

Monsanto Chemical Company
Texas City, Texas

Sept 10
~~August 25~~, 1959

To: W. T. Anderson	E. L. Haile	W. V. Marshall
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LAM023974

MONSANTO CHEMICAL COMPANY
Texas City, Texas

September 10, 1959

ACCIDENT ANALYSIS MONTHLY BULLETIN

AUGUST 1959

HIGHLIGHTS

Despite August being one of our worst months with a total of 120 minor injuries, an increase of 26% over the previous month, the total minor injury experience for 1959 is still significantly better than our best previous year.

Of the 120 minor injuries this month, 43 were referred to the doctor for treatment, whereas during July only 26 cases were that serious.

Lacerations and Cuts continue out of control and above the revised predicted goal. Injuries in this category increased 63% in August over July.

The trend for two categories of injuries, Struck By and Eyes - Chemical Burns, show a significant improvement from the 1959 goal. For the category of Inhalation a significantly worse trend has developed from the 1959 goal.

A new control chart covering Chemical Burns has been added to this report, since the injuries occurring in this category have become statistically significant.

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MINOR INJURY PROGRESS REPORT

AUGUST 1959

CUMULATIVE MINOR INJURY FREQUENCY - INJURIES PER MILLION MANHOURS EXPOSURE

<u>Rank</u>	<u>Last Year Cum.Freq.</u>	<u>1959 Goal Cum.Freq.</u>	<u>*Year to Date</u>	<u>Estimated 1959 Outcome (95% Confidence)</u>
1. Striking Against	1200	677	0	
2. Struck By	402	402	-	365 ± 28
3. Temperature Burns	516	385	+	500 ± 26
4. Chemical Burns	261	259	-	175 ± 26
5. Sprains and Strains	217	217	0	
6. Caught Between	211	211	0	
7. Eyes-Foreign Body	345	190	+	280 ± 34
8. Falls	186	186	-	100 ± 43
9. Lacerations and Cuts	163	163	+	470 ± 27
10. Eyes - Chemical	124	124	-	90 ± 16
11. Inhalation	73	73	+	122 ± 45

* + Significantly Worse
 0 No Significant Change
 - Significantly Better

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DISCUSSION

I. TOTAL MINOR INJURIES

While the total minor injuries continue along the revised predicted goal (3600), we cannot attain this goal if the injuries continue to occur over the next four months at the same rate as in August. Seven departments reported increases in minor injuries of 100% or more over the previous month of July.

II. MATERIAL HANDLING

A. Striking Against

The downward trend established in May continues within the control limits and slightly below the goal line. No significant change is apparent at this time. Injuries in this category increased by 33% in August over July despite a lower seasonal expectancy.

B. Struck By

The expected seasonal surge of this type injury has not occurred during June, July or August of this year and a downward trend from the goal line has now become significant. While September is a month with low seasonal incidence for this type injury, (Seasonal Index = 50% of normal) October and November are months displaying high seasonal frequencies (Seasonal Index = 105% and 100% of normal). Continued efforts may establish a new record low for this type injury for 1959.

C. Caught Between

The trend established along the goal line for the first six months has broken downward these past two months. Much the same as the category Struck By, the seasonal surge for this type injury during August did not occur. September is also a month displaying a high frequency for this type injury (Seasonal Index = 124% of normal). The downward trend can only continue through constant vigilance and effort.

D. Sprains and Strains

This year's experience continues along the goal line (217) well within the control limits. September is one of the months with a high frequency for this type of injury (Seasonal Index = 113% of

normal). Minor injuries falling into this category are usually more costly than any other type of industrial minor injury. Constant vigilance is necessary in this category.

E. Lacerations and Cuts

The trend established early in the year for this type injury continues out of control and significantly worse than our worst previous year (1956 - 371). Of the 26 injuries reported during the month in this category, 7 occurred in three of the larger maintenance crafts with a total of 280 employees and 7 occurred in the research department with a total of 184 employees. Since these injuries resulted from a garden type variety of causes, departmental safety meetings covering this classification may be the means of reducing the occurrence of this type injury. If causes for this type injury are not eliminated we can expect a cumulative frequency for the year of 1959 in excess of 600, a new high for the past three years. Seasonal expectancy for September is about the same as August, however, October is the month displaying the highest frequency for this type injury (Seasonal Index = 159% of normal).

III. FALLS

This general category includes all types of falls, such as Same Level, Different Level, Slips, and Tripping. The trend established early in the year continues and the predicted outcome (100) is still within reach. Continued vigilance is still necessary since injuries in this category increased 67% in August over July.

IV. BURNS

A. Temperature Burns

Injuries in this category continue out of control. A slight improvement was made in August, (14 in August against 19 in July). Continued improvement in this category and the cumulative frequency may be well below the prediction of 500.

B. Chemical Burns

A new control chart has been prepared and added to this report since the occurrence of this type of injury has become statistically significant. The trend established early in the year continues below the goal line with a possible new low for the year 1959. Reduction in the number of injuries of this type is attributed to the wearing of proper personal protective clothing.

V. EYES

A. Foreign Body

This type injury continues out of control above the goal line. A small improvement was made in August when only eight injuries occurred against a total of eleven for July. If continued efforts to reduce this type injury are successful, the 1959 total may not exceed the predicted cumulative frequency of 280.

B. Eyes - Chemical Injury

The expected surge for this type of injury during August did not occur and the downward trend from the goal line has now become significant. The fall months are the worst months for this type injury, but through continued efforts a new record low for this type injury may be established in 1959.

VI. INHALATION

The trend for this type injury above the goal line (73) has become significant during July and August. Seasonal expectancy for this type injury for the remainder of this year is high, since 40% of the total injuries in this category usually occur during the fall months. Unless immediate action is taken to curb the incidence of this type injury we will surpass the revised predicted cumulative frequency of 122.


