILITATE ON-LINE LEAK REPAIR.
 - USE OF "LEAK REPAIR" CONTRACTOR.
 - IMPROVED SHOP TEST PRIOR TO FIELD INSTALLATION.
 - IMPROVE REACTOR HYDRO TEST.
 - PLAN TO DEVELOP ON-LINE PIPING MANIFOLD TEST PROGRAM.
 - DEFINE MEANS OF POSITIVE VALVE POSITION INDICATION.

- MECHANICAL SEALS
 - SYSTEM IMPROVEMENTS
 - OPERATOR TRAINING

3-MONTH ROLLING VALVE CHANGE OUT
ACTIVITY INDEX

DTH 000099841

ABERDEEN PLANT
VINYL AREA
VALVE CHANGE OUT
ACTIVITY



1982

VCM EXPOSURE REDUCTION
CAPITAL WORK

- RECOVERY SYSTEM REVISIONS \$402,000 CAPITAL, AFE 9771
CONSTRUCTION IN PROG.
EST. COMPLETION 4TH QTR. 1983

- EXPERIMENTAL RVCM TEST PACKAGE, MISC.
BACKWASH FILTER UNDER \$15,000
ENGINEERING COMPLETED
EST. COMPLETION 3RD QTR. 1983

- VCM EXPOSURE \$96,000 1983 CAPITAL BUDGET
REDUCTION PROJECT AFE 3RD QTR. 1983

- EMISSION RECOVERY SYSTEM \$325,000 CAPITAL
UPGRADE EST. COMPLETION DEC. 1983

- POTENTIAL 1984 EXPOSURE REDUCTION PROJECTS
 VCM TANK FARM UNLOADING COMPRESSOR
 REPLACEMENT
 ADDITIONAL FIXED POINT MONITOR

1983 GOALS

	<u>1982</u>	<u>1983 GOAL</u>	<u>1983 YTD</u>
● REDUCE EMPLOYEE EXPOSURE ABOVE PEL WITHOUT BENEFIT OF RESPIRATORY PROTECTION	7.9%	2.5%	2.6%

*AS OF 3/11/83

- EVALUATE A BACKWASH FILTER ON THE VCM CHARGE LINE FOR REDUCTION IN PERSONNEL EXPOSURE CAUSED BY FILTER ELEMENT CHANGEOUT REQUIREMENTS

TEST+EVALUATE FOR DEFINING
1984 CAPITAL BUDGET

VCM EXPOSURE REDUCTION

- IMPROVED ADMINISTRATIVE CONTROLS
- ATTACK EQUIPMENT RELATED PROBLEMS
- PLANTWIDE COMMITMENT

CASH FLOW IMPROVEMENT

I. 1982 Results

- A. Fixed Costs
 - 1. Payroll and Benefits
 - 2. Maintenance Materials and Contracts
 - 3. Other
- B. Variable Costs Efficiencies
 - 1. Product Mix
 - 2. Utilities
 - 3. Raw Materials and Offgrade
- C. Inventories
 - 1. 739
 - 2. 744
- D. Capital Expenditures

II. 1983 Projections

- A. Fixed Costs
- B. Variable Costs Efficiencies
- C. Inventories
- D. Capital Expenditures

1982 CASH FLOW IMPROVEMENT RESULTS
ABERDEEN CHEMICAL PLANT

<u>CATEGORY</u>	\$M		
	<u>IMPROVEMENT TARGET</u>	<u>1982 ACTUAL</u>	<u>VARIANCE FROM TARGET</u>
FIXED COSTS VAR.	\$712	\$ 856	\$144
VARIABLE COST EFFICIENCIES VAR.	(1582)	(760)	822
INVENTORIES COMBINED DEVIATION FROM 12/82 TARGET	0	(4)	(4)
CAPITAL EXPENDITURES VARIANCE FROM P.O.	<u>3237</u>	<u>5639</u>	<u>2402</u>
TOTAL CASH FLOW IMPROVEMENT	<u>\$2367</u>	<u>\$5731</u>	<u>\$3364</u>

1982 CASH FLOW IMPROVEMENT RESULTS
ABERDEEN CHEMICAL PLANT

<u>FIXED COSTS VAR. (\$ M)</u>			
<u>COMPONENT</u>	<u>TARGET</u>	<u>ACTUAL</u>	<u>VARIANCE</u>
PAYROLL & BENEFITS	\$407	\$809	\$402
MAINTENANCE MATERIALS & CONTRACTS	289	218	(71)
OTHERS	<u>16</u>	<u>(171)</u>	<u>(187)</u>
TOTAL FIXED COSTS	<u>\$712</u>	<u>\$856</u>	<u>\$144</u>

1982 CASH FLOW IMPROVEMENT RESULTS
ABERDEEN CHEMICAL PLANT

VARIABLE COSTS EFFICIENCY VAR. (\$M)

<u>COMPONENT</u>	<u>TARGET</u>	<u>ACTUAL</u>	<u>VARIANCE</u>
PRODUCT MIX	\$(1645)	\$(870)	\$775
UTILITIES	0	(64)	(64)
RAW MATERIAL & OFFGRADE	<u>63</u>	<u>174</u>	<u>111</u>
TOTAL VARIABLE COSTS EFFICIENCIES	<u>\$(1582)</u>	<u>\$(760)</u>	<u>\$822</u>

