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Comparative Cause-Specific Mortality Patterns by Work Area Within the Steel Industry

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COMPARATIVE CAUSE-SPECIFIC MORTALITY PATTERNS BY WORK AREA WITHIN THE STEEL INDUSTRY

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PREFACE

Mortality studies of industrial populations to assess the impact of specific work environments on the health of persons employed therein utilize death certificate diagnoses as an indicator of effect. In the past, medical information entered on death certificates has been summarized into a single disease entity and referred to as the "primary" or "underlying" cause of death. Unfortunately, the reduction of multiple conditions to a single entity results in substantial loss of information on the total disease state of a person at the time of death, especially when a majority of death certificates can be expected to contain more than one condition. Many conditions of interest in occupational health, when mentioned on the death certificate, are not classified as the underlying cause of death, e.g. cor pulmonale, pneumoconiosis, emphysema, and other chronic respiratory diseases. Hence, an unusual incidence of these conditions in a particular occupational group might go unrecognized.

It is for these reasons that the present study was initiated by the Office of Occupational Health Surveillance and Biometrics, National Institute for Occupational Safety and Health (NIOSH). In this report, comparative death rates for work areas within the steel industry have been prepared which incorporate all medical conditions mentioned on the death certificates in order to better identify instances of unusual disease experience which may be indicative of health hazards in the work environment.

ACKNOWLEDGMENTS

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MULTIPLE CAUSE OF DEATH STUDY

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ICD Code (Seventh Revision)	Cause of Death	
1-999	All Causes	10
140-205	All Cancers	14
140-148	Cancer of Buccal and Pharyngeal Organs	21
150-159	Cancer of Digestive Organs and Peritoneum	28
160-164	Cancer of Respiratory Organs	35
162-163	Cancer of Lungs,Bronchus, Trachea	42
160,161,164	Other Respiratory Cancer	49
177-181	Cancer of Genito-Urinary Organs	55

ICD Code (Seventh Revision)	Cause of Death	Page
177	Cancer of Prostate	62
178-179	Cancer of Testis and Other Genital Organs	69
180	Cancer of Kidney	75
181	Cancer of Bladder and Other Urinary Organs	82
190-191	Skin Cancer	89
200-205	Cancer of Lymphatic and Hematopoietic Tissues	95
165,170,192-199	All Other Cancers	102
330-334,400-468, 592-594	Cardiovascular-Renal Disease	109
330-334	Vascular Lesions of Central Nervous System	116
420-422	Arteriosclerotic Heart Disease	123
400-419,423-443	Other Heart Disease	130
444-468,592-594	All Other Cardiovascular-Renal Disease	137
470-527	Non-Malignant Respiratory Disease	144
1-8	Tuberculosis of Respiratory System	151
581	Cirrhosis of Liver	158
800-962	Accidents	165
963-964,970-985	Homicides and Suicides	172
780-795	Ill-Defined Causes	179
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Abbreviations Used In Tables

N = number of men at risk

O = observed number of deaths

E = expected number of deaths

Rel. Risk = relative risk of dying

Introduction

A review of cause-specific mortality patterns by work area within the steel industry has been published previously as the fourth paper in a continuing series in the Journal of Occupational Medicine.[1] The paper presented mortality findings for 58,828 steelworkers employed at seven Allegheny County steel plants in 1953 according to first job held in 1953 and underlying cause of death. Subsequently, employment histories and follow-up for vital status were extended through 1966 with the identification of 3,943 deaths in the five year period 1962-1966 yielding a total of 8,628 deaths in the cohort from 1953 through 1966. (Figure I)

The purpose of this report is to present:

1) Updated findings of the cause-specific mortality analyses from 1953 through 1966 by underlying cause of death, work area, and race.
2) The findings of the work area analyses when associated causes of death are also taken into consideration.

Method and Materials

Details of the original data collection and procedures have been described previously.[2,3] All 8,628 deaths were confirmed by copies of the death certificates. Information on the underlying cause and up to a maximum of six associated causes has been coded according to the Seventh Revision of the International List.[4] Additional guidelines for coding causes of death which were followed in this investigation are presented in Appendix I. A summary of the cumulative mortality rates, 1953-1966,

from all causes by race and age in 1953 are given in Table 1. Except for the oldest age group the rates for non-white workers were higher than for white workers. Because of these differentials in mortality between the races, all succeeding tables in this report are presented specific for race.

Two ways of classifying deaths by cause have been employed in this report. As usual, tabulations have been prepared by underlying cause of death. In addition, the frequency of each disease condition mentioned on the death certificate has been determined and comparisons made among the various work areas based on these estimated prevalence rates. Since it was necessary to group associated causes in the tabulations, a guideline was developed whereby a person was counted at most once in each broad group shown in the tables even if there was more than one condition in that group mentioned on the death certificate. Of course, an individual could be counted in more than one broad cause group. Tables 2 and 3 show for whites and non-whites respectively the distribution by site of the underlying and associated causes of death. One can see that less than one third of the non-malignant respiratory disease will be identified if one has available only the underlying cause of death. Other cause of death categories which have a marked increased frequency, if associated causes of death are taken into account, are the cardiovascular-renal diseases and cirrhosis of the liver. On the other hand, most cancers were virtually unaffected by the consideration of associated causes of death, except that the category of "all other cancers" increased due to the inclusion of cancers of certain metastatic sites (see Appendix I).

The ordering of associated causes in Tables 2 and 3 simply reflects the manner in which they were coded and abstracted from the death certificates. However, from the figures given for the "ALL CAUSES" line, one can conclude that 4,110 certificates contained two or more conditions, 1,636 contained three or more conditions, etc. Overall, 3,284 (7,394 - 4,110), or 44 percent, of all death certificates contained only one condition.

For the purposes of evaluating the risks of dying from specific causes of death for persons employed in each of the 57 work areas of the steel plants, three definitions have been used to assign an individual to a work area. Following are the three definitions of work area assignment used in these analyses with the corresponding definitions of the comparison groups:

1) Employment in a particular work area is determined by the first job held in 1953. Men so-employed in a given work area are compared to all other steelworkers.
2) Employment in a particular work area is defined as having worked there for at least one month any time prior to, or in, 1953. Men so-employed in a given work area are compared to steelworkers who were never employed in this work area through 1953.
3) Employment in a particular work area is defined as having worked there for at least five years as of December 31, 1953. Men so-employed in a given work area are compared to other men having accumulated five or more years experience in the steel industry as of December 31, 1953.

Note that for (2) and (3) the categorization into work area does not lead to mutually exclusive groups. Furthermore, not all steelworkers are included in the analyses for (3).

The number of deaths expected for each work area cohort specific for race, age in 1953, plant, and calendar period of follow-up (1953-57, 1958-62, 1963-66) was calculated by applying the specific rate for the total population (work area groups of interest and comparison group combined) to the number at risk in the work area. Expectations over the various levels of the characteristics were then obtained by summation. As a summary measure of comparative mortality, an estimate of relative risk has been calculated which is a weighted average of the "odds ratios" within each specific sub-category. In order to determine which of the relative risk estimates differ significantly from unity, a summary chi-square with one degree of freedom has been used.[5,6] It should be pointed out that the ratio of observed to expected deaths will not necessarily lead to the same numerical value as the corresponding relative risk since expected deaths reflect comparison of each work area with the total group, whereas the relative risk compares a particular work area with its complement.

Tables are organized by cause of death with the last table in each cause group summarizing the results for each work area which had a relative risk significantly different from unity according to one or more of the work area definitions.

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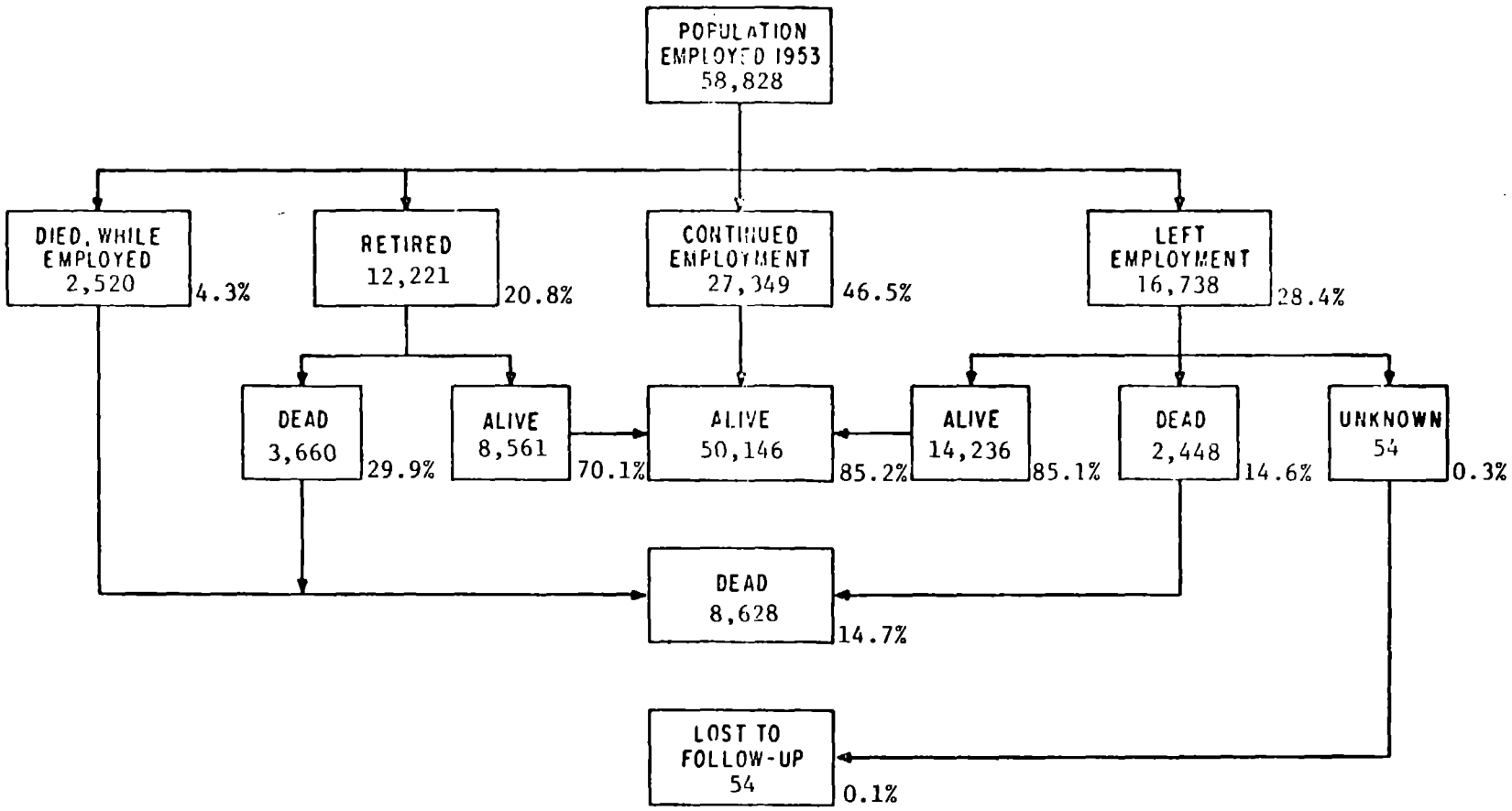

FIGURE 1

STEELWORKERS EMPLOYED IN 1953, CLASSIFIED BY EMPLOYMENT STATUS AND VITAL STATUS THROUGH DECEMBER 31, 1966.

Table 1: Mortality Rate from all causes, 1953-1966, of 58,828 Allegheny County Steelworkers by Race and Age in 1953.

	Number in 1953	Total Deaths 1953-1966	Mortality Rate/1000 at Risk in 1953
ALL RACES			
Total	58,828	8,628	146.7
<35	24,224	723	29.8
35-44	15,151	1,461	96.4
45-54	10,446	2,365	226.4
55-64	7,801	3,345	428.8
65+	1,206	734	608.6
WHITE			
Total	51,479	7,394	143.6
<35	21,278	596	28.0
35-44	13,485	1,256	93.1
45-54	8,718	1,926	220.9
55-64	6,912	2,953	427.2
65+	1,086	663	610.5
NON-WHITE			
Total	7,349	1,234	167.9
<35	2,946	127	43.1
35-44	1,666	205	123.0
45-54	1,728	439	254.0
55-64	889	392	440.9
65+	120	71	591.7

MULTIPLE CAUSE OF DEATH STUDY

TABLE 2 : Distribution by Site of Primary (Underlying) and Associated Causes of Death, 1953-1966, for White Steelworkers Employed in 1953

CAUSE OF DEATH	ICD Code (7th Revision)	Underlying Cause of Death		Associated Causes of Death: 2nd.		3rd.		4th.		5th.		6th		7th.		Prevalence Cause of Death	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent of All Deaths
All Causes	1-999	7394	100.0	4110	100.0	1686	100.0	482	100.0	120	100.0	28	100.0	1	100.0	--	--
Cancer of Buccal Cavity and Pharynx	140-148	58	0.8	4	0.1	3	0.2	1	0.2	0	0.0	0	0.0	0	0.0	64	0.9
Cancer of Digestive Organs and Peritoneum	150-159	556	7.5	24	0.6	22	1.3	5	1.0	2	1.7	0	0.0	0	0.0	600	8.1
Cancer of Respiratory Organs	160-164	479	6.5	14	0.3	10	0.6	0	0.0	0	0.0	0	0.0	0	0.0	502	6.8
Cancer of Lung, Bronchus Trachea	162-163	453	6.1	11	0.3	8	0.5	0	0.0	0	0.0	0	0.0	0	0.0	472	6.4
Other Respiratory Cancer	160,161, 164	26	0.4	3	0.1	2	0.1	0	0.0	0	0.0	0	0.0	0	0.0	31	0.4
Cancer of Genito-Urinary Organs	177-181	153	2.1	7	0.2	17	1.0	7	1.5	1	0.8	0	0.0	0	0.0	185	2.5
Cancer of Prostate	177	79	1.1	5	0.1	10	0.6	4	0.8	1	0.8	0	0.0	0	0.0	99	1.3
Cancer of Testis and Other Genital Organs	178-179	8	0.1	0	0.0	0	0.0	1	0.2	0	0.0	0	0.0	0	0.0	9	0.1
Cancer of Kidney	180	31	0.4	2	0.0	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	34	0.5
Cancer of Bladder and Other Urinary Organs	181	35	0.5	0	0.0	6	0.4	2	0.4	0	0.0	0	0.0	0	0.0	43	0.6
Cancer of Skin	190-191	14	0.2	2	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	16	0.2
Cancer of Lymphatic and Hematopoietic Tissues	200-205	131	1.8	3	0.1	5	0.3	1	0.2	0	0.0	0	0.0	0	0.0	140	1.9
All Other Cancers	165,170, 192-199	156	2.1	685	16.7	20	1.2	6	1.2	2	1.7	0	0.0	0	0.0	832	11.3
Cardiovascular-Renal Disease	330-334, 400-468, 592-594	4072	55.1	2399	58.4	900	53.4	210	43.6	37	30.8	7	25.0	0	0.0	4750	64.2
Vascular Lesions of CNS	330-334	590	8.0	244	5.9	97	5.8	28	5.8	5	4.2	0	0.0	0	0.0	882	11.9
Arteriosclerotic Heart Disease	420-422	2927	39.6	812	19.8	206	12.2	46	9.5	10	8.3	1	3.6	0	0.0	3334	45.1
Other Heart Disease	400-419, 423-443	329	4.4	547	13.3	264	15.7	49	10.2	8	6.7	3	10.7	0	0.0	1018	13.8
Tuberculosis of Respiratory System	1-8	41	0.6	11	0.3	5	0.3	3	0.6	0	0.0	0	0.0	0	0.0	60	0.8
Non-Malignant Respiratory Disease	470-527	252	3.4	407	9.9	292	17.3	90	18.7	27	22.5	6	21.4	0	0.0	908	12.3
Cirrhosis of Liver	581	187	2.5	28	0.7	27	1.6	15	3.1	1	0.8	3	10.7	0	0.0	261	3.5
Accidents	800-962	430	5.8	22	0.5	12	0.7	2	0.4	0	0.0	0	0.0	0	0.0	466	6.3
Homicides and Suicides	963-964, 970-985	151	2.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	151	2.0
Ill-Defined Causes	780-795	122	1.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	122	1.6
All Other Causes	Remainder	592	8.0	504	12.3	373	22.1	142	29.5	50	41.7	12	42.9	1	100.0	1346	18.2

MULTIPLE CAUSE OF DEATH STUDY

TABLE 3 : Distribution by Site of Primary (Underlying) and Associated Causes of Death, 1953-1966, for Nonwhite Steelworkers Employed in 1953

	ICD Code (7th Revision)	Underlying Cause of Death		Associated Causes of Death 2nd		3rd		4th		5th		6th		7th		Prevalence Cause of Death	
		No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent of All Deaths
All Causes	1-999	1234	100.0	654	100.0	268	100.0	80	100.0	16	100.0	3	100.0	0	100.0	--	--
Cancer of Buccal Cavity and Pharynx	140-148	5	0.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.4
Cancer of Digestive Organs and Peritoneum	150-159	82	6.6	4	0.6	3	1.1	0	0.0	0	0.0	0	0.0	0	0.0	88	7.1
Cancer of Respiratory Organs	160-164	96	7.8	2	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	98	7.9
Cancer of Lung, Bronchus, Trachea	162-163	88	7.1	2	0.3	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	90	7.3
Other Respiratory Cancer	160,161, 164	8	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	0.6
Cancer of Genito-Urinary Organs	177-181	42	3.4	1	0.2	1	0.4	1	1.3	0	0.0	0	0.0	0	0.0	45	3.6
Cancer of Prostate	177	30	2.4	0	0.0	0	0.0	1	1.3	0	0.0	0	0.0	0	0.0	31	2.5
Cancer of Testis and Other Genital Organs	178-179	0	0.0	0	0.0	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Cancer of Kidney	180	4	0.3	1	0.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	0.4
Cancer of Bladder and Other Urinary Organs	181	8	0.6	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	8	0.6
Cancer of Skin	190-191	1	0.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Cancer of Lymphatic and Hematopoietic Tissues	200-205	18	1.5	3	0.5	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	21	1.7
All Other Cancers	165,170, 192-199	31	2.5	120	18.3	4	1.5	0	0.0	0	0.0	0	0.0	0	0.0	149	12.1
Cardiovascular-Renal Disease	330-334, 400-468,592-594	558	45.2	347	53.1	149	55.6	39	48.8	6	37.5	2	66.7	0	0.0	680	55.1
Vascular Lesions of CNS	330-334	117	9.5	58	8.9	26	9.7	2	2.5	0	0.0	0	0.0	0	0.0	189	15.3
Arteriosclerotic Heart Disease	420-422	300	24.3	83	12.7	26	9.7	9	11.3	2	12.5	1	33.3	0	0.0	364	29.5
Other Heart Disease	400-419, 423-443	83	6.7	93	14.2	45	16.8	12	15.0	2	12.5	1	33.3	0	0.0	195	15.8
Tuberculosis of Respiratory System	1-8	20	1.6	3	0.5	3	1.1	2	2.5	0	0.0	0	0.0	0	0.0	28	2.3
Non-Malignant Respiratory Disease	470-527	62	5.0	85	13.0	47	17.5	8	10.0	3	18.8	0	0.0	0	0.0	182	14.7
Cirrhosis of Liver	581	11	0.9	4	0.6	3	1.1	2	2.5	2	12.5	0	0.0	0	0.0	22	1.8
Accidents	800-962	88	7.1	6	0.9	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	95	7.7
Homicides and Suicides	963-964 970-985	34	2.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	34	2.8
Ill-Defined Causes	780-795	52	4.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	52	4.2
All Other Causes	Remainder	134	10.9	79	12.1	56	20.9	28	35.0	5	31.3	1	33.3	0	0.0	232	18.8

[illegible] (CANCER,ING) = 001-999
[illegible] 1955

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
[illegible] ADMINISTRATIVE AND CLERICAL	3273	418	440.3	0.94	18	1	3.5	--	3291	419	443.8	0.93
[illegible] TECHNICAL	2366	233	235.3	0.99	14	3	1.8	--	2382	236	237.1	0.99
[illegible]	1635	219	211.6	1.05	908	177	167.9	1.11	2543	396	379.5	1.07
[illegible]	23[illegible]	328	338.7	0.96	1101	133	153.8	0.02	3456	461	492.5	0.92
[illegible]	5797	762	804.2	0.93	1836	283	295.4	0.93	7633	1045	1099.6	0.93
[illegible] CONVERTER	24	10	6.3	1.73	0	0	0.0	--	24	10	6.3	1.73
ELECTRIC FURNACE	734	82	82.5	0.99	7	2	1.1	--	741	84	83.6	1.01
FOUNDRY	890	139	150.5	0.91	253	38	40.9	0.91	1143	177	191.4	0.91
HEAT TREAT AND FORGING	1003	140	143.8	0.97	16	6	3.4	1.95	1019	146	147.2	0.99
BILLET BLOOM AND SLAB MILLS	2912	480	469.3	1.03	223	41	44.0	0.90	3135	521	513.2	1.02
SOAKING PITS	94	13	12.2	1.08	14	0	0.9	--	108	13	13.1	0.99
MERCHANT MILLS	2130	329	354.5	0.91	395	63	71.3	0.85	2525	392	425.9	0.90
PLATE MILL	1547	245	236.0	1.05	239	62	53.5	1.24	1786	307	289.5	1.08
AXLE MILLS	6	1	0.9	--	0	0	0.0	--	6	1	0.9	--
GENERAL FINISHING AND SHIPPING	399	62	53.6	1.19	82	23	22.0	1.06	481	85	75.6	1.15
HOT STRIP MILL	164	40	31.1	1.34	1	0	0.2	--	165	40	31.3	1.34
RAIL MILL ROLLING	339	51	55.3	0.91	46	5	9.0	0.48	385	56	64.3	0.84
RAIL MILL FINISHING	347	50	44.1	1.17	98	24	18.0	1.46	445	74	62.1	1.24
STEEL YARDS	88	12	9.4	1.37	32	0	3.6	--	120	12	13.0	0.91
STRUCTURAL MILL	1196	191	165.6	1.20 *	164	22	26.6	0.80	1360	213	192.2	1.14
ANNEALING NORMALIZING	1353	216	202.0	1.09	17	3	3.4	--	1370	219	205.4	1.08
BATCH PICKLING AND SHEET DRYERS	55	10	6.4	1.78	21	2	3.3	--	76	12	9.7	1.30
COATING	328	38	41.0	0.91	0	0	0.0	--	328	38	41.0	0.91
COLD REDUCING MILLS	1395	160	145.6	1.12	97	19	16.5	1.18	1492	179	162.1	1.13
CONTINUOUS PICKLING AND ELEC CLEANING	205	22	17.4	1.30	0	0	0.0	--	205	22	17.4	1.30
FLYING SHEARS AND SLITTERS	8	2	1.4	--	0	0	0.0	--	8	2	1.4	--
HOT PACK MILLS	566	112	127.5	0.84	5	1	1.4	--	571	113	128.9	0.84
HOT STRIP ROLLING	1008	126	135.6	0.92	0	0	0.0	--	1008	126	135.6	0.92
SHEET FINISHING AND SHIPPING	1733	258	230.1	1.17 *	36	10	8.6	1.32	1769	268	238.6	1.17 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	15	10.3	1.64	1	0	0.0	--	47	15	10.3	1.64
TEMPER PASSING AND COLD ROLLING	369	33	36.9	0.88	0	0	0.0	--	369	33	36.9	0.88
TIN FINISHING AND SHIPPING	396	51	52.4	0.97	1	0	0.0	--	397	51	52.4	0.97
GENERAL LABOR	546	77	75.4	1.02	449	73	71.3	1.03	995	150	146.7	1.03
JANITORS	205	101	76.6	1.44 **	321	77	68.1	1.17	526	178	144.8	1.31 **
MASON DEPARTMENT	1305	121	126.9	0.95	438	72	56.2	1.35 *	1743	193	183.1	1.06
BLACKSMITH SHOP	266	48	51.0	0.93	4	2	0.8	--	270	50	51.8	0.96
CARPENTER SHOP	406	58	75.7	0.73 *	0	0	0.0	--	406	58	75.7	0.73 *
ELECTRIC MAINTENANCE ASSIGNED	1605	224	236.4	0.94	5	0	0.4	--	1610	224	236.8	0.94
ELECTRIC SHOP	551	76	92.1	0.80	1	1	0.2	--	552	77	92.3	0.81
GARAGE	147	10	17.6	0.52	0	0	0.0	--	147	10	17.6	0.52
LOCOMOTIVE AND CAR REPAIR	121	19	19.7	0.96	9	3	1.2	--	130	22	20.9	1.06
MACHINE SHOP	1442	238	227.6	1.06	3	0	0.8	--	1445	238	228.4	1.05
MAINTENANCE NOS	70	16	15.8	1.02	2	0	0.1	--	72	16	15.9	1.01
MECHNICAL MAINTENANCE ASSIGNED	2689	441	401.6	1.13 *	60	10	12.0	0.80	2749	451	413.6	1.12 *
PAINT SHOP	263	30	34.3	0.86	2	1	0.3	--	265	31	34.6	0.88
PATTERN SHOP	68	9	10.5	0.84	0	0	0.0	--	68	9	10.5	0.84
PIPE SHOP	738	103	110.3	0.92	5	4	1.1	--	743	107	111.4	0.95
RIGGERS AND STRUCTURAL	1189	180	195.2	0.91	8	2	0.9	--	1197	182	196.1	0.92
ROLL SHOP	374	60	62.5	0.95	0	0	0.0	--	374	60	62.5	0.95
WELD SHOP	644	73	75.9	0.96	2	0	0.3	--	646	73	76.2	0.95
ALL OTHER	138	20	19.1	1.06	5	1	0.9	--	143	21	20.0	1.06
GENERAL RECEIVING AND STORES	192	25	32.6	0.73	4	1	1.9	--	196	26	34.5	0.71
PLANT PROTECTION	674	169	133.5	1.33 **	1	0	0.2	--	675	169	133.7	1.33 **
POWER AND FUEL	1343	170	194.8	0.85	62	14	16.5	0.83	1405	184	211.2	0.85 *
TRANSPORTATION AND YARD	1293	200	184.2	1.10	341	54	50.4	1.09	1634	254	234.6	1.10
TUBE MILLS INCLUDES TUBE FINISHING	229	31	36.0	0.84	1	0	0.0	--	230	31	36.0	0.84
RIVER OR MARINE WAYS	218	47	37.1	1.33	1	1	0.1	--	219	48	37.1	1.36
TOTAL	51479	7394	7394.0	1.00	7349	1234	1234.0	1.00	58828	8628	8628.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL,RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00010

C.O.D. (UNDERLYING) = 001-999
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	708	716.0	0.99	34	5	7.5	0.52	5146	713	723.4	0.98
GEN TECHNICAL	3684	434	439.3	0.99	16	4	2.0	--	3700	438	441.3	0.99
COKE PLANT	2381	362	331.7	1.13	1176	235	233.6	1.02	3557	597	565.3	1.10
BLAST FURNACE	4218	645	701.9	0.89 *	1415	185	210.8	0.83 *	5633	830	912.7	0.88 **
OPEN HEARTH	9655	1433	1466.9	0.97	2335	408	400.9	1.04	11990	1841	1867.8	0.98
BESSEMER CONVERTER	240	62	64.2	0.96	88	18	23.8	0.71	328	80	88.1	0.89
ELECTRIC FURNACE	1250	174	165.3	1.07	11	3	1.6	--	1261	177	166.9	1.08
FOUNDRY	1781	322	312.6	1.04	345	64	57.1	1.17	2126	386	369.7	1.06
HEAT TREAT AND FORGING	1683	279	271.7	1.04	46	15	12.5	1.25	1729	294	284.2	1.05
BILLET BLOOM AND SLAB MILLS	5783	969	966.1	1.00	419	82	86.5	0.92	6202	1051	1052.6	1.00
SOAKING PITS	148	19	16.9	1.14	28	2	2.0	--	176	21	19.0	1.13
MERCHANT MILLS	3885	729	734.0	0.99	680	154	146.1	1.08	4565	883	880.1	1.00
PLATE MILL	3005	573	547.9	1.08	436	110	101.4	1.15	3441	683	649.3	1.09
AXLE MILLS	293	73	83.3	0.85	6	3	1.3	--	299	76	84.5	0.88
GENERAL FINISHING AND SHIPPING	1309	288	256.8	1.16 *	213	47	60.0	0.72	1522	335	316.8	1.07
HOT STRIP MILL	567	110	99.8	1.12	1	0	0.2	--	568	110	99.9	1.12
RAIL MILL ROLLING	852	128	134.2	0.94	97	16	21.0	0.69	949	144	155.2	0.90
RAIL MILL FINISHING	726	131	117.3	1.16	145	36	30.5	1.29	871	167	147.8	1.19
STEEL YARDS	299	53	63.4	0.80	77	10	14.1	0.67	376	63	77.5	0.78
STRUCTURAL MILL	1972	326	288.9	1.19 *	252	35	41.2	0.82	2224	361	330.2	1.13
ANNEALING NORMALIZING	2605	445	425.6	1.06	54	13	11.6	1.23	2659	458	437.1	1.07
BATCH PICKLING AND SHEET DRYERS	137	31	24.6	1.34	50	10	8.8	1.21	187	41	33.4	1.31
COATING	545	59	65.9	0.87	0	0	0.0	--	545	59	65.9	0.87
COLD REDUCING MILLS	1933	230	214.3	1.09	113	25	20.3	1.29	2046	255	234.6	1.11
CONTINUOUS PICKLING AND ELEC CLEANING	254	26	22.0	1.20	0	0	0.0	--	254	26	22.0	1.20
FLYING SHEARS AND SLITTERS	28	3	3.3	--	0	0	0.0	--	28	3	3.3	--
HOT PACK MILLS	1229	274	285.7	0.93	19	5	4.7	1.10	1248	279	290.4	0.93
HOT STRIP ROLLING	1623	218	226.6	0.95	2	0	0.2	--	1625	218	226.8	0.95
SHEET FINISHING AND SHIPPING	3306	451	441.9	1.03	108	24	25.3	0.86	3414	475	467.3	1.03
STAINLESS ANNEAL PICKLG AND PROCESSING	384	93	72.6	1.38 **	2	0	0.1	--	386	93	72.7	1.38 **
TEMPER PASSING AND COLD ROLLING	783	82	83.1	0.98	0	0	0.0	--	783	82	83.1	0.98
TIN FINISHING AND SHIPPING	668	87	83.3	1.06	1	0	0.0	--	669	87	83.3	1.06
GENERAL LABOR	3153	625	570.5	1.12 *	1215	249	255.5	0.96	4368	874	826.0	1.08
JANITORS	311	140	111.8	1.35 **	422	95	89.8	1.08	733	235	201.6	1.22 **
MASON DEPARTMENT	2511	308	305.5	1.01	696	143	107.2	1.48 **	3207	451	412.6	1.12 *
BLACKSMITH SHOP	555	119	121.8	0.97	6	4	1.3	--	561	123	123.2	1.00
CARPENTER SHOP	665	123	150.1	0.79 *	1	0	0.1	--	666	123	150.2	0.79 *
ELECTRIC MAINTENANCE ASSIGNED	3200	561	588.2	0.94	8	1	1.2	--	3208	562	589.4	0.94
ELECTRIC SHOP	1620	340	363.5	0.92	2	1	0.5	--	1622	341	364.0	0.92
GARAGE	242	30	34.5	0.85	2	0	0.9	--	244	30	35.4	0.83
LOCOMOTIVE AND CAR REPAIR	261	53	47.3	1.14	22	6	3.5	1.92	283	59	50.8	1.19
MACHINE SHOP	2405	440	437.6	1.01	12	0	2.7	--	2417	440	440.3	1.00
MAINTENANCE NOS	558	75	98.0	0.71 **	5	0	0.6	--	563	75	98.6	0.71 **
MECHNICAL MAINTENANCE ASSIGNED	6136	1123	1041.0	1.11 **	201	48	46.9	1.03	6337	1171	1087.9	1.11 **
PAINT SHOP	777	121	120.6	1.00	9	3	2.1	--	786	124	122.7	1.01
PATTERN SHOP	95	13	16.8	0.75	0	0	0.0	--	95	13	16.8	0.75
PIPE SHOP	1412	263	259.7	1.02	14	6	4.2	1.54	1426	269	263.9	1.02
RIGGERS AND STRUCTURAL	2525	525	539.4	0.97	21	5	5.0	1.00	2546	530	544.4	0.97
ROLL SHOP	502	82	84.5	0.97	3	1	1.1	--	505	83	85.6	0.97
WELD SHOP	758	96	91.2	1.06	2	0	0.3	--	760	96	91.6	1.05
ALL OTHER	1098	261	266.0	0.98	75	23	22.6	1.02	1173	284	288.6	0.98
GENERAL RECEIVING AND STORES	382	69	71.8	0.95	9	3	4.0	--	391	72	75.8	0.94
PLANT PROTECTION	856	212	176.7	1.25 **	4	1	0.8	--	860	213	177.6	1.25 **
POWER AND FUEL	2336	409	417.6	0.97	213	44	57.0	0.73	2549	453	474.6	0.94
TRANSPORTATION AND YARD	2842	512	487.9	1.06	633	143	116.5	1.31 **	3475	655	604.4	1.11 *
TUBE MILLS INCLUDES TUBE FINISHING	635	118	110.2	1.09	10	2	1.7	--	645	120	111.8	1.10
RIVER OR MARINE WAYS	293	61	50.4	1.26	1	1	0.1	--	294	62	50.4	1.28
TOTAL	51479	7394	7394.0	1.00	7349	1234	1234.0	1.00	58828	8628	8628.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C0011