Tony Ozarchuk

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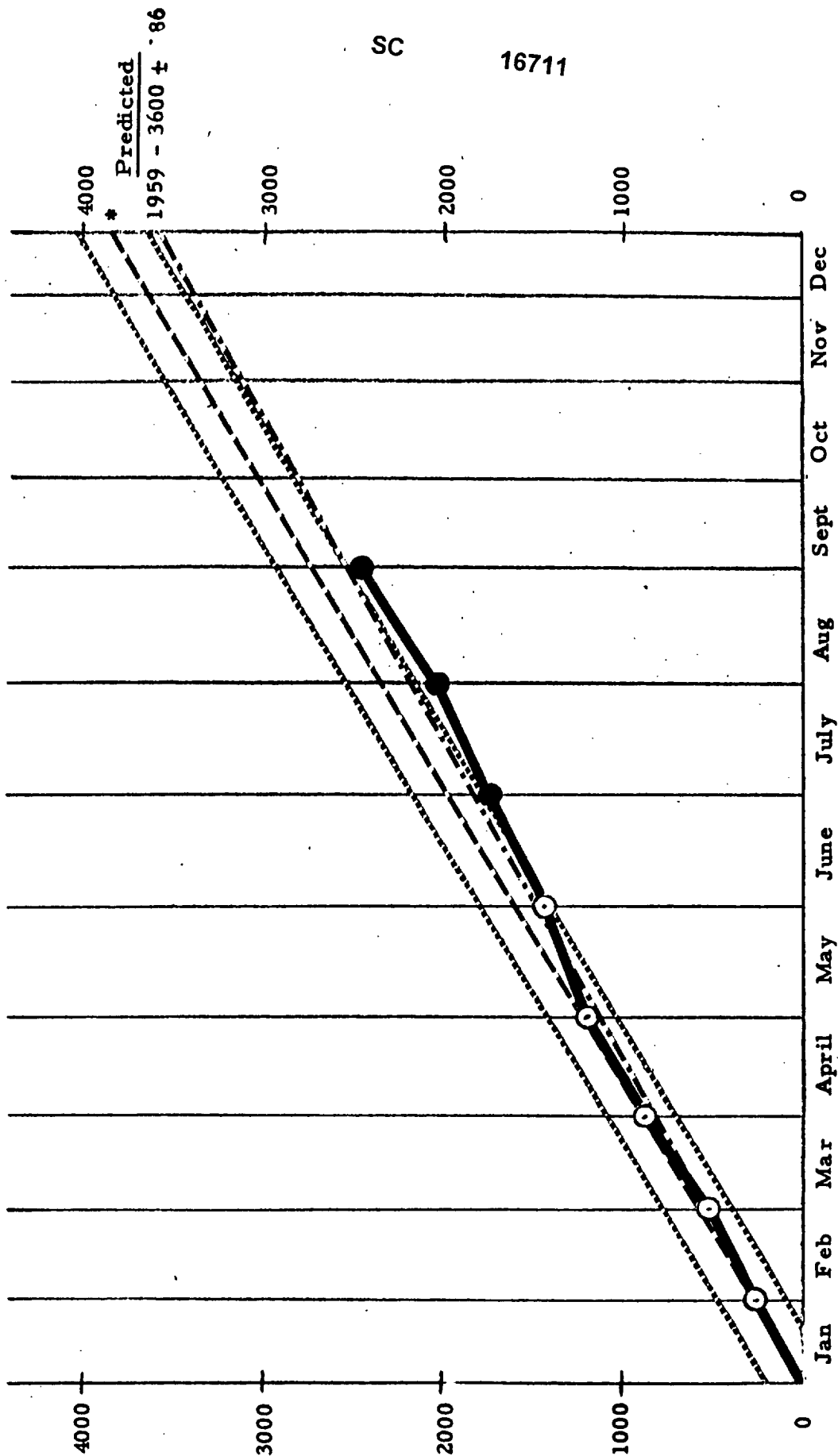
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES - TOTAL

TOTAL

PAST HISTORY

1956 - 3920
1957 - 4517
1958 - 3849*

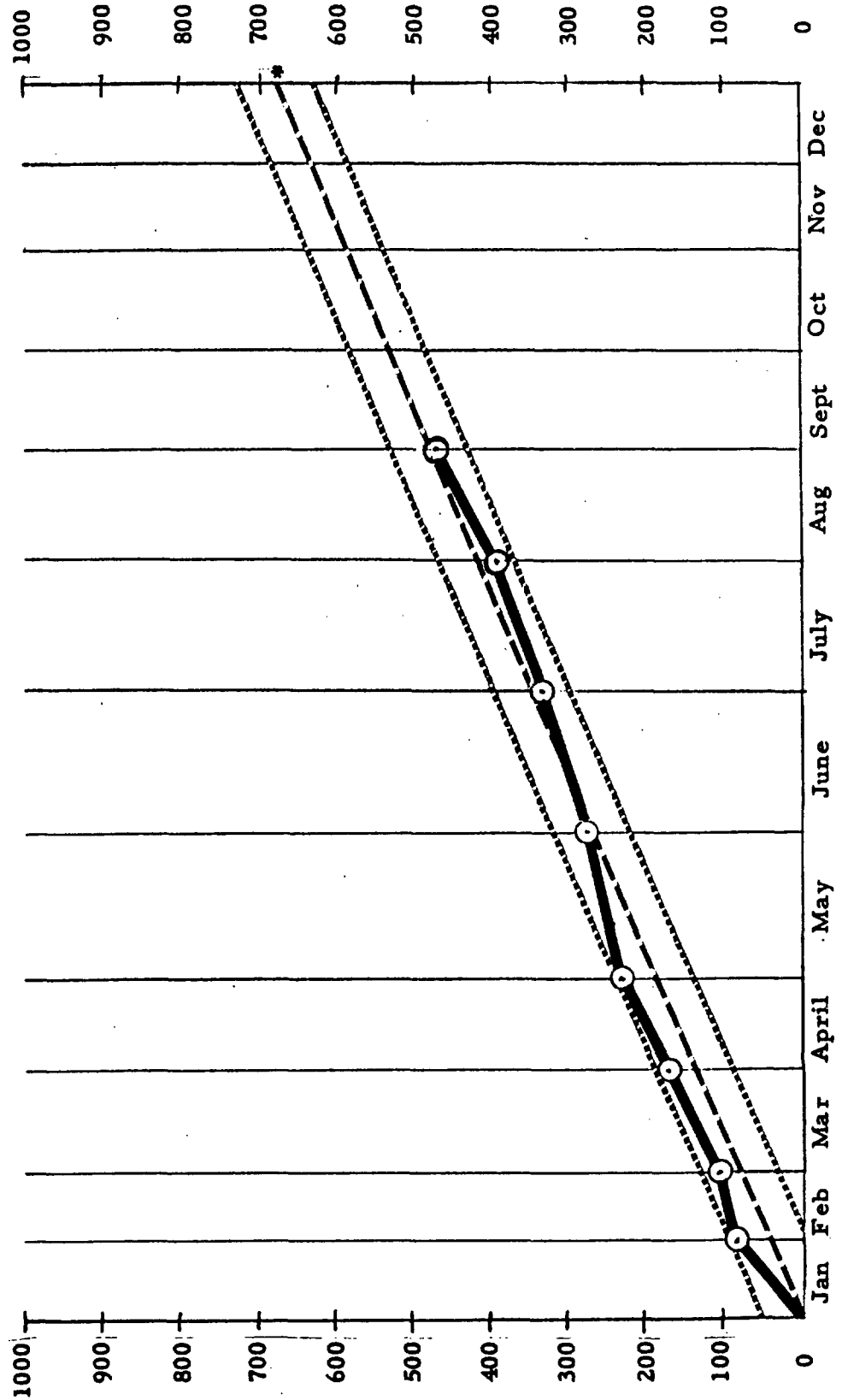
Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure



MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

STRIKING AGAINST

PAST HISTORY		
1956	677*	
1957	1223	
1958	1200	



Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

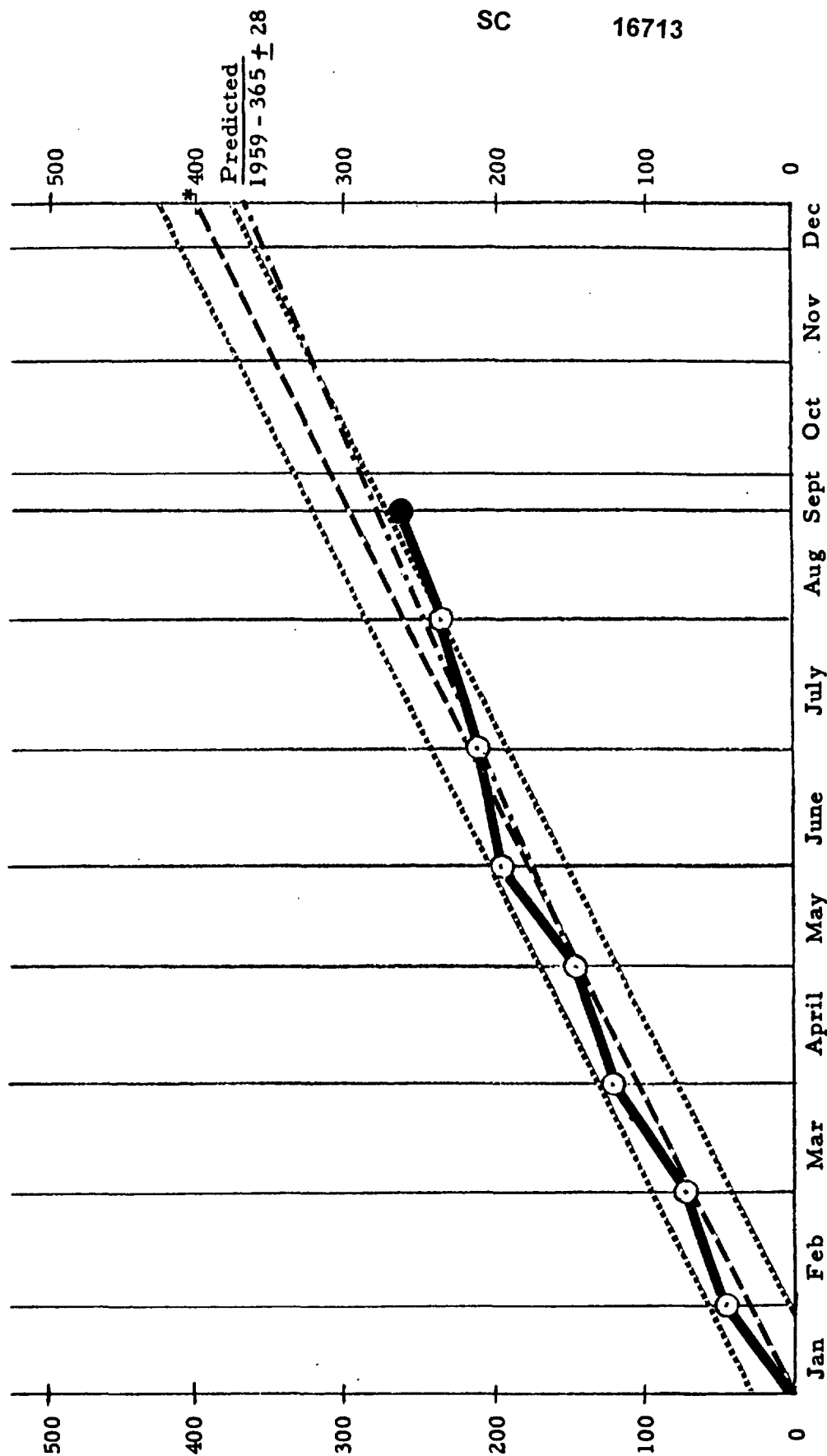
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