DRY BLEND
PRODUCT MIX

<u>TYPE</u>	<u>BUDGET</u>		<u>REFORECAST</u>		<u>ACTUAL</u>	
	<u>MM#</u>	<u>%</u>	<u>MM#</u>	<u>%</u>	<u>MM#</u>	<u>%</u>
PIPE	40.0	80	25.5	49.0	23.6	56.5
FITTINGS	5.0	10	20.0	38.5	16.0	38.3
RP-100	<u>5.0</u>	<u>10</u>	<u>6.5</u>	<u>12.5</u>	<u>2.2</u>	<u>5.2</u>
	<u>50.0</u>	<u>100%</u>	<u>52.0</u>	<u>100.0%</u>	<u>41.8</u>	<u>100.0%</u>

1982 CASH FLOW IMPROVEMENT RESULTS
ABERDEEN CHEMICAL PLANT

INVENTORIES (\$M)

<u>COMPONENT</u>	<u>TARGET</u>	<u>ACTUAL</u>	<u>VARIANCE</u>
0739 (MAINTENANCE & OPERATING SUPPLIES)	\$1410	\$1708	\$(298)
0744 (RAW MATERIALS & PROCESSING SUPPLIES)	<u>1374</u>	<u>1080</u>	<u>294</u>
TOTAL INVENTORIES	<u>\$ 2784</u>	<u>\$ 2788</u>	<u>\$(4)</u>

1982 CASH FLOW IMPROVEMENT RESULTS
ABERDEEN CHEMICAL PLANT

CAPITAL EXPENDITURES(\$M)

<u>TARGET</u>	<u>ACTUAL</u>	<u>VARIANCE</u>
<u>\$7099</u>	<u>\$4697</u>	<u>\$2402</u>

CAUSES OF INCREASED SAVINGS:

ADDITIONAL DEFERRALS	\$ 875
NOT APPROVED OR BEHIND SCHEDULE	362
MATERIAL DELAY	247
UNDER/OVER RUNS (NET)	676
ESTIMATING ERRORS	<u>242</u>
	<u>\$ 2402</u>

1983 CASH FLOW IMPROVEMENT
PROJECTIONS

FIXED COSTS

\$M

PAYROLL & BENEFITS

\$200

MAINTENANCE MATERIALS & CONTRACTS

0

VARIABLE COSTS

UTILITIES

100

RAW MATERIAL & OFFGRADES

350

INVENTORIES - COST SAVINGS ON PURCHASES

FROM 1982 ANALYSES

80

FROM 1982 COMPETITIVE QUOTES

100

FROM 1983 COMPETITIVE QUOTES

150

CAPITAL EXPENDITURES

2205

DTH 000099853

MAINTENANCE IMPROVEMENT

DTH 000099854

WHERE WE ARE

WHERE WE NEED TO BE

HOW WILL WE GET THERE

DTH 000099855

WHERE WE ARE

DTH 000099856

INCREASING COMPLEXITY OF EQUIPMENT

LITTLE FORMAL TRAINING

OPERATORS

MECHANICS

E. & I. TECHNICIANS

SUPERVISORY SKILLS

BEST ROTATING EQUIPMENT MECHANIC

BEST GENERAL MECHANIC

BEST ELECTRICIAN

WHERE WE NEED TO BE

DTH 000099859

OPERATORS { MECHANICAL TRAINING
INSTRUMENTATION TRAINING

MECHANICS { FORMAL IN-HOUSE TRAINING
SUPPLEMENTAL OUTSIDE
TRAINING

E&I TECHNICIANS { FORMAL IN-HOUSE TRAINING
SUPPLEMENTAL OUTSIDE
TRAINING

SUPERVISORS { RESOURCE MANAGEMENT
PLANNING

HOW WE WILL GET THERE

DTH 000099861

ELECTRICAL & INSTRUMENTATION

THREE PRONGED ATTACK

**IMPROVE GENERAL SKILL LEVEL
OF TECHNICIANS**

**IMPROVE SKILLS IN PARTICULAR
HIGH RISK AREA**

**IMPROVE INSTRUMENTATION SKILLS
OF SUPERVISOR**

DTH 000099862

GENERAL SKILL LEVEL

TPC IN-HOUSE COURSE - 200 HOURS

**TAUGHT BY SUPERVISOR AND
E&I ENGINEER**

RECOMMENDED BY MED AND DUPONT

**INSTRUMENT TRAILER
(TAILORED FOR ABERDEEN)**

HIGH RISK

MODICON SCHOOL

ANALYZER SCHOOL

SUPERVISORY SKILLS

INSTRUMENTATION FOR ENGINEERS

TPC COURSE

PERSONAL INSTRUCTION

JIM BROWN - MED

RANDY POLK - PLANT ELEC. ENG.