C.O.D. (UNDERLYING) = 001-999
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	421	435.6	0.96	11	1	3.1	--	2374	422	438.6	0.95
GEN TECHNICAL	1575	261	251.4	1.05	6	3	1.3	--	1581	264	252.7	1.05
COKE PLANT	1180	230	217.0	1.08	664	171	163.5	1.10	1844	401	380.5	1.09
BLAST FURNACE	1730	366	379.1	0.96	591	105	119.2	0.84	2321	471	498.3	0.93
OPEN HEARTH	4075	797	819.3	0.96	1347	273	274.2	0.99	5422	1070	1093.6	0.97
BESSEMER CONVERTER	118	35	37.1	0.93	35	10	10.5	0.95	153	45	47.6	0.93
ELECTRIC FURNACE	509	63	70.8	0.87	4	1	0.9	--	513	64	71.7	0.87
FOUNDRY	764	185	187.5	0.98	169	37	38.0	0.97	933	222	225.5	0.98
HEAT TREAT AND FORGING	708	159	158.0	1.01	20	6	5.4	1.13	728	165	163.4	1.01
BILLET BLOOM AND SLAB MILLS	2614	555	550.1	1.01	201	47	51.0	0.88	2815	602	601.1	1.00
SOAKING PITS	19	7	4.9	1.54	0	0	0.0	--	19	7	4.9	1.54
MERCHANT MILLS	1986	429	458.4	0.91	301	78	83.9	0.91	2287	507	542.3	0.91
PLATE MILL	1442	316	311.7	1.02	246	69	64.6	1.10	1688	385	376.3	1.03
AXLE MILLS	45	13	16.2	0.77	0	0	0.0	--	45	13	16.2	0.77
GENERAL FINISHING AND SHIPPING	511	123	111.4	1.13	113	29	35.8	0.76	624	152	147.2	1.04
HOT STRIP MILL	174	40	34.5	1.19	0	0	0.0	--	174	40	34.5	1.19
RAIL MILL ROLLING	288	66	70.1	0.93	32	8	9.5	0.80	320	74	79.5	0.91
RAIL MILL FINISHING	245	57	55.5	1.03	82	24	18.5	1.43	327	81	74.0	1.12
STEEL YARDS	68	21	20.1	1.06	11	0	2.1	--	79	21	22.1	0.94
STRUCTURAL MILL	980	189	166.0	1.18 *	128	20	24.9	0.77	1108	209	190.9	1.12
ANNEALING NORMALIZING	1214	236	237.7	0.99	25	9	6.4	1.64	1239	245	244.1	1.01
BATCH PICKLING AND SHEET DRYERS	45	21	12.6	1.98 *	19	5	4.3	1.20	64	26	16.9	1.76 *
COATING	269	41	40.8	1.01	0	0	0.0	--	269	41	40.8	1.01
COLD REDUCING MILLS	848	128	125.5	1.02	65	16	14.0	1.18	913	144	139.5	1.04
CONTINUOUS PICKLING AND ELEC CLEANING	147	18	15.6	1.17	0	0	0.0	--	147	18	15.6	1.17
FLYING SHEARS AND SLITTERS	5	1	0.8	--	0	0	0.0	--	5	1	0.8	--
HOT PACK MILLS	737	198	209.4	0.92	5	1	2.1	--	742	199	211.5	0.91
HOT STRIP ROLLING	864	137	142.0	0.96	1	0	0.2	--	865	137	142.1	0.96
SHEET FINISHING AND SHIPPING	1335	233	216.5	1.11	48	12	14.0	0.74	1383	245	230.5	1.09
STAINLESS ANNEAL PICKLG AND PROCESSING	148	41	32.6	1.34	0	0	0.0	--	148	41	32.6	1.34
TEMPER PASSING AND COLD ROLLING	335	33	38.5	0.83	0	0	0.0	--	335	33	38.5	0.83
TIN FINISHING AND SHIPPING	348	55	55.5	0.99	0	0	0.0	--	348	55	55.5	0.99
GENERAL LABOR	565	160	137.3	1.21 *	375	89	88.4	1.01	940	249	225.7	1.13
JANITORS	112	57	45.7	1.34	190	48	51.5	0.91	302	105	97.3	1.10
MASON DEPARTMENT	758	134	121.8	1.12	242	66	46.2	1.57 **	1000	200	168.0	1.23 **
BLACKSMITH SHOP	231	62	59.1	1.06	5	4	1.3	--	236	66	60.4	1.11
CARPENTER SHOP	277	55	72.6	0.72 *	0	0	0.0	--	277	55	72.6	0.72 *
ELECTRIC MAINTENANCE ASSIGNED	1581	333	358.1	0.92	2	1	0.3	--	1583	334	358.4	0.92
ELECTRIC SHOP	760	181	191.6	0.93	2	1	0.5	--	762	182	192.0	0.94
GARAGE	98	15	18.3	0.79	1	0	0.7	--	99	15	19.0	0.76
LOCOMOTIVE AND CAR REPAIR	104	22	24.3	0.89	7	2	1.7	--	111	24	25.9	0.91
MACHINE SHOP	1270	284	262.8	1.10	2	0	0.8	--	1272	284	263.6	1.10
MAINTENANCE NOS	246	39	51.0	0.72	0	0	0.0	--	246	39	51.0	0.72
MECHNICAL MAINTENANCE ASSIGNED	2290	574	522.7	1.13 *	73	25	24.2	1.04	2363	599	546.9	1.13 *
PAINT SHOP	197	38	40.5	0.93	2	1	0.4	--	199	39	40.9	0.95
PATTERN SHOP	64	12	13.5	0.87	0	0	0.0	--	64	12	13.5	0.87
PIPE SHOP	657	118	131.6	0.88	6	3	1.7	--	663	121	133.3	0.89
RIGGERS AND STRUCTURAL	1034	204	237.1	0.84 *	6	1	2.0	--	1040	205	239.2	0.83 *
ROLL SHOP	314	61	61.6	0.99	0	0	0.0	--	314	61	61.6	0.99
WELD SHOP	460	70	67.2	1.05	2	0	0.3	--	462	70	67.5	1.04
ALL OTHER	302	93	97.8	0.94	9	1	3.0	--	311	94	100.8	0.92
GENERAL RECEIVING AND STORES	168	37	43.1	0.83	2	1	1.6	--	170	38	44.6	0.82
PLANT PROTECTION	469	136	116.3	1.21	1	0	0.4	--	470	136	116.6	1.21
POWER AND FUEL	976	228	229.0	0.99	89	22	29.2	0.71	1065	250	258.2	0.96
TRANSPORTATION AND YARD	871	202	199.4	1.02	194	47	40.7	1.20	1065	249	240.1	1.05
TUBE MILLS INCLUDES TUBE FINISHING	281	59	53.4	1.13	2	2	0.4	--	283	61	53.8	1.17
RIVER OR MARINE WAYS	177	44	36.4	1.26	1	1	0.1	--	178	45	36.4	1.30
TOTAL	36364	6665	6665.0	1.00	4913	1069	1069.0	1.00	41277	7734	7734.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00012

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: All Causes

ICD CODE: 1 - 999

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Structural Mill	1.20*		1.19*		1.18*	
Sheet Finishing and Shipping	1.17*		1.03		1.11	
Janitors	1.44**		1.35**		1.34	
Carpenter Shop	0.73*		0.79*		0.72*	
Mechanical Maintenance Assigned	1.13*		1.11**		1.13*	
Plant Protection	1.33**		1.25**		1.21	
Blast Furnace	0.96		0.89*		0.96	
General Finishing and Shipping	1.19		1.16*		1.13	
Stainless Anneal.Picklg. & Processing	1.64		1.38**		1.34	
General Labor	1.03		1.12*		1.21*	
Maintenance NOS	1.02		0.71**		0.72	
Batch Pickling and Sheet Dryers	1.78		1.34		1.98*	
Riggers and Structural	0.91		0.97		0.84*	
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Mason Dept.	1.35*		1.48**		1.57**	
Blast Furnace	0.82		0.83*		0.84	
Transportation and Yard	1.09		1.31**		1.20	

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00013

C.D.D. (UNDERLYING) = 140-205
FIRST 100 IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	84	91.9	0.91	18	0	0.8	--	3291	84	92.7	0.90
GEN TECHNICAL	2368	62	46.8	1.35 *	14	0	0.4	--	2382	62	47.2	1.34 *
COKE PLANT	1635	45	42.9	1.06	908	63	45.9	1.89 **	2543	108	88.8	1.34 *
BLAST FURNACE	2355	63	71.6	0.87	1101	25	30.8	0.77	3456	88	102.4	0.84
OPEN HEARTH	5797	166	167.7	0.99	1836	60	60.7	0.98	7633	226	228.4	0.99
BESSEMER CONVERTER	24	3	1.4	--	0	0	0.0	--	24	3	1.4	--
ELECTRIC FURNACE	734	11	16.6	0.64	7	1	0.2	--	741	12	16.8	0.70
FOUNDRY	890	41	32.5	1.29	253	6	7.9	0.73	1143	47	40.3	1.18
HEAT TREAT AND FORGING	1003	29	29.6	0.98	16	1	0.9	--	1019	30	30.5	0.98
BILLET BLOOM AND SLAB MILLS	2912	101	100.4	1.01	223	6	9.0	0.60	3135	107	109.4	0.97
SOAKING PITS	94	4	2.7	--	14	0	0.1	--	108	4	2.8	--
MERCHANT MILLS	2130	73	76.3	0.95	395	9	16.5	0.50	2525	82	92.8	0.87
PLATE MILL	1547	47	48.7	0.96	239	16	13.1	1.29	1786	63	61.8	1.02
AXLE MILLS	6	0	0.2	--	0	0	0.0	--	6	0	0.2	--
GENERAL FINISHING AND SHIPPING	399	9	10.8	0.82	82	5	7.0	0.69	481	14	17.8	0.77
HOT STRIP MILL	164	7	6.7	1.04	1	0	0.0	--	165	7	6.8	1.04
RAIL MILL ROLLING	339	10	12.8	0.76	46	2	1.6	--	385	12	14.4	0.82
RAIL MILL FINISHING	347	10	9.8	1.03	98	3	3.4	--	445	13	13.2	0.99
STEEL YARDS	88	1	1.9	--	32	0	0.8	--	120	1	2.7	--
STRUCTURAL MILL	1196	31	33.8	0.91	164	6	6.4	0.93	1360	37	40.2	0.91
ANNEALING NORMALIZING	1353	43	41.4	1.04	17	1	0.8	--	1370	44	42.2	1.05
BATCH PICKLING AND SHEET DRYERS	55	1	1.2	--	21	0	0.7	--	76	1	1.9	--
COATING	328	7	7.7	0.90	0	0	0.0	--	328	7	7.7	0.90
COLD REDUCING MILLS	1395	35	29.6	1.20	97	3	3.6	--	1492	38	33.2	1.16
CONTINUOUS PICKLING AND ELEC CLEANING	205	4	3.8	--	0	0	0.0	--	205	4	3.8	--
FLYING SHEARS AND SLITTERS	8	0	0.2	--	0	0	0.0	--	8	0	0.2	--
HOT PACK MILLS	566	32	27.1	1.23	5	1	0.4	--	571	33	27.4	1.25
HOT STRIP ROLLING	1008	29	28.9	1.00	0	0	0.0	--	1008	29	28.9	1.00
SHEET FINISHING AND SHIPPING	1733	46	46.8	0.98	36	1	1.6	--	1769	47	48.4	0.97
STAINLESS ANNEAL PICKLG AND PROCESSING	46	6	2.0	3.32 *	1	0	0.0	--	47	6	2.0	3.32 *
TEMPER PASSING AND COLD ROLLING	369	8	8.1	0.98	0	0	0.0	--	369	8	8.1	0.98
TIN FINISHING AND SHIPPING	396	8	9.8	0.80	1	0	0.0	--	397	8	9.8	0.80
GENERAL LABOR	546	17	15.4	1.11	449	16	17.0	0.93	995	33	32.4	1.02
JANITORS	205	17	15.7	1.09	321	15	14.5	1.04	526	32	30.2	1.07
MASON DEPARTMENT	1305	28	25.5	1.10	438	12	11.2	1.08	1743	40	36.7	1.10
BLACKSMITH SHOP	266	15	10.9	1.41	4	0	0.2	--	270	15	11.1	1.38
CARPENTER SHOP	406	16	16.0	1.00	0	0	0.0	--	406	16	16.0	1.00
ELECTRIC MAINTENANCE ASSIGNED	1605	53	50.9	1.05	5	0	0.1	--	1610	53	50.9	1.04
ELECTRIC SHOP	551	19	19.8	0.96	1	0	0.0	--	552	19	19.8	0.96
GARAGE	147	3	3.6	--	0	0	0.0	--	147	3	3.6	--
LOCOMOTIVE AND CAR REPAIR	121	2	4.3	--	9	1	0.3	--	130	3	4.5	--
MACHINE SHOP	1442	56	47.9	1.18	3	0	0.1	--	1445	56	48.0	1.18
MAINTENANCE NOS	70	3	3.3	--	2	0	0.0	--	72	3	3.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	89	85.0	1.05	60	1	3.1	--	2749	90	88.1	1.02
PAINT SHOP	263	6	7.1	0.84	2	0	0.1	--	265	6	7.2	0.83
PATTERN SHOP	68	1	2.3	--	0	0	0.0	--	68	1	2.3	--
PIPE SHOP	738	16	22.7	0.69	5	3	0.3	--	743	19	23.0	0.82
RIGGERS AND STRUCTURAL	1189	36	41.5	0.86	8	1	0.2	--	1197	37	41.7	0.88
ROLL SHOP	374	16	13.5	1.19	0	0	0.0	--	374	16	13.5	1.19
WELD SHOP	644	10	15.6	0.63	2	0	0.1	--	646	10	15.7	0.63
ALL OTHER	138	5	4.0	1.26	5	1	0.2	--	143	6	4.2	1.43
GENERAL RECEIVING AND STORES	192	6	6.4	0.94	4	1	0.5	--	196	7	6.8	1.03
PLANT PROTECTION	674	27	28.3	0.95	1	0	0.1	--	675	27	28.3	0.95
POWER AND FUEL	1343	38	41.7	0.91	62	3	4.1	--	1405	41	45.7	0.89
TRANSPORTATION AND YARD	1293	40	38.9	1.03	341	12	10.6	1.15	1634	52	49.4	1.06
TUBE MILLS INCLUDES TUBE FINISHING	229	6	7.6	0.78	1	0	0.0	--	230	6	7.6	0.78
RIVER OR MARINE WAYS	218	6	7.7	0.77	1	0	0.0	--	219	6	7.8	0.77
TOTAL	51479	1547	1547.0	1.00	7349	275	275.0	1.00	58828	1822	1822.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 140-205
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	91	98.1	0.92	18	0	0.8	--	3291	91	98.9	0.91
GEN TECHNICAL	2368	62	49.7	1.27	14	0	0.4	--	2382	62	50.1	1.26
COKE PLANT	1635	46	45.3	1.02	908	63	46.9	1.79 **	2543	109	92.2	1.28 *
BLAST FURNACE	2355	67	77.0	0.86	1101	27	32.5	0.80	3456	94	109.6	0.84
OPEN HEARTH	5797	174	179.6	0.96	1836	64	64.5	0.99	7633	238	244.1	0.97
BESSEMER CONVERTER	24	3	1.5	--	0	0	0.0	--	24	3	1.5	--
ELECTRIC FURNACE	734	13	17.5	0.72	7	1	0.2	--	741	14	17.7	0.77
FOUNDRY	890	41	35.1	1.19	253	6	8.4	0.67	1143	47	43.5	1.09
HEAT TREAT AND FORGING	1003	32	32.1	1.00	16	2	0.9	--	1019	34	33.0	1.03
BILLET BLOOM AND SLAB MILLS	2912	108	106.7	1.01	223	7	9.4	0.69	3135	115	116.1	0.99
SOAKING PITS	94	4	2.8	--	14	0	0.1	--	108	4	2.9	--
MERCHANT MILLS	2130	78	80.8	0.96	395	11	17.0	0.61	2525	89	97.7	0.90
PLATE MILL	1547	56	52.9	1.07	239	17	14.2	1.27	1786	73	67.1	1.11
AXLE MILLS	6	0	0.2	--	0	0	0.0	--	6	0	0.2	--
GENERAL FINISHING AND SHIPPING	399	11	11.5	0.95	82	5	7.1	0.68	481	16	18.6	0.85
HOT STRIP MILL	164	7	7.1	0.98	1	0	0.0	--	165	7	7.2	0.98
RAIL MILL ROLLING	339	11	14.0	0.77	46	2	1.7	--	385	13	15.7	0.81
RAIL MILL FINISHING	347	12	10.6	1.15	98	3	3.6	--	445	15	14.2	1.06
STEEL YARDS	88	2	2.1	--	32	0	0.8	--	120	2	2.9	--
STRUCTURAL MILL	1196	33	36.5	0.89	164	6	6.7	0.88	1360	39	43.2	0.89
ANNEALING NORMALIZING	1353	47	44.4	1.07	17	1	0.8	--	1370	48	45.2	1.07
BATCH PICKLING AND SHEET DRYERS	55	1	1.3	--	21	0	0.7	--	76	1	2.0	--
COATING	328	7	8.0	0.87	0	0	0.0	--	328	7	8.0	0.87
COLD REDUCING MILLS	1395	37	31.3	1.20	97	4	3.8	--	1492	41	35.1	1.19
CONTINUOUS PICKLING AND ELEC CLEANING	205	4	3.9	--	0	0	0.0	--	205	4	3.9	--
FLYING SHEARS AND SLITTERS	8	0	0.3	--	0	0	0.0	--	8	0	0.3	--
HOT PACK MILLS	566	32	29.6	1.10	5	1	0.4	--	571	33	30.0	1.12
HOT STRIP ROLLING	1008	29	30.5	0.95	0	0	0.0	--	1008	29	30.5	0.95
SHEET FINISHING AND SHIPPING	1733	47	50.1	0.93	36	1	1.6	--	1769	48	51.8	0.91
STAINLESS ANNEAL PICKLG AND PROCESSING	46	7	2.2	3.50 **	1	0	0.0	--	47	7	2.2	3.50 **
TEMPER PASSING AND COLD ROLLING	369	8	8.4	0.94	0	0	0.0	--	369	8	8.4	0.94
TIN FINISHING AND SHIPPING	396	9	10.2	0.87	1	0	0.0	--	397	9	10.2	0.87
GENERAL LABOR	546	19	16.4	1.17	449	16	17.7	0.89	995	35	34.0	1.03
JANITORS	205	20	17.1	1.19	321	15	15.8	0.94	526	35	32.9	1.07
MASON DEPARTMENT	1305	32	27.1	1.19	438	12	11.8	1.02	1743	44	38.9	1.14
BLACKSMITH SHOP	266	16	11.7	1.39	4	0	0.2	--	270	16	11.9	1.37
CARPENTER SHOP	406	17	17.3	0.98	0	0	0.0	--	406	17	17.3	0.98
ELECTRIC MAINTENANCE ASSIGNED	1605	54	54.2	1.00	5	0	0.1	--	1610	54	54.2	1.00
ELECTRIC SHOP	551	22	21.4	1.03	1	0	0.0	--	552	22	21.4	1.03
GARAGE	147	4	3.8	--	0	0	0.0	--	147	4	3.8	--
LOCOMOTIVE AND CAR REPAIR	121	3	4.6	--	9	1	0.3	--	130	4	4.9	--
MACHINE SHOP	1442	64	51.5	1.26	3	0	0.2	--	1445	64	51.7	1.26
MAINTENANCE NOS	70	3	3.5	--	2	0	0.0	--	72	3	3.5	--
MECHNICAL MAINTENANCE ASSIGNED	2689	92	90.6	1.02	60	2	3.2	--	2749	94	93.8	1.00
PAINT SHOP	263	6	7.5	0.80	2	0	0.1	--	265	6	7.6	0.79
PATTERN SHOP	68	1	2.4	--	0	0	0.0	--	68	1	2.4	--
PIPE SHOP	738	17	24.3	0.69	5	3	0.3	--	743	20	24.6	0.81
RIGGERS AND STRUCTURAL	1189	39	44.5	0.87	8	1	0.2	--	1197	40	44.7	0.89
ROLL SHOP	374	16	14.5	1.11	0	0	0.0	--	374	16	14.5	1.11
WELD SHOP	644	11	16.5	0.66	2	0	0.1	--	646	11	16.5	0.66
ALL OTHER	138	7	4.2	1.68	5	1	0.3	--	143	8	4.5	1.82
GENERAL RECEIVING AND STORES	192	6	6.8	0.88	4	1	0.5	--	196	7	7.3	0.96
PLANT PROTECTION	674	31	30.5	1.02	1	0	0.1	--	675	31	30.6	1.01
POWER AND FUEL	1343	39	45.0	0.86	62	4	4.2	--	1405	43	49.2	0.87
TRANSPORTATION AND YARD	1293	44	42.0	1.05	341	12	11.3	1.07	1634	56	53.3	1.05
TUBE MILLS INCLUDES TUBE FINISHING	229	7	8.1	0.86	1	0	0.0	--	230	7	8.1	0.86
RIVER OR MARINE WAYS	218	6	8.2	0.73	1	0	0.0	--	219	6	8.2	0.72
TOTAL	51479	1655	1655.0	1.00	7349	289	289.0	1.00	58828	1944	1944.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00015