STRUCK BY

PAST HISTORY

1956	-	421
1957	-	480
1958	-	402*

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

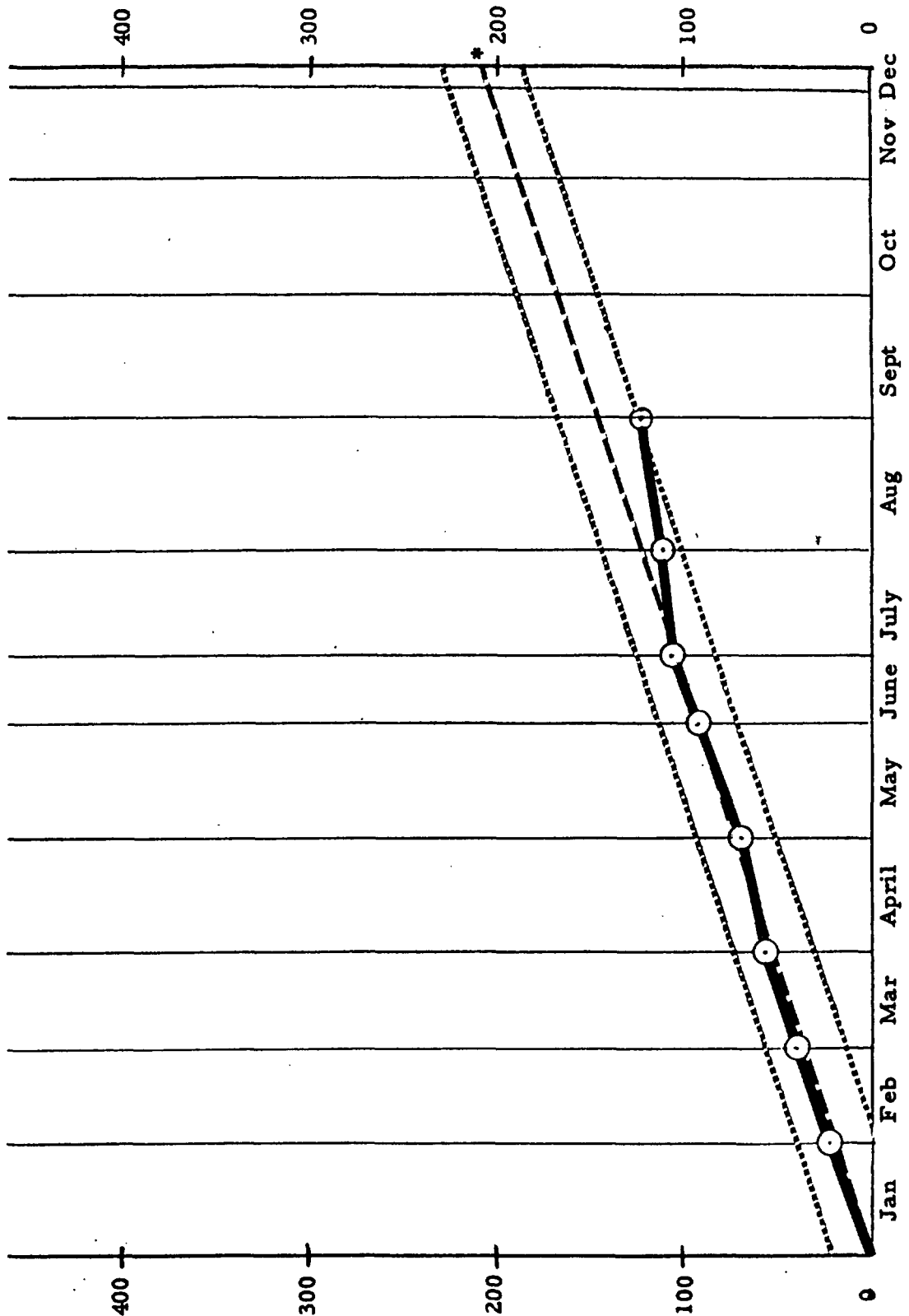


MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

CAUGHT BETWEEN

PAST HISTORY	
1956	- 345
1957	- 305
1958	- 211*

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure



Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

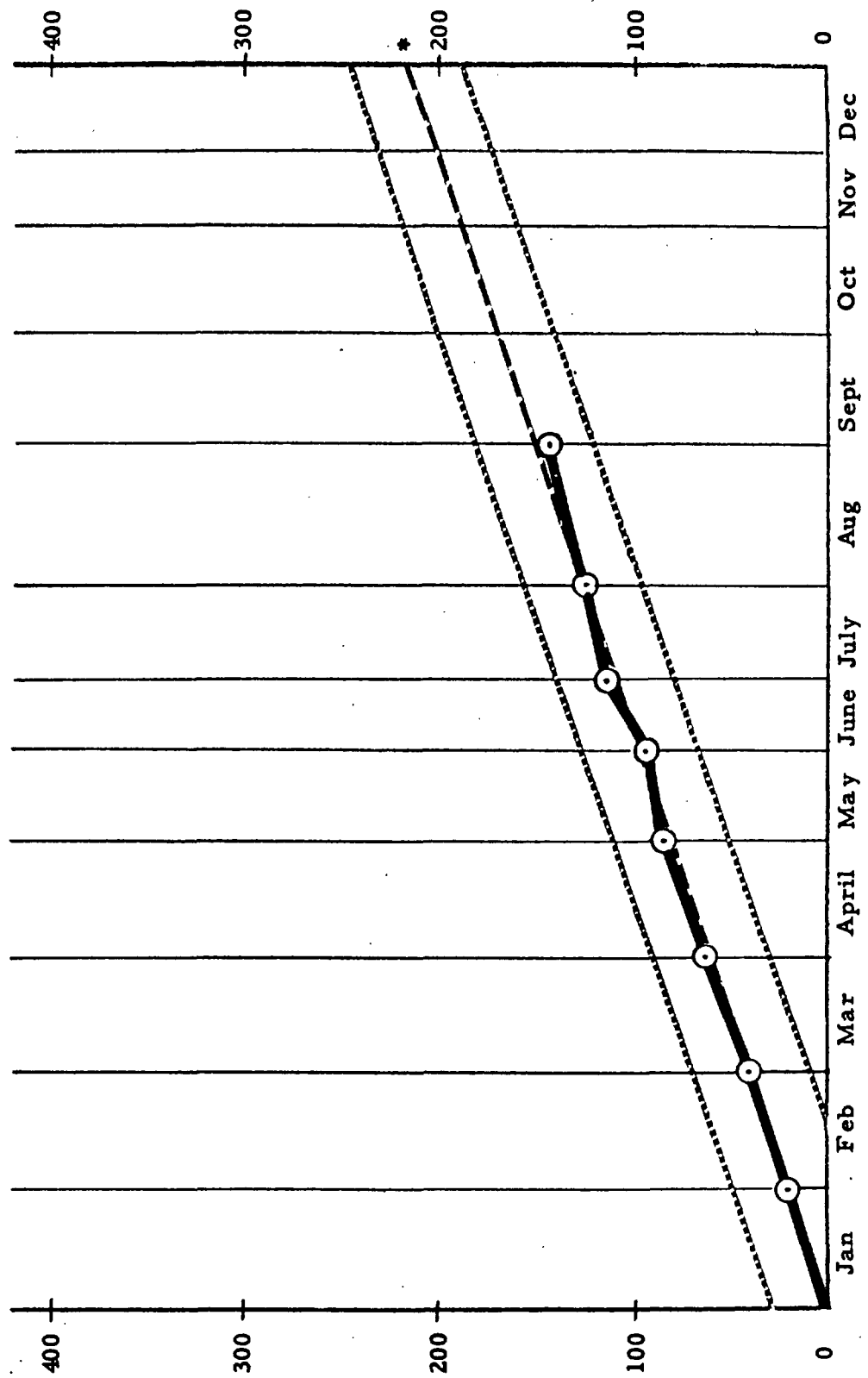
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES
SPRAINS AND STRAINS

PAST HISTORY

1956	-	369
1957	-	317
1958	-	217*

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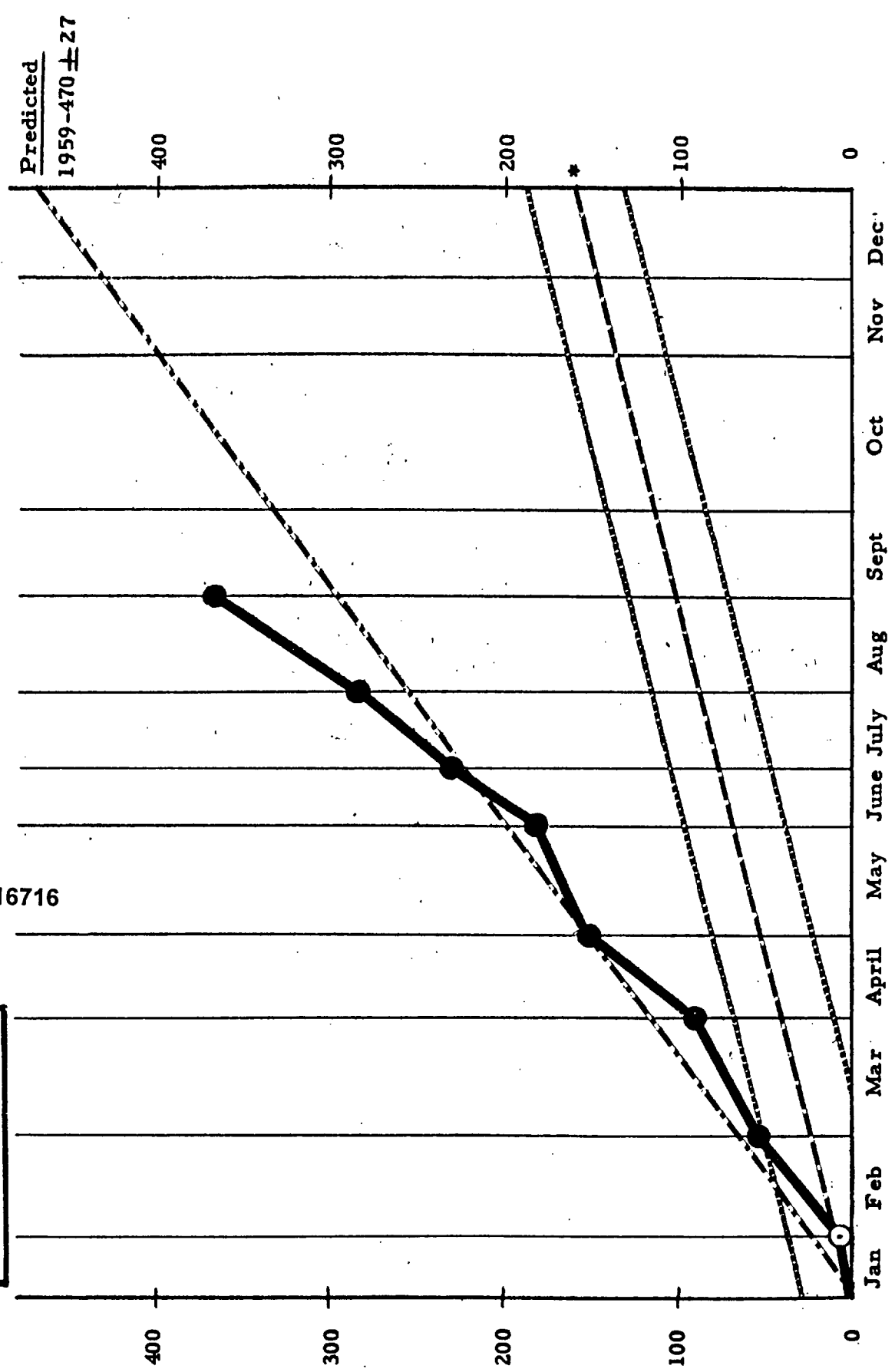


Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

PAST HISTORY		
1956	-	371
1957	-	226
1958	-	163*

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MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES
LACERATIONS & CUTS



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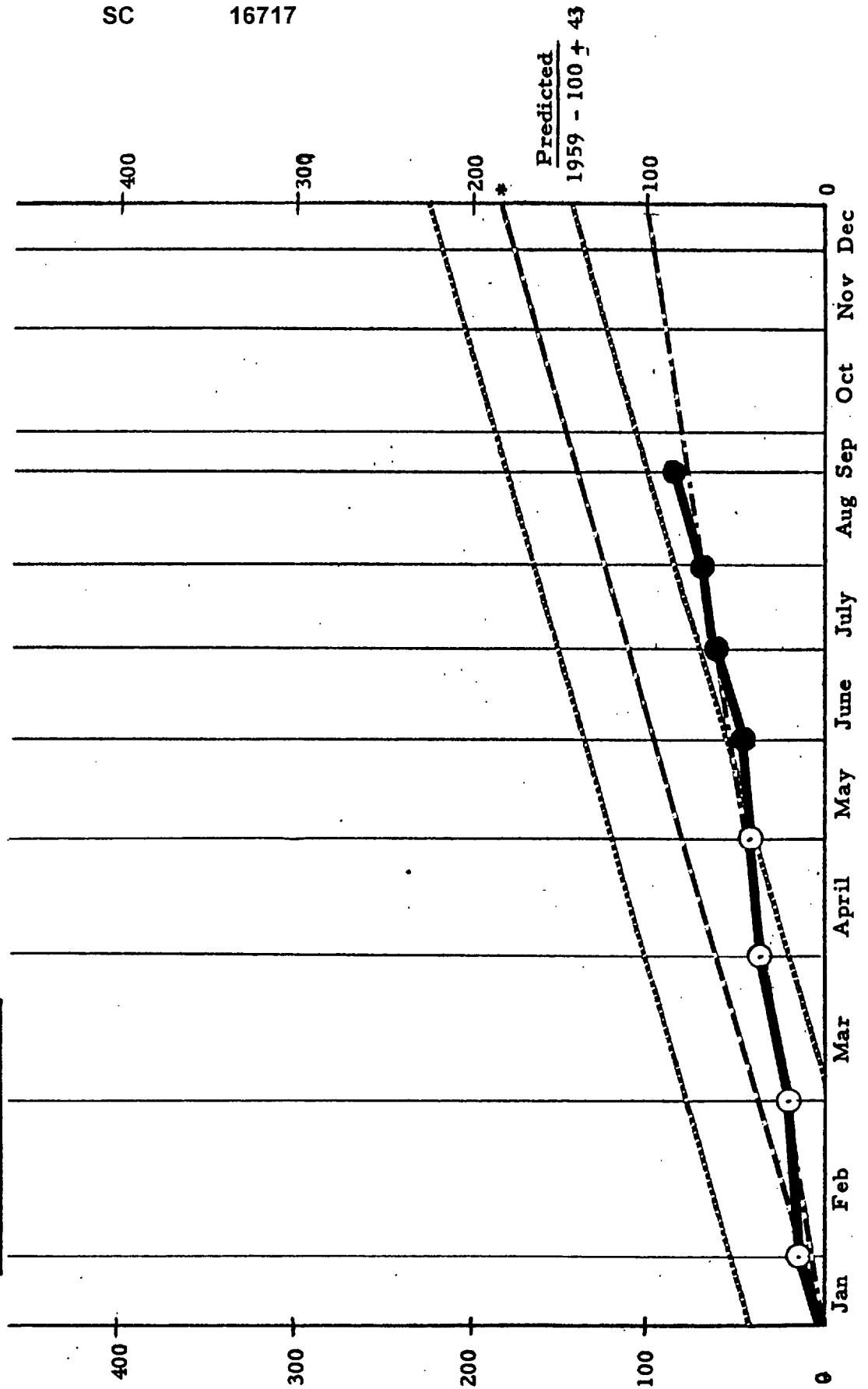
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