SUPERVISORY SKILLS

CRAFT DELAY STUDY- MED

SUPERVISORY STUDY- MED

**WORK PLANNING AND RESOURCE
UTILIZATION - MED
(TAILORED FOR ABERDEEN)**

DTH 000099864

WORK PLANNING

**DEFINING STEPS TO MAKE A
SUCCESSFUL PLAN**

MAKING A PLAN

MONITORING THE PLAN

**ONE-ON-ONE INSTRUCTION WITH
PRACTICAL FEED BACK**

MANAGES PRODUCTIVITY, NOT PRODUCTION

**MAXIMIZES UTILIZATION OF
MECHANICS**

**ENHANCES EFFECTIVE USE OF
THE BACKLOG**

**USED SUCCESSFULLY WITH BROWN &
ROOT AT CHOCOLATE BAYOU**

PREVENTIVE MAINTENANCE

AUTOMOTIVE

FIRE PUMPS

DTH 000099867

**MAINTENANCE
AS A
CONTINUING
INVESTMENT**

Training

DTH 000099869

ABERDEEN PERSONNEL TRAINING & DEVELOPMENT PROGRAM

- I. Plant Hourly Employee Profile
 - A. Department Breakdown
 - B. Years of Service
 - C. Education Levels
 - D. Area Culture and Work Ethic
- II. New Employee Screening, Selection and Training Program
 - A. Pre-employment Testing
 - B. Interview Process
 - C. Orientation
 - D. Probationary Period
- III. Training Problems, Programs, & Philosophy
 - A. Training Problems and Approach
 - B. Safety
 - C. Orientation
 - D. Maintenance
 - E. Laboratory
 - F. Plant Wide
- IV. Overview
 - A. Comprehensive Program Definition

ABERDEEN HOURLY PERSONNEL PROFILE

DEPARTMENT	NO. EMPLOYEES	YEARS OF SERVICE BY DEPT. %			EDUCATION LEVEL BY DEPT. %			
		0-5 YRS.	5-10 YRS.	10+ YRS.	GRADE SCHOOL ONLY	SOME HIGH SCHOOL	HIGH SCHOOL GRAD.	SOME COLLEGE
VINYL & YARD	44	18	18	64	4	29	47	20
COMP., DB, PLAST.	39	36	14	50	10	26	59	5
MAINTENANCE	49	-	2	98	11	37	35	17
LABORATORY	21	5	-	95	0	40	40	20
OTHER	7	-	-	100	8	8	84	0
TOTAL/COMPOSITE	160	15	9	76	8	31	49	12

DTH 000099871

NEW EMPLOYEE APTITUDE TESTING

- BENNETT MECHANICAL COMPREHENSION
- RBH TEST OF LEARNING ABILITY
- RBH SHOP ARITHMETIC

NEW EMPLOYEE ATTITUDE TESTING

- INTERVIEW PERSONNEL DIRECTOR
- INTERVIEW DEPARTMENT HEAD
- INTERVIEW 2nd LEVEL SUPERVISOR

ABERDEEN PVC PLANT
NEW EMPLOYEE SAFETY ORIENTATION
TRAINING CHECKLIST

(1)	ABERDEEN SAFETY ORIENTATION SHOW	☐	☐
(2)	HEALTH SHOWS: VCM LEAD TOSCA	☐	☐
(3)	SAFETY RULE BOOKS: CONOCO ABERDEEN	☐	☐
(4)	DUPONT SAFETY ORIENTATION (#500)	☐	☐
(5)	LIFTING: NSC BOOKLET DISCUSSION	☐	☐
(6)	FORKLIFT TRAINING: SHOW FIELD	☐	☐
(7)	ELECTRICAL LOCKOUT: ALLIED CHEMICAL FILM REVIEW OF ABERDEEN LOCKOUT PROCEDURE	☐	☐
(8)	RESPIRATOR TRAINING: SCOTT AIR PACK FRESH AIR DUST	☐	☐
(9)	EQUIPMENT ENTRY: CHARTER OIL FILM REVIEW OF ABERDEEN ENTRY PROCEDURE	☐	☐
(10)	PICTURES TAKEN	☐	☐
(11)	SAFETY EQUIPMENT ISSUED	☐	☐
(12)	ALL QUIZ SHEETS CORRECTED AND ATTACHED	☐	☐
(13)	INTRODUCTION TO PLANT MEDICAL	☐	☐

TRAINEES

(1)	_____	(7)	_____
(2)	_____	(8)	_____
(3)	_____	(9)	_____
(4)	_____	(10)	_____
(5)	_____	(11)	_____
(6)	_____	(12)	_____