C.O.D. (UNDERLYING) = 140-205
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	150	148.9	1.01	34	3	1.8	--	5146	153	150.7	1.02
GEN TECHNICAL	3684	116	90.5	1.32 **	16	0	0.4	--	3700	116	90.9	1.32 **
COKE PLANT	2381	75	67.6	1.14	1176	77	64.7	1.70 *	3557	152	132.3	1.28 *
BLAST FURNACE	4218	124	152.3	0.78 *	1415	34	43.2	0.74	5633	158	195.5	0.77 **
OPEN HEARTH	9655	298	308.7	0.95	2335	86	84.2	1.04	11990	384	392.9	0.97
BESSEMER CONVERTER	240	17	15.0	1.15	88	2	4.9	--	328	19	19.8	0.95
ELECTRIC FURNACE	1250	26	33.3	0.75	11	1	0.2	--	1261	27	33.5	0.78
FOUNDRY	1781	74	67.0	1.12	345	15	11.3	1.41	2126	89	78.4	1.16
HEAT TREAT AND FORGING	1683	67	56.9	1.23	46	5	3.1	1.71	1729	72	60.0	1.26
BILLET BLOOM AND SLAB MILLS	5783	212	207.5	1.03	419	10	18.4	0.45 *	6202	222	225.9	0.98
SOAKING PITS	148	4	3.7	--	28	1	0.2	--	176	5	4.0	1.28
MERCHANT MILLS	3885	156	159.1	0.97	680	31	35.3	0.84	4565	187	194.4	0.95
PLATE MILL	3005	114	116.6	0.97	436	30	25.1	1.34	3441	144	141.7	1.02
AXLE MILLS	293	19	18.5	1.03	6	0	0.3	--	299	19	18.8	1.01
GENERAL FINISHING AND SHIPPING	1309	51	55.4	0.91	213	11	17.1	0.61	1522	62	72.4	0.84
HOT STRIP MILL	567	20	21.5	0.93	1	0	0.0	--	568	20	21.5	0.92
RAIL MILL ROLLING	852	20	30.5	0.60 *	97	4	4.0	--	949	24	34.4	0.65
RAIL MILL FINISHING	726	28	26.7	1.06	145	6	5.9	1.03	871	34	32.6	1.05
STEEL YARDS	299	10	13.9	0.70	77	1	3.4	--	376	11	17.3	0.62
STRUCTURAL MILL	1972	60	59.3	1.02	252	9	9.9	0.89	2224	69	69.2	1.00
ANNEALING NORMALIZING	2605	90	87.8	1.03	54	4	2.7	--	2659	94	90.5	1.05
BATCH PICKLING AND SHEET DRYERS	137	3	5.1	0.57	50	1	1.8	--	187	4	6.9	0.55
COATING	545	14	12.3	1.16	0	0	0.0	--	545	14	12.3	1.16
COLD REDUCING MILLS	1933	48	43.7	1.11	113	4	4.5	--	2046	52	48.2	1.09
CONTINUOUS PICKLING AND ELEC CLEANING	254	4	4.7	--	0	0	0.0	--	254	4	4.7	--
FLYING SHEARS AND SLITTERS	28	1	0.7	--	0	0	0.0	--	28	1	0.7	--
HOT PACK MILLS	1229	59	59.6	0.98	19	2	1.2	--	1248	61	60.8	1.01
HOT STRIP ROLLING	1623	44	48.3	0.90	2	0	0.0	--	1625	44	48.3	0.90
SHEET FINISHING AND SHIPPING	3306	97	90.7	1.10	108	3	5.1	0.34	3414	100	95.8	1.06
STAINLESS ANNEAL PICKLG AND PROCESSING	384	14	14.5	0.96	2	0	0.0	--	386	14	14.5	0.96
TEMPER PASSING AND COLD ROLLING	783	16	17.5	0.89	0	0	0.0	--	783	16	17.5	0.89
TIN FINISHING AND SHIPPING	668	19	16.2	1.22	1	0	0.0	--	669	19	16.2	1.22
GENERAL LABOR	3153	119	122.7	0.97	1215	60	62.0	0.95	4368	179	184.8	0.96
JANITORS	311	27	23.1	1.18	422	20	19.4	1.04	733	47	42.5	1.12
MASON DEPARTMENT	2511	70	63.5	1.11	696	28	22.4	1.31	3207	98	85.9	1.16
BLACKSMITH SHOP	555	32	26.7	1.21	6	0	0.3	--	561	32	27.0	1.20
CARPENTER SHOP	665	26	32.4	0.79	1	0	0.0	--	666	26	32.5	0.79
ELECTRIC MAINTENANCE ASSIGNED	3200	118	129.5	0.90	8	0	0.2	--	3208	118	129.7	0.90
ELECTRIC SHOP	1620	63	80.9	0.75 *	2	0	0.1	--	1622	63	81.0	0.75 *
GARAGE	242	6	7.4	0.81	2	0	0.2	--	244	6	7.5	0.79
LOCOMOTIVE AND CAR REPAIR	261	8	10.4	0.76	22	2	0.8	--	283	10	11.3	0.88
MACHINE SHOP	2405	97	94.0	1.04	12	0	0.7	--	2417	97	94.7	1.03
MAINTENANCE NOS	558	16	20.2	0.77	5	0	0.1	--	563	16	20.3	0.76
MECHNICAL MAINTENANCE ASSIGNED	6136	234	223.4	1.06	201	10	11.6	0.85	6337	244	235.0	1.05
PAINT SHOP	777	29	25.4	1.15	9	1	0.5	--	786	30	25.9	1.17
PATTERN SHOP	95	2	3.6	--	0	0	0.0	--	95	2	3.6	--
PIPE SHOP	1412	56	55.7	1.01	14	4	1.2	--	1426	60	57.0	1.06
RIGGERS AND STRUCTURAL	2525	114	119.5	0.95	21	1	1.2	--	2546	115	120.7	0.95
ROLL SHOP	502	19	18.4	1.03	3	0	0.3	--	505	19	18.7	1.02
WELD SHOP	758	14	18.8	0.74	2	0	0.1	--	760	14	18.9	0.73
ALL OTHER	1098	54	57.1	0.94	75	8	6.2	1.32	1173	62	63.3	0.98
GENERAL RECEIVING AND STORES	382	16	14.7	1.09	9	1	1.1	--	391	17	15.8	1.08
PLANT PROTECTION	856	40	37.8	1.06	4	0	0.2	--	860	40	38.0	1.06
POWER AND FUEL	2336	83	90.8	0.90	213	9	13.1	0.66	2549	92	103.9	0.87
TRANSPORTATION AND YARD	2842	103	104.5	0.98	633	42	27.4	1.68 **	3475	145	131.9	1.11
TUBE MILLS INCLUDES TUBE FINISHING	635	21	22.5	0.92	10	1	0.4	--	645	22	22.9	0.95
RIVER OR MARINE WAYS	293	10	10.6	0.94	1	0	0.0	--	294	10	10.6	0.94
TOTAL	51479	1547	1547.0	1.00	7349	275	275.0	1.00	58828	1822	1822.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 140-205
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	157	158.3	0.99	34	3	1.9	--	5146	160	160.2	1.00
GEN TECHNICAL	3684	119	96.0	1.27 *	16	0	0.4	--	3700	119	96.4	1.27 *
COKE PLANT	2381	77	71.5	1.10	1176	77	65.9	1.59 *	3557	154	137.4	1.22
BLAST FURNACE	4218	135	163.2	0.80 *	1415	36	45.4	0.74	5633	171	208.6	0.78 **
OPEN HEARTH	9655	319	330.3	0.95	2335	90	89.7	1.01	11990	409	420.0	0.98
BESSEMER CONVERTER	240	18	16.3	1.11	88	3	5.3	0.55	328	21	21.6	0.97
ELECTRIC FURNACE	1250	30	35.6	0.82	11	1	0.3	--	1261	31	35.9	0.88
FOUNDRY	1781	76	72.5	1.05	345	15	12.1	1.30	2126	91	84.6	1.09
HEAT TREAT AND FORGING	1683	71	62.0	1.19	46	7	3.3	2.32	1729	78	65.3	1.25
BILLET BLOOM AND SLAB MILLS	5783	226	220.8	1.03	419	11	19.1	0.49	6202	237	239.9	0.98
SOAKING PITS	148	4	3.9	--	28	1	0.3	--	176	5	4.2	1.21
MERCHANT MILLS	3885	164	168.6	0.96	680	33	36.5	0.87	4565	197	205.1	0.95
PLATE MILL	3005	129	127.0	1.02	436	32	27.0	1.32	3441	161	154.0	1.07
AXLE MILLS	293	20	20.4	0.98	6	1	0.3	--	299	21	20.7	1.02
GENERAL FINISHING AND SHIPPING	1309	57	58.9	0.96	213	11	17.3	0.60	1522	68	76.3	0.88
HOT STRIP MILL	567	20	22.8	0.87	1	0	0.0	--	568	20	22.8	0.87
RAIL MILL ROLLING	852	23	33.1	0.64	97	4	4.3	--	949	27	37.3	0.67
RAIL MILL FINISHING	726	32	29.3	1.12	145	6	6.2	0.96	871	38	35.5	1.09
STEEL YARDS	299	12	15.1	0.78	77	1	3.7	--	376	13	18.8	0.67
STRUCTURAL MILL	1972	64	64.1	1.00	252	9	10.4	0.84	2224	73	74.5	0.97
ANNEALING NORMALIZING	2605	96	94.5	1.02	54	4	2.7	--	2659	100	97.2	1.04
BATCH PICKLING AND SHEET DRYERS	137	3	5.6	0.52	50	1	1.8	--	187	4	7.4	0.51
COATING	545	14	12.8	1.11	0	0	0.0	--	545	14	12.8	1.11
COLD REDUCING MILLS	1933	50	46.1	1.10	113	6	4.8	1.28	2046	56	50.9	1.11
CONTINUOUS PICKLING AND ELEC CLEANING	254	4	4.9	--	0	0	0.0	--	254	4	4.9	--
FLYING SHEARS AND SLITTERS	28	1	0.7	--	0	0	0.0	--	28	1	0.7	--
HOT PACK MILLS	1229	63	65.5	0.94	19	2	1.2	--	1248	65	66.6	0.96
HOT STRIP ROLLING	1623	45	50.9	0.87	2	0	0.0	--	1625	45	50.9	0.87
SHEET FINISHING AND SHIPPING	3306	102	96.9	1.08	108	3	5.1	0.34	3414	105	102.0	1.03
STAINLESS ANNEAL PICKLG AND PROCESSING	384	15	15.9	0.94	2	0	0.0	--	386	15	15.9	0.94
TEMPER PASSING AND COLD ROLLING	783	17	18.2	0.92	0	0	0.0	--	783	17	18.2	0.92
TIN FINISHING AND SHIPPING	668	20	16.8	1.23	1	0	0.0	--	669	20	16.8	1.23
GENERAL LABOR	3153	131	131.5	1.00	1215	62	65.1	0.93	4368	193	196.6	0.98
JANITORS	511	30	25.2	1.21	422	22	21.0	1.06	733	52	46.2	1.15
MASON DEPARTMENT	2511	80	67.4	1.21	696	29	23.4	1.29	3207	109	90.8	1.23
BLACKSMITH SHOP	555	35	28.8	1.23	6	0	0.3	--	561	35	29.1	1.22
CARPENTER SHOP	665	28	35.0	0.79	1	0	0.0	--	666	28	35.0	0.79
ELECTRIC MAINTENANCE ASSIGNED	3200	124	138.9	0.88	8	0	0.3	--	3208	124	139.1	0.88
ELECTRIC SHOP	1620	72	87.0	0.80	2	0	0.1	--	1622	72	87.1	0.80
GARAGE	242	7	7.8	0.89	2	0	0.2	--	244	7	8.0	0.87
LOCOMOTIVE AND CAR REPAIR	261	9	11.2	0.80	22	2	0.9	--	283	11	12.1	0.90
MACHINE SHOP	2405	107	101.0	1.07	12	0	0.7	--	2417	107	101.7	1.06
MAINTENANCE NOS	558	17	21.2	0.78	5	0	0.1	--	563	17	21.3	0.77
MECHNICAL MAINTENANCE ASSIGNED	6136	252	240.1	1.06	201	11	12.2	0.89	6337	263	252.2	1.05
PAINT SHOP	777	30	27.1	1.11	9	1	0.5	--	786	31	27.6	1.13
PATTERN SHOP	95	2	3.9	--	0	0	0.0	--	95	2	3.9	--
PIPE SHOP	1412	60	59.6	1.01	14	4	1.3	--	1426	64	60.8	1.05
RIGGERS AND STRUCTURAL	2525	123	128.4	0.95	21	1	1.2	--	2546	124	129.6	0.95
ROLL SHOP	502	19	19.7	0.96	3	0	0.3	--	505	19	20.0	0.95
WELD SHOP	758	15	19.9	0.75	2	0	0.1	--	760	15	20.0	0.74
ALL OTHER	1098	61	61.6	0.99	75	8	6.3	1.29	1173	69	67.9	1.02
GENERAL RECEIVING AND STORES	382	17	15.8	1.08	9	1	1.1	--	391	18	16.9	1.07
PLANT PROTECTION	856	44	40.8	1.08	4	0	0.2	--	860	44	41.0	1.08
POWER AND FUEL	2336	88	97.9	0.89	213	10	13.9	0.70	2549	98	111.8	0.86
TRANSPORTATION AND YARD	2842	111	112.7	0.98	633	44	28.8	1.67 **	3475	155	141.5	1.11
TUBE MILLS INCLUDES TUBE FINISHING	635	23	24.3	0.94	10	1	0.4	--	645	24	24.8	0.96
RIVER OR MARINE WAYS	293	10	11.2	0.89	1	0	0.0	--	294	10	11.2	0.89
TOTAL	51479	1655	1655.0	1.00	7349	289	289.0	1.00	58828	1944	1944.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 140-205
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	88	92.8	0.94	11	0	0.8	--	2374	88	93.6	0.93
GEN TECHNICAL	1575	64	52.6	1.24	6	0	0.3	--	1581	64	52.9	1.23
COKE PLANT	1180	54	45.1	1.24	664	65	46.9	2.15 **	1844	119	91.9	1.51 **
BLAST FURNACE	1730	72	83.5	0.85	591	20	25.9	0.73	2321	92	109.4	0.82
OPEN HEARTH	4075	179	176.6	1.02	1347	63	59.6	1.09	5422	242	236.2	1.03
BESSEMER CONVERTER	118	12	8.6	1.43	35	0	2.2	--	153	12	10.8	1.11
ELECTRIC FURNACE	509	8	14.6	0.52	4	0	0.1	--	513	8	14.8	0.52
FOUNDRY	764	49	40.6	1.23	169	8	7.9	1.01	933	57	48.5	1.20
HEAT TREAT AND FORGING	708	41	33.9	1.26	20	2	1.4	--	728	43	35.3	1.27
BILLET BLOOM AND SLAB MILLS	2614	121	120.8	1.00	201	6	10.9	0.44	2815	127	131.7	0.96
SOAKING PITS	19	2	1.1	--	0	0	0.0	--	19	2	1.1	--
MERCHANT MILLS	1986	97	100.7	0.96	301	13	20.8	0.58	2287	110	121.5	0.89
PLATE MILL	1442	63	67.0	0.92	246	15	16.4	0.89	1688	78	83.4	0.92
AXLE MILLS	45	4	3.7	--	0	0	0.0	--	45	4	3.7	--
GENERAL FINISHING AND SHIPPING	511	19	24.0	0.78	113	5	11.3	0.40	624	24	35.4	0.66
HOT STRIP MILL	174	5	7.4	0.67	0	0	0.0	--	174	5	7.4	0.67
RAIL MILL ROLLING	288	14	16.3	0.84	32	1	1.7	--	320	15	18.0	0.81
RAIL MILL FINISHING	245	12	12.4	0.96	82	3	3.6	--	327	15	16.1	0.92
STEEL YARDS	68	5	4.5	1.11	11	0	0.5	--	79	5	5.0	1.00
STRUCTURAL MILL	980	37	34.4	1.09	128	6	6.3	0.94	1108	43	40.7	1.07
ANNEALING NORMALIZING	1214	54	49.4	1.11	25	2	1.6	--	1239	56	51.0	1.12
BATCH PICKLING AND SHEET DRYERS	45	3	2.6	--	19	1	1.1	--	64	4	3.6	--
COATING	269	10	7.4	1.39	0	0	0.0	--	269	10	7.4	1.39
COLD REDUCING MILLS	848	30	26.3	1.15	65	3	2.9	--	913	33	29.3	1.14
CONTINUOUS PICKLING AND ELEC CLEANING	147	3	3.4	--	0	0	0.0	--	147	3	3.4	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	48	43.2	1.16	5	0	0.6	--	742	48	43.8	1.14
HOT STRIP ROLLING	864	31	30.9	1.00	1	0	0.0	--	865	31	30.9	1.00
SHEET FINISHING AND SHIPPING	1335	47	44.8	1.06	48	0	2.7	--	1383	47	47.5	0.99
STAINLESS ANNEAL PICKLG AND PROCESSING	148	11	6.5	1.77	0	0	0.0	--	148	11	6.5	1.77
TEMPER PASSING AND COLD ROLLING	335	7	8.5	0.81	0	0	0.0	--	335	7	8.5	0.81
TIN FINISHING AND SHIPPING	348	9	10.4	0.85	0	0	0.0	--	348	9	10.4	0.85
GENERAL LABOR	565	25	30.2	0.82	375	20	22.3	0.88	940	45	52.5	0.84
JANITORS	112	9	8.9	1.01	190	16	11.8	1.42	302	25	20.7	1.23
MASON DEPARTMENT	758	29	25.7	1.14	242	11	10.3	1.07	1000	40	36.0	1.12
BLACKSMITH SHOP	231	18	13.0	1.42	5	0	0.3	--	236	18	13.2	1.39
CARPENTER SHOP	277	10	15.6	0.63	0	0	0.0	--	277	10	15.6	0.63
ELECTRIC MAINTENANCE ASSIGNED	1581	78	80.0	0.97	2	0	0.1	--	1583	76	80.1	0.97
ELECTRIC SHOP	760	35	42.7	0.80	2	0	0.1	--	762	35	42.8	0.80
GARAGE	98	6	3.9	1.55	1	0	0.1	--	99	6	4.0	1.51
LOCOMOTIVE AND CAR REPAIR	104	5	5.4	0.92	7	1	0.4	--	111	6	5.8	1.03
MACHINE SHOP	1270	64	56.3	1.15	2	0	0.1	--	1272	64	56.4	1.15
MAINTENANCE NOS	246	10	10.3	0.96	0	0	0.0	--	246	10	10.3	0.96
MECHANICAL MAINTENANCE ASSIGNED	2290	122	114.0	1.08	73	4	6.5	0.59	2363	126	120.5	1.05
PAINT SHOP	197	11	8.7	1.28	2	0	0.1	--	199	11	8.7	1.27
PATTERN SHOP	64	2	2.9	--	0	0	0.0	--	64	2	2.9	--
PIPE SHOP	657	21	27.7	0.75	6	1	0.5	--	663	22	28.3	0.77
RIGGERS AND STRUCTURAL	1034	40	51.6	0.76	6	1	0.5	--	1040	41	52.1	0.77
ROLL SHOP	314	16	13.5	1.20	0	0	0.0	--	314	16	13.5	1.20
WELD SHOP	460	10	14.1	0.70	2	0	0.1	--	462	10	14.2	0.70
ALL OTHER	302	22	21.5	1.02	9	1	0.7	--	311	23	22.2	1.04
GENERAL RECEIVING AND STORES	168	11	8.9	1.24	2	1	0.3	--	170	12	9.3	1.31
PLANT PROTECTION	469	23	24.7	0.93	1	0	0.1	--	470	23	24.9	0.92
POWER AND FUEL	976	49	50.2	0.97	89	5	7.1	0.69	1065	54	57.3	0.94
TRANSPORTATION AND YARD	871	40	43.4	0.91	194	15	9.3	1.71	1065	55	52.7	1.05
TUBE MILLS INCLUDES TUBE FINISHING	281	13	11.3	1.17	2	1	0.2	--	283	14	11.5	1.25
RIVER OR MARINE WAYS	177	5	7.6	0.64	1	0	0.0	--	178	5	7.7	0.64
TOTAL	36364	1421	1421.0	1.00	4913	252	252.0	1.00	41277	1673	1673.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.B.D. (PREVALENCE) = 140-205
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	95	99.1	0.95	11	0	0.8	--	2374	95	99.9	0.95
GEN TECHNICAL	1575	67	55.8	1.22	6	0	0.3	--	1581	67	56.2	1.21
COKE PLANT	1180	55	47.8	1.18	664	65	47.8	2.04 **	1844	120	95.5	1.43 **
BLAST FURNACE	1730	79	90.0	0.86	591	21	27.6	0.72	2321	100	117.6	0.83
OPEN HEARTH	4075	190	189.5	1.00	1347	67	63.6	1.09	5422	257	253.1	1.02
BESSEMER CONVERTER	118	13	9.4	1.43	35	1	2.4	--	153	14	11.8	1.20
ELECTRIC FURNACE	509	9	15.6	0.55	4	0	0.2	--	513	9	15.8	0.55
FOUNDRY	764	51	44.2	1.17	169	8	8.5	0.93	933	59	52.7	1.14
HEAT TREAT AND FORGING	708	44	36.8	1.24	20	3	1.5	--	728	47	38.3	1.28
BILLET BLOOM AND SLAB MILLS	2614	129	128.4	1.01	201	7	11.3	0.53	2815	136	139.7	0.97
SOAKING PITS	19	2	1.2	--	0	0	0.0	--	19	2	1.2	--
MERCHANT MILLS	1986	103	106.9	0.96	301	15	21.6	0.65	2287	118	128.5	0.90
PLATE MILL	1442	74	73.0	1.02	246	17	17.7	0.95	1688	91	90.7	1.00
AXLE MILLS	45	4	4.1	--	0	0	0.0	--	45	4	4.1	--
GENERAL FINISHING AND SHIPPING	511	21	25.6	0.81	113	5	11.5	0.39	624	26	37.0	0.68
HOT STRIP MILL	174	5	7.8	0.63	0	0	0.0	--	174	5	7.8	0.63
RAIL MILL ROLLING	288	16	17.8	0.88	32	1	1.9	--	320	17	19.6	0.85
RAIL MILL FINISHING	245	14	13.7	1.03	82	3	3.9	--	327	17	17.6	0.96
STEEL YARDS	68	6	4.9	1.23	11	0	0.5	--	79	6	5.5	1.11
STRUCTURAL MILL	980	40	37.0	1.09	128	6	6.6	0.89	1108	46	43.7	1.06
ANNEALING NORMALIZING	1214	57	53.4	1.08	25	2	1.6	--	1239	59	55.0	1.09
BATCH PICKLING AND SHEET DRYERS	45	3	2.9	--	19	1	1.1	--	64	4	3.9	--
COATING	269	10	7.7	1.34	0	0	0.0	--	269	10	7.7	1.34
COLD REDUCING MILLS	848	32	27.8	1.17	65	4	3.1	--	913	36	30.9	1.18
CONTINUOUS PICKLING AND ELEC CLEANING	147	3	3.5	--	0	0	0.0	--	147	3	3.5	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	51	48.0	1.09	5	0	0.6	--	742	51	48.6	1.07
HOT STRIP ROLLING	864	32	32.5	0.98	1	0	0.0	--	865	32	32.5	0.98
SHEET FINISHING AND SHIPPING	1335	48	48.0	1.00	48	0	2.7	--	1383	48	50.7	0.94
STAINLESS ANNEAL PICKLG AND PROCESSING	148	12	7.2	1.75	0	0	0.0	--	148	12	7.2	1.75
TEMPER PASSING AND COLD ROLLING	335	7	8.7	0.79	0	0	0.0	--	335	7	8.7	0.79
TIN FINISHING AND SHIPPING	348	10	10.8	0.92	0	0	0.0	--	348	10	10.8	0.92
GENERAL LABOR	565	29	32.4	0.89	375	28	23.4	0.84	940	49	55.8	0.87
JANITORS	312	11	9.8	1.13	190	16	12.7	1.30	302	27	22.5	1.22
MASON DEPARTMENT	758	35	27.4	1.30	242	11	10.8	1.02	1000	46	38.2	1.22
BLACKSMITH SHOP	231	20	14.0	1.46	5	0	0.3	--	236	20	14.3	1.43
CARPENTER SHOP	277	11	17.0	0.63	0	0	0.0	--	277	11	17.0	0.63
ELECTRIC MAINTENANCE ASSIGNED	1581	81	85.9	0.94	2	0	0.1	--	1583	81	86.0	0.94
ELECTRIC SHOP	760	41	46.1	0.88	2	0	0.1	--	762	41	46.2	0.88
GARAGE	98	7	4.2	1.72	1	0	0.2	--	99	7	4.3	1.65
LOCOMOTIVE AND CAR REPAIR	104	6	5.9	1.02	7	1	0.4	--	111	7	6.3	1.11
MACHINE SHOP	1270	72	60.6	1.21	2	0	0.2	--	1272	72	60.8	1.20
MAINTENANCE NOS	246	11	10.8	1.02	0	0	0.0	--	246	11	10.8	1.02
MECHNICAL MAINTENANCE ASSIGNED	2290	130	122.9	1.07	73	5	6.8	0.71	2363	135	129.6	1.05
PAINT SHOP	197	11	9.3	1.20	2	0	0.1	--	199	11	9.3	1.19
PATTERN SHOP	64	2	3.1	--	0	0	0.0	--	64	2	3.1	--
PIPE SHOP	657	23	29.8	0.76	6	1	0.5	--	663	24	30.4	0.78
RIGGERS AND STRUCTURAL	1034	45	55.5	0.80	6	1	0.5	--	1040	46	56.0	0.81
ROLL SHOP	314	16	14.4	1.12	0	0	0.0	--	314	16	14.4	1.12
WELD SHOP	460	11	14.9	0.73	2	0	0.1	--	462	11	14.9	0.73
ALL OTHER	302	24	23.3	1.03	9	1	0.7	--	311	25	24.0	1.04
GENERAL RECEIVING AND STORES	168	11	9.5	1.16	2	1	0.3	--	170	12	9.9	1.23
PLANT PROTECTION	469	26	26.8	0.97	1	0	0.1	--	470	26	27.0	0.96
POWER AND FUEL	976	52	54.3	0.95	89	6	7.5	0.78	1065	58	61.9	0.93
TRANSPORTATION AND YARD	871	44	47.2	0.93	194	16	9.9	1.70	1065	60	57.1	1.06
TUBE MILLS INCLUDES TUBE FINISHING	281	14	12.2	1.17	2	1	0.2	--	283	15	12.3	1.24
RIVER OR MARINE WAYS	177	5	8.1	0.60	1	0	0.0	--	178	5	8.2	0.60
TOTAL	36364	1521	1521.0	1.00	4913	265	265.0	1.00	41277	1786	1786.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00019

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: All Cancers

ICD CODE: 140-205

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	1.35*	1.27	1.32**	1.27*	1.24	1.22
Stainless Anneal.Picklg. & Processing	3.32*	3.50**	0.96	0.94	1.77	1.75
Blast Furnace	0.87	0.86	0.78*	0.80*	0.85	0.86
Rail Mill Rolling	0.76	0.77	0.60*	0.64	0.84	0.88
Electric Shop	0.96	1.03	0.75*	0.80	0.80	0.88
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Coke Plant	1.89**	1.79**	1.70*	1.59*	2.15**	2.04**
Billet, Bloom,and Slab Mills	0.60	0.69	0.45*	0.49*	0.44	0.53
Transportation and Yard	1.15	1.07	1.68**	1.67**	1.71	1.70

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00020

C.O.D. (UNDERLYING) = 140-148
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	6	3.5	1.84	18	0	0.0	--	3291	6	3.5	1.83
GEN TECHNICAL	2368	4	1.8	--	14	0	0.0	--	2382	4	1.8	--
COKE PLANT	1635	4	1.4	--	908	1	0.7	--	2543	5	2.1	3.98
BLAST FURNACE	2355	2	2.7	--	1101	1	0.4	--	3456	3	3.1	--
OPEN HEARTH	5797	6	6.7	0.87	1836	0	1.3	--	7633	6	8.0	0.72
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.7	--	7	0	0.0	--	741	0	0.7	--
FOUNDRY	890	1	1.1	--	253	0	0.1	--	1143	1	1.2	--
HEAT TREAT AND FORGING	1003	0	1.6	--	16	0	0.0	--	1019	0	1.6	--
BILLET BLOOM AND SLAB MILLS	2912	2	3.8	--	223	0	0.0	--	3135	2	3.8	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	5	2.8	1.97	395	0	0.1	--	2525	5	2.9	1.85
PLATE MILL	1547	1	2.5	--	239	0	0.6	--	1786	1	3.1	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.4	--	82	0	0.2	--	481	0	0.6	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	2	0.5	--	46	0	0.0	--	385	2	0.5	--
RAIL MILL FINISHING	347	0	0.3	--	98	0	0.0	--	445	0	0.3	--
STEEL YARDS	88	0	0.1	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	0	1.8	--	164	0	0.2	--	1360	0	2.0	--
ANNEALING NORMALIZING	1353	2	1.2	--	17	0	0.0	--	1370	2	1.2	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.8	--	97	0	0.1	--	1492	0	0.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	0.1	--	0	0	0.0	--	205	1	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	0.8	--	5	0	0.0	--	571	1	0.8	--
HOT STRIP ROLLING	1008	1	0.8	--	0	0	0.0	--	1008	1	0.8	--
SHEET FINISHING AND SHIPPING	1733	1	1.5	--	36	0	0.0	--	1769	1	1.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.6	--	449	1	0.5	--	995	1	1.1	--
JANITORS	205	1	0.6	--	321	1	0.3	--	526	2	0.8	--
MASON DEPARTMENT	1305	0	0.8	--	438	0	0.2	--	1743	0	1.0	--
BLACKSMITH SHOP	266	0	0.4	--	4	0	0.0	--	270	0	0.4	--
CARPENTER SHOP	406	0	0.6	--	0	0	0.0	--	406	0	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	1.9	--	5	0	0.0	--	1610	3	1.9	--
ELECTRIC SHOP	551	0	0.8	--	1	0	0.0	--	552	0	0.8	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.2	--	9	0	0.0	--	130	0	0.2	--
MACHINE SHOP	1442	1	1.8	--	3	0	0.0	--	1445	1	1.8	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	5	3.3	1.62	60	0	0.1	--	2749	5	3.4	1.59
PAINT SHOP	263	0	0.2	--	2	0	0.0	--	265	0	0.2	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	1	0.8	--	5	0	0.0	--	743	1	0.8	--
RIGGERS AND STRUCTURAL	1189	1	1.6	--	8	0	0.0	--	1197	1	1.6	--
ROLL SHOP	374	0	0.5	--	0	0	0.0	--	374	0	0.5	--
WELD SHOP	644	0	0.5	--	2	0	0.0	--	646	0	0.5	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.2	--
GENERAL RECEIVING AND STORES	192	0	0.2	--	4	0	0.0	--	196	0	0.2	--
PLANT PROTECTION	674	3	1.1	--	1	0	0.0	--	675	3	1.1	--
POWER AND FUEL	1343	3	1.7	--	62	0	0.0	--	1405	3	1.7	--
TRANSPORTATION AND YARD	1293	1	1.6	--	341	1	0.2	--	1634	2	1.8	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.3	--	1	0	0.0	--	230	0	0.3	--
RIVER OR MARINE WAYS	218	0	0.3	--	1	0	0.0	--	219	0	0.3	--
TOTAL	51479	58	58.0	1.00	7349	5	5.0	1.00	58828	63	63.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00021

C.O.D. (PREVALENCE) = 140-148
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	6	3.8	1.67	18	0	0.0	--	3291	6	3.8	1.67
GEN TECHNICAL	2368	4	1.9	--	14	0	0.0	--	2382	4	1.9	--
COKE PLANT	1635	4	1.6	--	908	1	0.7	--	2543	5	2.3	3.28
BLAST FURNACE	2355	3	3.0	--	1101	1	0.4	--	3456	4	3.3	--
OPEN HEARTH	5797	6	7.3	0.80	1836	0	1.3	--	7633	6	8.6	0.67
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	0.8	--	7	0	0.0	--	741	0	0.8	--
FOUNDRY	890	1	1.3	--	253	0	0.1	--	1143	1	1.4	--
HEAT TREAT AND FORGING	1003	0	1.6	--	16	0	0.0	--	1019	0	1.6	--
BILLET BLOOM AND SLAB MILLS	2912	3	4.1	--	223	0	0.0	--	3135	3	4.2	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	5	3.0	1.77	395	0	0.1	--	2525	5	3.2	1.68
PLATE MILL	1547	1	2.5	--	239	0	0.6	--	1786	1	3.1	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.4	--	82	0	0.2	--	481	0	0.6	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	3	0.6	--	46	0	0.0	--	385	3	0.6	--
RAIL MILL FINISHING	347	0	0.4	--	98	0	0.0	--	445	0	0.4	--
STEEL YARDS	88	0	0.1	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	0	1.8	--	164	0	0.2	--	1360	0	2.0	--
ANNEALING NORMALIZING	1353	2	1.5	--	17	0	0.0	--	1370	2	1.5	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.0	--	76	0	0.1	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.9	--	97	0	0.1	--	1492	0	1.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	0.1	--	0	0	0.0	--	205	1	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	1.1	--	5	0	0.0	--	571	1	1.1	--
HOT STRIP ROLLING	1008	1	0.9	--	0	0	0.0	--	1008	1	0.9	--
SHEET FINISHING AND SHIPPING	1733	2	1.9	--	36	0	0.0	--	1769	2	1.9	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.6	--	449	1	0.5	--	995	1	1.1	--
JANITORS	205	1	0.6	--	321	1	0.3	--	526	2	0.9	--
MASON DEPARTMENT	1305	0	1.0	--	438	0	0.2	--	1743	0	1.1	--
BLACKSMITH SHOP	266	0	0.5	--	4	0	0.0	--	270	0	0.5	--
CARPENTER SHOP	406	0	0.7	--	0	0	0.0	--	406	0	0.7	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	2.2	--	5	0	0.0	--	1610	3	2.2	--
ELECTRIC SHOP	551	0	0.8	--	1	0	0.0	--	552	0	0.8	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.2	--	9	0	0.0	--	130	0	0.2	--
MACHINE SHOP	1442	1	1.9	--	3	0	0.0	--	1445	1	1.9	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	5	3.7	1.41	60	0	0.1	--	2749	5	3.8	1.39
PAINT SHOP	263	0	0.3	--	2	0	0.0	--	265	0	0.3	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	1	0.9	--	5	0	0.0	--	743	1	0.9	--
RIGGERS AND STRUCTURAL	1189	1	1.7	--	8	0	0.0	--	1197	1	1.7	--
ROLL SHOP	374	0	0.5	--	0	0	0.0	--	374	0	0.5	--
WELD SHOP	644	0	0.6	--	2	0	0.0	--	646	0	0.6	--
ALL OTHER	138	1	0.2	--	5	0	0.0	--	143	1	0.2	--
GENERAL RECEIVING AND STORES	192	0	0.2	--	4	0	0.0	--	196	0	0.2	--
PLANT PROTECTION	674	3	1.2	--	1	0	0.0	--	675	3	1.2	--
POWER AND FUEL	1343	4	1.8	--	62	0	0.0	--	1405	4	1.9	--
TRANSPORTATION AND YARD	1293	1	1.7	--	341	1	0.2	--	1634	2	2.0	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.4	--	1	0	0.0	--	230	0	0.4	--
RIVER OR MARINE WAYS	218	0	0.4	--	1	0	0.0	--	219	0	0.4	--
TOTAL	51479	64	64.0	1.00	7349	5	5.0	1.00	58828	69	69.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00022

C.O.D. (UNDERLYING) = 140-148
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	11	5.6	2.24 *	34	0	0.0	--	5146	11	5.6	2.22 *
GEN TECHNICAL	3684	9	3.4	3.12 **	16	0	0.0	--	3700	9	3.4	3.12 **
COKE PLANT	2381	4	2.2	--	1176	1	1.0	--	3557	5	3.1	2.21
BLAST FURNACE	4218	7	5.9	1.23	1415	1	0.5	--	5633	8	6.3	1.32
OPEN HEARTH	9655	11	12.8	0.81	2335	1	1.8	--	11990	12	14.6	0.76
BESSEMER CONVERTER	240	2	0.5	--	88	0	0.0	--	328	2	0.5	--
ELECTRIC FURNACE	1250	0	1.3	--	11	0	0.0	--	1261	0	1.3	--
FOUNDRY	1781	3	2.5	--	345	0	0.1	--	2126	3	2.6	--
HEAT TREAT AND FORGING	1683	1	3.1	--	46	0	0.1	--	1729	1	3.3	--
BILLET BLOOM AND SLAB MILLS	5783	10	8.0	1.38	419	0	0.1	--	6202	10	8.1	1.35
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	6	5.7	1.07	680	0	0.3	--	4565	6	6.0	0.99
PLATE MILL	3005	6	5.9	1.02	436	1	1.1	--	3441	7	7.0	1.00
AXLE MILLS	293	1	1.0	--	6	0	0.0	--	299	1	1.0	--
GENERAL FINISHING AND SHIPPING	1309	2	2.3	--	213	0	0.4	--	1522	2	2.7	--
HOT STRIP MILL	567	0	0.6	--	1	0	0.0	--	568	0	0.6	--
RAIL MILL ROLLING	852	2	1.1	--	97	0	0.0	--	949	2	1.1	--
RAIL MILL FINISHING	726	0	1.0	--	145	0	0.0	--	871	0	1.0	--
STEEL YARDS	299	0	0.7	--	77	0	0.1	--	376	0	0.8	--
STRUCTURAL MILL	1972	0	3.2	--	252	0	0.3	--	2224	0	3.5	--
ANNEALING NORMALIZING	2605	3	2.5	--	54	0	0.0	--	2659	3	2.5	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.2	--	50	0	0.0	--	187	0	0.2	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	0	1.2	--	113	0	0.1	--	2046	0	1.2	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	0.1	--	0	0	0.0	--	254	1	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	3	1.9	--	19	0	0.0	--	1248	3	1.9	--
HOT STRIP ROLLING	1623	1	1.3	--	2	0	0.0	--	1625	1	1.3	--
SHEET FINISHING AND SHIPPING	3306	3	3.0	--	108	0	0.0	--	3414	3	3.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.5	--	2	0	0.0	--	386	0	0.5	--
TEMPER PASSING AND COLD ROLLING	783	0	0.4	--	0	0	0.0	--	783	0	0.4	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	3	5.1	0.55	1215	2	1.7	--	4368	5	6.8	0.67
JANITORS	311	2	0.9	--	422	1	0.3	--	733	3	1.2	--
MASON DEPARTMENT	2511	3	2.3	--	696	1	0.3	--	3207	4	2.6	--
BLACKSMITH SHOP	555	0	1.1	--	6	0	0.0	--	561	0	1.1	--
CARPENTER SHOP	665	0	1.3	--	1	0	0.0	--	666	0	1.3	--
ELECTRIC MAINTENANCE ASSIGNED	3200	6	4.8	1.28	8	0	0.0	--	3208	6	4.8	1.28
ELECTRIC SHOP	1620	3	3.5	--	2	0	0.0	--	1622	3	3.5	--
GARAGE	242	0	0.3	--	2	0	0.0	--	244	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.4	--	22	0	0.0	--	283	0	0.5	--
MACHINE SHOP	2405	3	3.6	--	12	0	0.0	--	2417	3	3.6	--
MAINTENANCE NOS	558	0	0.5	--	5	0	0.0	--	563	0	0.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	9	9.0	0.99	201	0	0.2	--	6337	9	9.2	0.97
PAINT SHOP	777	1	0.9	--	9	0	0.0	--	786	1	0.9	--
PATTERN SHOP	95	0	0.2	--	0	0	0.0	--	95	0	0.2	--
PIPE SHOP	1412	6	2.1	3.12 *	14	0	0.0	--	1426	6	2.1	3.09 *
RIGGERS AND STRUCTURAL	2525	5	4.7	1.07	21	0	0.0	--	2546	5	4.7	1.07
ROLL SHOP	502	0	0.7	--	3	0	0.0	--	505	0	0.7	--
WELD SHOP	758	0	0.6	--	2	0	0.0	--	760	0	0.6	--
ALL OTHER	1098	2	2.1	--	75	0	0.1	--	1173	2	2.2	--
GENERAL RECEIVING AND STORES	382	1	0.5	--	9	0	0.0	--	391	1	0.5	--
PLANT PROTECTION	856	3	1.5	--	4	0	0.0	--	860	3	1.5	--
POWER AND FUEL	2336	3	3.7	--	213	0	0.1	--	2549	3	3.8	--
TRANSPORTATION AND YARD	2842	6	4.4	1.42	633	1	0.5	--	3475	7	4.9	1.49
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.8	--	10	0	0.0	--	645	0	0.8	--
RIVER OR MARINE WAYS	293	0	0.4	--	1	0	0.0	--	294	0	0.4	--
TOTAL	51479	58	58.0	1.00	7349	5	5.0	1.00	58828	63	63.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 140-148
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	11	6.0	2.04	34	0	0.0	--	5146	11	6.1	2.02
GEN TECHNICAL	3684	9	3.6	2.87 **	16	0	0.0	--	3700	9	3.6	2.87 **
COKE PLANT	2381	4	2.5	--	1176	1	1.0	--	3557	5	3.5	1.78
BLAST FURNACE	4218	9	6.4	1.50	1415	1	0.5	--	5633	10	6.9	1.57
OPEN HEARTH	9655	11	13.7	0.74	2335	1	1.8	--	11990	12	15.5	0.70
BESSEMER CONVERTER	240	2	0.6	--	88	0	0.0	--	328	2	0.6	--
ELECTRIC FURNACE	1250	0	1.6	--	11	0	0.0	--	1261	0	1.6	--
FOUNDRY	1781	3	2.9	--	345	0	0.1	--	2126	3	3.0	--
HEAT TREAT AND FORGING	1683	1	3.1	--	46	0	0.1	--	1729	1	3.3	--
BILLET BLOOM AND SLAB MILLS	5783	12	8.8	1.53	419	0	0.1	--	6202	12	8.9	1.51
SOAKING PITS	148	0	0.2	--	28	0	0.0	--	176	0	0.2	--
MERCHANT MILLS	3885	6	6.2	0.96	680	0	0.3	--	4565	6	6.5	0.90
PLATE MILL	3005	6	6.0	1.00	436	1	1.1	--	3441	7	7.1	0.98
AXLE MILLS	293	1	1.0	--	6	0	0.0	--	299	1	1.0	--
GENERAL FINISHING AND SHIPPING	1309	2	2.4	--	213	0	0.4	--	1522	2	2.9	--
HOT STRIP MILL	567	0	0.7	--	1	0	0.0	--	568	0	0.7	--
RAIL MILL ROLLING	852	3	1.3	--	97	0	0.0	--	949	3	1.3	--
RAIL MILL FINISHING	726	0	1.1	--	145	0	0.0	--	871	0	1.1	--
STEEL YARDS	299	0	0.7	--	77	0	0.1	--	376	0	0.8	--
STRUCTURAL MILL	1972	0	3.2	--	252	0	0.3	--	2224	0	3.5	--
ANNEALING NORMALIZING	2605	3	3.3	--	54	0	0.0	--	2659	3	3.3	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.2	--	50	0	0.0	--	187	0	0.2	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	0	1.3	--	113	0	0.1	--	2046	0	1.4	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	0.1	--	0	0	0.0	--	254	1	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	3	2.6	--	19	0	0.0	--	1248	3	2.6	--
HOT STRIP ROLLING	1623	1	1.5	--	2	0	0.0	--	1625	1	1.5	--
SHEET FINISHING AND SHIPPING	3306	5	3.7	1.68	108	0	0.0	--	3414	5	3.7	1.68
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.7	--	2	0	0.0	--	386	0	0.7	--
TEMPER PASSING AND COLD ROLLING	783	0	0.4	--	0	0	0.0	--	783	0	0.4	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	3	5.6	0.50	1215	2	1.7	--	4368	5	7.3	0.62
JANITORS	311	2	0.9	--	422	1	0.3	--	733	3	1.3	--
MASON DEPARTMENT	2511	3	2.5	--	696	1	0.3	--	3207	4	2.8	--
BLACKSMITH SHOP	555	0	1.1	--	6	0	0.0	--	561	0	1.2	--
CARPENTER SHOP	665	0	1.4	--	1	0	0.0	--	666	0	1.4	--
ELECTRIC MAINTENANCE ASSIGNED	3200	7	5.4	1.33	8	0	0.0	--	3208	7	5.4	1.33
ELECTRIC SHOP	1620	4	3.6	--	2	0	0.0	--	1622	4	3.6	--
GARAGE	242	0	0.3	--	2	0	0.0	--	244	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.5	--	22	0	0.0	--	283	0	0.5	--
MACHINE SHOP	2405	3	3.9	--	12	0	0.0	--	2417	3	3.9	--
MAINTENANCE NOS	558	1	0.5	--	5	0	0.0	--	563	1	0.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	11	10.0	1.14	201	0	0.2	--	6337	11	10.2	1.11
PAINT SHOP	777	1	1.0	--	9	0	0.0	--	786	1	1.0	--
PATTERN SHOP	95	0	0.2	--	0	0	0.0	--	95	0	0.2	--
PIPE SHOP	1412	6	2.3	2.80 *	14	0	0.0	--	1426	6	2.3	2.77 *
RIGGERS AND STRUCTURAL	2525	5	5.1	0.98	21	0	0.0	--	2546	5	5.1	0.98
ROLL SHOP	502	0	0.7	--	3	0	0.0	--	505	0	0.8	--
WELD SHOP	758	0	0.7	--	2	0	0.0	--	760	0	0.7	--
ALL OTHER	1098	3	2.4	--	75	0	0.1	--	1173	3	2.6	--
GENERAL RECEIVING AND STORES	382	1	0.6	--	9	0	0.0	--	391	1	0.6	--
PLANT PROTECTION	856	3	1.7	--	4	0	0.0	--	860	3	1.7	--
POWER AND FUEL	2336	4	4.0	--	213	0	0.1	--	2549	4	4.1	--
TRANSPORTATION AND YARD	2842	6	4.8	1.29	633	1	0.5	--	3475	7	5.3	1.36
TUBE MILLS INCLUDES TUBE FINISHING	635	0	1.0	--	10	0	0.0	--	645	0	1.0	--
RIVER OR MARINE WAYS	293	0	0.5	--	1	0	0.0	--	294	0	0.5	--
TOTAL	51479	64	64.0	1.00	7349	5	5.0	1.00	58828	69	69.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00024