FALLS

PAST HISTORY

1956	-	330
1957	-	222
1958	-	186*

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure



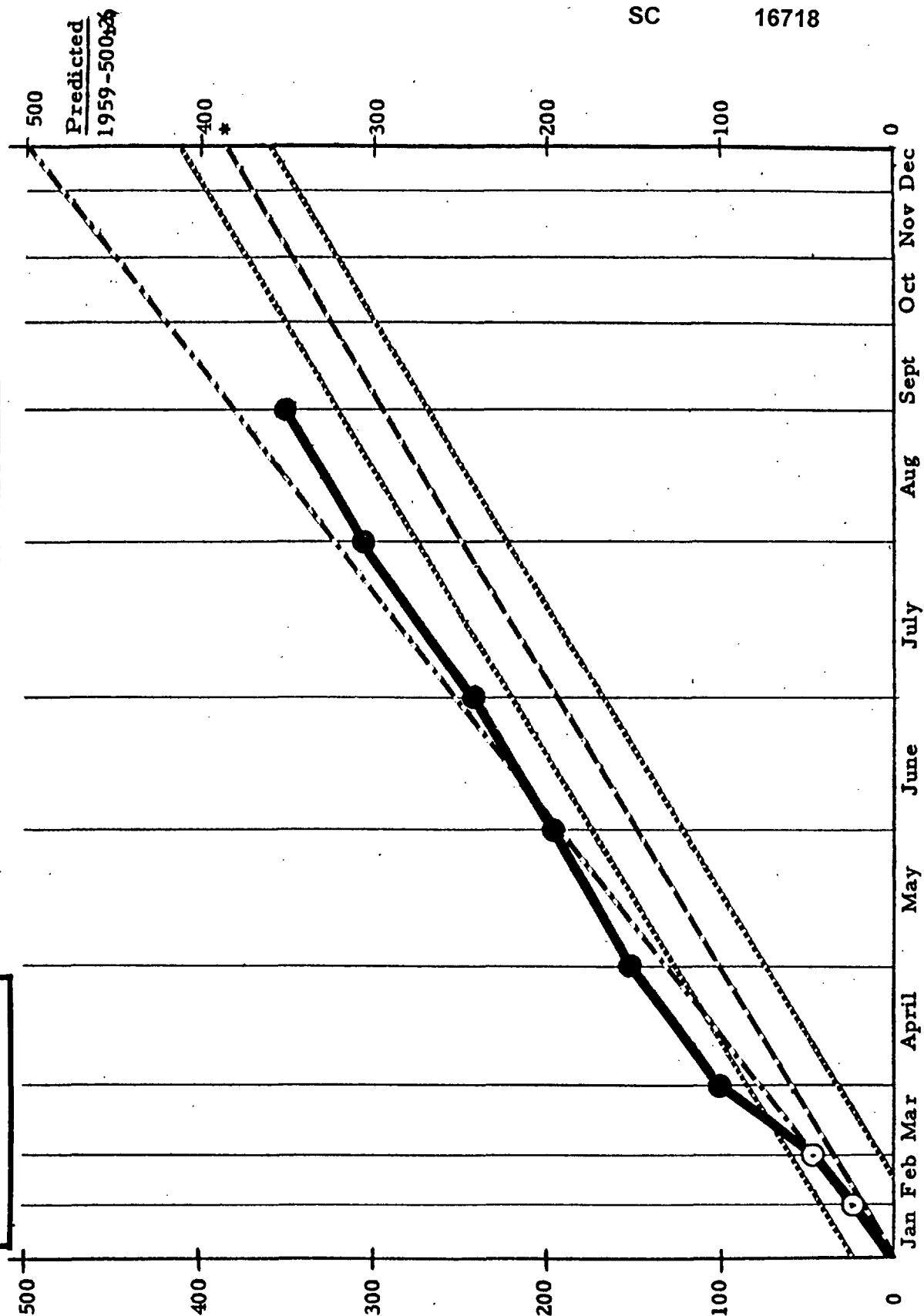
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

TEMPERATURE BURNS

PAST HISTORY

1956 - 385*
1957 - 586
1958 - 516

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure



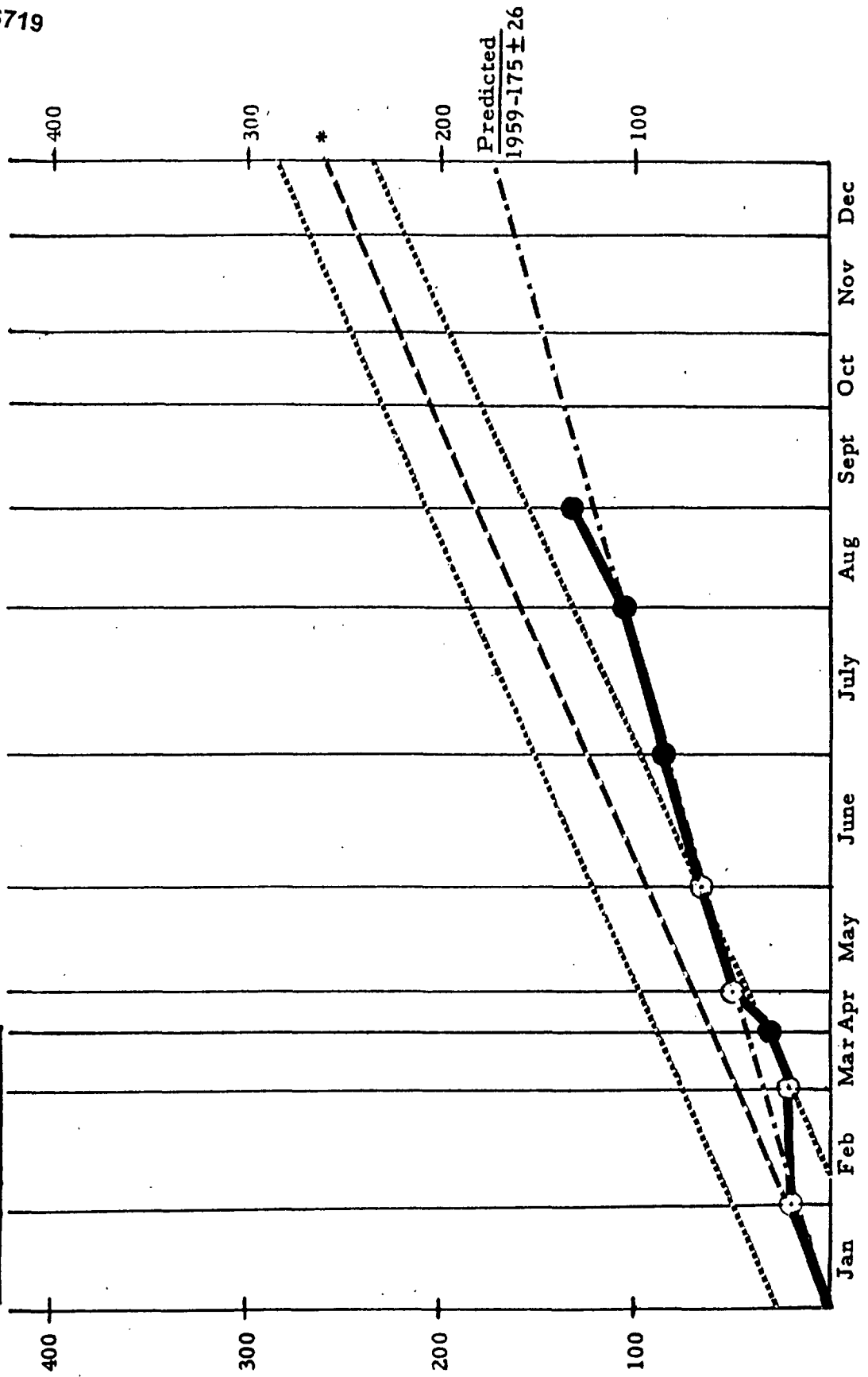
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MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