DATE: _____

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APPRAISAL CHECK LIST

Attribute	Exceptional (Excellent, Approaches Best Possible)	Good (Above Stand- ard)	Average (Meets job re- quirements; Standard)	Fair (Below stand- ard; Improve- ment Needed)	Unsatisfactory (Deficiency may justify termination)
SAFETY Knowledge, attitude & practice of safety rules	Automatically works safety into job. Pro- motes safe practices. ☐	Works safely. Sets good Example. ☐	Reasonably Safe Worker ☐	Occasional lapses in observing safe rules and practices. ☐	Careless worker Accident re- peater. ☐
WORK ATTITUDE General at- titude toward job, company, & supervisor.	Displays ex- traordinary enthusiasm and cooper- ation. ☐	Shows con- siderable interest & cooperation. ☐	Shows inter- est & cooper- ation normally expected. ☐	Occasionally appears in- different. ☐	Works half- heartedly. No interest in performing job Limited cooper- ation. ☐
INITIATIVE Ingenuity, self-reliance resourceful- ness, in doing the job.	Self-starter: Seeks addi- tional tasks; suggests im- provements. ☐	Resourceful, looks for shortcuts to improve his work. ☐	Does regular work without direction; occasionally suggests changes. ☐	Followers: Sometimes needs prod- ing. ☐	Usually waits to be told; needs constant supervision. ☐
QUANTITY Volume and rate of work handled. Com- pare with others on same job.	Demonstrates unusual speed, volume & capacity for work. ☐	Fast, efficient; output exceeds job require- ments. ☐	Output satis- fies job requirements. ☐	Output be- low normal job requirement. ☐	Very slow work- er; wastes time; output inadequate. ☐
QUALITY Accuracy & thoroughness of work. Con- sider supervision required.	Unusual ac- curacy; ex- pert work- manship. ☐	High quality work; thorough & neat. ☐	Work satis- fies quality requirements of job. ☐	Quality be- low standard; occasional errors. ☐	Frequent er- rors made; excessive re- work,wasteful. ☐
JOB KNOWLEDGE General knowledge of job.	Exceptionally well in- formed. Can handle com- plex jobs. ☐	Well informed on all phases of job. ☐	Knowledge satisfies re- quirements of job. ☐	Lacks requir- ed knowledge in parts of job. ☐	Knowledge inadequate. Doesn't know job. ☐
ABILITY TO LEARN Ability to learn & re- tain new ideas,ability to do unre- lated tasks.	Excellent; Understands & applies in- structions quickly & ac- curately. ☐	Understands new information quickly & accurately. ☐	Understands & retains instructions adequately. ☐	Instructions must often be repeated. Learning be- low standard. ☐	Learns very slowly. Dif- ficult to adjust to changes. ☐
ATTITUDE TOWARD OTHERS Willingness to work as team member.	Unusual abil- ity to work with & favor- ably influence others. ☐	Always cooper- ative and friendly. ☐	Normally cooperative. ☐	Sometimes difficult to work with. ☐	Uncooperative; causes dis- sentiment, upset morale of others. ☐
ATTENDANCE Includes all aspects such as promptness in returning from breaks.	Perfect at- tendance. Never late; on the job early. ☐	Rarely absent; always prompt in returning from breaks. ☐	Good attend- ance. Seldom requests PB; normally prompt return- ing from breaks ☐	Attendance record re- quires im- provement; Must be re- minded to end breaks. ☐	Poor attendance excessive PB; always late re- turning from breaks. ☐

THE EMPLOYEE MUST BE RATED IN EACH AREA.

DTH 000099876

ABERDEEN TRAINING

- ON GOING TRAINING A LINE FUNCTION

- DEVELOPMENT OF COMPREHENSIVE
TRAINING PROGRAM

- PRIORITIES

- METHODS

- TIMING

- FUNDING

ABERDEENS BIGGEST TRAINING PROBLEMS

VINYL

- STANDARDIZATION OF METHODS
- LACK OF FULLY DOCUMENTED PROCEDURES & POLICIES

COMPOUND, DRYBLEND, PLASTICIZER

- STANDARDIZATION OF METHODS
- LACK OF FULLY DOCUMENTED PROCEDURES & POLICIES

MAINTENANCE

- I & E SKILLS LAGGING BEHIND TECHNOLOGY
- SUPERVISION, PLANNING & SCHEDULING SKILLS

LABORATORY

- STANDARDIZATION OF TECHNIQUES
- UNDERSTANDING IMPACT OF QUALITY TEST ON PRODUCT

OTHER

- CROSS TRAINING

ABERDEEN PERSONNEL TRAINING
SAFETY

• SAFETY SECONDS PROGRAM SERIES

— ATTITUDE

— PLANNING

— HOUSEKEEPING

• FIRE FIGHTING SCHOOL

— TEXAS A & M, LAMAR

• SUPERVISORY 1st AID TRAINING

— MEDICAL DIVISION

ABERDEEN PERSONNEL TRAINING

OPERATIONS

- VARIABILITY TEST RUNS

- VINYL

- COMPOUND

- OPERATING MANUAL IMPROVEMENTS

- SPECIAL TRAINING

- INSTRUMENTATION

- MECHANICAL SEALS

- YARD TRAINING

- TRAINING METHODS UNDER CONSIDERATION

- CONSULTANT, MTS

- API PILOT SERIES BY HOWELL

- TRAINING EQUIPMENT OPERATION

- PROCEDURAL SIGNS

ABERDEEN PERSONNEL TRAINING

MAINTENANCE

- IMPROVE I & E SKILLS
- IMPROVE MECHANICAL KNOWLEDGE
- IMPROVE SUPERVISORY SKILLS

—— PLANNING

—— SCHEDULING

ABERDEEN PERSONNEL TRAINING

LABORATORY

- WORK TOWARD STANDARDIZATION
OF TECHNIQUES
 - SUPERVISORY MONITORING
 - VALIDATION STUDIES
 - ROUND-ROBIN TESTING, PONCA , OKC
- DEFINING HOW THEIR WORK FITS INTO
"BIG PICTURE" & FINISHED PRODUCT
 - PRESENTATION TO LAB EMPLOYEES