C.O.D. (UNDERLYING) = 140-148
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	7	3.5	2.16	11	0	0.0	--	2374	7	3.5	2.15
GEN TECHNICAL	1575	2	2.0	--	6	0	0.0	--	1581	2	2.0	--
COKE PLANT	1180	4	1.5	--	664	1	0.7	--	1844	5	2.2	3.58
BLAST FURNACE	1730	5	3.2	1.63	591	1	0.3	--	2321	6	3.6	1.80
OPEN HEARTH	4075	8	7.3	1.12	1347	1	1.5	--	5422	9	8.8	1.03
BESSEMER CONVERTER	118	2	0.3	--	35	0	0.0	--	153	2	0.3	--
ELECTRIC FURNACE	509	0	0.6	--	4	0	0.0	--	513	0	0.6	--
FOUNDRY	764	2	1.5	--	169	0	0.1	--	933	2	1.6	--
HEAT TREAT AND FORGING	708	1	1.9	--	20	0	0.0	--	728	1	1.9	--
BILLET BLOOM AND SLAB MILLS	2614	5	4.6	1.11	201	0	0.1	--	2815	5	4.6	1.10
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	3	3.7	--	301	0	0.2	--	2287	3	3.9	--
PLATE MILL	1442	3	3.4	--	246	0	0.7	--	1688	3	4.2	--
AXLE MILLS	45	0	0.2	--	0	0	0.0	--	45	0	0.2	--
GENERAL FINISHING AND SHIPPING	511	1	0.9	--	113	0	0.3	--	624	1	1.2	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	2	0.7	--	32	0	0.0	--	320	2	0.7	--
RAIL MILL FINISHING	245	0	0.5	--	82	0	0.0	--	327	0	0.5	--
STEEL YARDS	68	0	0.3	--	11	0	0.0	--	79	0	0.3	--
STRUCTURAL MILL	980	0	1.7	--	128	0	0.2	--	1108	0	1.9	--
ANNEALING NORMALIZING	1214	2	1.4	--	25	0	0.0	--	1239	2	1.4	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.1	--	19	0	0.0	--	64	0	0.1	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.7	--	65	0	0.1	--	913	0	0.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	0.1	--	0	0	0.0	--	147	1	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	2	1.4	--	5	0	0.0	--	742	2	1.4	--
HOT STRIP ROLLING	864	1	0.8	--	1	0	0.0	--	865	1	0.8	--
SHEET FINISHING AND SHIPPING	1335	1	1.5	--	48	0	0.0	--	1383	1	1.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.2	--	0	0	0.0	--	148	0	0.2	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	1.2	--	375	1	0.7	--	940	1	1.9	--
JANITORS	112	2	0.3	--	190	1	0.3	--	302	3	0.6	--
MASON DEPARTMENT	758	1	0.9	--	242	0	0.2	--	1000	1	1.1	--
BLACKSMITH SHOP	231	0	0.6	--	5	0	0.0	--	236	0	0.6	--
CARPENTER SHOP	277	0	0.6	--	0	0	0.0	--	277	0	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	3.1	--	2	0	0.0	--	1583	4	3.1	--
ELECTRIC SHOP	760	2	1.8	--	2	0	0.0	--	762	2	1.8	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.2	--	7	0	0.0	--	111	0	0.2	--
MACHINE SHOP	1270	2	2.2	--	2	0	0.0	--	1272	2	2.2	--
MAINTENANCE NOS	246	0	0.2	--	0	0	0.0	--	246	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	4	4.7	--	73	0	0.1	--	2363	4	4.8	--
PAINT SHOP	197	0	0.3	--	2	0	0.0	--	199	0	0.3	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	1	1.0	--	6	0	0.0	--	663	1	1.0	--
RIGGERS AND STRUCTURAL	1034	2	2.0	--	6	0	0.0	--	1040	2	2.0	--
ROLL SHOP	314	0	0.5	--	0	0	0.0	--	314	0	0.5	--
WELD SHOP	460	0	0.4	--	2	0	0.0	--	462	0	0.4	--
ALL OTHER	302	0	0.8	--	9	0	0.0	--	311	0	0.9	--
GENERAL RECEIVING AND STORES	168	1	0.3	--	2	0	0.0	--	170	1	0.3	--
PLANT PROTECTION	469	2	1.0	--	1	0	0.0	--	470	2	1.0	--
POWER AND FUEL	976	2	2.1	--	89	0	0.1	--	1065	2	2.1	--
TRANSPORTATION AND YARD	871	2	1.8	--	194	1	0.2	--	1065	3	2.0	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.4	--	2	0	0.0	--	283	0	0.4	--
RIVER OR MARINE WAYS	177	0	0.3	--	1	0	0.0	--	178	0	0.3	--
TOTAL	36364	54	54.0	1.00	4913	5	5.0	1.00	41277	59	59.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 140-148
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	7	3.8	1.98	11	0	0.0	--	2374	7	3.8	1.97
GEN TECHNICAL	1575	2	2.1	--	6	0	0.0	--	1581	2	2.2	--
COKE PLANT	1180	4	1.7	--	664	1	0.7	--	1844	5	2.4	3.02
BLAST FURNACE	1730	6	3.5	1.83	591	1	0.3	--	2321	7	3.8	1.98
OPEN HEARTH	4075	8	7.8	1.03	1347	1	1.5	--	5422	9	9.3	0.96
BESSEMER CONVERTER	118	2	0.3	--	35	0	0.1	--	153	2	0.4	--
ELECTRIC FURNACE	509	0	0.7	--	4	0	0.0	--	513	0	0.7	--
FOUNDRY	764	2	1.8	--	169	0	0.1	--	933	2	1.9	--
HEAT TREAT AND FORGING	708	1	1.9	--	20	0	0.0	--	728	1	1.9	--
BILLET BLOOM AND SLAB MILLS	2614	6	4.9	1.27	201	0	0.1	--	2815	6	5.0	1.25
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	3	4.0	--	301	0	0.2	--	2267	3	4.2	--
PLATE MILL	1442	3	3.5	--	246	0	0.7	--	1688	3	4.2	--
AXLE MILLS	45	0	0.2	--	0	0	0.0	--	45	0	0.2	--
GENERAL FINISHING AND SHIPPING	511	1	1.0	--	113	0	0.3	--	624	1	1.3	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	3	0.8	--	32	0	0.0	--	320	3	0.8	--
RAIL MILL FINISHING	245	0	0.6	--	82	0	0.0	--	327	0	0.6	--
STEEL YARDS	68	0	0.3	--	11	0	0.0	--	79	0	0.3	--
STRUCTURAL MILL	980	0	1.7	--	128	0	0.2	--	1108	0	1.9	--
ANNEALING NORMALIZING	1214	2	1.7	--	25	0	0.0	--	1239	2	1.7	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.1	--	19	0	0.0	--	64	0	0.1	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.8	--	65	0	0.1	--	913	0	0.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	0.1	--	0	0	0.0	--	147	1	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	2	1.9	--	5	0	0.0	--	742	2	1.9	--
HOT STRIP ROLLING	864	1	0.9	--	1	0	0.0	--	865	1	0.9	--
SHEET FINISHING AND SHIPPING	1335	2	1.9	--	48	0	0.0	--	1383	2	1.9	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.3	--	0	0	0.0	--	148	0	0.3	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GEWERAL LABOR	565	0	1.3	--	375	1	0.7	--	940	1	2.0	--
JANITORS	112	2	0.4	--	190	1	0.3	--	302	3	0.6	--
MASON DEPARTMENT	758	1	1.0	--	242	0	0.2	--	1000	1	1.2	--
BLACKSMITH SHOP	231	0	0.6	--	5	0	0.0	--	236	0	0.6	--
CARPENTER SHOP	277	0	0.7	--	0	0	0.0	--	277	0	0.7	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	3.5	--	2	0	0.0	--	1583	4	3.5	--
ELECTRIC SHOP	760	3	1.9	--	2	0	0.0	--	762	3	1.9	--
GARAGE	98	0	0.2	--	1	0	0.0	--	99	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.2	--	7	0	0.0	--	111	0	0.3	--
MACHINE SHOP	1270	2	2.4	--	2	0	0.0	--	1272	2	2.4	--
MAINTENANCE NOS	246	1	0.3	--	0	0	0.0	--	246	1	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	5.2	0.95	73	0	0.1	--	2363	5	5.3	0.93
PAINT SHOP	197	0	0.3	--	2	0	0.0	--	199	0	0.3	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	1	1.1	--	6	0	0.0	--	663	1	1.2	--
RIGGERS AND STRUCTURAL	1034	2	2.2	--	6	0	0.0	--	1040	2	2.2	--
ROLL SHOP	314	0	0.6	--	0	0	0.0	--	314	0	0.6	--
WELD SHOP	460	0	0.5	--	2	0	0.0	--	462	0	0.5	--
ALL OTHER	302	1	1.0	--	9	0	0.0	--	311	1	1.0	--
GENERAL RECEIVING AND STORES	168	1	0.4	--	2	0	0.0	--	170	1	0.4	--
PLANT PROTECTION	469	2	1.1	--	1	0	0.0	--	470	2	1.1	--
POWER AND FUEL	976	3	2.2	--	89	0	0.1	--	1065	3	2.3	--
TRANSPORTATION AND YARD	871	2	2.0	--	194	1	0.2	--	1065	3	2.2	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.5	--	2	0	0.0	--	283	0	0.5	--
RIVER OR MARINE WAYS	177	0	0.4	--	1	0	0.0	--	178	0	0.4	--
TOTAL	36364	59	59.0	1.00	4913	5	5.0	1.00	41277	64	64.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00026

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Buccal and Pharyngeal Organs

ICD CODE: 140-148

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Administrative and Clerical	1.84	1.67	2.24*	2.04	2.16	1.98
General Technical	--	--	3.12**	2.87**	--	--
Pipe Shop	--	--	3.12*	2.80*	--	--
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00027

C.O.D. (UNDERLYING) = 150-159
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	25	32.9	0.75	18	0	0.2	--	3291	25	33.1	0.74
GEN TECHNICAL	2368	21	16.0	1.33	14	0	0.1	--	2382	21	16.1	1.33
COKE PLANT	1635	17	15.3	1.13	908	10	11.2	0.84	2543	27	26.4	1.03
BLAST FURNACE	2355	33	27.1	1.24	1101	8	9.4	0.82	3456	41	36.5	1.14
OPEN HEARTH	5797	66	60.7	1.10	1836	20	20.1	0.99	7633	86	80.8	1.08
BESSEMER CONVERTER	24	0	0.5	--	0	0	0.0	--	24	0	0.5	--
ELECTRIC FURNACE	734	4	5.3	0.74	7	0	0.0	--	741	4	5.3	0.73
FOUNDRY	890	14	11.9	1.19	253	1	2.3	--	1143	15	14.2	1.06
HEAT TREAT AND FORGING	1003	9	10.9	0.81	16	0	0.3	--	1019	9	11.2	0.79
BILLET BLOOM AND SLAB MILLS	2912	39	37.0	1.06	223	1	2.5	--	3135	40	39.5	1.02
SOAKING PITS	94	1	1.0	--	14	0	0.0	--	108	1	1.1	--
MERCHANT MILLS	2130	20	28.4	0.67	395	6	4.2	1.54	2525	26	32.6	0.77
PLATE MILL	1547	16	18.0	0.88	239	7	5.3	1.46	1786	23	23.2	0.99
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	5	3.9	1.29	82	3	1.7	--	481	8	5.7	1.45
HOT STRIP MILL	164	4	2.4	--	1	0	0.0	--	165	4	2.4	--
RAIL MILL ROLLING	339	4	4.9	--	46	1	0.4	--	385	5	5.3	0.94
RAIL MILL FINISHING	347	5	3.5	1.45	98	1	0.9	--	445	6	4.4	1.40
STEEL YARDS	88	1	0.7	--	32	0	0.2	--	120	1	0.9	--
STRUCTURAL MILL	1196	11	12.3	0.88	164	2	2.2	--	1360	13	14.5	0.89
ANNEALING NORMALIZING	1353	16	14.1	1.15	17	0	0.2	--	1370	16	14.3	1.13
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.2	--	76	0	0.6	--
COATING	328	3	2.5	--	0	0	0.0	--	328	3	2.5	--
COLD REDUCING MILLS	1395	13	9.7	1.37	97	2	1.2	--	1492	15	10.9	1.41
CONTINUOUS PICKLING AND ELEC CLEANING	205	3	1.1	--	0	0	0.0	--	205	3	1.1	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	11	9.8	1.15	5	0	0.1	--	571	11	9.9	1.14
HOT STRIP ROLLING	1008	6	9.5	0.61	0	0	0.0	--	1008	6	9.5	0.61
SHEET FINISHING AND SHIPPING	1733	15	15.6	0.96	36	0	0.3	--	1769	15	15.9	0.93
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.8	--	1	0	0.0	--	47	2	0.8	--
TEMPER PASSING AND COLD ROLLING	369	1	2.6	--	0	0	0.0	--	369	1	2.6	--
TIN FINISHING AND SHIPPING	396	1	3.2	--	1	0	0.0	--	397	1	3.2	--
GENERAL LABOR	546	8	5.6	1.44	449	6	5.2	1.16	995	14	10.9	1.31
JANITORS	205	10	6.9	1.49	321	3	4.2	--	526	13	11.0	1.19
MASON DEPARTMENT	1305	3	9.0	0.32	438	5	3.4	1.52	1743	8	12.4	0.63
BLACKSMITH SHOP	266	5	4.1	1.21	4	0	0.1	--	270	5	4.2	1.19
CARPENTER SHOP	406	7	6.0	1.18	0	0	0.0	--	406	7	6.0	1.18
ELECTRIC MAINTENANCE ASSIGNED	1605	18	18.1	0.99	5	0	0.0	--	1610	18	18.1	0.99
ELECTRIC SHOP	551	5	7.3	0.68	1	0	0.0	--	552	5	7.3	0.68
GARAGE	147	2	1.3	--	0	0	0.0	--	147	2	1.3	--
LOCOMOTIVE AND CAR REPAIR	121	0	1.5	--	9	0	0.1	--	130	0	1.6	--
MACHINE SHOP	1442	23	18.0	1.29	3	0	0.0	--	1445	23	18.1	1.29
MAINTENANCE NOS	70	0	1.2	--	2	0	0.0	--	72	0	1.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	35	30.3	1.17	60	0	0.9	--	2749	35	31.2	1.14
PAINT SHOP	263	2	2.5	--	2	0	0.0	--	265	2	2.5	--
PATTERN SHOP	68	1	0.8	--	0	0	0.0	--	68	1	0.8	--
PIPE SHOP	738	5	8.0	0.62	5	0	0.0	--	743	5	8.0	0.61
RIGGERS AND STRUCTURAL	1189	13	15.2	0.85	8	1	0.1	--	1197	14	15.3	0.91
ROLL SHOP	374	6	5.0	1.20	0	0	0.0	--	374	6	5.0	1.20
WELD SHOP	644	4	5.1	0.78	2	0	0.0	--	646	4	5.1	0.77
ALL OTHER	138	2	1.4	--	5	0	0.1	--	143	2	1.4	--
GENERAL RECEIVING AND STORES	192	0	2.3	--	4	1	0.2	--	196	1	2.5	--
PLANT PROTECTION	674	8	10.3	0.77	1	0	0.0	--	675	8	10.3	0.77
POWER AND FUEL	1343	9	15.1	0.59	62	1	1.2	--	1405	10	16.2	0.61
TRANSPORTATION AND YARD	1293	21	13.9	1.55	341	3	3.3	--	1634	24	17.3	1.42
TUBE MILLS INCLUDES TUBE FINISHING	229	2	2.5	--	1	0	0.0	--	230	2	2.5	--
RIVER OR MARINE WAYS	218	1	2.7	--	1	0	0.0	--	219	1	2.7	--
TOTAL	51479	556	556.0	1.00	7349	82	82.0	1.00	58828	638	638.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00023

C.O.D. (PREVALENCE) = 150-159
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	30	35.7	0.83	18	0	0.3	--	3291	30	35.9	0.82
GEN TECHNICAL	2368	21	17.3	1.23	14	0	0.1	--	2382	21	17.4	1.22
COKE PLANT	1635	17	16.2	1.06	908	10	11.4	0.82	2543	27	27.5	0.98
BLAST FURNACE	2355	34	29.5	1.17	1101	8	10.2	0.74	3456	42	39.7	1.07
OPEN HEARTH	5797	70	65.7	1.08	1836	22	21.9	1.00	7633	92	87.7	1.06
BESSEMER CONVERTER	24	0	0.6	--	0	0	0.0	--	24	0	0.6	--
ELECTRIC FURNACE	734	4	5.6	0.69	7	0	0.0	--	741	4	5.7	0.69
FOUNDRY	890	14	12.9	1.09	253	1	2.6	--	1143	15	15.5	0.97
HEAT TREAT AND FORGING	1003	9	11.9	0.74	16	1	0.3	--	1019	10	12.2	0.80
BILLET BLOOM AND SLAB MILLS	2912	43	39.8	1.09	223	1	2.6	--	3135	44	42.4	1.05
SOAKING PITS	94	1	1.1	--	14	0	0.0	--	108	1	1.2	--
MERCHANT MILLS	2130	25	30.5	0.80	395	7	4.4	1.76	2525	32	34.9	0.91
PLATE MILL	1547	21	19.6	1.09	239	8	5.9	1.51	1786	29	25.5	1.17
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	5	4.2	1.19	82	3	1.8	--	481	8	6.0	1.36
HOT STRIP MILL	164	4	2.6	--	1	0	0.0	--	165	4	2.6	--
RAIL MILL ROLLING	339	4	5.5	0.71	46	1	0.5	--	385	5	6.0	0.82
RAIL MILL FINISHING	347	5	4.0	1.28	98	1	1.0	--	445	6	5.0	1.23
STEEL YARDS	88	1	0.8	--	32	0	0.3	--	120	1	1.0	--
STRUCTURAL MILL	1196	11	13.4	0.80	164	2	2.4	--	1360	13	15.8	0.81
ANNEALING NORMALIZING	1353	16	14.9	1.08	17	0	0.2	--	1370	16	15.1	1.07
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.2	--	76	0	0.6	--
COATING	328	3	2.7	--	0	0	0.0	--	328	3	2.7	--
COLD REDUCING MILLS	1395	13	10.2	1.30	97	2	1.2	--	1492	15	11.4	1.34
CONTINUOUS PICKLING AND ELEC CLEANING	205	3	1.2	--	0	0	0.0	--	205	3	1.2	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	11	10.5	1.06	5	0	0.1	--	571	11	10.5	1.05
HOT STRIP ROLLING	1008	6	9.9	0.58	0	0	0.0	--	1008	6	9.9	0.58
SHEET FINISHING AND SHIPPING	1733	16	16.5	0.97	36	0	0.3	--	1769	16	16.8	0.94
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.8	--	1	0	0.0	--	47	2	0.8	--
TEMPER PASSING AND COLD ROLLING	369	1	2.6	--	0	0	0.0	--	369	1	2.6	--
TIN FINISHING AND SHIPPING	396	1	3.5	--	1	0	0.0	--	397	1	3.5	--
GENERAL LABOR	546	9	6.0	1.53	449	6	5.5	1.10	995	15	11.5	1.33
JANITORS	205	11	7.4	1.52	321	3	4.5	--	526	14	11.9	1.19
MASON DEPARTMENT	1305	5	9.7	0.50	438	5	3.7	1.40	1743	10	13.4	0.74
BLACKSMITH SHOP	266	6	4.5	1.35	4	0	0.1	--	270	6	4.6	1.32
CARPENTER SHOP	406	7	6.5	1.08	0	0	0.0	--	406	7	6.5	1.08
ELECTRIC MAINTENANCE ASSIGNED	1605	19	19.5	0.97	5	0	0.0	--	1610	19	19.5	0.97
ELECTRIC SHOP	551	8	7.9	1.01	1	0	0.0	--	552	8	8.0	1.01
GARAGE	147	2	1.3	--	0	0	0.0	--	147	2	1.3	--
LOCOMOTIVE AND CAR REPAIR	121	1	1.6	--	9	0	0.1	--	130	1	1.8	--
MACHINE SHOP	1442	27	19.6	1.41	3	0	0.1	--	1445	27	19.6	1.40
MAINTENANCE NOS	70	0	1.3	--	2	0	0.0	--	72	0	1.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	35	32.8	1.07	60	0	1.0	--	2749	35	33.8	1.04
PAINT SHOP	263	2	2.6	--	2	0	0.0	--	265	2	2.7	--
PATTERN SHOP	68	1	0.9	--	0	0	0.0	--	68	1	0.9	--
PIPE SHOP	738	5	8.7	0.57	5	0	0.0	--	743	5	8.7	0.57
RIGGERS AND STRUCTURAL	1189	13	16.4	0.78	8	1	0.1	--	1197	14	16.5	0.84
ROLL SHOP	374	6	5.5	1.10	0	0	0.0	--	374	6	5.5	1.10
WELD SHOP	644	5	5.5	0.91	2	0	0.0	--	646	5	5.5	0.91
ALL OTHER	138	2	1.5	--	5	0	0.1	--	143	2	1.5	--
GENERAL RECEIVING AND STORES	192	0	2.5	--	4	1	0.2	--	196	1	2.7	--
PLANT PROTECTION	674	9	11.1	0.81	1	0	0.0	--	675	9	11.1	0.81
POWER AND FUEL	1343	9	16.6	0.53	62	2	1.3	--	1405	11	17.9	0.60
TRANSPORTATION AND YARD	1293	24	15.3	1.62 *	341	3	3.7	--	1634	27	18.9	1.46
TUBE MILLS INCLUDES TUBE FINISHING	229	2	2.6	--	1	0	0.0	--	230	2	2.6	--
RIVER OR MARINE WAYS	218	1	2.9	--	1	0	0.0	--	219	1	2.9	--
TOTAL	51479	600	600.0	1.00	7349	88	88.0	1.00	58828	688	688.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00029

C.O.D. (UNDERLYING) = 150-159
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	42	52.9	0.77	34	1	0.7	--	5146	43	53.5	0.78
GEN TECHNICAL	3634	39	31.6	1.26	16	0	0.1	--	3700	39	31.7	1.26
COKE PLANT	2381	32	23.8	1.45	1176	16	15.6	1.07	3557	48	39.4	1.35
BLAST FURNACE	4218	58	58.2	1.00	1415	13	13.1	0.99	5633	71	71.3	0.99
OPEN HEARTH	9655	110	112.8	0.97	2335	28	28.0	1.00	11990	138	140.9	0.97
BESSEMER CONVERTER	240	8	5.9	1.39	88	1	1.3	--	328	9	7.2	1.27
ELECTRIC FURNACE	1250	8	11.1	0.69	11	0	0.0	--	1261	8	11.1	0.69
FOUNDRY	1781	25	24.6	1.02	345	1	3.4	--	2126	26	28.0	0.92
HEAT TREAT AND FORGING	1683	24	21.1	1.17	46	2	1.3	--	1729	26	22.4	1.20
BILLET BLOOM AND SLAB MILLS	5783	77	76.6	1.01	419	3	5.2	0.50	6202	80	81.8	0.97
SOAKING PITS	148	1	1.4	--	28	0	0.1	--	176	1	1.5	--
MERCHANT MILLS	3885	61	60.4	1.01	680	12	9.2	1.43	4565	73	69.6	1.07
PLATE MILL	3005	43	43.6	0.98	436	12	10.0	1.36	3441	55	53.6	1.04
AXLE MILLS	293	4	7.1	0.53	6	0	0.1	--	299	4	7.3	0.52
GENERAL FINISHING AND SHIPPING	1309	17	20.9	0.80	213	6	4.6	1.38	1522	23	25.5	0.89
HOT STRIP MILL	567	8	7.2	1.12	1	0	0.0	--	568	8	7.2	1.11
RAIL MILL ROLLING	852	7	11.3	0.57	97	1	1.0	--	949	8	12.3	0.60
RAIL MILL FINISHING	726	11	10.0	1.12	145	2	1.5	--	871	13	11.5	1.16
STEEL YARDS	299	5	5.2	0.95	77	0	1.4	--	376	5	6.7	0.74
STRUCTURAL MILL	1972	25	21.6	1.20	252	2	3.3	--	2224	27	24.9	1.10
ANNEALING NORMALIZING	2605	33	30.1	1.12	54	0	0.6	--	2659	33	30.6	1.10
BATCH PICKLING AND SHEET DRYERS	137	0	1.9	--	50	0	0.4	--	187	0	2.3	--
COATING	545	4	4.1	--	0	0	0.0	--	545	4	4.1	--
COLD REDUCING MILLS	1933	20	14.3	1.46	113	3	1.5	--	2046	23	15.8	1.53
CONTINUOUS PICKLING AND ELEC CLEANING	254	3	1.4	--	0	0	0.0	--	254	3	1.4	--
FLYING SHEARS AND SLITTERS	28	0	0.2	--	0	0	0.0	--	28	0	0.2	--
HOT PACK MILLS	1229	22	21.4	1.05	19	0	0.2	--	1248	22	21.6	1.03
HOT STRIP ROLLING	1623	12	15.9	0.73	2	0	0.0	--	1625	12	16.0	0.73
SHEET FINISHING AND SHIPPING	3306	30	30.3	0.99	108	0	1.1	--	3414	30	31.4	0.94
STAINLESS ANNEAL PICKLG AND PROCESSING	384	7	5.1	1.41	2	0	0.0	--	386	7	5.2	1.41
TEMPER PASSING AND COLD ROLLING	783	3	5.6	0.49	0	0	0.0	--	783	3	5.6	0.49
TIN FINISHING AND SHIPPING	668	2	5.2	0.35	1	0	0.0	--	669	2	5.2	0.35
GENERAL LABOR	3153	56	45.5	1.27	1215	21	19.7	1.10	4368	77	65.2	1.22
JANITORS	311	17	9.9	1.78 *	422	5	5.6	0.89	733	22	15.5	1.47
MASON DEPARTMENT	2511	19	22.8	0.82	696	9	6.9	1.37	3207	28	29.7	0.94
BLACKSMITH SHOP	555	14	10.2	1.40	6	0	0.1	--	561	14	10.3	1.38
CARPENTER SHOP	665	15	12.3	1.23	1	0	0.0	--	666	15	12.3	1.23
ELECTRIC MAINTENANCE ASSIGNED	3200	41	47.1	0.86	8	0	0.1	--	3208	41	47.2	0.85
ELECTRIC SHOP	1620	19	30.9	0.58 *	2	0	0.0	--	1622	19	30.9	0.58 *
GARAGE	242	4	2.6	--	2	0	0.0	--	244	4	2.6	--
LOCOMOTIVE AND CAR REPAIR	261	2	3.9	--	22	0	0.3	--	283	2	4.2	--
MACHINE SHOP	2405	38	35.4	1.08	12	0	0.2	--	2417	38	35.6	1.07
MAINTENANCE NOS	558	4	6.4	0.59	5	0	0.0	--	563	4	6.5	0.59
MECHNICAL MAINTENANCE ASSIGNED	6136	89	81.2	1.12	201	3	3.7	--	6337	92	84.9	1.11
PAINT SHOP	777	13	9.1	1.45	9	0	0.1	--	786	13	9.2	1.43
PATTERN SHOP	95	1	1.3	--	0	0	0.0	--	95	1	1.3	--
PIPE SHOP	1412	19	20.2	0.93	14	1	0.3	--	1426	20	20.5	0.97
RIGGERS AND STRUCTURAL	2525	51	45.4	1.14	21	1	0.3	--	2546	52	45.7	1.16
ROLL SHOP	502	7	6.8	1.03	3	0	0.1	--	505	7	6.9	1.02
WELD SHOP	758	6	6.3	0.96	2	0	0.0	--	760	6	6.3	0.95
ALL OTHER	1098	21	21.2	0.99	75	4	1.6	--	1173	25	22.8	1.10
GENERAL RECEIVING AND STORES	382	4	5.5	0.72	9	1	0.3	--	391	5	5.8	0.86
PLANT PROTECTION	856	12	13.9	0.86	4	0	0.1	--	860	12	14.0	0.85
POWER AND FUEL	2336	24	34.3	0.68	213	1	4.0	--	2549	25	38.3	0.63 *
TRANSPORTATION AND YARD	2842	45	38.7	1.18	633	12	8.2	1.58	3475	57	46.9	1.25
TUBE MILLS INCLUDES TUBE FINISHING	635	6	7.6	0.76	10	0	0.1	--	645	6	7.7	0.75
RIVER OR MARINE WAYS	293	2	3.7	--	1	0	0.0	--	294	2	3.7	--
TOTAL	51479	556	556.0	1.00	7349	82	82.0	1.00	58828	638	638.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C0033

C.O.D. (PREVALENCE) = 150-159
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	48	57.2	0.82	34	1	0.7	--	5146	49	57.9	0.83
GEN TECHNICAL	3684	41	34.2	1.22	16	0	0.1	--	3700	41	34.4	1.22
COKE PLANT	2381	34	25.3	1.45	1176	16	15.8	1.03	3557	50	41.1	1.34
BLAST FURNACE	4218	64	63.3	1.01	1415	13	14.2	0.89	5633	77	77.5	0.99
OPEN HEARTH	9655	118	122.2	0.95	2335	30	30.6	0.97	11990	148	152.8	0.96
BESSEMER CONVERTER	240	9	6.6	1.42	88	1	1.5	--	328	10	8.1	1.26
ELECTRIC FURNACE	1250	9	11.8	0.74	11	0	0.1	--	1261	9	11.8	0.73
FOUNDRY	1781	25	26.7	0.93	345	1	3.7	--	2126	26	30.4	0.84
HEAT TREAT AND FORGING	1683	24	23.2	1.04	46	3	1.5	--	1729	27	24.7	1.12
BILLET BLOOM AND SLAB MILLS	5783	82	82.5	0.99	419	3	5.4	0.48	6202	85	87.9	0.95
SOAKING PITS	148	1	1.5	--	28	0	0.1	--	176	1	1.6	--
MERCHANT MILLS	3885	67	64.8	1.05	680	13	9.6	1.52	4565	80	74.4	1.10
PLATE MILL	3005	50	47.6	1.08	436	14	11.2	1.48	3441	64	58.8	1.14
AXLE MILLS	293	5	7.9	0.61	6	0	0.1	--	299	5	8.0	0.60
GENERAL FINISHING AND SHIPPING	1309	20	22.6	0.87	213	6	4.7	1.33	1522	26	27.3	0.95
HOT STRIP MILL	567	8	7.6	1.06	1	0	0.0	--	568	8	7.6	1.05
RAIL MILL ROLLING	852	9	12.7	0.66	97	1	1.2	--	949	10	13.9	0.67
RAIL MILL FINISHING	726	12	11.3	1.07	145	2	1.7	--	871	14	13.0	1.09
STEEL YARDS	299	6	5.8	1.04	77	0	1.6	--	376	6	7.3	0.81
STRUCTURAL MILL	1972	25	23.6	1.08	252	2	3.6	--	2224	27	27.2	0.99
ANNEALING NORMALIZING	2605	35	31.8	1.13	54	0	0.6	--	2659	35	32.4	1.10
BATCH PICKLING AND SHEET DRYERS	187	0	2.1	--	50	0	0.4	--	187	0	2.5	--
COATING	545	4	4.3	--	0	0	0.0	--	545	4	4.3	--
COLD REDUCING MILLS	1933	20	15.0	1.39	113	4	1.6	--	2046	24	16.5	1.52
CONTINUOUS PICKLING AND ELEC CLEANING	254	3	1.5	--	0	0	0.0	--	254	3	1.5	--
FLYING SHEARS AND SLITTERS	28	0	0.2	--	0	0	0.0	--	28	0	0.2	--
HOT PACK MILLS	1229	24	22.7	1.09	19	0	0.2	--	1248	24	23.0	1.07
HOT STRIP ROLLING	1623	12	16.7	0.69	2	0	0.0	--	1625	12	16.8	0.69
SHEET FINISHING AND SHIPPING	3306	32	32.1	1.00	108	0	1.1	--	3414	32	33.1	0.95
STAINLESS ANNEAL PICKLG AND PROCESSING	384	7	5.4	1.32	2	0	0.0	--	386	7	5.5	1.32
TEMPER PASSING AND COLD ROLLING	783	5	5.9	0.83	0	0	0.0	--	783	5	5.9	0.83
TIN FINISHING AND SHIPPING	668	2	5.7	0.32	1	0	0.0	--	669	2	5.7	0.32
GENERAL LABOR	3153	64	49.2	1.35 *	1215	22	21.1	1.06	4368	86	70.3	1.28 *
JANITORS	311	18	10.7	1.74 *	422	5	6.1	0.80	733	23	16.8	1.41
MASON DEPARTMENT	2511	23	24.6	0.93	696	10	7.4	1.45	3207	33	31.9	1.04
BLACKSMITH SHOP	555	16	11.1	1.47	6	0	0.1	--	561	16	11.2	1.45
CARPENTER SHOP	665	15	13.4	1.13	1	0	0.0	--	666	15	13.4	1.13
ELECTRIC MAINTENANCE ASSIGNED	3200	43	51.1	0.82	8	0	0.1	--	3208	43	51.2	0.82
ELECTRIC SHOP	1620	22	33.6	0.62 *	2	0	0.0	--	1622	22	33.7	0.62 *
GARAGE	242	4	2.8	--	2	0	0.0	--	244	4	2.8	--
LOCOMOTIVE AND CAR REPAIR	261	3	4.2	--	22	0	0.4	--	283	3	4.6	--
MACHINE SHOP	2405	43	38.5	1.13	12	0	0.2	--	2417	43	38.7	1.12
MAINTENANCE NOS	558	4	6.8	0.55	5	0	0.0	--	563	4	6.9	0.55
MECHNICAL MAINTENANCE ASSIGNED	6136	95	88.4	1.09	201	3	4.0	--	6337	98	92.4	1.08
PAINT SHOP	777	13	9.9	1.33	9	0	0.2	--	786	13	10.0	1.31
PATTERN SHOP	95	1	1.4	--	0	0	0.0	--	95	1	1.4	--
PIPE SHOP	1412	19	21.9	0.86	14	1	0.3	--	1426	20	22.2	0.89
RIGGERS AND STRUCTURAL	2525	53	49.3	1.09	21	1	0.4	--	2546	54	49.7	1.10
ROLL SHOP	502	7	7.3	0.95	3	0	0.1	--	505	7	7.4	0.94
WELD SHOP	758	7	6.7	1.05	2	0	0.0	--	760	7	6.7	1.05
ALL OTHER	1098	24	22.8	1.05	75	4	1.7	--	1173	28	24.5	1.15
GENERAL RECEIVING AND STORES	382	4	6.0	0.66	9	1	0.3	--	391	5	6.3	0.79
PLANT PROTECTION	856	13	15.0	0.86	4	0	0.1	--	860	13	15.1	0.86
POWER AND FUEL	2336	25	37.5	0.64 *	213	2	4.3	--	2549	27	41.8	0.62 *
TRANSPORTATION AND YARD	2842	50	42.2	1.21	633	12	8.8	1.44	3475	62	51.0	1.25
TUBE MILLS INCLUDES TUBE FINISHING	635	6	8.1	0.71	10	0	0.1	--	645	6	8.1	0.71
RIVER OR MARINE WAYS	293	2	3.9	--	1	0	0.0	--	294	2	3.9	--
TOTAL	51479	600	600.0	1.00	7349	88	88.0	1.00	58828	688	688.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00031