CHEMICAL BURNS

PAST HISTORY	
1956	259*
1957	397
1958	261

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

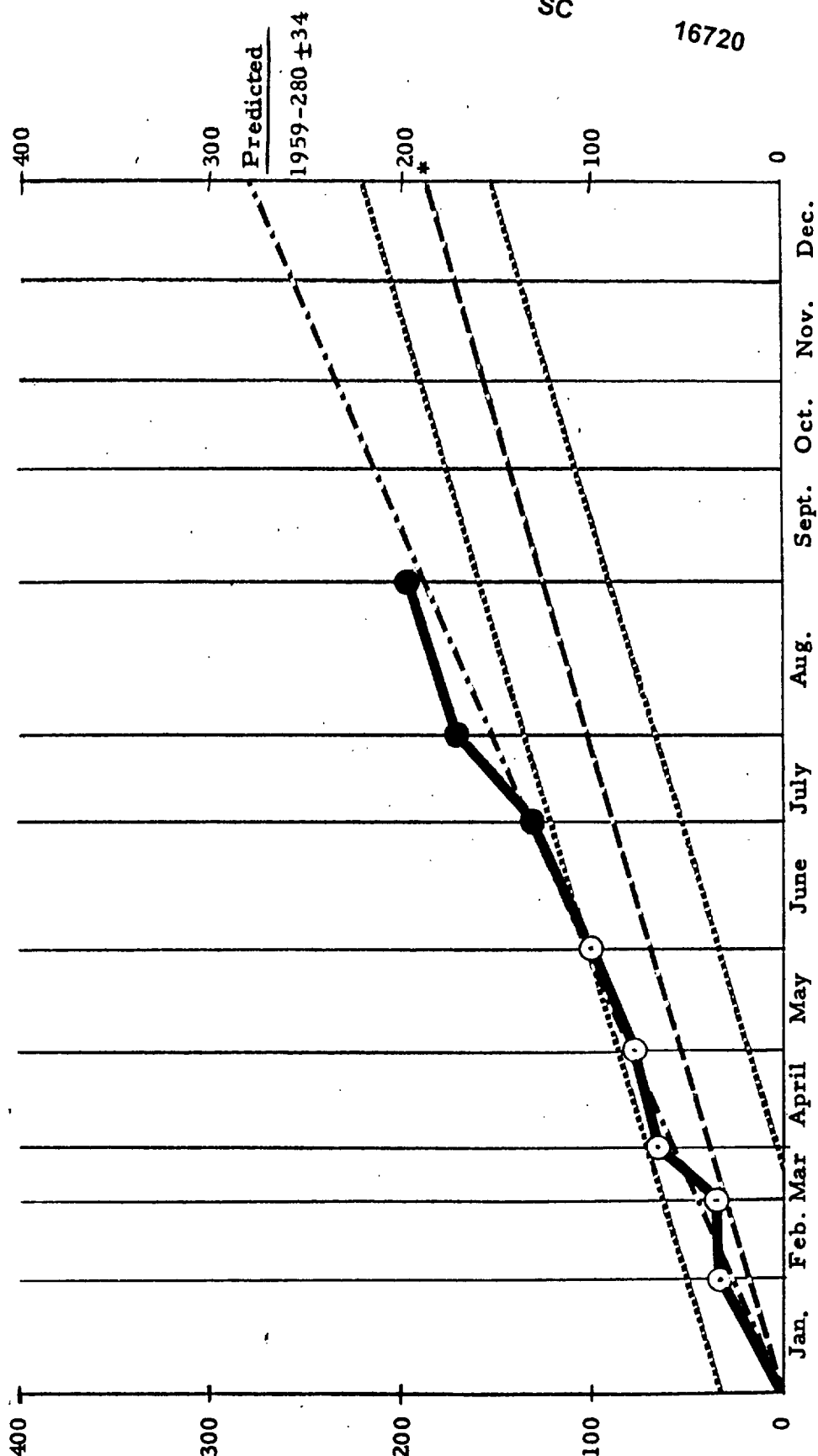


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TEXAS CITY PLANT
1959 MINOR INJURIES

EYES - FOREIGN BODY

PAST HISTORY

1956 - 190*
1957 - 194
1958 - 345



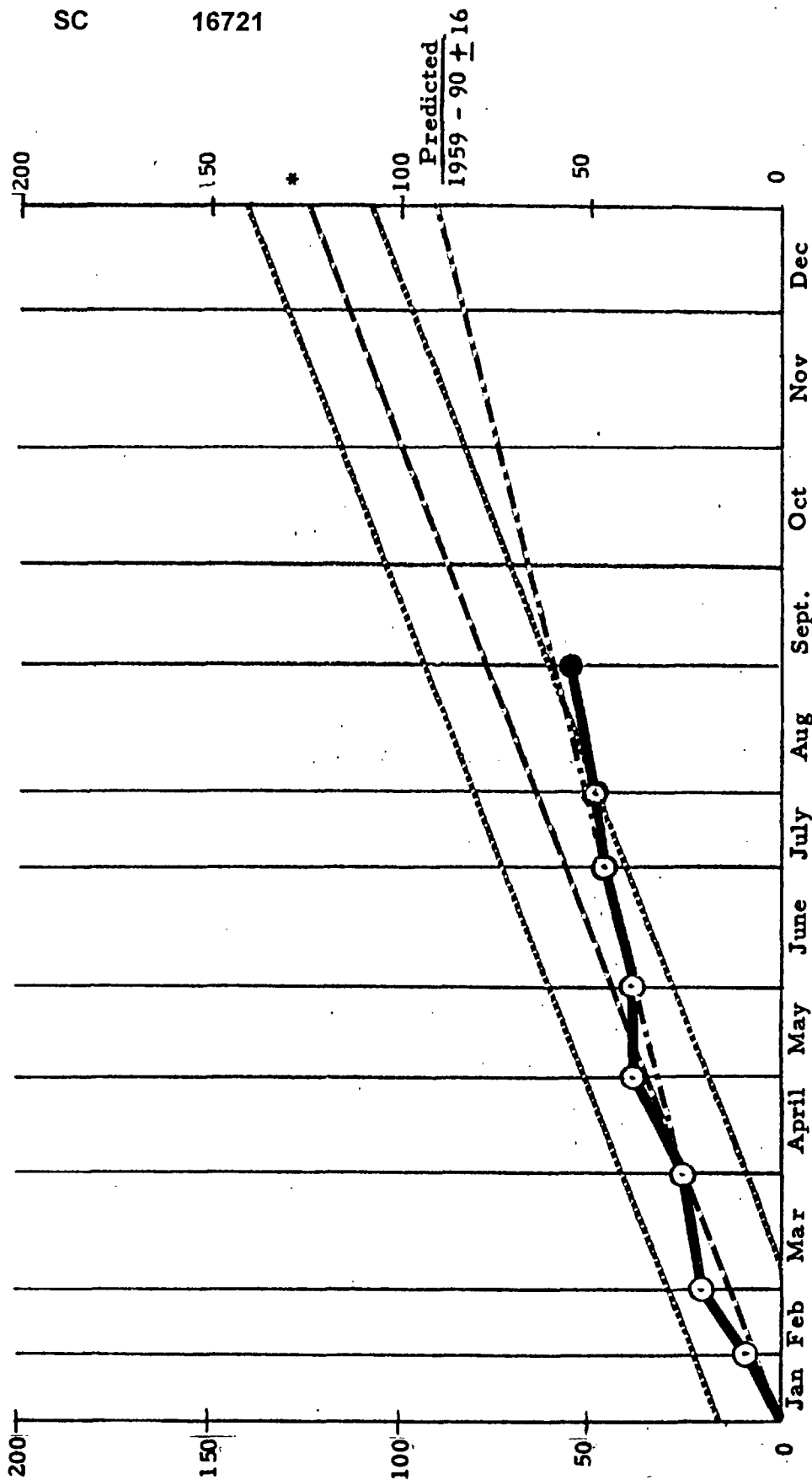
Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure

PAST HISTORY	
1956 -	189
1957 -	175
1958 -	124*

MONSANTO CHEMICAL COMPANY
TEXAS CITY, PLANT
1959 MINOR INJURIES

EYES - CHEMICAL



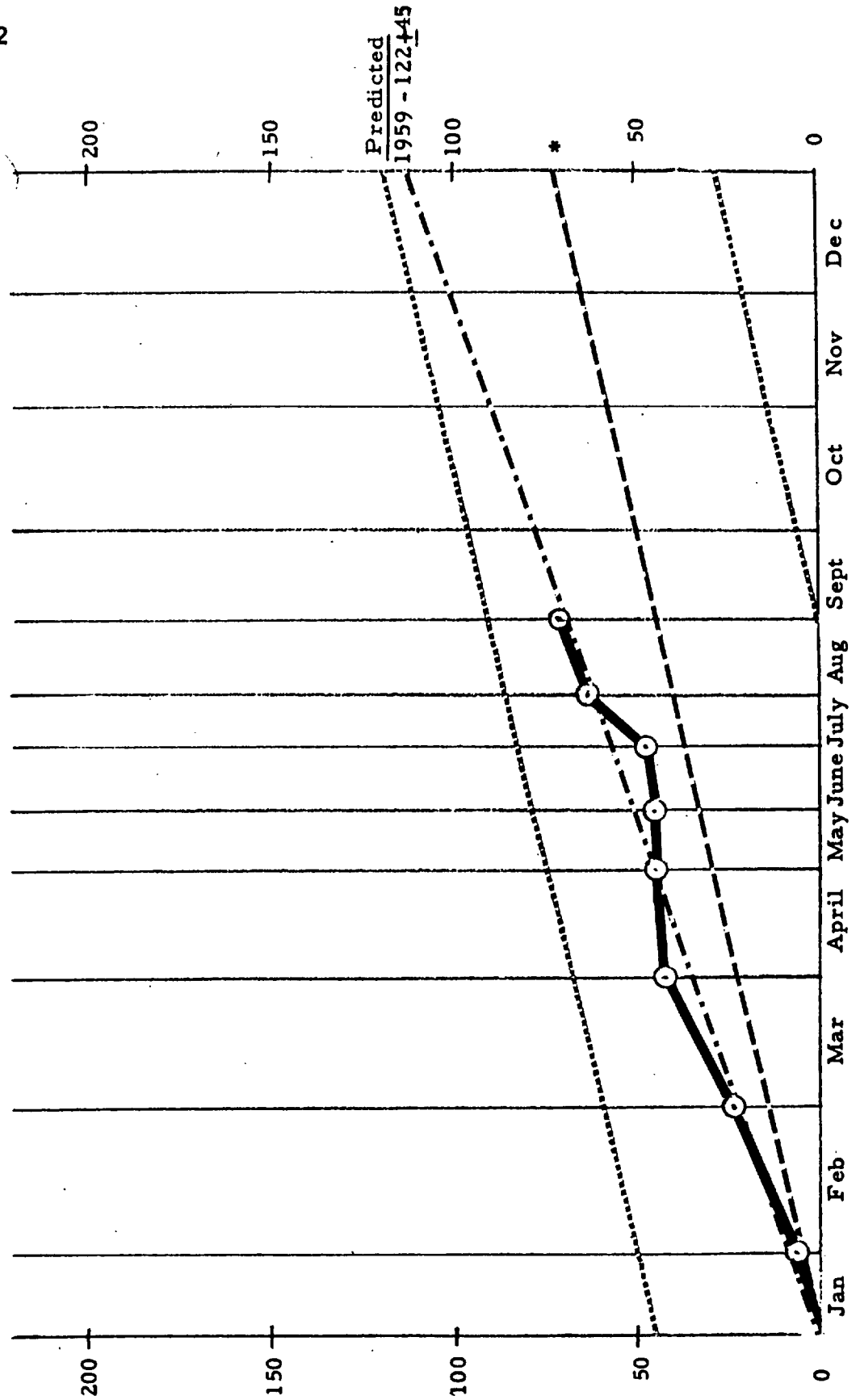
MONSANTO CHEMICAL COMPANY
TEXAS CITY PLANT
1959 MINOR INJURIES

INHALATION

PAST HISTORY

1956	-	119
1957	-	235
1958	-	73*

Cumulative Monthly Injury Rate - Injuries Per Million Manhours Exposure



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MONSANTO CHEMICAL COMPANY TEXAS CITY, TEXAS

ACCIDENT ANALYSIS August 1959

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	HANDLING MATERIALS				FALLS				BURNS				EYE ACCIDENTS				NOT CLASSIFIED		No. Accidents Reported This Month	No. Accidents Reported Last Month	No. Accidents Reported To-Date	Number Employees		
	Striking Against	Struck By	Caught Between	Sprains	Lacerations Cuts	Same Levels	Different Level	Slips	Tripping	Temperature	Chemical	Electrical	Steam & Liquids	Foreign Body	Wind Blown	Chemical	Flash Arc	Unknown					N.E.C.	Inhalation
DEPARTMENTS & CRAFTS																								
Department 1																					0	3	6	50
Department 2 & 3																					0	0	2	25
Department 4, 5, 7 & 8	2									1	1										4	2	11	7
Department 6 & 16										1											1	1	7	21
Department 17 & 18					1					1											3	2	13	56
Department 19 & 20 & 25																					0	1	7	47
Department 21, 22 & 23 & 26		1																			2	1	8	42
Department 24																					0	0	0	10
Department 31	2		1																		3	1	7	32
Department 41									1	1				1							3	1	10	57
Department 42	1	1				1			1												5	3	20	68
Dept. 10																					0	3	7	35
Power				1																	1	2	13	54
Material Handling	1																				1	2	10	36
Control Laboratory	1			2						1	2										7	4	40	72
Research Laboratory			1	7						2	1						1				13	6	58	184
P. E. Laboratory																					0	0	2	17
Stores																					0	0	7	33
Plant Protection																					0	0	0	19
Office & All Others	1			1																	2	2	20	3
Engineering																					0	0	5	97
Instrument		2		2																	4	5	36	51
Operating Engr.																					0	0	1	5
Pipefitters	6	1	1	3					4			1	1	1	1	1					20	22	141	123
Machinists	4	1	1	2						2			4	4							16	11	115	101
Boilermakers	1	2	1	2									2	2							8	10	53	56
Electricians	1																				1	2	18	22
Painters	1		1																		2	1	22	24
Carpenters	1	2			3																6	4	47	19
Insulators	2					1	1		1												5	3	20	15
Chemists, Transp. & Laborers	2		1	1	2	1	1	1		1	3					1			1		13	3	55	143
TOTALS	24	10	3	7	26	3	1	1	0	13	9	0	1	8	0	2	2	0	8	2	120	95	761	1834
Totals to Date	146	83	39	45	113	15	7	5	0	106	42	1	4	61	9	17	4	4	38	22	761			

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