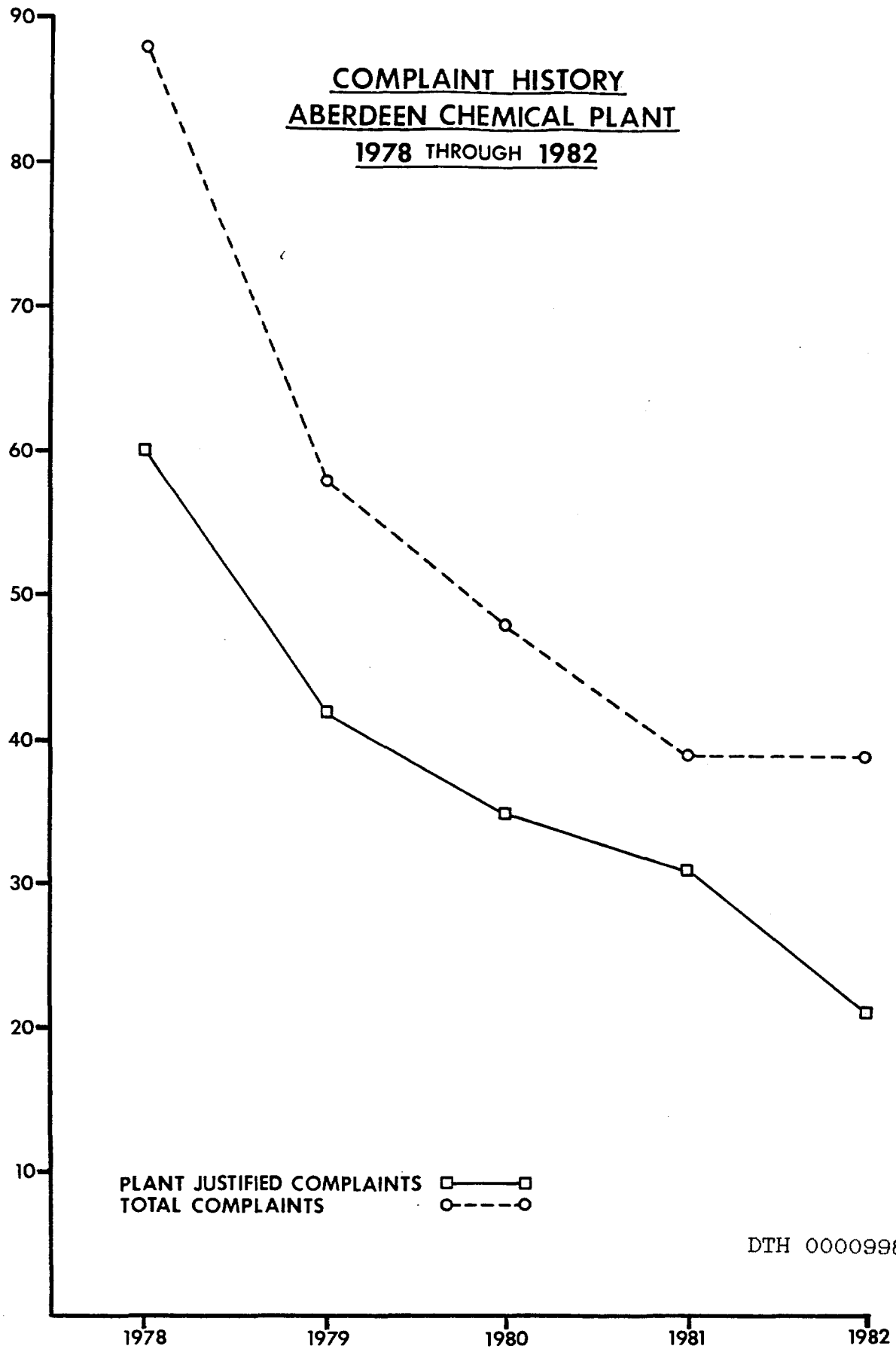
ABERDEEN PERSONNEL TRAINING

PLANT WIDE

- SUPERVISOR IDENTIFICATION PROGRAM
- LOOKING FOR IMPROVEMENT
METHODS

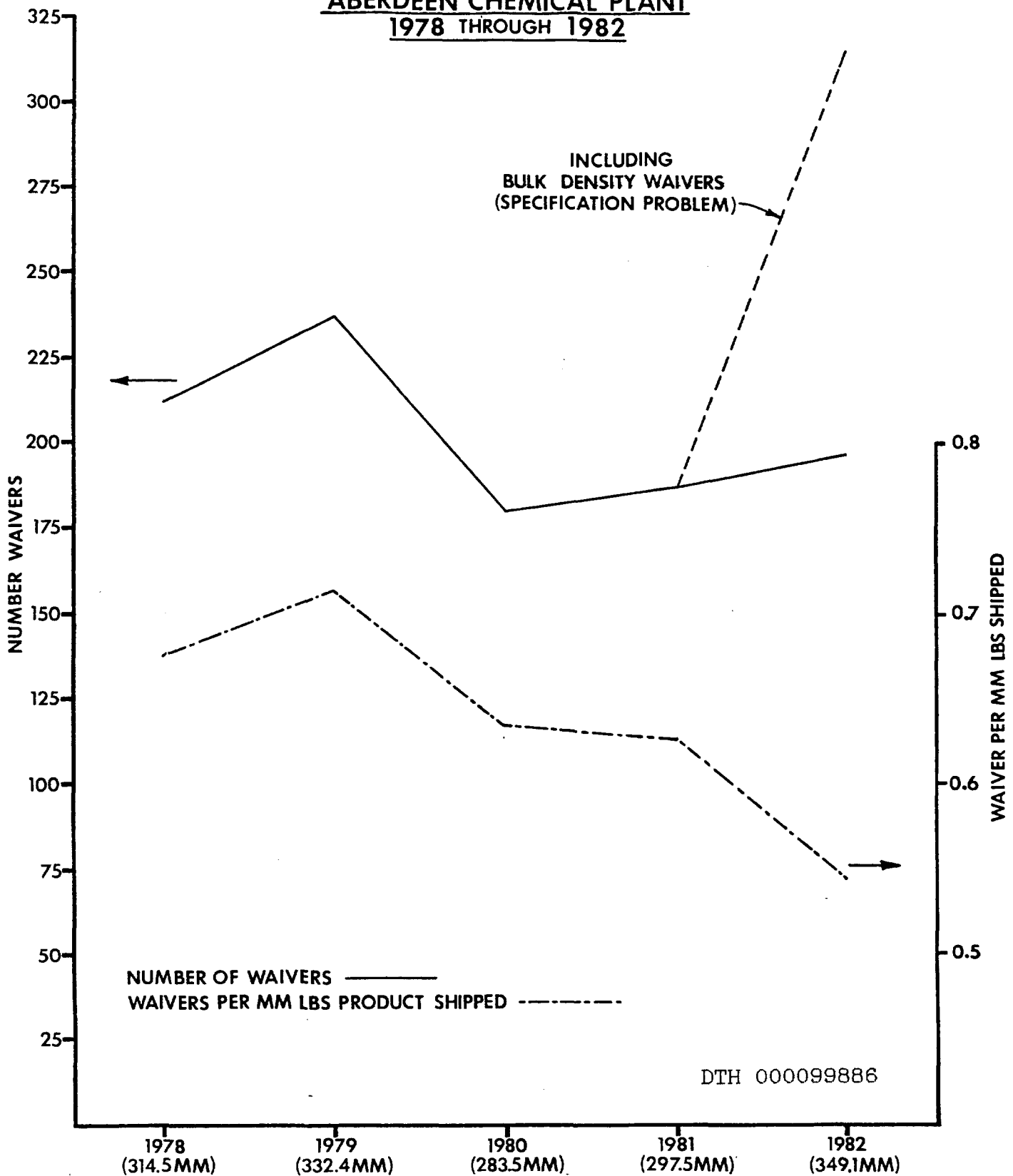
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COMPLAINT HISTORY
ABERDEEN CHEMICAL PLANT
1978 THROUGH 1982



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**SPECIFICATION
WAIVER HISTORY
ABERDEEN CHEMICAL PLANT
1978 THROUGH 1982**



RESIN QUALITY / SERVICE IMPROVEMENT
PROJECTS AND NEEDS

1. PARTICLE SIZE
2. CONTAMINATION
3. INDUCTIVE RESISTANCE (ELECTRICAL)
4. OFF- GRADE REDUCTION
5. INVENTORY LEVELS- SPECIALTY RESIN

COMPOUND / DRY BLEND QUALITY IMPROVEMENT
PROJECTS AND NEEDS

FLEXIBLE COMPOUND

- 1. METAL CONTAMINATION**
- 2. PRODUCT CROSS CONTAMINATION**
- 3. COMPOUND HARD PARTICLE PROBLEM**

RIGID DRY BLEND

QUALITY CONTROL TESTING OF RP PRODUCTS

PRODUCT QUALITY MEASUREMENT

TOOLS

1. COMPETITIVE RESIN SURVEY

2. CUSTOMER COMPLAINTS

3. PRODUCT QUALITY ACCOUNTING

a) A- GRADE - PRIME

b) WAIVED

c) B - GRADE - (OFF SPEC)

d) H - GRADE - (OFF SPEC PACKAGED)

e) SIFTER OVERFLOW

**4. RESAMPLING / CLEAN- OUT MONITORING
PROGRAM**

5. REPROCESSED MATERIAL - COMPOUND B.C.

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COMPOUND, PLASTICIZER, DRYBLEND STUDY

OBJECTIVES

- 1- TO DETERMINE THE MANUFACTURING
COST OF EACH PRODUCT PRODUCED
IN THE COMPOUND, PLASTICIZER &
DRYBLEND OPERATION.**
- 2- TO DETERMINE HOW TO BEST SPEND
CAPITAL MONEY IN THESE AREAS**