C.O.D. (UNDERLYING) = 150-159
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	26	33.8	0.75	11	0	0.2	--	2374	26	34.0	0.75
GEN TECHNICAL	1575	22	18.7	1.19	6	0	0.1	--	1581	22	18.8	1.18
COKE PLANT	1180	23	16.6	1.46	664	11	11.4	0.93	1844	34	26.1	1.30
BLAST FURNACE	1730	36	32.7	1.11	591	6	7.9	0.72	2321	42	40.6	1.04
OPEN HEARTH	4075	73	67.0	1.11	1347	21	19.5	1.13	5422	94	86.4	1.11
BESSEMER CONVERTER	118	5	3.5	1.45	35	0	0.6	--	153	5	4.1	1.22
ELECTRIC FURNACE	509	3	4.7	--	4	0	0.0	--	513	3	4.7	--
FOUNDRY	764	16	15.6	1.03	169	1	2.5	--	933	17	18.1	0.93
HEAT TREAT AND FORGING	708	12	12.9	0.92	20	0	0.6	--	728	12	13.4	0.88
BILLET BLOOM AND SLAB MILLS	2614	45	45.5	0.99	201	1	2.9	--	2815	46	48.3	0.94
SOAKING PITS	19	0	0.5	--	0	0	0.0	--	19	0	0.5	--
MERCHANT MILLS	1986	39	39.0	1.00	301	6	5.4	1.63	2287	47	44.4	1.07
PLATE MILL	1442	22	25.7	0.83	246	7	6.8	1.04	1688	29	32.5	0.87
AXLE MILLS	45	1	1.5	--	0	0	0.0	--	45	1	1.5	--
GENERAL FINISHING AND SHIPPING	511	7	9.0	0.77	113	3	3.0	--	624	10	11.9	0.82
HOT STRIP MILL	174	2	2.6	--	0	0	0.0	--	174	2	2.6	--
RAIL MILL ROLLING	288	5	6.5	0.75	32	1	0.5	--	320	6	6.9	0.85
RAIL MILL FINISHING	245	6	4.8	1.27	82	1	1.1	--	327	7	5.9	1.21
STEEL YARDS	68	2	1.7	--	11	0	0.2	--	79	2	1.9	--
STRUCTURAL MILL	980	14	13.0	1.09	128	2	2.2	--	1108	16	15.2	1.06
ANNEALING NORMALIZING	1214	20	17.1	1.20	25	0	0.3	--	1239	20	17.4	1.18
BATCH PICKLING AND SHEET DRYERS	45	0	1.0	--	19	0	0.2	--	64	0	1.2	--
COATING	269	4	2.2	--	0	0	0.0	--	269	4	2.2	--
COLD REDUCING MILLS	848	11	8.6	1.30	65	2	0.9	--	913	13	9.6	1.40
CONTINUOUS PICKLING AND ELEC CLEANING	147	2	0.9	--	0	0	0.0	--	147	2	0.9	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	17	15.7	1.12	5	0	0.1	--	742	17	15.8	1.11
HOT STRIP ROLLING	864	9	9.8	0.91	1	0	0.0	--	865	9	9.8	0.91
SHEET FINISHING AND SHIPPING	1335	12	14.3	0.81	48	0	0.6	--	1383	12	14.9	0.78
STAINLESS ANNEAL PICKLG AND PROCESSING	148	6	2.3	2.80 *	0	0	0.0	--	148	6	2.3	2.80 *
TEMPER PASSING AND COLD ROLLING	335	0	2.3	--	0	0	0.0	--	335	0	2.3	--
TIN FINISHING AND SHIPPING	348	1	3.1	--	0	0	0.0	--	348	1	3.1	--
GENERAL LABOR	565	14	11.5	1.22	375	6	6.5	0.91	940	20	18.1	1.12
JANITORS	112	4	3.9	--	190	4	3.5	--	302	8	7.4	1.09
MASON DEPARTMENT	758	2	9.5	0.20 *	242	4	3.1	--	1000	6	12.6	0.46
BLACKSMITH SHOP	231	6	5.1	1.19	5	0	0.1	--	236	6	5.2	1.16
CARPENTER SHOP	277	6	6.0	1.01	0	0	0.0	--	277	6	6.0	1.01
ELECTRIC MAINTENANCE ASSIGNED	1581	30	29.6	1.01	2	0	0.0	--	1583	30	29.7	1.01
ELECTRIC SHOP	760	11	16.2	0.66	2	0	0.0	--	762	11	16.3	0.65
GARAGE	98	4	1.4	--	1	0	0.0	--	99	4	1.4	--
LOCOMOTIVE AND CAR REPAIR	104	0	2.0	--	7	0	0.1	--	111	0	2.2	--
MACHINE SHOP	1270	27	21.5	1.28	2	0	0.0	--	1272	27	21.5	1.28
MAINTENANCE NOS	246	0	3.0	--	0	0	0.0	--	246	0	3.0	--
MECHNICAL MAINTENANCE ASSIGNED	2290	54	42.4	1.32	73	2	2.1	--	2363	56	44.5	1.30
PAINT SHOP	197	6	3.3	1.87	2	0	0.0	--	199	6	3.3	1.86
PATTERN SHOP	64	1	1.1	--	0	0	0.0	--	64	1	1.1	--
PIPE SHOP	657	7	10.1	0.68	6	0	0.1	--	663	7	10.2	0.67
RIGGERS AND STRUCTURAL	1034	20	19.7	1.01	6	1	0.2	--	1040	21	19.9	1.06
ROLL SHOP	314	5	5.0	0.99	0	0	0.0	--	314	5	5.0	0.99
WELD SHOP	460	4	4.7	--	2	0	0.0	--	462	4	4.7	--
ALL OTHER	302	6	8.4	0.70	9	1	0.2	--	311	7	8.7	0.80
GENERAL RECEIVING AND STORES	168	3	3.5	--	2	1	0.1	--	170	4	3.6	--
PLANT PROTECTION	469	5	9.2	0.53	1	0	0.0	--	470	5	9.3	0.53
POWER AND FUEL	976	12	19.3	0.61	89	1	2.0	--	1065	13	21.3	0.60
TRANSPORTATION AND YARD	871	20	16.4	1.23	194	3	2.7	--	1065	23	19.2	1.21
TUBE MILLS INCLUDES TUBE FINISHING	281	3	3.8	--	2	0	0.0	--	283	3	3.8	--
RIVER OR MARINE WAYS	177	0	2.7	--	1	0	0.0	--	178	0	2.7	--
TOTAL	36364	518	518.0	1.00	4913	75	75.0	1.00	41277	593	593.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00052

C.A.I. (PREVALENCE) = 159-167
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

$WORK_K$ AREA	WHITE N	WHITE O	WHITE E	WHITE REL.$RISK_K$ 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.$RISK_K$ 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.$RISK_K$ 1
GEN ADMINISTRATIVE AND CLERICAL	2363	31	36.6	0.84	11	0	0.3	--	2374	31	36.9	0.83
GEN TECHNICAL	1575	24	20.3	1.20	6	0	0.1	--	1581	24	20.4	1.19
COKE PLANT	1180	23	17.7	1.35	664	11	11.7	0.89	1844	34	29.3	1.22
BLAST FURNACE	1730	40	35.6	1.14	591	6	8.6	0.65	2321	46	44.2	1.05
OPEN HEARTH	4075	77	72.4	1.08	1347	23	21.5	1.11	5422	100	93.9	1.08
BESSEMER CONVERTER	118	6	3.9	1.60	35	0	0.7	--	153	6	4.6	1.33
ELECTRIC FURNACE	509	3	5.0	--	4	0	0.0	--	513	3	5.0	--
FOUNDRY	764	16	16.9	0.94	169	1	2.8	--	933	17	19.7	0.85
HEAT TREAT AND FORGING	708	12	14.1	0.83	20	1	0.6	--	728	13	14.8	0.87
BILLET BLOOM AND SLAB MILLS	2614	49	48.8	1.01	201	1	3.0	--	2815	50	51.8	0.96
SOAKING PITS	19	0	0.5	--	0	0	0.0	--	19	0	0.5	--
MERCHANT MILLS	1936	44	41.8	1.07	301	9	5.7	1.76	2287	53	47.4	1.15
PLATE MILL	1442	28	28.1	1.00	246	9	7.6	1.26	1688	37	35.6	1.05
AXLE MILLS	45	1	1.6	--	0	0	0.0	--	45	1	1.6	--
GENERAL FINISHING AND SHIPPING	511	8	9.7	0.82	113	3	3.0	--	624	11	12.7	0.85
HOT STRIP MILL	174	2	2.7	--	0	0	0.0	--	174	2	2.7	--
RAIL MILL ROLLING	288	6	7.2	0.81	32	1	0.6	--	320	7	7.8	0.89
RAIL MILL FINISHING	245	6	5.4	1.12	82	1	1.2	--	327	7	6.6	1.06
STEEL YARDS	68	2	1.9	--	11	0	0.2	--	79	2	2.1	--
STRUCTURAL MILL	980	14	14.1	0.99	128	2	2.4	--	1108	16	16.5	0.97
ANNEALING NORMALIZING	1214	21	18.1	1.19	25	0	0.3	--	1239	21	18.5	1.16
BATCH PICKLING AND SHEET DRYERS	45	0	1.1	--	19	0	0.2	--	64	0	1.3	--
COATING	269	4	2.4	--	0	0	0.0	--	269	4	2.4	--
COLD REDUCING MILLS	848	11	9.1	1.23	65	2	1.0	--	913	13	10.1	1.32
CONTINUOUS PICKLING AND ELEC CLEANING	147	2	0.9	--	0	0	0.0	--	147	2	0.9	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	19	16.7	1.20	5	0	0.1	--	742	19	16.8	1.19
HOT STRIP ROLLING	864	9	10.4	0.86	1	0	0.0	--	865	9	10.4	0.86
SHEET FINISHING AND SHIPPING	1335	13	15.5	0.83	48	0	0.6	--	1383	13	15.8	0.80
STAINLESS ANNEAL PICKLG AND PROCESSING	148	6	2.5	2.62 *	0	0	0.0	--	148	6	2.5	2.62 *
TEMPER PASSING AND COLD ROLLING	335	0	2.4	--	0	0	0.0	--	335	0	2.4	--
TIN FINISHING AND SHIPPING	348	1	3.4	--	0	0	0.0	--	348	1	3.4	--
GENERAL LABOR	565	15	12.5	1.21	375	6	6.9	0.85	940	21	19.4	1.09
JANITORS	112	4	4.3	--	190	4	3.8	--	302	8	8.1	0.99
MASON DEPARTMENT	758	4	10.3	0.38	242	4	3.3	--	1000	8	13.6	0.57
BLACKSMITH SHOP	231	7	5.5	1.28	5	0	0.1	--	236	7	5.6	1.25
CARPENTER SHOP	277	6	6.5	0.92	0	0	0.0	--	277	6	6.5	0.92
ELECTRIC MAINTENANCE ASSIGNED	1581	31	32.1	0.96	2	0	0.0	--	1583	31	32.2	0.96
ELECTRIC SHOP	760	14	17.7	0.77	2	0	0.0	--	762	14	17.8	0.77
GARAGE	98	4	1.5	--	1	0	0.0	--	99	4	1.5	--
LOCOMOTIVE AND CAR REPAIR	104	1	2.2	--	7	0	0.2	--	111	1	2.4	--
MACHINE SHOP	1270	31	23.3	1.36	2	0	0.1	--	1272	31	23.4	1.35
MAINTENANCE NOS	246	0	3.2	--	0	0	0.0	--	246	0	3.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	56	46.2	1.25	73	2	2.3	--	2363	58	48.5	1.23
PAINT SHOP	197	6	3.5	1.73	2	0	0.0	--	199	6	3.5	1.72
PATTERN SHOP	64	1	1.2	--	0	0	0.0	--	64	1	1.2	--
PIPE SHOP	657	7	10.9	0.63	6	0	0.1	--	663	7	11.1	0.62
RIGGERS AND STRUCTURAL	1034	20	21.4	0.93	6	1	0.2	--	1040	21	21.5	0.97
ROLL SHOP	314	5	5.4	0.92	0	0	0.0	--	314	5	5.4	0.92
WELD SHOP	460	5	5.0	0.99	2	0	0.0	--	462	5	5.1	0.99
ALL OTHER	302	6	9.1	0.65	9	1	0.2	--	311	7	9.3	0.74
GENERAL RECEIVING AND STORES	168	3	3.8	--	2	1	0.1	--	170	4	3.9	--
PLANT PROTECTION	469	6	10.0	0.59	1	0	0.0	--	470	6	10.0	0.59
POWER AND FUEL	976	12	21.1	0.55	89	2	2.2	--	1065	14	23.3	0.59
TRANSPORTATION AND YARD	871	22	17.9	1.24	194	3	3.0	--	1065	25	21.0	1.21
TUBE MILLS INCLUDES TUBE FINISHING	281	3	4.1	--	2	0	0.0	--	283	3	4.1	--
RIVER OR MARINE WAYS	177	0	2.9	--	1	0	0.0	--	178	0	2.9	--
TOTAL	36364	559	559.0	1.00	4913	81	81.0	1.00	41277	640	640.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00033

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Digestive Organs and Peritoneum

ICD CODE: 150-159

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Transportation and Yard	1.55	1.62*	1.18	1.21	1.23	1.24
Janitors	1.49	1.52	1.78*	1.74*	--	--
Electric Shop	0.68	1.01	0.58*	0.62*	0.66	0.77
General Labor	1.44	1.53	1.27	1.35*	1.22	1.21
Power and Fuel	0.59	0.53	0.68	0.64*	0.61	0.55
Stainless Anneal.Picklg. & Processing	--	--	1.41	1.32	2.80*	2.62*
Mason Dept.	0.32	0.50	0.82	0.93	0.20*	0.38
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

C.O.D. (UNDERLYING) = 160-164
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	26	28.7	0.90	18	0	0.3	--	3291	26	29.0	0.89
GEN TECHNICAL	2368	17	15.0	1.14	14	0	0.1	--	2382	17	15.1	1.13
COKE PLANT	1635	9	13.4	0.64	908	36	21.3	3.35 **	2543	45	34.8	1.55 *
BLAST FURNACE	2355	12	21.2	0.55 *	1101	6	10.1	0.54	3456	18	31.3	0.55 *
OPEN HEARTH	5797	41	51.8	0.77	1836	23	17.7	1.49	7633	64	69.5	0.90
BESSEMER CONVERTER	24	1	0.4	--	0	0	0.0	--	24	1	0.4	--
ELECTRIC FURNACE	734	3	5.5	0.52	7	1	0.1	--	741	4	5.5	0.71
FOUNDRY	890	17	10.4	1.70	253	2	2.8	--	1143	19	13.2	1.49
HEAT TREAT AND FORGING	1003	4	8.3	0.46	16	0	0.2	--	1019	4	8.5	0.44
BILLET BLOOM AND SLAB MILLS	2912	33	30.2	1.11	223	3	2.8	--	3135	36	33.1	1.10
SOAKING PITS	94	2	0.8	--	14	0	0.0	--	108	2	0.8	--
MERCHANT MILLS	2130	25	22.8	1.11	395	0	7.0	0.00 **	2525	25	29.8	0.82
PLATE MILL	1547	14	13.8	1.02	239	3	3.1	--	1786	17	16.9	1.01
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	3.3	--	82	1	3.2	--	481	3	6.5	0.44
HOT STRIP MILL	164	1	2.2	--	1	0	0.0	--	165	1	2.2	--
RAIL MILL ROLLING	339	2	4.2	--	46	1	0.5	--	385	3	4.7	--
RAIL MILL FINISHING	347	2	3.3	--	98	1	1.3	--	445	3	4.6	--
STEEL YARDS	88	0	0.5	--	32	0	0.2	--	120	0	0.7	--
STRUCTURAL MILL	1196	10	9.6	1.04	164	3	1.8	--	1360	13	11.4	1.16
ANNEALING NORMALIZING	1353	13	13.5	0.96	17	0	0.3	--	1370	13	13.7	0.94
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.3	--	76	0	0.6	--
COATING	328	4	2.8	--	0	0	0.0	--	328	4	2.8	--
COLD REDUCING MILLS	1395	15	10.2	1.51	97	1	1.2	--	1492	16	11.4	1.44
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	1.5	--	0	0	0.0	--	205	0	1.5	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	10	8.2	1.28	5	0	0.1	--	571	10	8.3	1.26
HOT STRIP ROLLING	1008	11	10.2	1.09	0	0	0.0	--	1008	11	10.2	1.09
SHEET FINISHING AND SHIPPING	1733	19	15.6	1.27	36	1	0.5	--	1769	20	16.1	1.30
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	5	3.1	1.69	0	0	0.0	--	369	5	3.1	1.69
TIN FINISHING AND SHIPPING	396	2	3.6	--	1	0	0.0	--	397	2	3.6	--
GENERAL LABOR	546	5	4.7	1.06	449	4	6.3	0.61	995	9	11.0	0.81
JANITORS	205	4	3.9	--	321	1	4.4	--	526	5	8.3	0.60
MASON DEPARTMENT	1305	15	7.8	1.97 *	438	2	3.6	--	1743	17	11.4	1.51
BLACKSMITH SHOP	266	7	3.2	2.23	4	0	0.0	--	270	7	3.3	2.19
CARPENTER SHOP	406	5	4.6	1.08	0	0	0.0	--	406	5	4.6	1.08
ELECTRIC MAINTENANCE ASSIGNED	1605	19	15.9	1.21	5	0	0.0	--	1610	19	15.9	1.21
ELECTRIC SHOP	551	6	6.1	0.99	1	0	0.0	--	552	6	6.1	0.99
GARAGE	147	0	1.2	--	0	0	0.0	--	147	0	1.2	--
LOCOMOTIVE AND CAR REPAIR	121	0	1.4	--	9	1	0.1	--	130	1	1.4	--
MACHINE SHOP	1442	21	14.2	1.51	3	0	0.0	--	1445	21	14.3	1.50
MAINTENANCE NOS	70	3	1.1	--	2	0	0.0	--	72	3	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	25	26.4	0.94	60	0	1.3	--	2749	25	27.7	0.89
PAINT SHOP	263	4	2.3	--	2	0	0.0	--	265	4	2.3	--
PATTERN SHOP	68	0	0.7	--	0	0	0.0	--	68	0	0.7	--
PIPE SHOP	738	5	7.2	0.69	5	1	0.1	--	743	6	7.2	0.82
RIGGERS AND STRUCTURAL	1189	13	12.6	1.03	8	0	0.0	--	1197	13	12.7	1.03
ROLL SHOP	374	5	4.1	1.23	0	0	0.0	--	374	5	4.1	1.23
WELD SHOP	644	2	5.3	0.37	2	0	0.0	--	646	2	5.3	0.37
ALL OTHER	138	3	1.3	--	5	0	0.1	--	143	3	1.4	--
GENERAL RECEIVING AND STORES	192	2	2.0	--	4	0	0.2	--	196	2	2.1	--
PLANT PROTECTION	674	7	8.8	0.79	1	0	0.0	--	675	7	8.8	0.79
POWER AND FUEL	1343	13	12.5	1.04	62	1	1.7	--	1405	14	14.2	0.99
TRANSPORTATION AND YARD	1293	7	11.5	0.60	341	4	3.2	--	1634	11	14.7	0.74
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.5	--	1	0	0.0	--	230	1	2.5	--
RIVER OR MARINE WAYS	218	5	2.5	2.06	1	0	0.0	--	219	5	2.5	2.05
TOTAL	51479	479	479.0	1.00	7349	96	96.0	1.00	58828	575	575.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00035

MULTIPLE CAUSE OF DEATH STUDY 12-JUN-74

C.O.D. (PREVALENCE) = 160-164
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	27	30.0	0.89	18	0	0.3	--	3291	27	30.3	0.88
GEN TECHNICAL	2368	17	15.7	1.09	14	0	0.1	--	2382	17	15.6	1.08
COKE PLANT	1635	11	14.1	0.75	908	36	21.5	3.26 **	2543	47	35.6	1.59 *
BLAST FURNACE	2355	12	22.4	0.52 *	1101	7	10.3	0.63	3456	19	32.7	0.55 *
OPEN HEARTH	5797	41	54.5	0.72	1836	23	18.3	1.41	7633	64	72.8	0.85
BESSEMER CONVERTER	24	1	0.5	--	0	0	0.0	--	24	1	0.5	--
ELECTRIC FURNACE	734	3	5.6	0.51	7	1	0.1	--	741	4	5.6	0.70
FOUNDRY	890	17	10.9	1.62	253	2	2.8	--	1143	19	13.7	1.43
HEAT TREAT AND FORGING	1003	5	8.8	0.54	16	0	0.2	--	1019	5	9.0	0.53
BILLET BLOOM AND SLAB MILLS	2912	34	31.8	1.08	223	3	2.9	--	3135	37	34.7	1.08
SOAKING PITS	94	2	0.9	--	14	0	0.0	--	108	2	0.9	--
MERCHANT MILLS	2130	25	24.2	1.04	395	0	7.0	0.00 **	2525	25	31.2	0.78
PLATE MILL	1547	14	14.5	0.96	239	4	3.3	--	1786	18	17.8	1.01
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	2	3.4	--	82	1	3.2	--	481	3	6.6	0.43
HOT STRIP MILL	164	1	2.3	--	1	0	0.0	--	165	1	2.3	--
RAIL MILL ROLLING	339	2	4.3	--	46	1	0.5	--	385	3	4.8	--
RAIL MILL FINISHING	347	2	3.4	--	98	1	1.3	--	445	3	4.7	--
STEEL YARDS	88	0	0.5	--	32	0	0.2	--	120	0	0.7	--
STRUCTURAL MILL	1196	11	10.2	1.09	164	3	1.8	--	1360	14	12.0	1.19
ANNEALING NORMALIZING	1353	15	14.0	1.08	17	0	0.3	--	1370	15	14.2	1.06
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.3	--	76	0	0.6	--
COATING	328	4	3.0	--	0	0	0.0	--	328	4	3.0	--
COLD REDUCING MILLS	1395	15	10.7	1.44	97	1	1.3	--	1492	16	12.0	1.37
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	1.6	--	0	0	0.0	--	205	0	1.6	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	10	8.4	1.24	5	0	0.1	--	571	10	8.5	1.23
HOT STRIP ROLLING	1008	11	10.7	1.03	0	0	0.0	--	1008	11	10.7	1.03
SHEET FINISHING AND SHIPPING	1733	19	16.0	1.22	36	1	0.5	--	1769	20	16.5	1.26
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	5	3.3	1.58	0	0	0.0	--	369	5	3.3	1.58
TIN FINISHING AND SHIPPING	396	2	3.7	--	1	0	0.0	--	397	2	3.7	--
GENERAL LABOR	546	5	5.0	1.01	449	4	6.4	0.59	995	9	11.4	0.78
JANITORS	205	4	4.2	--	321	1	4.5	--	526	5	8.6	0.57
MASON DEPARTMENT	1305	17	8.3	2.12 **	438	2	3.7	--	1743	19	12.0	1.62
BLACKSMITH SHOP	266	8	3.4	2.42 *	4	0	0.1	--	270	8	3.5	2.38 *
CARPENTER SHOP	406	5	4.9	1.02	0	0	0.0	--	406	5	4.9	1.02
ELECTRIC MAINTENANCE ASSIGNED	1605	19	16.5	1.16	5	0	0.0	--	1610	19	16.6	1.16
ELECTRIC SHOP	551	6	6.4	0.94	1	0	0.0	--	552	6	6.4	0.94
GARAGE	147	0	1.3	--	0	0	0.0	--	147	0	1.3	--
LOCOMOTIVE AND CAR REPAIR	121	0	1.4	--	9	1	0.1	--	130	1	1.5	--
MACHINE SHOP	1442	26	15.0	1.79 **	3	0	0.0	--	1445	26	15.1	1.79 **
MAINTENANCE NOS	70	3	1.2	--	2	0	0.0	--	72	3	1.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	26	27.5	0.94	60	0	1.3	--	2749	26	28.9	0.89
PAINT SHOP	263	4	2.4	--	2	0	0.0	--	265	4	2.4	--
PATTERN SHOP	68	0	0.8	--	0	0	0.0	--	68	0	0.8	--
PIPE SHOP	738	5	7.5	0.66	5	1	0.1	--	743	6	7.6	0.79
RIGGERS AND STRUCTURAL	1189	16	13.3	1.21	8	0	0.1	--	1197	16	13.3	1.21
ROLL SHOP	374	5	4.3	1.17	0	0	0.0	--	374	5	4.3	1.17
WELD SHOP	644	2	5.5	0.36	2	0	0.0	--	646	2	5.6	0.35
ALL OTHER	138	4	1.3	--	5	0	0.1	--	143	4	1.4	--
GENERAL RECEIVING AND STORES	192	2	2.1	--	4	0	0.2	--	196	2	2.2	--
PLANT PROTECTION	674	7	9.2	0.76	1	0	0.0	--	675	7	9.2	0.76
POWER AND FUEL	1343	13	13.1	1.00	62	1	1.7	--	1405	14	14.8	0.95
TRANSPORTATION AND YARD	1293	9	12.0	0.74	341	4	3.3	--	1634	13	15.3	0.84
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.6	--	1	0	0.0	--	230	1	2.6	--
RIVER OR MARINE WAYS	218	5	2.6	2.00	1	0	0.0	--	219	5	2.6	1.99
TOTAL	51479	502	502.0	1.00	7349	98	98.0	1.00	58828	600	600.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00036

C.O.D. (UNDERLYING) = 160-164
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	5112	53	47.7	1.13	34	0	0.5	--	5146	53	48.2	1.12
GEN TECHNICAL	3684	34	29.1	1.19	16	0	0.1	--	3700	34	29.3	1.18
COKE PLANT	2381	16	21.5	0.70	1176	41	30.8	2.93 **	3557	57	52.3	1.24
BLAST FURNACE	4218	24	44.3	0.51 **	1415	6	14.2	0.35 *	5633	30	58.5	0.47 **
OPEN HEARTH	9655	89	94.0	0.93	2335	28	24.5	1.25	11990	117	118.5	0.99
BESSEMER CONVERTER	240	3	4.6	--	88	1	1.6	--	328	4	6.2	0.64
ELECTRIC FURNACE	1250	9	10.7	0.82	11	1	0.1	--	1261	10	10.7	0.92
FOUNDRY	1781	23	21.1	1.10	345	7	3.9	2.12	2126	30	25.0	1.23
HEAT TREAT AND FORGING	1683	15	15.7	0.95	46	1	0.7	--	1729	16	16.3	0.98
BILLET BLOOM AND SLAB MILLS	5763	63	62.3	1.02	419	3	6.1	0.43	6202	66	68.4	0.95
SOAKING PITS	148	2	1.1	--	28	0	0.1	--	176	2	1.2	--
MERCHANT MILLS	3885	46	47.2	0.97	680	12	14.3	0.79	4565	58	61.5	0.93
PLATE MILL	3005	35	33.3	1.08	436	7	6.0	1.23	3441	42	39.3	1.11
AXLE MILLS	293	10	5.1	2.12 *	6	0	0.1	--	299	10	5.1	2.09 *
GENERAL FINISHING AND SHIPPING	1309	19	16.3	1.19	213	1	7.2	0.11 *	1522	20	23.5	0.84
HOT STRIP MILL	567	6	7.2	0.82	1	0	0.0	--	568	6	7.2	0.82
RAIL MILL ROLLING	852	4	10.2	0.34 *	97	2	1.4	--	949	6	11.6	0.47
RAIL MILL FINISHING	726	11	8.8	1.30	145	1	2.1	--	871	12	11.0	1.11
STEEL YARDS	299	2	4.0	--	77	1	0.3	--	376	3	4.3	--
STRUCTURAL MILL	1972	16	16.9	0.93	252	3	2.8	--	2224	19	19.3	0.95
ANNEALING NORMALIZING	2605	24	28.3	0.82	54	1	0.9	--	2659	25	29.2	0.83
BATCH PICKLING AND SHEET DRYERS	137	2	1.4	--	50	1	0.7	--	187	3	2.1	--
COATING	545	6	4.5	1.39	0	0	0.0	--	545	6	4.5	1.39
COLD REDUCING MILLS	1933	19	15.3	1.27	113	1	1.5	--	2046	20	16.8	1.21
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	1.9	--	0	0	0.0	--	254	0	1.9	--
FLYING SHEARS AND SLITTERS	28	0	0.2	--	0	0	0.0	--	28	0	0.2	--
HOT PACK MILLS	1229	15	18.2	0.76	19	1	0.4	--	1248	16	18.6	0.81
HOT STRIP ROLLING	1623	18	16.8	1.08	2	0	0.0	--	1625	18	16.8	1.08
SHEET FINISHING AND SHIPPING	3306	36	30.1	1.29	108	1	1.5	--	3414	37	31.7	1.25
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	4.4	--	2	0	0.0	--	386	3	4.4	--
TEMPER PASSING AND COLD ROLLING	783	7	6.7	1.06	0	0	0.0	--	783	7	6.7	1.06
TIN FINISHING AND SHIPPING	668	5	6.0	0.80	1	0	0.0	--	669	5	6.0	0.80
GENERAL LABOR	3153	32	36.5	0.86	1215	17	21.1	0.75	4368	49	57.6	0.83
JANITORS	311	5	5.8	0.86	422	2	6.0	0.31	733	7	11.8	0.58
MASON DEPARTMENT	2511	24	19.6	1.24	696	7	7.3	0.96	3207	31	26.9	1.17
BLACKSMITH SHOP	555	12	8.0	1.52	6	0	0.1	--	561	12	8.1	1.51
CARPENTER SHOP	665	7	9.6	0.72	1	0	0.0	--	666	7	9.6	0.72
ELECTRIC MAINTENANCE ASSIGNED	3200	42	40.5	1.04	8	0	0.1	--	3208	42	40.6	1.04
ELECTRIC SHOP	1620	26	23.3	1.13	2	0	0.0	--	1622	26	23.3	1.13
GARAGE	242	1	2.4	--	2	0	0.0	--	244	1	2.5	--
LOCOMOTIVE AND CAR REPAIR	261	2	3.1	--	22	1	0.2	--	283	3	3.3	--
MACHINE SHOP	2405	34	28.1	1.23	12	0	0.3	--	2417	34	28.3	1.22
MAINTENANCE NOS	558	7	7.7	0.90	5	0	0.0	--	563	7	7.7	0.90
MECHNICAL MAINTENANCE ASSIGNED	6136	73	68.7	1.08	201	4	4.2	--	6337	77	72.8	1.07
PAINT SHOP	777	10	8.0	1.25	9	0	0.2	--	786	10	8.2	1.23
PATTERN SHOP	95	1	1.1	--	0	0	0.0	--	95	1	1.1	--
PIPE SHOP	1412	19	17.4	1.09	14	1	0.5	--	1426	20	18.0	1.12
RIGGERS AND STRUCTURAL	2525	29	35.4	0.80	21	0	0.4	--	2546	29	35.8	0.79
ROLL SHOP	502	5	5.6	0.89	3	0	0.1	--	505	5	5.7	0.87
WELD SHOP	758	4	6.3	0.63	2	0	0.0	--	760	4	6.4	0.62
ALL OTHER	1098	18	17.7	1.02	75	2	2.6	--	1173	20	20.3	0.99
GENERAL RECEIVING AND STORES	382	5	4.6	1.09	9	0	0.5	--	391	5	5.1	0.98
PLANT PROTECTION	856	14	11.5	1.22	4	0	0.1	--	860	14	11.7	1.21
POWER AND FUEL	2336	27	26.9	1.00	213	4	4.5	--	2549	31	31.4	0.98
TRANSPORTATION AND YARD	2842	22	30.5	0.70	633	18	9.2	2.26 **	3475	40	39.7	1.01
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.3	1.28	10	0	0.1	--	645	9	7.4	1.25
RIVER OR MARINE WAYS	293	6	3.5	1.77	1	0	0.0	--	294	6	3.5	1.76
TOTAL	51479	479	479.0	1.00	7349	96	96.0	1.00	58828	575	575.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00037