**1982 ACTUAL
FULL ALLOCATION PLANT FIXED COST
X DEPRECIATION**

\$ M

<u>RESIN</u>	<u>COMPOUND</u>	<u>PLASTICIZER</u>	<u>DRYBLEND</u>	<u>TOTAL</u>
6,925	2,402	516	1,078	10,921

**1982 ACTUAL
FIXED COST ALLOCATION
COMPOUND/PLASTICIZER BUSINESS**

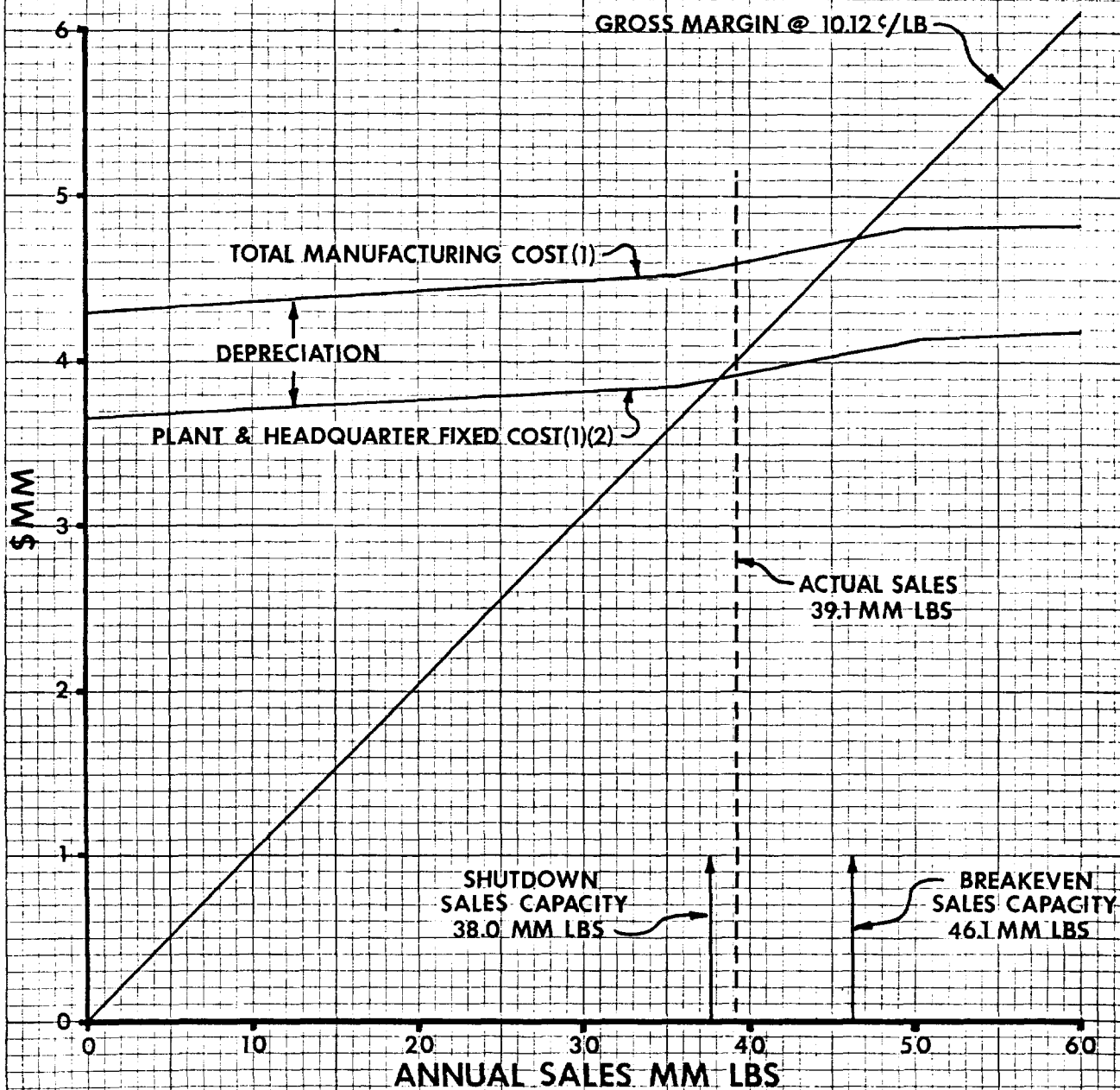
	<u>\$ M</u>	
	<u>FULL ALLOCATION</u>	<u>INCREMENTAL ALLOCATION</u>
PLANT FIXED COSTS	2,918	2,783
X PLANT FIXED COSTS	1,751	893

COMPOUND: 004 16851CB50 LINE 3
 AVERAGE PRODUCTION RATE: 4573 LBS/HR

RAW MATERIALS	CENTS/UNIT	UNIT/LB	CENTS/LB
665 5385 RESIN	17.510	0.77990	13.656
631 DOP	51.210	0.17145	8.780
815 SOYA EPOXY	47.144	0.03126	1.474
397 BAR-CAD-ZINC	95.428	0.02350	2.243
327 STEARIC ACID	51.426	0.00229	0.118
954 4310-R1 BLUE	242.143	0.00020	0.048
SUBTOTAL		1.00860	26.318
PROCESSING GAIN(LOSS)		(0.00350)	
H GRADE	6.500	(0.0)	(0.0)
MILL SCRAP	6.500	(0.00510)	(0.033)
SUBTOTAL		1.00000	26.285
ELECTRICITY	3.886	0.19522	0.759
NATURAL GAS	0.397	0.11482	0.046
TOTAL VARIABLE COST			27.089
PLANT FIXED COST			7.136
EX-PLANT FIXED COST			4.309
TOTAL FIXED COST			11.445
TOTAL COST EX PACKAGING			38.535
PACKAGING COSTS			
BAGS	1.695	0.03680	0.062
BOXES	2.601	0.0	0.0
BULK	0.0	0.96320	0.0
TOTAL COST			38.597

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**1982 ACTUAL
COMPOUND / PLASTICIZER
BUSINESS PROFITABILITY
INCREMENTAL BASIS**

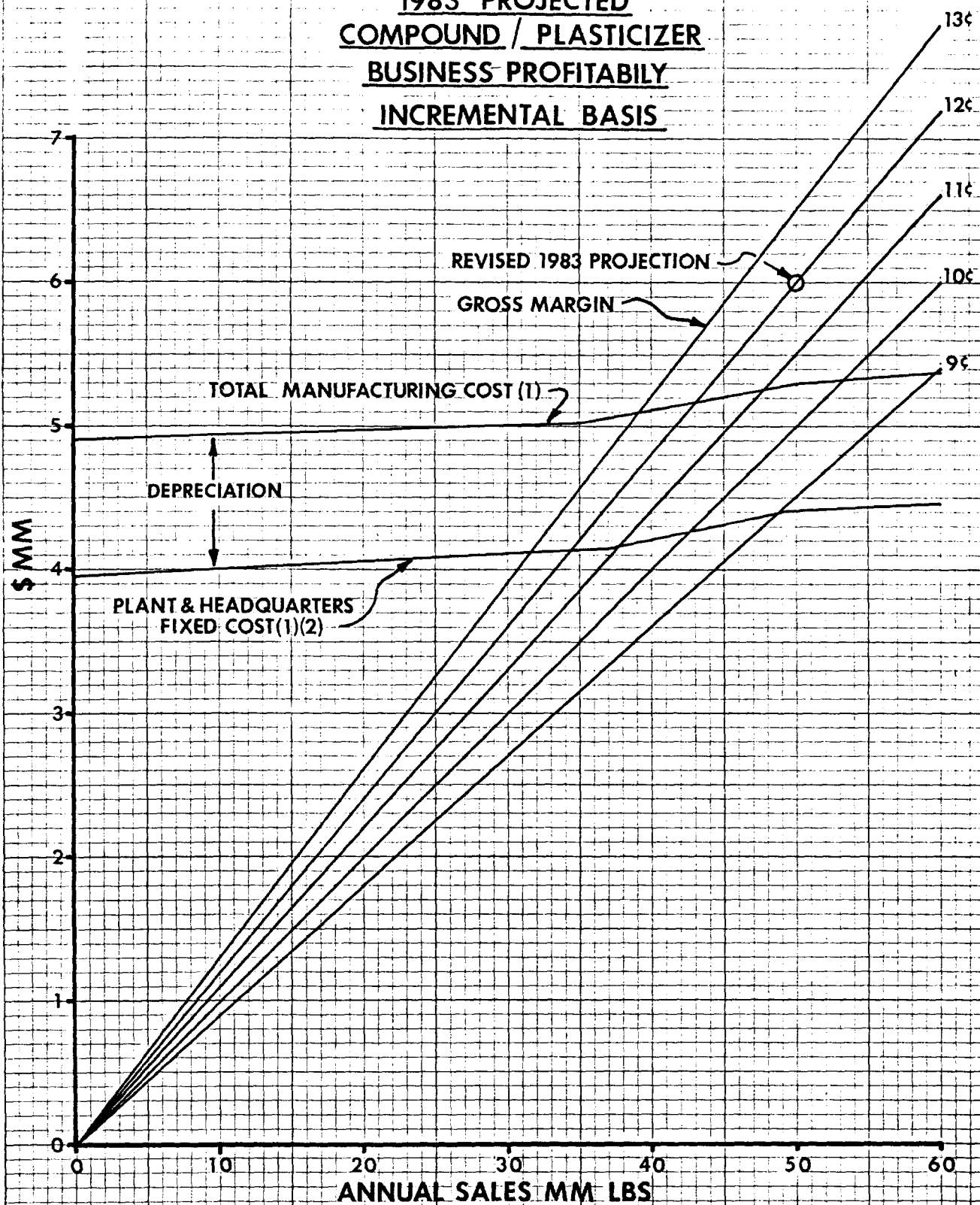


(1) X-VARIABLE COST

(2) X-DEPRECIATION

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1983 PROJECTED COMPOUND / PLASTICIZER BUSINESS PROFITABILITY INCREMENTAL BASIS



(1) X-VARIABLE COST
 (2) X-DEPRECIATION

DTH 000099896