C.O.D. (PREVALENCE) = 160-164
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	54	49.9	1.10	34	0	0.5	--	5146	54	50.4	1.08
GEN TECHNICAL	3684	34	30.5	1.13	16	0	0.1	--	3700	34	30.7	1.12
COKE PLANT	2381	18	22.5	0.76	1176	41	31.0	2.81 **	3557	59	53.6	1.29
BLAST FURNACE	4218	24	46.8	0.48 **	1415	7	14.5	0.41 *	5633	31	61.2	0.47 **
OPEN HEARTH	9655	91	98.9	0.90	2335	28	25.4	1.19	11990	119	124.3	0.94
BESSEMER CONVERTER	240	3	4.7	--	88	1	1.6	--	328	4	6.3	0.62
ELECTRIC FURNACE	1250	10	10.8	0.91	11	1	0.1	--	1261	11	10.9	1.01
FOUNDRY	1781	23	21.9	1.06	345	7	3.9	2.08	2126	30	25.8	1.19
HEAT TREAT AND FORGING	1683	16	16.5	0.96	46	1	0.7	--	1729	17	17.2	0.98
BILLET BLOOM AND SLAB MILLS	5783	65	65.4	0.99	419	3	6.2	0.42	6202	68	71.6	0.93
SOAKING PITS	148	2	1.2	--	28	0	0.1	--	176	2	1.3	--
MERCHANT MILLS	3885	47	50.2	0.92	680	12	14.5	0.78	4565	59	64.7	0.89
PLATE MILL	3005	36	34.9	1.05	436	8	6.4	1.37	3441	44	41.3	1.10
AXLE MILLS	293	10	5.3	2.01	6	0	0.1	--	299	10	5.4	1.99
GENERAL FINISHING AND SHIPPING	1309	19	17.2	1.12	213	1	7.2	0.11 *	1522	20	24.4	0.80
HOT STRIP MILL	567	6	7.6	0.78	1	0	0.0	--	568	6	7.6	0.78
RAIL MILL ROLLING	852	4	10.5	0.33 *	97	2	1.4	--	949	6	11.9	0.46
RAIL MILL FINISHING	726	12	9.1	1.40	145	1	2.1	--	871	13	11.3	1.19
STEEL YARDS	299	2	4.2	--	77	1	0.9	--	376	3	5.0	0.58
STRUCTURAL MILL	1972	18	17.9	1.01	252	3	2.9	--	2224	21	20.8	1.01
ANNEALING NORMALIZING	2605	26	29.3	0.86	54	1	0.9	--	2659	27	30.2	0.87
BATCH PICKLING AND SHEET DRYERS	137	2	1.5	--	50	1	0.7	--	187	3	2.2	--
COATING	545	6	4.7	1.31	0	0	0.0	--	545	6	4.7	1.31
COLD REDUCING MILLS	1933	19	16.0	1.21	113	1	1.6	--	2046	20	17.6	1.15
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	2.0	--	0	0	0.0	--	254	0	2.0	--
FLYING SHEARS AND SLITTERS	28	0	0.3	--	0	0	0.0	--	28	0	0.3	--
HOT PACK MILLS	1229	15	18.6	0.74	19	1	0.4	--	1248	16	18.9	0.79
HOT STRIP ROLLING	1623	18	17.7	1.02	2	0	0.0	--	1625	18	17.7	1.02
SHEET FINISHING AND SHIPPING	3306	36	31.0	1.24	108	1	1.5	--	3414	37	32.5	1.20
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	4.5	--	2	0	0.0	--	386	3	4.5	--
TEMPER PASSING AND COLD ROLLING	783	7	7.1	0.99	0	0	0.0	--	783	7	7.1	0.99
TIN FINISHING AND SHIPPING	668	5	6.3	0.76	1	0	0.0	--	669	5	6.3	0.76
GENERAL LABOR	3153	32	38.2	0.82	1215	17	21.6	0.73	4368	49	59.8	0.79
JANITORS	311	5	6.2	0.80	422	2	6.1	0.31	733	7	12.3	0.56
MASON DEPARTMENT	2511	27	20.6	1.34	696	7	7.4	0.94	3207	34	28.0	1.23
BLACKSMITH SHOP	555	13	8.4	1.57	6	0	0.1	--	561	13	8.5	1.58
CARPENTER SHOP	665	7	10.1	0.69	1	0	0.0	--	666	7	10.1	0.69
ELECTRIC MAINTENANCE ASSIGNED	3200	44	42.3	1.05	8	0	0.1	--	3208	44	42.4	1.04
ELECTRIC SHOP	1620	27	24.6	1.11	2	0	0.0	--	1622	27	24.6	1.11
GARAGE	242	1	2.5	--	2	0	0.0	--	244	1	2.6	--
LOCOMOTIVE AND CAR REPAIR	261	2	3.3	--	22	1	0.2	--	283	3	3.5	--
MACHINE SHOP	2405	39	29.5	1.36	12	0	0.3	--	2417	39	29.8	1.35
MAINTENANCE NOS	558	8	8.1	0.99	5	0	0.0	--	563	8	8.1	0.99
MECHNICAL MAINTENANCE ASSIGNED	6136	75	71.4	1.06	201	4	4.3	--	6337	79	75.6	1.06
PAINT SHOP	777	11	8.4	1.32	9	0	0.2	--	786	11	8.6	1.29
PATTERN SHOP	95	1	1.2	--	0	0	0.0	--	95	1	1.2	--
PIPE SHOP	1412	19	18.2	1.05	14	1	0.5	--	1426	20	18.7	1.07
RIGGERS AND STRUCTURAL	2525	33	37.2	0.87	21	0	0.4	--	2546	33	37.6	0.87
ROLL SHOP	502	5	5.9	0.84	3	0	0.1	--	505	5	6.0	0.83
WELD SHOP	758	4	6.6	0.60	2	0	0.0	--	760	4	6.6	0.60
ALL OTHER	1098	19	18.5	1.03	75	2	2.7	--	1173	21	21.2	0.99
GENERAL RECEIVING AND STORES	382	5	4.8	1.05	9	0	0.5	--	391	5	5.3	0.95
PLANT PROTECTION	856	14	12.1	1.17	4	0	0.1	--	860	14	12.2	1.16
POWER AND FUEL	2336	29	28.3	1.03	213	4	4.6	--	2549	33	32.9	1.00
TRANSPORTATION AND YARD	2842	24	31.9	0.73	633	18	9.4	2.20 **	3475	42	41.3	1.02
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.4	1.26	10	0	0.1	--	645	9	7.5	1.23
RIVER OR MARINE WAYS	293	6	3.6	1.73	1	0	0.0	--	294	6	3.6	1.72
TOTAL	51479	502	502.0	1.00	7349	98	98.0	1.00	58828	600	600.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00038

C.O.D. (UNDERLYING) = 160-164
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	29	28.7	1.01	11	0	0.3	--	2374	29	28.9	1.00
GEN TECHNICAL	1575	20	16.8	1.21	6	0	0.1	--	1581	20	16.9	1.20
COKE PLANT	1180	11	13.6	0.78	664	37	21.3	4.82 **	1844	48	34.9	1.81 **
BLAST FURNACE	1730	12	23.6	0.49 *	591	4	8.3	0.41	2321	16	31.9	0.47 **
OPEN HEARTH	4075	49	52.5	0.92	1347	20	16.3	1.39	5422	69	68.8	1.00
BESSEMER CONVERTER	118	3	2.5	--	35	0	0.7	--	153	3	3.2	--
ELECTRIC FURNACE	509	2	4.9	--	4	0	0.0	--	513	2	4.9	--
FOUNDRY	764	19	12.3	1.61	169	3	2.3	--	933	22	14.6	1.58
HEAT TREAT AND FORGING	708	9	9.5	0.94	20	0	0.3	--	728	9	9.8	0.90
BILLET BLOOM AND SLAB MILLS	2614	39	35.5	1.12	201	3	3.4	--	2815	42	38.9	1.10
SOAKING PITS	19	1	0.3	--	0	0	0.0	--	19	1	0.3	--
MERCHANT MILLS	1986	30	28.9	1.04	301	2	8.3	0.21 *	2287	32	37.2	0.84
PLATE MILL	1442	18	19.1	0.93	246	2	3.4	--	1688	20	22.5	0.86
AXLE MILLS	45	2	1.0	--	0	0	0.0	--	45	2	1.0	--
GENERAL FINISHING AND SHIPPING	511	6	7.1	0.84	113	1	5.0	0.17	624	7	12.1	0.56
HOT STRIP MILL	174	1	2.4	--	0	0	0.0	--	174	1	2.4	--
RAIL MILL ROLLING	288	3	5.0	0.56	32	0	0.4	--	320	3	5.5	0.51
RAIL MILL FINISHING	245	3	4.0	--	82	1	1.1	--	327	4	5.1	0.76
STEEL YARDS	68	1	1.3	--	11	0	0.1	--	79	1	1.4	--
STRUCTURAL MILL	980	12	10.0	1.24	128	3	1.5	--	1108	15	11.5	1.36
ANNEALING NORMALIZING	1214	17	15.6	1.11	25	1	0.5	--	1239	18	16.1	1.14
BATCH PICKLING AND SHEET DRYERS	45	2	0.7	--	19	1	0.4	--	64	3	1.1	--
COATING	269	4	2.9	--	0	0	0.0	--	269	4	2.9	--
COLD REDUCING MILLS	848	13	9.1	1.47	65	1	1.0	--	913	14	10.0	1.43
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	1.5	--	0	0	0.0	--	147	0	1.5	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	14	13.2	1.09	5	0	0.1	--	742	14	13.3	1.07
HOT STRIP ROLLING	864	10	10.8	0.92	1	0	0.0	--	865	10	10.8	0.92
SHEET FINISHING AND SHIPPING	1335	19	15.5	1.28	48	0	0.8	--	1383	19	16.3	1.20
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	2.0	--	0	0	0.0	--	148	2	2.0	--
TEMPER PASSING AND COLD ROLLING	335	5	3.6	1.46	0	0	0.0	--	335	5	3.6	1.46
TIN FINISHING AND SHIPPING	348	2	4.1	--	0	0	0.0	--	348	2	4.1	--
GENERAL LABOR	565	7	8.7	0.80	375	6	8.0	0.73	940	13	16.6	0.77
JANITORS	112	3	2.2	--	190	2	3.4	--	302	5	5.5	0.90
MASON DEPARTMENT	758	14	7.8	1.83 *	242	3	3.2	--	1000	17	11.0	1.57
BLACKSMITH SHOP	231	8	3.7	2.20 *	5	0	0.1	--	236	8	3.8	2.16
CARPENTER SHOP	277	1	4.4	--	0	0	0.0	--	277	1	4.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	29	24.4	1.21	2	0	0.0	--	1583	29	24.4	1.21
ELECTRIC SHOP	760	14	12.4	1.14	2	0	0.0	--	762	14	12.4	1.13
GARAGE	98	1	1.3	--	1	0	0.0	--	99	1	1.3	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.5	--	7	0	0.1	--	111	2	1.6	--
MACHINE SHOP	1270	24	16.6	1.48	2	0	0.0	--	1272	24	16.6	1.48
MAINTENANCE NOS	246	7	4.1	1.81	0	0	0.0	--	246	7	4.1	1.81
MECHNICAL MAINTENANCE ASSIGNED	2290	35	34.0	1.03	73	1	2.4	--	2363	36	36.3	0.99
PAINT SHOP	197	4	2.7	--	2	0	0.0	--	199	4	2.7	--
PATTERN SHOP	64	1	0.9	--	0	0	0.0	--	64	1	0.9	--
PIPE SHOP	657	8	8.5	0.94	6	1	0.2	--	663	9	8.7	1.04
RIGGERS AND STRUCTURAL	1034	10	15.2	0.65	6	0	0.1	--	1040	10	15.3	0.64
ROLL SHOP	314	5	4.0	1.25	0	0	0.0	--	314	5	4.0	1.25
WELD SHOP	460	3	4.7	--	2	0	0.0	--	462	3	4.7	--
ALL OTHER	302	7	6.3	1.11	9	0	0.2	--	311	7	6.6	1.07
GENERAL RECEIVING AND STORES	168	4	2.7	--	2	0	0.1	--	170	4	2.8	--
PLANT PROTECTION	469	8	7.4	1.08	1	0	0.1	--	470	8	7.5	1.07
POWER AND FUEL	976	18	14.5	1.25	89	2	2.5	--	1065	20	17.0	1.19
TRANSPORTATION AND YARD	871	7	12.5	0.55	194	5	2.6	2.09	1065	12	15.1	0.78
TUBE MILLS INCLUDES TUBE FINISHING	281	5	3.8	1.35	2	0	0.0	--	283	5	3.9	1.33
RIVER OR MARINE WAYS	177	5	2.4	2.19	1	0	0.0	--	178	5	2.4	2.18
TOTAL	36364	436	436.0	1.00	4913	84	84.0	1.00	41277	520	520.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00039

C.O.D. (PREVALENCE) = 160-164
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	30	29.9	1.00	11	0	0.3	--	2374	30	30.2	0.99
GEN TECHNICAL	1575	20	17.5	1.15	6	0	0.1	--	1581	20	17.6	1.15
COKE PLANT	1180	12	14.1	0.83	664	37	21.3	4.82 **	1844	49	35.4	1.82 **
BLAST FURNACE	1730	12	24.9	0.46 **	591	4	8.4	0.41	2321	16	33.3	0.45 **
OPEN HEARTH	4075	49	55.2	0.87	1347	20	16.7	1.34	5422	69	71.8	0.95
BESSEMER CONVERTER	118	3	2.6	--	35	0	0.7	--	153	3	3.2	--
ELECTRIC FURNACE	509	2	5.0	--	4	0	0.0	--	513	2	5.0	0.38
FOUNDRY	764	19	12.8	1.54	169	3	2.3	--	933	22	15.1	1.52
HEAT TREAT AND FORGING	708	9	10.0	0.89	20	0	0.3	--	728	9	10.3	0.86
BILLET BLOOM AND SLAB MILLS	2614	41	37.5	1.12	201	3	3.4	--	2815	44	40.9	1.09
SOAKING PITS	19	1	0.4	--	0	0	0.0	--	19	1	0.4	--
MERCHANT MILLS	1986	31	30.8	1.01	301	2	8.3	0.21 *	2287	33	39.0	0.82
PLATE MILL	1442	19	20.0	0.94	246	3	3.7	--	1688	22	23.6	0.91
AXLE MILLS	45	2	1.0	--	0	0	0.0	--	45	2	1.0	--
GENERAL FINISHING AND SHIPPING	511	6	7.4	0.80	113	1	5.0	0.17	624	7	12.4	0.54
HOT STRIP MILL	174	1	2.5	--	0	0	0.0	--	174	1	2.5	--
RAIL MILL ROLLING	288	3	5.2	0.55	32	0	0.4	--	320	3	5.6	0.50
RAIL MILL FINISHING	245	3	4.1	--	82	1	1.1	--	327	4	5.2	0.74
STEEL YARDS	68	1	1.3	--	11	0	0.1	--	79	1	1.4	--
STRUCTURAL MILL	980	14	10.5	1.40	128	3	1.6	--	1108	17	12.1	1.49
ANNEALING NORMALIZING	1214	18	16.1	1.14	25	1	0.5	--	1239	19	16.5	1.16
BATCH PICKLING AND SHEET DRYERS	45	2	0.7	--	19	1	0.4	--	64	3	1.1	--
COATING	269	4	3.0	--	0	0	0.0	--	269	4	3.0	--
COLD REDUCING MILLS	848	13	9.4	1.41	65	1	1.0	--	913	14	10.4	1.38
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	1.5	--	0	0	0.0	--	147	0	1.5	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	14	13.4	1.06	5	0	0.1	--	742	14	13.6	1.04
HOT STRIP ROLLING	864	10	11.2	0.88	1	0	0.0	--	865	10	11.2	0.88
SHEET FINISHING AND SHIPPING	1335	19	15.8	1.25	48	0	0.8	--	1383	19	16.6	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	2.1	--	0	0	0.0	--	148	2	2.1	--
TEMPER PASSING AND COLD ROLLING	335	5	3.7	1.42	0	0	0.0	--	335	5	3.7	1.42
TIN FINISHING AND SHIPPING	348	2	4.2	--	0	0	0.0	--	348	2	4.2	--
GENERAL LABOR	565	7	9.1	0.76	375	6	8.0	0.72	940	13	17.1	0.74
JANITORS	112	3	2.3	--	190	2	3.4	--	302	5	5.7	0.87
MASON DEPARTMENT	758	17	8.2	2.13 **	242	3	3.2	--	1000	20	11.5	1.79 *
BLACKSMITH SHOP	231	9	3.9	2.37 *	5	0	0.1	--	236	9	4.0	2.32 *
CARPENTER SHOP	277	1	4.6	--	0	0	0.0	--	277	1	4.6	--
ELECTRIC MAINTENANCE ASSIGNED	1581	30	25.4	1.20	2	0	0.0	--	1583	30	25.4	1.20
ELECTRIC SHOP	760	14	13.0	1.08	2	0	0.0	--	762	14	13.1	1.08
GARAGE	98	1	1.3	--	1	0	0.0	--	99	1	1.4	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.6	--	7	0	0.1	--	111	2	1.7	--
MACHINE SHOP	1270	28	17.4	1.66 *	2	0	0.0	--	1272	28	17.5	1.66 *
MAINTENANCE NOS	246	8	4.3	2.04	0	0	0.0	--	246	8	4.3	2.04
MECHNICAL MAINTENANCE ASSIGNED	2290	37	35.3	1.05	73	1	2.4	--	2363	38	37.7	1.01
PAINT SHOP	197	4	2.8	--	2	0	0.0	--	199	4	2.6	--
PATTERN SHOP	64	1	0.9	--	0	0	0.0	--	64	1	0.9	--
PIPE SHOP	657	8	8.9	0.90	6	1	0.2	--	663	9	9.1	0.99
RIGGERS AND STRUCTURAL	1034	13	16.0	0.80	6	0	0.1	--	1040	13	16.1	0.80
ROLL SHOP	314	5	4.2	1.19	0	0	0.0	--	314	5	4.2	1.19
WELD SHOP	460	3	4.9	--	2	0	0.0	--	462	3	4.9	--
ALL OTHER	302	8	6.7	1.20	9	0	0.2	--	311	8	6.9	1.16
GENERAL RECEIVING AND STORES	168	4	2.8	--	2	0	0.1	--	170	4	2.9	--
PLANT PROTECTION	469	8	7.7	1.04	1	0	0.1	--	470	8	7.8	1.03
POWER AND FUEL	976	19	15.3	1.26	89	2	2.5	--	1065	21	17.8	1.20
TRANSPORTATION AND YARD	871	9	13.1	0.68	194	5	2.7	2.03	1065	14	15.7	0.88
TUBE MILLS INCLUDES TUBE FINISHING	281	5	3.9	1.32	2	0	0.0	--	283	5	3.9	1.31
RIVER OR MARINE WAYS	177	5	2.4	2.14	1	0	0.0	--	178	5	2.4	2.13
TOTAL	36364	455	455.0	1.00	4913	85	85.0	1.00	41277	540	540.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00040

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Respiratory Organs

ICD CODE: 160-164

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Blast Furnace	0.55*	0.52*	0.51**	0.48**	0.49*	0.46**
Mason Dept.	1.97*	2.12**	1.24	1.34	1.83*	2.13**
Blacksmith Shop	2.23	2.42*	1.52	1.57	2.20*	2.37*
Machine Shop	1.51	1.79**	1.23	1.36	1.48	1.66*
Axle Mills	--	--	2.12*	2.01	--	--
Rail Mill Rolling	--	--	0.34*	0.33*	0.56	0.55
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Coke Plant	3.35**	3.26**	2.93**	2.81**	4.82**	4.82**
Blast Furnace	0.54	0.63	0.35*	0.41*	0.41	0.41
General Finishing and Shipping	--	--	0.11*	0.11*	0.17	0.17
Transportation and Yard	--	--	2.26**	2.20**	2.09	2.03
Merchant Mills	0.00**	0.00**	0.79	0.78	0.21*	0.21*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00041

C.O.D. (UNDERLYING) = 162-163
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	26	27.1	0.96	18	0	0.3	--	3291	26	27.3	0.95
GEN TECHNICAL	2368	15	14.2	1.06	14	0	0.1	--	2382	15	14.3	1.05
COKE PLANT	1635	9	12.9	0.67	908	34	19.3	3.96 **	2543	43	32.1	1.65 *
BLAST FURNACE	2355	11	19.9	0.54 *	1101	4	9.1	0.37	3456	15	29.0	0.49 **
OPEN HEARTH	5797	40	48.7	0.80	1836	21	16.5	1.46	7633	61	65.2	0.92
BESSEMER CONVERTER	24	1	0.4	--	0	0	0.0	--	24	1	0.4	--
ELECTRIC FURNACE	734	3	5.3	0.54	7	1	0.1	--	741	4	5.3	0.73
FOUNDRY	890	16	9.8	1.70	253	1	2.3	--	1143	17	12.1	1.45
HEAT TREAT AND FORGING	1003	4	7.6	0.50	16	0	0.2	--	1019	4	7.9	0.48
BILLET BLOOM AND SLAB MILLS	2912	32	28.6	1.14	223	3	2.7	--	3135	35	31.3	1.14
SOAKING PITS	94	2	0.8	--	14	0	0.0	--	108	2	0.8	--
MERCHANT MILLS	2130	25	21.6	1.18	395	0	6.4	0.00 *	2525	25	28.0	0.88
PLATE MILL	1547	11	12.8	0.84	239	3	3.1	--	1786	14	15.9	0.86
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	3.2	--	82	1	2.9	--	481	3	6.1	0.47
HOT STRIP MILL	164	1	2.1	--	1	0	0.0	--	165	1	2.1	--
RAIL MILL ROLLING	339	2	3.9	--	46	1	0.4	--	385	3	4.4	--
RAIL MILL FINISHING	347	2	3.1	--	98	1	1.1	--	445	3	4.2	--
STEEL YARDS	88	0	0.4	--	32	0	0.2	--	120	0	0.6	--
STRUCTURAL MILL	1196	9	8.9	1.01	164	3	1.8	--	1360	12	10.7	1.14
ANNEALING NORMALIZING	1353	12	12.6	0.94	17	0	0.3	--	1370	12	12.9	0.92
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.3	--	76	0	0.6	--
COATING	328	4	2.8	--	0	0	0.0	--	328	4	2.8	--
COLD REDUCING MILLS	1395	13	9.6	1.38	97	0	1.0	--	1492	13	10.6	1.24
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	1.5	--	0	0	0.0	--	205	0	1.5	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	9	7.9	1.18	5	0	0.1	--	571	9	8.0	1.16
HOT STRIP ROLLING	1008	11	9.5	1.17	0	0	0.0	--	1008	11	9.5	1.17
SHEET FINISHING AND SHIPPING	1733	19	15.1	1.32	36	1	0.5	--	1769	20	15.5	1.36
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	5	3.1	1.74	0	0	0.0	--	369	5	3.1	1.74
TIN FINISHING AND SHIPPING	396	2	3.5	--	1	0	0.0	--	397	2	3.5	--
GENERAL LABOR	546	5	4.5	1.12	449	4	5.8	0.66	995	9	10.3	0.87
JANITORS	205	3	3.8	--	321	1	4.0	--	526	4	7.8	0.51
MASON DEPARTMENT	1305	13	7.3	1.81	438	2	3.3	--	1743	15	10.6	1.43
BLACKSMITH SHOP	266	7	3.0	2.38 *	4	0	0.0	--	270	7	3.1	2.34 *
CARPENTER SHOP	406	5	4.4	1.14	0	0	0.0	--	406	5	4.4	1.14
ELECTRIC MAINTENANCE ASSIGNED	1605	19	15.1	1.28	5	0	0.0	--	1610	19	15.1	1.28
ELECTRIC SHOP	551	6	5.7	1.06	1	0	0.0	--	552	6	5.7	1.05
GARAGE	147	0	1.1	--	0	0	0.0	--	147	0	1.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	1.3	--	9	1	0.1	--	130	1	1.3	--
MACHINE SHOP	1442	18	13.4	1.36	3	0	0.0	--	1445	18	13.5	1.36
MAINTENANCE NOS	70	3	1.1	--	2	0	0.0	--	72	3	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	23	25.3	0.90	60	0	1.2	--	2749	23	26.5	0.86
PAINT SHOP	263	4	2.2	--	2	0	0.0	--	265	4	2.2	--
PATTERN SHOP	68	0	0.7	--	0	0	0.0	--	68	0	0.7	--
PIPE SHOP	738	5	6.8	0.73	5	1	0.1	--	743	6	6.9	0.87
RIGGERS AND STRUCTURAL	1189	12	11.9	1.01	8	0	0.0	--	1197	12	11.9	1.01
ROLL SHOP	374	3	3.9	--	0	0	0.0	--	374	3	3.9	--
WELD SHOP	644	2	5.0	0.39	2	0	0.0	--	646	2	5.1	0.39
ALL OTHER	138	3	1.2	--	5	0	0.1	--	143	3	1.3	--
GENERAL RECEIVING AND STORES	192	2	1.9	--	4	0	0.1	--	196	2	2.0	--
PLANT PROTECTION	674	7	8.3	0.84	1	0	0.0	--	675	7	8.3	0.84
POWER AND FUEL	1343	12	11.7	1.02	62	1	1.5	--	1405	13	13.2	0.98
TRANSPORTATION AND YARD	1293	7	10.9	0.63	341	4	3.0	--	1634	11	13.9	0.78
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.4	--	1	0	0.0	--	230	1	2.4	--
RIVER OR MARINE WAYS	218	5	2.4	2.13	1	0	0.0	--	219	5	2.5	2.11
TOTAL	51479	453	453.0	1.00	7349	88	88.0	1.00	58828	541	541.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00042

C.O.D. (PREVALENCE) = 162-163
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	27	28.2	0.95	18	0	0.3	--	3291	27	28.5	0.95
GEN TECHNICAL	2368	15	14.8	1.02	14	0	0.1	--	2382	15	14.9	1.01
COKE PLANT	1635	11	13.5	0.80	908	34	19.5	3.82 **	2543	45	32.9	1.70 *
BLAST FURNACE	2355	11	20.9	0.51 *	1101	5	9.3	0.48	3456	16	30.2	0.50 **
OPEN HEARTH	5797	40	50.8	0.76	1836	21	17.0	1.38	7633	61	67.8	0.88
BESSEMER CONVERTER	24	1	0.4	--	0	0	0.0	--	24	1	0.4	--
ELECTRIC FURNACE	734	3	5.4	0.53	7	1	0.1	--	741	4	5.4	0.72
FOUNDRY	890	16	10.1	1.64	253	1	2.4	--	1143	17	12.5	1.40
HEAT TREAT AND FORGING	1003	4	8.0	0.47	16	0	0.2	--	1019	4	8.3	0.46
BILLET BLOOM AND SLAB MILLS	2912	33	29.9	1.12	223	3	2.8	--	3135	36	32.7	1.12
SOAKING PITS	94	2	0.8	--	14	0	0.0	--	108	2	0.8	--
MERCHANT MILLS	2130	25	22.8	1.11	395	0	6.5	0.00 *	2525	25	29.3	0.84
PLATE MILL	1547	11	13.4	0.80	239	4	3.3	--	1786	15	16.7	0.88
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	3.3	--	82	1	2.9	--	481	3	6.2	0.46
HOT STRIP MILL	164	1	2.2	--	1	0	0.0	--	165	1	2.2	--
RAIL MILL ROLLING	339	2	4.0	--	46	1	0.4	--	385	3	4.4	--
RAIL MILL FINISHING	347	2	3.2	--	98	1	1.1	--	445	3	4.2	--
STEEL YARDS	88	0	0.4	--	32	0	0.2	--	120	0	0.7	--
STRUCTURAL MILL	1196	10	9.4	1.08	164	3	1.8	--	1360	13	11.2	1.19
ANNEALING NORMALIZING	1353	14	13.1	1.08	17	0	0.3	--	1370	14	13.3	1.06
BATCH PICKLING AND SHEET DRYERS	55	0	0.4	--	21	0	0.3	--	76	0	0.6	--
COATING	328	4	2.9	--	0	0	0.0	--	328	4	2.9	--
COLD REDUCING MILLS	1395	13	10.0	1.33	97	0	1.1	--	1492	13	11.1	1.19
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	1.5	--	0	0	0.0	--	205	0	1.5	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	9	8.0	1.15	5	0	0.1	--	571	9	8.1	1.13
HOT STRIP ROLLING	1008	11	10.0	1.11	0	0	0.0	--	1008	11	10.0	1.11
SHEET FINISHING AND SHIPPING	1733	19	15.5	1.27	36	1	0.5	--	1769	20	16.0	1.31
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	5	3.2	1.63	0	0	0.0	--	369	5	3.2	1.63
TIN FINISHING AND SHIPPING	396	2	3.7	--	1	0	0.0	--	397	2	3.7	--
GENERAL LABOR	546	5	4.7	1.07	449	4	5.9	0.65	995	9	10.6	0.84
JANITORS	205	3	4.0	--	321	1	4.1	--	526	4	8.1	0.48
MASON DEPARTMENT	1305	14	7.7	1.85 *	438	2	3.3	--	1743	16	11.1	1.47
BLACKSMITH SHOP	266	8	3.2	2.61 *	4	0	0.1	--	270	8	3.2	2.56 *
CARPENTER SHOP	406	5	4.6	1.09	0	0	0.0	--	406	5	4.6	1.09
ELECTRIC MAINTENANCE ASSIGNED	1605	19	15.6	1.23	5	0	0.0	--	1610	19	15.7	1.23
ELECTRIC SHOP	551	6	5.9	1.01	1	0	0.0	--	552	6	5.9	1.01
GARAGE	147	0	1.2	--	0	0	0.0	--	147	0	1.2	--
LOCOMOTIVE AND CAR REPAIR	121	0	1.3	--	9	1	0.1	--	130	1	1.4	--
MACHINE SHOP	1442	23	14.1	1.68 *	3	0	0.0	--	1445	23	14.1	1.68 *
MAINTENANCE NOS	70	3	1.1	--	2	0	0.0	--	72	3	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	24	26.3	0.91	60	0	1.2	--	2749	24	27.5	0.86
PAINT SHOP	263	4	2.3	--	2	0	0.0	--	265	4	2.3	--
PATTERN SHOP	68	0	0.7	--	0	0	0.0	--	68	0	0.7	--
PIPE SHOP	738	5	7.1	0.70	5	1	0.1	--	743	6	7.2	0.83
RIGGERS AND STRUCTURAL	1189	14	12.4	1.13	8	0	0.1	--	1197	14	12.5	1.13
ROLL SHOP	374	3	4.0	--	0	0	0.0	--	374	3	4.0	--
WELD SHOP	644	2	5.2	0.38	2	0	0.0	--	646	2	5.2	0.38
ALL OTHER	138	4	1.3	--	5	0	0.1	--	143	4	1.3	--
GENERAL RECEIVING AND STORES	192	2	1.9	--	4	0	0.1	--	196	2	2.1	--
PLANT PROTECTION	674	7	8.6	0.81	1	0	0.0	--	675	7	8.6	0.81
POWER AND FUEL	1343	12	12.2	0.98	62	1	1.5	--	1405	13	13.7	0.95
TRANSPORTATION AND YARD	1293	8	11.3	0.70	341	4	3.1	--	1634	12	14.4	0.82
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.5	--	1	0	0.0	--	230	1	2.5	--
RIVER OR MARINE WAYS	218	5	2.5	2.07	1	0	0.0	--	219	5	2.5	2.05
TOTAL	51479	472	472.0	1.00	7349	90	90.0	1.00	58828	562	562.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00043

C.O.D. (UNDERLYING) = 162-163
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	53	45.3	1.20	34	0	0.5	--	5146	53	45.8	1.19
GEN TECHNICAL	3664	32	27.5	1.16	16	0	0.1	--	3700	32	27.7	1.17
COKE PLANT	2381	16	20.7	0.73	1176	37	27.9	2.88 **	3557	53	48.6	1.20
BLAST FURNACE	4218	22	41.8	0.49 **	1415	4	13.0	0.23 **	5633	26	54.7	0.43 **
OPEN HEARTH	9655	86	88.8	0.96	2335	25	22.9	1.18	11990	111	111.6	0.99
BESSEMER CONVERTER	240	2	4.3	--	88	0	1.3	--	328	2	5.6	0.35
ELECTRIC FURNACE	1250	9	10.3	0.86	11	1	0.1	--	1261	10	10.4	0.96
FOUNDRY	1781	22	19.9	1.12	345	6	3.3	2.07	2126	28	23.3	1.23
HEAT TREAT AND FORGING	1533	15	14.4	1.06	46	1	0.7	--	1729	16	15.0	1.08
BILLET BLOOM AND SLAB MILLS	5783	60	59.1	1.02	419	3	5.8	0.46	6202	63	64.9	0.96
SOAKING PITS	148	2	1.0	--	28	0	0.1	--	176	2	1.1	--
MERCHANT MILLS	3885	46	44.7	1.04	680	10	13.0	0.71	4565	56	57.7	0.96
PLATE MILL	3005	31	31.0	1.00	436	7	6.0	1.23	3441	38	37.0	1.04
AXLE MILLS	293	10	4.6	2.34 *	6	0	0.1	--	299	10	4.7	2.31 *
GENERAL FINISHING AND SHIPPING	1309	19	15.7	1.24	213	1	6.5	0.12 *	1522	20	22.2	0.89
HOT STRIP MILL	567	6	6.7	0.89	1	0	0.0	--	568	6	6.7	0.89
RAIL MILL ROLLING	852	4	9.7	0.36	97	2	1.1	--	949	6	10.8	0.51
RAIL MILL FINISHING	726	11	8.4	1.40	145	1	1.8	--	871	12	10.1	1.23
STEEL YARDS	299	2	3.7	--	77	1	0.8	--	376	3	4.5	--
STRUCTURAL MILL	1972	15	15.7	0.94	252	3	2.8	--	2224	18	18.5	0.97
ANNEALING NORMALIZING	2605	22	26.3	0.79	54	1	0.9	--	2659	23	27.6	0.80
BATCH PICKLING AND SHEET DRYERS	137	2	1.4	--	50	1	0.7	--	187	3	2.1	--
COATING	545	6	4.4	1.43	0	0	0.0	--	545	6	4.4	1.43
COLD REDUCING MILLS	1933	17	14.4	1.20	113	0	1.3	--	2046	17	15.7	1.09
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	1.8	--	0	0	0.0	--	254	0	1.8	--
FLYING SHEARS AND SLITTERS	28	0	0.2	--	0	0	0.0	--	28	0	0.2	--
HOT PACK MILLS	1229	14	17.5	0.73	19	1	0.4	--	1248	15	17.9	0.78
HOT STRIP ROLLING	1623	18	15.8	1.16	2	0	0.0	--	1625	18	15.8	1.16
SHEET FINISHING AND SHIPPING	3306	35	29.1	1.31	108	1	1.5	--	3414	36	30.6	1.27
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	4.3	--	2	0	0.0	--	386	3	4.3	--
TEMPER PASSING AND COLD ROLLING	783	7	6.5	1.09	0	0	0.0	--	783	7	6.5	1.09
TIN FINISHING AND SHIPPING	668	5	5.9	0.83	1	0	0.0	--	669	5	5.9	0.83
GENERAL LABOR	3153	30	34.4	0.86	1215	16	19.7	0.76	4368	46	54.1	0.83
JANITORS	311	4	5.5	0.72	422	2	5.5	0.34	733	6	11.0	0.53
MASON DEPARTMENT	2511	22	18.6	1.19	696	7	6.7	1.05	3207	29	25.3	1.16
BLACKSMITH SHOP	555	11	7.6	1.47	6	0	0.1	--	561	11	7.7	1.46
CARPENTER SHOP	665	7	9.1	0.76	1	0	0.0	--	666	7	9.1	0.76
ELECTRIC MAINTENANCE ASSIGNED	3200	40	38.3	1.05	8	0	0.1	--	3208	40	38.4	1.05
ELECTRIC SHOP	1620	25	21.9	1.16	2	0	0.0	--	1622	25	21.9	1.16
GARAGE	242	1	2.3	--	2	0	0.0	--	244	1	2.3	--
LOCOMOTIVE AND CAR REPAIR	261	2	2.9	--	22	1	0.2	--	283	3	3.1	--
MACHINE SHOP	2405	30	26.5	1.15	12	0	0.2	--	2417	30	26.7	1.13
MAINTENANCE NOS	558	7	7.4	0.94	5	0	0.0	--	563	7	7.4	0.94
MECHANICAL MAINTENANCE ASSIGNED	6136	69	65.4	1.07	201	4	3.9	--	6337	73	69.2	1.07
PAINT SHOP	777	9	7.6	1.18	9	0	0.2	--	786	9	7.8	1.16
PATTERN SHOP	95	1	1.1	--	0	0	0.0	--	95	1	1.1	--
PIPE SHOP	1412	17	16.6	1.03	14	1	0.5	--	1426	18	17.1	1.06
RIGGERS AND STRUCTURAL	2525	25	33.4	0.73	21	0	0.3	--	2546	25	33.7	0.72
ROLL SHOP	502	3	5.3	0.56	3	0	0.1	--	505	3	5.4	0.55
WELD SHOP	758	4	6.0	0.66	2	0	0.0	--	760	4	6.0	0.66
ALL OTHER	1098	17	16.7	1.02	75	2	2.4	--	1173	19	19.1	1.00
GENERAL RECEIVING AND STORES	382	5	4.4	1.15	9	0	0.4	--	391	5	4.8	1.04
PLANT PROTECTION	856	14	10.9	1.30	4	0	0.1	--	860	14	11.0	1.29
POWER AND FUEL	2336	26	25.3	1.03	213	4	4.0	--	2549	30	29.3	1.02
TRANSPORTATION AND YARD	2842	21	28.9	0.71	633	15	8.5	1.94 *	3475	36	37.5	0.96
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.1	1.33	10	0	0.1	--	645	9	7.2	1.30
RIVER OR MARINE WAYS	293	6	3.4	1.85	1	0	0.0	--	294	6	3.4	1.84
TOTAL	51479	453	453.0	1.00	7349	86	88.0	1.00	58828	541	541.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 162-163
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	54	47.0	1.17	34	0	0.5	--	5146	54	47.5	1.16
GEN TECHNICAL	3684	32	28.7	1.13	16	0	0.1	--	3700	32	28.8	1.12
COKE PLANT	2381	16	21.6	0.80	1176	37	28.1	2.75 **	3557	55	49.7	1.23
BLAST FURNACE	4218	22	43.8	0.47 **	1415	5	13.2	0.30 *	5633	27	57.0	0.43 **
OPEN HEARTH	9655	88	92.7	0.93	2335	25	23.6	1.11	11990	113	116.3	0.96
BESSEMER CONVERTER	240	2	4.4	--	88	0	1.3	--	328	2	5.7	0.35
ELECTRIC FURNACE	1250	10	10.5	0.95	11	1	0.1	--	1261	11	10.6	1.05
FOUNDRY	1781	22	20.3	1.08	345	6	3.4	2.03	2126	28	23.9	1.20
HEAT TREAT AND FORGING	1683	15	15.1	1.00	46	1	0.7	--	1729	16	15.8	1.02
BILLET BLOOM AND SLAB MILLS	5783	62	61.8	1.01	419	3	5.9	0.45	6202	65	67.7	0.95
SOAKING PITS	148	2	1.1	--	28	0	0.1	--	176	2	1.2	--
MERCHANT MILLS	3885	47	47.3	0.99	680	10	13.2	0.70	4565	57	60.5	0.93
PLATE MILL	3005	32	32.4	0.98	436	8	6.4	1.37	3441	40	38.8	1.05
AXLE MILLS	293	10	4.9	2.22 *	6	0	0.1	--	299	10	4.9	2.19 *
GENERAL FINISHING AND SHIPPING	1309	19	16.5	1.17	213	1	6.6	0.12 *	1522	20	23.1	0.85
HOT STRIP MILL	567	6	7.0	0.85	1	0	0.0	--	568	6	7.0	0.85
RAIL MILL ROLLING	852	4	9.8	0.36	97	2	1.1	--	949	6	10.9	0.50
RAIL MILL FINISHING	726	12	8.5	1.53	145	1	1.8	--	871	13	10.2	1.34
STEEL YARDS	299	2	3.9	--	77	1	0.9	--	376	3	4.7	--
STRUCTURAL MILL	1972	17	16.5	1.04	252	3	2.9	--	2224	20	19.4	1.04
ANNEALING NORMALIZING	2605	24	27.6	0.84	54	1	0.9	--	2659	25	28.4	0.85
BATCH PICKLING AND SHEET DRYERS	137	2	1.4	--	50	1	0.7	--	187	3	2.1	--
COATING	545	6	4.6	1.35	0	0	0.0	--	545	6	4.6	1.35
COLD REDUCING MILLS	1933	17	15.0	1.15	113	0	1.3	--	2046	17	16.4	1.04
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	1.9	--	0	0	0.0	--	254	0	1.9	--
FLYING SHEARS AND SLITTERS	28	0	0.3	--	0	0	0.0	--	28	0	0.3	--
HOT PACK MILLS	1229	14	17.9	0.71	19	1	0.4	--	1248	15	18.2	0.76
HOT STRIP ROLLING	1623	18	16.5	1.11	2	0	0.0	--	1625	18	16.5	1.11
SHEET FINISHING AND SHIPPING	3306	35	30.0	1.25	108	1	1.5	--	3414	36	31.5	1.22
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	4.4	--	2	0	0.0	--	386	3	4.4	--
TEMPER PASSING AND COLD ROLLING	783	7	6.9	1.02	0	0	0.0	--	783	7	6.9	1.02
TIN FINISHING AND SHIPPING	668	5	6.2	0.79	1	0	0.0	--	669	5	6.2	0.79
GENERAL LABOR	3153	30	35.8	0.82	1215	16	20.2	0.74	4368	46	56.0	0.80
JANITORS	311	4	5.9	0.67	422	2	5.6	0.33	733	6	11.5	0.51
MASON DEPARTMENT	2511	24	19.5	1.25	696	7	6.8	1.03	3207	31	26.3	1.20
BLACKSMITH SHOP	555	12	7.9	1.54	6	0	0.1	--	561	12	8.0	1.53
CARPENTER SHOP	665	7	9.5	0.73	1	0	0.0	--	666	7	9.5	0.73
ELECTRIC MAINTENANCE ASSIGNED	3200	42	39.7	1.06	8	0	0.1	--	3208	42	39.8	1.06
ELECTRIC SHOP	1620	26	23.1	1.15	2	0	0.0	--	1622	26	23.1	1.15
GARAGE	242	1	2.4	--	2	0	0.0	--	244	1	2.4	--
LOCOMOTIVE AND CAR REPAIR	261	2	3.0	--	22	1	0.2	--	283	3	3.2	--
MACHINE SHOP	2405	35	27.7	1.29	12	0	0.2	--	2417	35	27.9	1.28
MAINTENANCE NOS	558	8	7.7	1.04	5	0	0.0	--	563	8	7.8	1.03
MECHNICAL MAINTENANCE ASSIGNED	6136	70	67.7	1.04	201	4	4.0	--	6337	74	71.7	1.04
PAINT SHOP	777	10	8.0	1.26	9	0	0.2	--	786	10	8.1	1.24
PATTERN SHOP	95	1	1.1	--	0	0	0.0	--	95	1	1.1	--
PIPE SHOP	1412	17	17.2	0.99	14	1	0.5	--	1426	18	17.7	1.02
RIGGERS AND STRUCTURAL	2525	28	34.9	0.78	21	0	0.3	--	2546	28	35.2	0.78
ROLL SHOP	502	3	5.6	0.53	3	0	0.1	--	505	3	5.7	0.52
WELD SHOP	758	4	6.2	0.63	2	0	0.0	--	760	4	6.3	0.63
ALL OTHER	1098	18	17.4	1.04	75	2	2.4	--	1173	20	19.8	1.01
GENERAL RECEIVING AND STORES	382	5	4.5	1.11	9	0	0.4	--	391	5	5.0	1.01
PLANT PROTECTION	856	14	11.3	1.25	4	0	0.1	--	860	14	11.4	1.24
POWER AND FUEL	2336	28	26.4	1.07	213	4	4.2	--	2549	32	30.6	1.05
TRANSPORTATION AND YARD	2842	22	30.1	0.71	633	15	8.7	1.89 *	3475	37	38.8	0.95
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.2	1.30	10	0	0.1	--	645	9	7.3	1.28
RIVER OR MARINE WAYS	293	6	3.5	1.80	1	0	0.0	--	294	6	3.5	1.70
TOTAL	51479	472	472.0	1.00	7349	90	90.0	1.00	58828	562	562.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00045

C.O.D. (UNDERLYING) = 162-163
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	29	27.1	1.08	11	0	0.2	--	2374	29	27.4	1.06
GEN TECHNICAL	1575	18	15.9	1.14	6	0	0.1	--	1581	18	16.0	1.13
COKE PLANT	1180	11	13.0	0.82	664	34	19.2	5.33 **	1844	45	32.3	1.85 **
BLAST FURNACE	1730	11	22.3	0.48 *	591	3	7.4	0.33	2321	14	29.7	0.44 **
OPEN HEARTH	4075	47	49.5	0.94	1347	19	15.2	1.44	5422	66	64.7	1.02
BESSEMER CONVERTER	118	2	2.4	--	35	0	0.5	--	153	2	2.9	--
ELECTRIC FURNACE	509	2	4.7	--	4	0	0.0	--	513	2	4.8	--
FOUNDRY	764	18	11.7	1.61	169	2	1.9	--	933	20	13.6	1.54
HEAT TREAT AND FORGING	708	9	8.7	1.03	20	0	0.3	--	728	9	9.1	0.99
BILLET BLOOM AND SLAB MILLS	2614	38	33.6	1.16	201	3	3.3	--	2815	41	36.9	1.14
SOAKING PITS	19	1	0.3	--	0	0	0.0	--	19	1	0.3	--
MERCHANT MILLS	1986	30	27.3	1.12	301	1	7.5	0.11 *	2287	31	34.8	0.87
PLATE MILL	1442	15	17.8	0.81	246	2	3.4	--	1688	17	21.1	0.76
AXLE MILLS	45	2	0.9	--	0	0	0.0	--	45	2	0.9	--
GENERAL FINISHING AND SHIPPING	511	6	6.8	0.87	113	1	4.5	--	624	7	11.4	0.60
HOT STRIP MILL	174	1	2.2	--	0	0	0.0	--	174	1	2.2	--
RAIL MILL ROLLING	288	3	4.8	--	32	0	0.3	--	320	3	5.1	0.55
RAIL MILL FINISHING	245	3	3.8	--	82	1	0.9	--	327	4	4.6	--
STEEL YARDS	68	1	1.1	--	11	0	0.1	--	79	1	1.3	--
STRUCTURAL MILL	980	12	9.3	1.35	128	3	1.5	--	1108	15	10.8	1.46
ANNEALING NORMALIZING	1214	15	14.7	1.03	25	1	0.5	--	1239	16	15.2	1.07
BATCH PICKLING AND SHEET DRYERS	45	2	0.7	--	19	1	0.4	--	64	3	1.1	--
COATING	269	4	2.8	--	0	0	0.0	--	269	4	2.8	--
COLD REDUCING MILLS	848	12	8.5	1.44	65	0	0.9	--	913	12	9.4	1.30
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	1.4	--	0	0	0.0	--	147	0	1.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	13	12.7	1.04	5	0	0.1	--	742	13	12.8	1.02
HOT STRIP ROLLING	864	10	10.1	0.99	1	0	0.0	--	865	10	10.1	0.99
SHEET FINISHING AND SHIPPING	1335	19	15.0	1.33	48	0	0.8	--	1383	19	15.8	1.25
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	2.0	--	0	0	0.0	--	148	2	2.0	--
TEMPER PASSING AND COLD ROLLING	335	5	3.5	1.51	0	0	0.0	--	335	5	3.5	1.51
TIN FINISHING AND SHIPPING	348	2	4.0	--	0	0	0.0	--	348	2	4.0	--
GENERAL LABOR	565	7	8.2	0.85	375	5	7.3	0.65	940	12	15.6	0.76
JANITORS	112	3	2.1	--	190	2	3.1	--	302	5	5.2	0.96
MASON DEPARTMENT	758	12	7.4	1.65	242	3	2.9	--	1000	15	10.3	1.48
BLACKSMITH SHOP	231	7	3.5	2.05	5	0	0.1	--	236	7	3.6	2.00
CARPENTER SHOP	277	1	4.2	--	0	0	0.0	--	277	1	4.2	--
ELECTRIC MAINTENANCE ASSIGNED	1581	28	23.1	1.23	2	0	0.0	--	1583	28	23.1	1.23
ELECTRIC SHOP	760	13	11.6	1.13	2	0	0.0	--	762	13	11.6	1.12
GARAGE	98	1	1.2	--	1	0	0.0	--	99	1	1.2	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.4	--	7	0	0.1	--	111	2	1.5	--
MACHINE SHOP	1270	21	15.7	1.36	2	0	0.0	--	1272	21	15.7	1.38
MAINTENANCE NOS	246	7	4.0	1.90	0	0	0.0	--	246	7	4.0	1.90
MECHNICAL MAINTENANCE ASSIGNED	2290	33	32.3	1.02	73	1	2.2	--	2363	34	34.5	0.98
PAINT SHOP	197	4	2.5	--	2	0	0.0	--	199	4	2.6	--
PATTERN SHOP	64	1	0.8	--	0	0	0.0	--	64	1	0.8	--
PIPE SHOP	657	8	8.1	0.99	6	1	0.2	--	663	9	8.3	1.09
RIGGERS AND STRUCTURAL	1034	9	14.4	0.61	6	0	0.1	--	1040	9	14.5	0.61
ROLL SHOP	314	3	3.8	--	0	0	0.0	--	314	3	3.8	--
WELD SHOP	460	3	4.5	--	2	0	0.0	--	462	3	4.5	--
ALL OTHER	302	7	5.9	1.19	9	0	0.2	--	311	7	6.1	1.15
GENERAL RECEIVING AND STORES	168	4	2.5	--	2	0	0.1	--	170	4	2.6	--
PLANT PROTECTION	469	8	6.9	1.16	1	0	0.1	--	470	8	7.0	1.15
POWER AND FUEL	976	17	13.7	1.26	89	2	2.2	--	1065	19	15.9	1.21
TRANSPORTATION AND YARD	871	7	11.8	0.58	194	4	2.4	--	1065	11	14.2	0.76
TUBE MILLS INCLUDES TUBE FINISHING	281	5	3.7	1.40	2	0	0.0	--	283	5	3.7	1.38
RIVER OR MARINE WAYS	177	5	2.3	2.29	1	0	0.0	--	178	5	2.3	2.27
TOTAL	36364	413	413.0	1.00	4913	77	77.0	1.00	41277	490	490.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00046

C.O.D. (PREVALENCE) = 162-163
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	30	28.2	1.07	11	0	0.3	--	2374	30	28.4	1.06
GEN TECHNICAL	1575	18	16.5	1.10	6	0	0.1	--	1581	18	16.5	1.09
COKE PLANT	1180	12	13.4	0.88	664	34	19.2	5.33 **	1844	46	32.7	1.68 **
BLAST FURNACE	1730	11	23.4	0.45 *	591	3	7.5	0.32	2321	14	30.9	0.42 **
OPEN HEARTH	4075	47	51.7	0.89	1347	19	15.6	1.38	5422	66	67.3	0.98
BESSEMER CONVERTER	118	2	2.4	--	35	0	0.5	--	153	2	2.9	--
ELECTRIC FURNACE	509	2	4.8	--	4	0	0.0	--	513	2	4.8	--
FOUNDRY	764	18	12.0	1.56	169	2	1.9	--	933	20	13.9	1.49
HEAT TREAT AND FORGING	708	9	9.2	0.98	20	0	0.3	--	728	9	9.5	0.94
BILLET BLOOM AND SLAB MILLS	2614	40	35.4	1.16	201	3	3.3	--	2815	43	38.7	1.14
SOAKING PITS	19	1	0.3	--	0	0	0.0	--	19	1	0.3	--
MERCHANT MILLS	1986	31	28.9	1.09	301	1	7.5	0.11 *	2287	32	36.3	0.86
PLATE MILL	1442	16	18.6	0.82	246	3	3.7	--	1688	19	22.3	0.82
AXLE MILLS	45	2	0.9	--	0	0	0.0	--	45	2	0.9	--
GENERAL FINISHING AND SHIPPING	511	6	7.1	0.83	113	1	4.5	--	624	7	11.7	0.58
HOT STRIP MILL	174	1	2.3	--	0	0	0.0	--	174	1	2.3	--
RAIL MILL ROLLING	288	3	4.9	--	32	0	0.3	--	320	3	5.2	0.55
RAIL MILL FINISHING	245	3	3.8	--	82	1	0.9	--	327	4	4.7	--
STEEL YARDS	68	1	1.2	--	11	0	0.1	--	79	1	1.3	--
STRUCTURAL MILL	980	14	9.8	1.52	128	3	1.6	--	1108	17	11.4	1.60
ANNEALING NORMALIZING	1214	16	15.0	1.07	25	1	0.5	--	1239	17	15.5	1.11
BATCH PICKLING AND SHEET DRYERS	45	2	0.7	--	19	1	0.4	--	64	3	1.1	--
COATING	269	4	2.9	--	0	0	0.0	--	269	4	2.9	--
COLD REDUCING MILLS	848	12	8.8	1.40	65	0	0.9	--	913	12	9.7	1.26
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	1.5	--	0	0	0.0	--	147	0	1.5	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	13	12.9	1.01	5	0	0.1	--	742	13	13.1	0.99
HOT STRIP ROLLING	864	10	10.4	0.96	1	0	0.0	--	865	10	10.4	0.96
SHEET FINISHING AND SHIPPING	1335	19	15.3	1.30	48	0	0.8	--	1383	19	16.1	1.22
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	2.0	--	0	0	0.0	--	148	2	2.0	--
TEMPER PASSING AND COLD ROLLING	335	5	3.6	1.46	0	0	0.0	--	335	5	3.6	1.46
TIN FINISHING AND SHIPPING	348	2	4.1	--	0	0	0.0	--	348	2	4.1	--
GENERAL LABOR	565	7	8.5	0.81	375	5	7.4	0.65	940	12	16.0	0.74
JANITORS	112	3	2.2	--	190	2	3.2	--	302	5	5.4	0.92
MASON DEPARTMENT	758	14	7.7	1.85 *	242	3	3.0	--	1000	17	10.7	1.62
BLACKSMITH SHOP	231	8	3.7	2.25 *	5	0	0.1	--	236	8	3.7	2.20 *
CARPENTER SHOP	277	1	4.4	--	0	0	0.0	--	277	1	4.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	29	23.9	1.23	2	0	0.0	--	1583	29	24.0	1.23
ELECTRIC SHOP	760	13	12.2	1.07	2	0	0.0	--	762	13	12.2	1.07
GARAGE	98	1	1.2	--	1	0	0.0	--	99	1	1.3	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.5	--	7	0	0.1	--	111	2	1.6	--
MACHINE SHOP	1270	25	16.4	1.57 *	2	0	0.0	--	1272	25	16.4	1.57 *
MAINTENANCE NOS	246	8	4.1	2.15	0	0	0.0	--	246	8	4.1	2.15
MECHNICAL MAINTENANCE ASSIGNED	2290	34	33.5	1.02	73	1	2.2	--	2363	35	35.7	0.98
PAINT SHOP	197	4	2.7	--	2	0	0.0	--	199	4	2.7	--
PATTERN SHOP	64	1	0.8	--	0	0	0.0	--	64	1	0.8	--
PIPE SHOP	657	8	8.4	0.95	6	1	0.2	--	663	9	8.6	1.05
RIGGERS AND STRUCTURAL	1034	11	15.0	0.72	6	0	0.1	--	1040	11	15.1	0.72
ROLL SHOP	314	3	4.0	--	0	0	0.0	--	314	3	4.0	--
WELD SHOP	460	3	4.6	--	2	0	0.0	--	462	3	4.6	--
ALL OTHER	302	8	6.2	1.30	9	0	0.2	--	311	8	6.4	1.26
GENERAL RECEIVING AND STORES	168	4	2.6	--	2	0	0.1	--	170	4	2.7	--
PLANT PROTECTION	469	8	7.2	1.11	1	0	0.1	--	470	8	7.3	1.10
POWER AND FUEL	976	18	14.3	1.28	89	2	2.2	--	1065	20	16.5	1.23
TRANSPORTATION AND YARD	871	8	12.3	0.64	194	4	2.5	--	1065	12	14.7	0.80
TUBE MILLS INCLUDES TUBE FINISHING	281	5	3.7	1.37	2	0	0.0	--	283	5	3.8	1.35
RIVER OR MARINE WAYS	177	5	2.3	2.24	1	0	0.0	--	178	5	2.4	2.22
TOTAL	36364	429	429.0	1.00	4913	78	78.0	1.00	41277	507	507.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00047

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Lungs,Bronchus,Trachea

ICD CODE: 162-163

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Blast Furnace	0.54*	0.51*	0.49**	0.47**	0.48*	0.45*
Blacksmith Shop	2.38*	2.61*	1.47	1.54	2.05	2.25*
Mason Dept.	1.81	1.85*	1.19	1.25	1.65	1.85*
Machine Shop	1.36	1.69*	1.15	1.29	1.36	1.57*
Axle Mills	--	--	2.34*	2.22*	--	--
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Coke Plant	3.96**	3.82**	2.88**	2.75**	5.33**	5.33**
Blast Furnace	0.38	0.48	0.23**	0.30*	0.33	0.32
General Finishing and Shipping	--	--	0.12*	0.12*	--	--
Transportation and Yard	--	--	1.94*	1.89*	--	--
Merchant Mills	0.00**	0.00**	0.71	0.70	0.11*	0.11*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00048

C.D.D. (UNDERLYING) = 160, 161, 164
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	0	1.6	--	18	0	0.0	--	3291	0	1.6	--
GEN TECHNICAL	2368	2	0.8	--	14	0	0.0	--	2382	2	0.8	--
COKE PLANT	1635	0	0.5	--	908	2	2.1	--	2543	2	2.6	--
BLAST FURNACE	2355	1	1.3	--	1101	2	1.0	--	3456	3	2.2	--
OPEN HEARTH	5797	1	3.1	--	1836	2	1.3	--	7633	3	4.4	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.2	--	7	0	0.0	--	741	0	0.2	--
FOUNDRY	890	1	0.6	--	253	1	0.4	--	1143	2	1.1	--
HEAT TREAT AND FORGING	1003	0	0.7	--	16	0	0.0	--	1019	0	0.7	--
BILLET BLOOM AND SLAB MILLS	2912	1	1.6	--	223	0	0.1	--	3135	1	1.8	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	0	1.2	--	395	0	0.6	--	2525	0	1.8	--
PLATE MILL	1547	3	1.0	--	239	0	0.0	--	1786	3	1.0	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.1	--	82	0	0.3	--	481	0	0.4	--
HOT STRIP MILL	164	0	0.1	--	1	0	0.0	--	165	0	0.1	--
RAIL MILL ROLLING	339	0	0.2	--	46	0	0.1	--	385	0	0.3	--
RAIL MILL FINISHING	347	0	0.2	--	98	0	0.2	--	445	0	0.4	--
STEEL YARDS	88	0	0.1	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	1	0.7	--	164	0	0.0	--	1360	1	0.7	--
ANNEALING NORMALIZING	1353	1	0.8	--	17	0	0.0	--	1370	1	0.8	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	2	0.6	--	97	1	0.2	--	1492	3	0.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	0.3	--	5	0	0.0	--	571	1	0.3	--
HOT STRIP ROLLING	1008	0	0.6	--	0	0	0.0	--	1008	0	0.6	--
SHEET FINISHING AND SHIPPING	1733	0	0.5	--	36	0	0.0	--	1769	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.1	--	0	0	0.0	--	369	0	0.1	--
TIN FINISHING AND SHIPPING	396	0	0.1	--	1	0	0.0	--	397	0	0.1	--
GENERAL LABOR	546	0	0.3	--	449	0	0.5	--	995	0	0.8	--
JANITORS	205	1	0.2	--	321	0	0.4	--	526	1	0.5	--
MASON DEPARTMENT	1305	2	0.5	--	438	0	0.3	--	1743	2	0.8	--
BLACKSMITH SHOP	266	0	0.2	--	4	0	0.0	--	270	0	0.2	--
CARPENTER SHOP	406	0	0.3	--	0	0	0.0	--	406	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	0.8	--	5	0	0.0	--	1610	0	0.8	--
ELECTRIC SHOP	551	0	0.4	--	1	0	0.0	--	552	0	0.4	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	3	0.8	--	3	0	0.0	--	1445	3	0.8	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	2	1.2	--	60	0	0.1	--	2749	2	1.3	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	0.3	--	5	0	0.0	--	743	0	0.3	--
RIGGERS AND STRUCTURAL	1189	1	0.7	--	8	0	0.0	--	1197	1	0.7	--
ROLL SHOP	374	2	0.2	--	0	0	0.0	--	374	2	0.2	--
WELD SHOP	644	0	0.3	--	2	0	0.0	--	646	0	0.3	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	0	0.5	--	1	0	0.0	--	675	0	0.5	--
POWER AND FUEL	1343	1	0.8	--	62	0	0.2	--	1405	1	0.9	--
TRANSPORTATION AND YARD	1293	0	0.6	--	341	0	0.2	--	1634	0	0.8	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	26	26.0	1.00	7349	8	8.0	1.00	58828	34	34.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 160, 161, 164
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	0	2.0	--	18	0	0.0	--	3291	0	2.0	--
GEN TECHNICAL	2368	2	1.0	--	14	0	0.0	--	2382	2	1.0	--
COKE PLANT	1635	0	0.6	--	908	2	2.1	--	2543	2	2.7	--
BLAST FURNACE	2355	1	1.5	--	1101	2	1.0	--	3456	3	2.5	--
OPEN HEARTH	5797	1	3.7	--	1836	2	1.3	--	7633	3	5.0	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.2	--	7	0	0.0	--	741	0	0.2	--
FOUNDRY	890	1	0.8	--	253	1	0.4	--	1143	2	1.2	--
HEAT TREAT AND FORGING	1003	1	0.8	--	16	0	0.0	--	1019	1	0.8	--
BILLET BLOOM AND SLAB MILLS	2912	1	1.9	--	223	0	0.1	--	3135	1	2.0	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	0	1.4	--	395	0	0.6	--	2525	0	2.0	--
PLATE MILL	1547	3	1.1	--	239	0	0.0	--	1786	3	1.1	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.1	--	82	0	0.3	--	481	0	0.4	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	0	0.3	--	46	0	0.1	--	385	0	0.4	--
RAIL MILL FINISHING	347	0	0.2	--	98	0	0.2	--	445	0	0.5	--
STEEL YARDS	88	0	0.1	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	1	0.8	--	164	0	0.0	--	1360	1	0.8	--
ANNEALING NORMALIZING	1353	1	1.0	--	17	0	0.0	--	1370	1	1.0	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.2	--	0	0	0.0	--	328	0	0.2	--
COLD REDUCING MILLS	1395	2	0.7	--	97	1	0.2	--	1492	3	0.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	0.3	--	5	0	0.0	--	571	1	0.3	--
HOT STRIP ROLLING	1008	0	0.8	--	0	0	0.0	--	1008	0	0.8	--
SHEET FINISHING AND SHIPPING	1733	0	0.6	--	36	0	0.0	--	1769	0	0.6	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.1	--	0	0	0.0	--	369	0	0.1	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.3	--	449	0	0.5	--	995	0	0.8	--
JANITORS	205	1	0.2	--	321	0	0.4	--	526	1	0.6	--
MASON DEPARTMENT	1305	3	0.6	--	438	0	0.3	--	1743	3	0.9	--
BLACKSMITH SHOP	266	0	0.2	--	4	0	0.0	--	270	0	0.2	--
CARPENTER SHOP	406	0	0.3	--	0	0	0.0	--	406	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	0.9	--	5	0	0.0	--	1610	0	0.9	--
ELECTRIC SHOP	551	0	0.4	--	1	0	0.0	--	552	0	0.4	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	3	1.0	--	3	0	0.0	--	1445	3	1.0	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	2	1.3	--	60	0	0.1	--	2749	2	1.4	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	0.4	--	5	0	0.0	--	743	0	0.4	--
RIGGERS AND STRUCTURAL	1189	2	0.9	--	8	0	0.0	--	1197	2	0.9	--
ROLL SHOP	374	2	0.3	--	0	0	0.0	--	374	2	0.3	--
WELD SHOP	644	0	0.3	--	2	0	0.0	--	646	0	0.3	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	1	0.1	--	4	0	0.0	--	196	1	0.2	--
PLANT PROTECTION	674	0	0.6	--	1	0	0.0	--	675	0	0.6	--
POWER AND FUEL	1343	1	0.9	--	62	0	0.2	--	1405	1	1.1	--
TRANSPORTATION AND YARD	1293	1	0.7	--	341	0	0.2	--	1634	1	0.9	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	31	31.0	1.00	7349	8	8.0	1.00	58828	39	39.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 160, 161, 164
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	0	2.4	--	34	0	0.0	--	5146	0	2.4	--
GEN TECHNICAL	3684	2	1.5	--	16	0	0.0	--	3700	2	1.5	--
COKE PLANT	2381	0	0.8	--	1176	4	2.9	--	3557	4	3.7	--
BLAST FURNACE	4218	2	2.5	--	1415	2	1.3	--	5633	4	3.8	--
OPEN HEARTH	9655	3	5.3	0.51	2335	3	1.7	--	11990	6	7.0	0.82
BESSEMER CONVERTER	240	1	0.3	--	88	1	0.3	--	328	2	0.6	--
ELECTRIC FURNACE	1250	0	0.4	--	11	0	0.0	--	1261	0	0.4	--
FOUNDRY	1781	1	1.2	--	345	1	0.5	--	2126	2	1.7	--
HEAT TREAT AND FORGING	1683	0	1.3	--	46	0	0.0	--	1729	0	1.3	--
BILLET BLOOM AND SLAB MILLS	5783	3	3.2	--	419	0	0.3	--	6202	3	3.6	--
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	0	2.5	--	680	2	1.3	--	4565	2	3.8	--
PLATE MILL	3005	4	2.3	--	436	0	0.0	--	3441	4	2.3	--
AXLE MILLS	293	0	0.4	--	6	0	0.0	--	299	0	0.4	--
GENERAL FINISHING AND SHIPPING	1309	0	0.6	--	213	0	0.6	--	1522	0	1.3	--
HOT STRIP MILL	567	0	0.5	--	1	0	0.0	--	568	0	0.5	--
RAIL MILL ROLLING	852	0	0.5	--	97	0	0.3	--	949	0	0.8	--
RAIL MILL FINISHING	726	0	0.5	--	145	0	0.4	--	871	0	0.9	--
STEEL YARDS	299	0	0.3	--	77	0	0.0	--	376	0	0.3	--
STRUCTURAL MILL	1972	1	1.2	--	252	0	0.0	--	2224	1	1.2	--
ANNEALING NORMALIZING	2605	2	1.6	--	54	0	0.0	--	2659	2	1.6	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.0	--	50	0	0.0	--	187	0	0.0	--
COATING	545	0	0.1	--	0	0	0.0	--	545	0	0.1	--
COLD REDUCING MILLS	1933	2	0.9	--	113	1	0.2	--	2046	3	1.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	1	0.7	--	19	0	0.0	--	1248	1	0.7	--
HOT STRIP ROLLING	1623	0	1.0	--	2	0	0.0	--	1625	0	1.0	--
SHEET FINISHING AND SHIPPING	3306	1	1.0	--	108	0	0.0	--	3414	1	1.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.2	--	0	0	0.0	--	783	0	0.2	--
TIN FINISHING AND SHIPPING	668	0	0.2	--	1	0	0.0	--	669	0	0.2	--
GENERAL LABOR	3153	2	2.1	--	1215	1	1.4	--	4368	3	3.5	--
JANITORS	311	1	0.3	--	422	0	0.5	--	733	1	0.7	--
MASON DEPARTMENT	2511	2	1.0	--	696	0	0.6	--	3207	2	1.6	--
BLACKSMITH SHOP	555	1	0.4	--	6	0	0.0	--	561	1	0.4	--
CARPENTER SHOP	665	0	0.5	--	1	0	0.0	--	666	0	0.5	--
ELECTRIC MAINTENANCE ASSIGNED	3200	2	2.2	--	8	0	0.0	--	3208	2	2.2	--
ELECTRIC SHOP	1620	1	1.4	--	2	0	0.0	--	1622	1	1.4	--
GARAGE	242	0	0.2	--	2	0	0.0	--	244	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.2	--	22	0	0.0	--	283	0	0.2	--
MACHINE SHOP	2405	4	1.6	--	12	0	0.0	--	2417	4	1.6	--
MAINTENANCE NOS	558	0	0.3	--	5	0	0.0	--	563	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	6136	4	3.3	--	201	0	0.3	--	6337	4	3.6	--
PAINT SHOP	777	1	0.4	--	9	0	0.0	--	786	1	0.4	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	2	0.8	--	14	0	0.1	--	1426	2	0.9	--
RIGGERS AND STRUCTURAL	2525	4	2.1	--	21	0	0.1	--	2546	4	2.1	--
ROLL SHOP	502	2	0.3	--	3	0	0.0	--	505	2	0.3	--
WELD SHOP	758	0	0.3	--	2	0	0.0	--	760	0	0.3	--
ALL OTHER	1098	1	1.0	--	75	0	0.2	--	1173	1	1.2	--
GENERAL RECEIVING AND STORES	382	0	0.2	--	9	0	0.0	--	391	0	0.3	--
PLANT PROTECTION	856	0	0.7	--	4	0	0.0	--	860	0	0.7	--
POWER AND FUEL	2336	1	1.6	--	213	0	0.5	--	2549	1	2.1	--
TRANSPORTATION AND YARD	2842	1	1.6	--	633	3	0.7	--	3475	4	2.3	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.2	--	10	0	0.0	--	645	0	0.2	--
RIVER OR MARINE WAYS	293	0	0.1	--	1	0	0.0	--	294	0	0.1	--
TOTAL	51479	26	26.0	1.00	7349	8	8.0	1.00	58828	34	34.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL,RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00031

C.O.D. (PREVALENCE) = 160, 161, 164
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	0	3.0	--	34	0	0.0	--	5146	0	3.0	--
GEN TECHNICAL	3684	2	1.9	--	16	0	0.0	--	3700	2	1.9	--
COKE PLANT	2381	0	1.0	--	1176	4	2.9	--	3557	4	3.9	--
BLAST FURNACE	4218	2	2.9	--	1415	2	1.3	--	5633	4	4.2	--
OPEN HEARTH	9655	3	6.2	0.42	2335	3	1.7	--	11990	6	7.9	0.70
BESSEMER CONVERTER	240	1	0.4	--	88	1	0.3	--	328	2	0.6	--
ELECTRIC FURNACE	1250	0	0.4	--	11	0	0.0	--	1261	0	0.4	--
FOUNDRY	1781	1	1.4	--	345	1	0.5	--	2126	2	1.9	--
HEAT TREAT AND FORGING	1683	1	1.5	--	46	0	0.0	--	1729	1	1.5	--
BILLET BLOOM AND SLAB MILLS	5783	3	3.6	--	419	0	0.3	--	6202	3	4.0	--
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	0	2.9	--	680	2	1.3	--	4565	2	4.2	--
PLATE MILL	3005	4	2.5	--	436	0	0.0	--	3441	4	2.5	--
AXLE MILLS	293	0	0.4	--	6	0	0.0	--	299	0	0.4	--
GENERAL FINISHING AND SHIPPING	1309	0	0.7	--	213	0	0.6	--	1522	0	1.3	--
HOT STRIP MILL	567	0	0.6	--	1	0	0.0	--	568	0	0.6	--
RAIL MILL ROLLING	852	0	0.7	--	97	0	0.3	--	949	0	1.0	--
RAIL MILL FINISHING	726	0	0.6	--	145	0	0.4	--	871	0	1.0	--
STEEL YARDS	299	0	0.3	--	77	0	0.0	--	376	0	0.3	--
STRUCTURAL MILL	1972	1	1.4	--	252	0	0.0	--	2224	1	1.5	--
ANNEALING NORMALIZING	2605	2	1.8	--	54	0	0.0	--	2659	2	1.8	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.0	--	50	0	0.0	--	187	0	0.0	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	2	1.0	--	113	1	0.2	--	2046	3	1.3	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	1	0.7	--	19	0	0.0	--	1248	1	0.7	--
HOT STRIP ROLLING	1623	0	1.3	--	2	0	0.0	--	1625	0	1.3	--
SHEET FINISHING AND SHIPPING	3306	1	1.2	--	108	0	0.0	--	3414	1	1.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.3	--	0	0	0.0	--	783	0	0.3	--
TIN FINISHING AND SHIPPING	668	0	0.4	--	1	0	0.0	--	669	0	0.4	--
GENERAL LABOR	3153	2	2.4	--	1215	1	1.4	--	4368	3	3.8	--
JANITORS	311	1	0.4	--	422	0	0.5	--	733	1	0.8	--
MASON DEPARTMENT	2511	3	1.1	--	696	0	0.6	--	3207	3	1.7	--
BLACKSMITH SHOP	555	1	0.5	--	6	0	0.0	--	561	1	0.5	--
CARPENTER SHOP	665	0	0.6	--	1	0	0.0	--	666	0	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	2	2.6	--	8	0	0.0	--	3208	2	2.6	--
ELECTRIC SHOP	1620	1	1.6	--	2	0	0.0	--	1622	1	1.6	--
GARAGE	242	0	0.2	--	2	0	0.0	--	244	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.2	--	22	0	0.0	--	283	0	0.2	--
MACHINE SHOP	2405	4	1.9	--	12	0	0.0	--	2417	4	1.9	--
MAINTENANCE NOS	558	0	0.5	--	5	0	0.0	--	563	0	0.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	5	3.7	1.45	201	0	0.3	--	6337	5	4.1	1.29
PAINT SHOP	777	1	0.5	--	9	0	0.0	--	786	1	0.5	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	2	1.0	--	14	0	0.1	--	1426	2	1.0	--
RIGGERS AND STRUCTURAL	2525	5	2.3	2.41	21	0	0.1	--	2546	5	2.4	2.35
ROLL SHOP	502	2	0.4	--	3	0	0.0	--	505	2	0.4	--
WELD SHOP	758	0	0.4	--	2	0	0.0	--	760	0	0.4	--
ALL OTHER	1098	1	1.2	--	75	0	0.2	--	1173	1	1.4	--
GENERAL RECEIVING AND STORES	382	1	0.3	--	9	0	0.0	--	391	1	0.3	--
PLANT PROTECTION	856	0	0.8	--	4	0	0.0	--	860	0	0.8	--
POWER AND FUEL	2336	1	1.9	--	213	0	0.5	--	2549	1	2.4	--
TRANSPORTATION AND YARD	2842	2	1.8	--	633	3	0.7	--	3475	5	2.5	2.28
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.2	--	10	0	0.0	--	645	0	0.2	--
RIVER OR MARINE WAYS	293	0	0.1	--	1	0	0.0	--	294	0	0.1	--
TOTAL	51479	31	31.0	1.00	7349	8	8.0	1.00	58828	39	39.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00032

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = 160, 161, 164
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	0	1.5	--	11	0	0.0	--	2374	0	1.6	--
GEN TECHNICAL	1575	2	0.9	--	6	0	0.0	--	1581	2	0.9	--
COKE PLANT	1180	0	0.6	--	664	3	2.1	--	1844	3	2.6	--
BLAST FURNACE	1730	1	1.4	--	591	1	0.9	--	2321	2	2.2	--
OPEN HEARTH	4075	2	3.0	--	1347	1	1.1	--	5422	3	4.1	--
BESSEMER CONVERTER	118	1	0.1	--	35	0	0.1	--	153	1	0.3	--
ELECTRIC FURNACE	509	0	0.2	--	4	0	0.0	--	513	0	0.2	--
FOUNDRY	764	1	0.7	--	169	1	0.4	--	933	2	1.1	--
HEAT TREAT AND FORGING	708	0	0.8	--	20	0	0.0	--	728	0	0.8	--
BILLET BLOOM AND SLAB MILLS	2614	1	1.9	--	201	0	0.1	--	2815	1	2.0	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	0	1.6	--	301	1	0.8	--	2287	1	2.4	--
PLATE MILL	1442	3	1.4	--	246	0	0.0	--	1688	3	1.4	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	0	0.3	--	113	0	0.5	--	624	0	0.7	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.2	--	32	0	0.1	--	320	0	0.3	--
RAIL MILL FINISHING	245	0	0.2	--	82	0	0.3	--	327	0	0.5	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.7	--	128	0	0.0	--	1108	0	0.7	--
ANNEALING NORMALIZING	1214	2	0.9	--	25	0	0.0	--	1239	2	0.9	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	1	0.5	--	65	1	0.1	--	913	2	0.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	0.5	--	5	0	0.0	--	742	1	0.5	--
HOT STRIP ROLLING	864	0	0.7	--	1	0	0.0	--	865	0	0.7	--
SHEET FINISHING AND SHIPPING	1335	0	0.5	--	48	0	0.0	--	1383	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.1	--	0	0	0.0	--	335	0	0.1	--
TIN FINISHING AND SHIPPING	348	0	0.1	--	0	0	0.0	--	348	0	0.1	--
GENERAL LABOR	565	0	0.5	--	375	1	0.6	--	940	1	1.1	--
JANITORS	112	0	0.1	--	190	0	0.2	--	302	0	0.3	--
MASON DEPARTMENT	758	2	0.4	--	242	0	0.3	--	1000	2	0.7	--
BLACKSMITH SHOP	231	1	0.2	--	5	0	0.0	--	236	1	0.2	--
CARPENTER SHOP	277	0	0.2	--	0	0	0.0	--	277	0	0.2	--
ELECTRIC MAINTENANCE ASSIGNED	1581	1	1.3	--	2	0	0.0	--	1583	1	1.3	--
ELECTRIC SHOP	760	1	0.8	--	2	0	0.0	--	762	1	0.8	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.1	--	7	0	0.0	--	111	0	0.1	--
MACHINE SHOP	1270	3	0.9	--	2	0	0.0	--	1272	3	0.9	--
MAINTENANCE NOS	246	0	0.2	--	0	0	0.0	--	246	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	2	1.6	--	73	0	0.2	--	2363	2	1.9	--
PAINT SHOP	197	0	0.1	--	2	0	0.0	--	199	0	0.1	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	0	0.4	--	6	0	0.0	--	663	0	0.4	--
RIGGERS AND STRUCTURAL	1034	1	0.9	--	6	0	0.0	--	1040	1	0.9	--
ROLL SHOP	314	2	0.2	--	0	0	0.0	--	314	2	0.2	--
WELD SHOP	460	0	0.2	--	2	0	0.0	--	462	0	0.2	--
ALL OTHER	302	0	0.4	--	9	0	0.0	--	311	0	0.4	--
GENERAL RECEIVING AND STORES	168	0	0.1	--	2	0	0.0	--	170	0	0.2	--
PLANT PROTECTION	469	0	0.4	--	1	0	0.0	--	470	0	0.5	--
POWER AND FUEL	976	1	0.9	--	89	0	0.3	--	1065	1	1.1	--
TRANSPORTATION AND YARD	871	0	0.7	--	194	1	0.2	--	1065	1	0.9	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	23	23.0	1.00	4913	7	7.0	1.00	41277	30	30.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00053

C.O.D. (PREVALENCE) = 160, 161, 164
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	0	1.9	--	11	0	0.0	--	2374	0	1.9	--
GEN TECHNICAL	1575	2	1.1	--	6	0	0.0	--	1581	2	1.1	--
COKE PLANT	1180	0	0.7	--	664	3	2.1	--	1844	3	2.7	--
BLAST FURNACE	1730	1	1.6	--	591	1	0.9	--	2321	2	2.5	--
OPEN HEARTH	4075	2	3.4	--	1347	1	1.1	--	5422	3	4.5	--
BESSEMER CONVERTER	118	1	0.2	--	35	0	0.1	--	153	1	0.3	--
ELECTRIC FURNACE	509	0	0.2	--	4	0	0.0	--	513	0	0.2	--
FOUNDRY	764	1	0.8	--	169	1	0.4	--	933	2	1.2	--
HEAT TREAT AND FORGING	708	0	0.8	--	20	0	0.0	--	728	0	0.8	--
BILLET BLOOM AND SLAB MILLS	2614	1	2.1	--	201	0	0.1	--	2815	1	2.2	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	0	1.9	--	301	1	0.8	--	2287	1	2.7	--
PLATE MILL	1442	3	1.4	--	246	0	0.0	--	1688	3	1.4	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	0	0.3	--	113	0	0.5	--	624	0	0.8	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.3	--	32	0	0.1	--	320	0	0.4	--
RAIL MILL FINISHING	245	0	0.3	--	82	0	0.3	--	327	0	0.5	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.7	--	128	0	0.0	--	1108	0	0.7	--
ANNEALING NORMALIZING	1214	2	1.0	--	25	0	0.0	--	1239	2	1.0	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.2	--	0	0	0.0	--	269	0	0.2	--
COLD REDUCING MILLS	848	1	0.7	--	65	1	0.1	--	913	2	0.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	0.5	--	5	0	0.0	--	742	1	0.5	--
HOT STRIP ROLLING	864	0	0.9	--	1	0	0.0	--	865	0	0.9	--
SHEET FINISHING AND SHIPPING	1335	0	0.6	--	48	0	0.0	--	1383	0	0.6	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.1	--	0	0	0.0	--	335	0	0.1	--
TIN FINISHING AND SHIPPING	348	0	0.3	--	0	0	0.0	--	348	0	0.3	--
GENERAL LABOR	565	0	0.6	--	375	1	0.6	--	940	1	1.2	--
JANITORS	112	0	0.1	--	190	0	0.2	--	302	0	0.4	--
MASON DEPARTMENT	758	3	0.5	--	242	0	0.3	--	1000	3	0.8	--
BLACKSMITH SHOP	231	1	0.3	--	5	0	0.0	--	236	1	0.3	--
CARPENTER SHOP	277	0	0.3	--	0	0	0.0	--	277	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	1581	1	1.5	--	2	0	0.0	--	1583	1	1.5	--
ELECTRIC SHOP	760	1	0.9	--	2	0	0.0	--	762	1	0.9	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.1	--	7	0	0.0	--	111	0	0.1	--
MACHINE SHOP	1270	3	1.1	--	2	0	0.0	--	1272	3	1.1	--
MAINTENANCE NOS	246	0	0.3	--	0	0	0.0	--	246	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2290	3	1.8	--	73	0	0.2	--	2363	3	2.1	--
PAINT SHOP	197	0	0.1	--	2	0	0.0	--	199	0	0.1	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	0	0.5	--	6	0	0.0	--	663	0	0.5	--
RIGGERS AND STRUCTURAL	1034	2	1.0	--	6	0	0.0	--	1040	2	1.0	--
ROLL SHOP	314	2	0.2	--	0	0	0.0	--	314	2	0.2	--
WELD SHOP	460	0	0.3	--	2	0	0.0	--	462	0	0.3	--
ALL OTHER	302	0	0.5	--	9	0	0.0	--	311	0	0.5	--
GENERAL RECEIVING AND STORES	168	1	0.2	--	2	0	0.0	--	170	1	0.2	--
PLANT PROTECTION	469	0	0.5	--	1	0	0.0	--	470	0	0.5	--
POWER AND FUEL	976	1	1.0	--	89	0	0.3	--	1065	1	1.3	--
TRANSPORTATION AND YARD	871	1	0.8	--	194	1	0.2	--	1065	2	1.0	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	27	27.0	1.00	4913	7	7.0	1.00	41277	34	34.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00054

C.O.D. (UNDERLYING) = 177-181
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	10	8.9	1.13	18	0	0.1	--	3291	10	9.0	1.12
GEN TECHNICAL	2368	8	4.1	2.02	14	0	0.0	--	2382	8	4.2	2.00
COKE PLANT	1635	9	3.8	2.84 *	908	7	5.7	1.40	2543	16	9.5	2.06 *
BLAST FURNACE	2355	4	7.7	0.50	1101	8	5.1	1.77	3456	12	12.8	0.93
OPEN HEARTH	5797	17	16.1	1.06	1836	7	10.0	0.61	7633	24	26.2	0.90
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	1.6	--	7	0	0.0	--	741	0	1.6	--
FOUNDRY	890	7	3.5	2.11	253	0	1.1	--	1143	7	4.7	1.55
HEAT TREAT AND FORGING	1003	2	2.8	--	16	0	0.1	--	1019	2	2.9	--
BILLET BLOOM AND SLAB MILLS	2912	10	10.1	0.99	223	0	1.5	--	3135	10	11.6	0.85
SOAKING PITS	94	1	0.2	--	14	0	0.0	--	108	1	0.2	--
MERCHANT MILLS	2130	7	7.9	0.88	395	2	2.7	--	2525	9	10.6	0.83
PLATE MILL	1547	4	4.8	--	239	3	2.0	--	1786	7	6.8	1.04
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	1.0	--	82	0	0.8	--	481	1	1.8	--
HOT STRIP MILL	164	0	0.6	--	1	0	0.0	--	165	0	0.6	--
RAIL MILL ROLLING	339	1	1.5	--	46	0	0.2	--	385	1	1.7	--
RAIL MILL FINISHING	347	2	1.2	--	98	1	0.6	--	445	3	1.7	--
STEEL YARDS	88	0	0.2	--	32	0	0.1	--	120	0	0.3	--
STRUCTURAL MILL	1196	5	3.1	1.72	164	0	0.8	--	1360	5	4.0	1.30
ANNEALING NORMALIZING	1353	2	3.8	--	17	0	0.1	--	1370	2	3.9	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.1	--	76	0	0.2	--
COATING	328	0	0.5	--	0	0	0.0	--	328	0	0.5	--
COLD REDUCING MILLS	1395	2	2.3	--	97	0	0.5	--	1492	2	2.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.2	--	0	0	0.0	--	205	0	0.2	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	5	3.0	1.82	5	0	0.1	--	571	5	3.0	1.78
HOT STRIP ROLLING	1008	4	2.3	--	0	0	0.0	--	1008	4	2.3	--
SHEET FINISHING AND SHIPPING	1733	5	4.4	1.17	36	0	0.2	--	1769	5	4.6	1.10
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.2	--	1	0	0.0	--	47	0	0.2	--
TEMPER PASSING AND COLD ROLLING	369	0	0.4	--	0	0	0.0	--	369	0	0.4	--
TIN FINISHING AND SHIPPING	396	0	0.7	--	1	0	0.0	--	397	0	0.7	--
GENERAL LABOR	546	1	1.4	--	449	1	2.1	--	995	2	3.5	--
JANITORS	205	1	2.0	--	321	7	2.8	3.26 *	526	8	4.8	1.83
MASON DEPARTMENT	1305	0	2.3	--	438	1	1.9	--	1743	1	4.2	--
BLACKSMITH SHOP	266	0	1.2	--	4	0	0.0	--	270	0	1.2	--
CARPENTER SHOP	406	1	2.0	--	0	0	0.0	--	406	1	2.0	--
ELECTRIC MAINTENANCE ASSIGNED	1605	6	5.1	1.19	5	0	0.0	--	1610	6	5.1	1.19
ELECTRIC SHOP	551	3	2.0	--	1	0	0.0	--	552	3	2.0	--
GARAGE	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.4	--	9	0	0.0	--	130	0	0.5	--
MACHINE SHOP	1442	5	5.2	0.95	3	0	0.0	--	1445	5	5.3	0.95
MAINTENANCE NOS	70	0	0.3	--	2	0	0.0	--	72	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	11	8.6	1.31	60	1	0.4	--	2749	12	9.0	1.37
PAINT SHOP	263	0	0.6	--	2	0	0.0	--	265	0	0.6	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	1	2.3	--	5	2	0.1	--	743	3	2.4	--
RIGGERS AND STRUCTURAL	1189	4	4.3	--	8	0	0.0	--	1197	4	4.4	--
ROLL SHOP	374	2	1.4	--	0	0	0.0	--	374	2	1.4	--
WELD SHOP	644	0	1.3	--	2	0	0.0	--	646	0	1.3	--
ALL OTHER	138	0	0.4	--	5	0	0.1	--	143	0	0.4	--
GENERAL RECEIVING AND STORES	192	0	0.6	--	4	0	0.1	--	196	0	0.7	--
PLANT PROTECTION	674	5	3.0	1.72	1	0	0.0	--	675	5	3.0	1.71
POWER AND FUEL	1343	4	4.6	--	62	1	0.7	--	1405	5	5.3	0.95
TRANSPORTATION AND YARD	1293	2	4.7	--	341	1	1.7	--	1634	3	6.5	0.45
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.7	--	1	0	0.0	--	230	1	0.7	--
RIVER OR MARINE WAYS	218	0	0.7	--	1	0	0.0	--	219	0	0.7	--
TOTAL	51479	153	153.0	1.00	7349	42	42.0	1.00	58828	195	195.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00055

C.O.D. (PREVALENCE) = 177-181
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE D	WHITE %	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE D	NON-WHITE %	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL D	TOTAL %	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	13	10.7	1.23	18	0	0.1	--	3291	13	10.9	1.21
GEN TECHNICAL	2368	8	4.9	1.67	14	0	0.0	--	2382	8	5.0	1.65
COKE PLANT	1635	9	5.0	2.02	908	7	5.7	1.40	2543	16	1[illegible].7	1.74
BLAST FURNACE	2355	5	9.3	0.51	1101	8	5.6	1.59	3456	13	10.9	0.[illegible]
OPEN HEARTH	5797	20	19.5	1.03	1836	8	10.9	0.65	7633	28	3[illegible].4	0.[illegible]
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	0	1.8	--	7	0	0.0	--	741	0	1.9	--
FOUNDRY	890	7	4.2	1.73	253	0	1.4	--	1143	7	5.6	1.27
HEAT TREAT AND FORGING	1003	2	3.5	--	16	0	0.1	--	1019	2	3.6	--
BILLET BLOOM AND SLAB MILLS	2912	11	11.8	0.92	223	0	1.5	--	3135	11	13.3	0.[illegible]
SOAKING PITS	94	1	0.3	--	14	0	0.0	--	108	1	0.3	--
MERCHANT MILLS	2130	9	9.4	0.95	395	2	2.7	--	2525	11	12.1	0.[illegible]
PLATE MILL	1547	7	5.9	1.22	239	4	2.4	--	1786	11	[illegible].3	1.[illegible]
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	1.3	--	82	0	0.8	--	481	2	2.1	--
HOT STRIP MILL	164	0	0.7	--	1	0	0.0	--	165	0	0.7	--
RAIL MILL ROLLING	339	1	1.9	--	46	0	0.3	--	385	1	2.1	--
RAIL MILL FINISHING	347	3	1.4	--	98	1	0.6	--	445	4	2.1	--
STEEL YARDS	88	1	0.2	--	32	0	0.1	--	120	1	0.3	--
STRUCTURAL MILL	1196	6	3.8	1.69	164	0	0.9	--	1360	6	4.7	1.3[illegible]
ANNEALING NORMALIZING	1353	3	4.5	--	17	0	0.1	--	1370	3	4.6	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.2	--	21	0	0.1	--	76	0	0.2	--
COATING	328	0	0.5	--	0	0	0.0	--	328	0	0.5	--
COLD REDUCING MILLS	1395	2	2.5	--	97	0	0.5	--	1492	2	3.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.2	--	0	0	0.0	--	205	0	0.2	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	5	3.7	1.41	5	0	0.1	--	571	5	3.6	1.39
HOT STRIP ROLLING	1008	4	2.5	--	0	0	0.0	--	1008	4	2.5	--
SHEET FINISHING AND SHIPPING	1733	6	5.2	1.18	36	0	0.2	--	1769	6	5.5	1.12
STAINLESS ANNEAL PICKLG AND PROCESSING	46	1	0.3	--	1	0	0.0	--	47	1	0.3	--
TEMPER PASSING AND COLD ROLLING	369	0	0.4	--	0	0	0.0	--	369	0	0.4	--
TIN FINISHING AND SHIPPING	396	0	0.7	--	1	0	0.0	--	397	0	0.7	--
GENERAL LABOR	546	2	1.8	--	449	1	2.2	--	995	3	4.1	--
JANITORS	205	3	2.4	--	321	7	3.0	2.98 *	526	10	5.4	2.08
MASON DEPARTMENT	1305	1	2.7	--	438	1	2.1	--	1743	2	4.8	--
BLACKSMITH SHOP	266	1	1.5	--	4	0	0.0	--	270	1	1.5	--
CARPENTER SHOP	406	2	2.4	--	0	0	0.0	--	406	2	2.4	--
ELECTRIC MAINTENANCE ASSIGNED	1605	6	6.0	1.00	5	0	0.0	--	1610	6	6.0	1.00
ELECTRIC SHOP	551	3	2.5	--	1	0	0.0	--	552	3	2.5	--
GARAGE	147	1	0.4	--	0	0	0.0	--	147	1	0.4	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.6	--	9	0	0.1	--	130	0	0.6	--
MACHINE SHOP	1442	5	6.3	0.79	3	0	0.0	--	1445	5	6.3	0.79
MAINTENANCE NOS	70	0	0.3	--	2	0	0.0	--	72	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	13	10.9	1.21	60	2	0.4	--	2749	15	11.3	1.3[illegible]
PAINT SHOP	263	0	0.7	--	2	0	0.0	--	265	0	0.8	--
PATTERN SHOP	68	0	0.3	--	0	0	0.0	--	68	0	0.3	--
PIPE SHOP	738	1	2.9	--	5	2	0.1	--	743	3	3.1	--
RIGGERS AND STRUCTURAL	1189	4	5.2	0.76	8	0	0.0	--	1197	4	5.3	0.75
ROLL SHOP	374	2	1.7	--	0	0	0.0	--	374	2	1.7	--
WELD SHOP	644	0	1.5	--	2	0	0.0	--	646	0	1.5	--
ALL OTHER	138	0	0.5	--	5	0	0.1	--	143	0	0.5	--
GENERAL RECEIVING AND STORES	192	0	0.8	--	4	0	0.1	--	196	0	0.9	--
PLANT PROTECTION	674	7	3.7	1.96	1	0	0.0	--	675	7	3.7	1.96
POWER AND FUEL	1343	5	5.7	0.86	62	1	0.7	--	1405	6	6.4	0.93
TRANSPORTATION AND YARD	1293	2	5.7	0.34	341	1	1.9	--	1634	3	7.6	0.38
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.9	--	1	0	0.0	--	230	1	0.9	--
RIVER OR MARINE WAYS	218	0	1.0	--	1	0	0.0	--	219	0	1.0	--
TOTAL	51479	185	185.0	1.00	7349	45	45.0	1.00	58828	230	230.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00036

C.O.D. (UNDERLYING) = 177-181
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	16	13.3	1.23	34	1	0.3	--	5146	17	13.6	1.28
GEN TECHNICAL	3684	14	8.0	1.84 *	16	0	0.0	--	3700	14	8.1	1.83 *
COKE PLANT	2381	12	6.0	2.67 *	1176	10	7.9	1.68	3557	22	14.0	2.22 **
BLAST FURNACE	4218	8	16.9	0.42 *	1415	9	7.3	1.31	5633	17	24.3	0.65
OPEN HEARTH	9655	27	30.2	0.87	2335	15	14.3	1.09	11990	42	44.5	0.92
BESSEMER CONVERTER	240	1	1.8	--	88	0	1.0	--	328	1	2.7	--
ELECTRIC FURNACE	1250	2	3.3	--	11	0	0.0	--	1261	2	3.4	--
FOUNDRY	1781	10	7.2	1.45	345	0	1.7	--	2126	10	8.8	1.14
HEAT TREAT AND FORGING	1683	9	6.0	1.69	46	1	0.5	--	1729	10	6.5	1.72
BILLET BLOOM AND SLAB MILLS	5783	21	21.2	0.98	419	1	3.1	--	6202	22	24.3	0.88
SOAKING PITS	148	1	0.3	--	28	0	0.0	--	176	1	0.3	--
MERCHANT MILLS	3885	14	16.5	0.81	680	4	6.1	0.56	4565	18	22.6	0.74
PLATE MILL	3005	11	11.9	0.88	436	4	3.8	--	3441	15	15.8	0.93
AXLE MILLS	293	1	2.2	--	6	0	0.1	--	299	1	2.3	--
GENERAL FINISHING AND SHIPPING	1309	4	5.5	0.71	213	2	2.4	--	1522	6	7.9	0.74
HOT STRIP MILL	567	1	1.9	--	1	0	0.0	--	568	1	1.9	--
RAIL MILL ROLLING	852	4	3.6	--	97	0	0.6	--	949	4	4.2	--
RAIL MILL FINISHING	726	2	3.1	--	145	2	1.0	--	871	4	4.1	--
STEEL YARDS	299	1	1.4	--	77	0	0.5	--	376	1	1.9	--
STRUCTURAL MILL	1972	8	5.6	1.60	252	0	1.3	--	2224	8	6.9	1.21
ANNEALING NORMALIZING	2605	7	8.5	0.79	54	1	0.4	--	2659	8	8.9	0.88
BATCH PICKLING AND SHEET DRYERS	137	0	0.6	--	50	0	0.2	--	187	0	0.7	--
COATING	545	1	0.7	--	0	0	0.0	--	545	1	0.7	--
COLD REDUCING MILLS	1933	2	3.3	--	113	0	0.8	--	2046	2	4.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.2	--	0	0	0.0	--	254	0	0.2	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	10	6.7	1.91	19	0	0.1	--	1248	10	6.8	1.84
HOT STRIP ROLLING	1623	4	3.8	--	2	0	0.0	--	1625	4	3.8	--
SHEET FINISHING AND SHIPPING	3306	11	8.4	1.53	108	0	0.7	--	3414	11	9.1	1.34
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	1.6	--	2	0	0.0	--	386	1	1.6	--
TEMPER PASSING AND COLD ROLLING	783	1	1.0	--	0	0	0.0	--	783	1	1.0	--
TIN FINISHING AND SHIPPING	668	3	1.0	--	1	0	0.0	--	669	3	1.0	--
GENERAL LABOR	3153	6	13.0	0.43	1215	8	9.4	0.80	4368	14	22.4	0.56
JANITORS	311	1	3.0	--	422	9	3.6	3.42 **	733	10	6.6	1.67
MASON DEPARTMENT	2511	3	5.8	0.50	696	4	4.1	--	3207	7	10.0	0.68
BLACKSMITH SHOP	555	1	2.8	--	6	0	0.0	--	561	1	2.9	--
CARRENTER SHOP	665	1	3.7	--	1	0	0.0	--	666	1	3.7	--
ELECTRIC MAINTENANCE ASSIGNED	3200	11	13.4	0.80	8	0	0.0	--	3208	11	13.5	0.80
ELECTRIC SHOP	1620	5	8.8	0.53	2	0	0.0	--	1622	5	8.8	0.53
GARAGE	242	0	0.7	--	2	0	0.0	--	244	0	0.7	--
LOCOMOTIVE AND CAR REPAIR	261	2	1.2	--	22	1	0.1	--	283	3	1.3	--
MACHINE SHOP	2405	10	10.1	0.99	12	0	0.1	--	2417	10	10.2	0.98
MAINTENANCE NOS	558	1	1.5	--	5	0	0.0	--	563	1	1.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	19	23.5	0.77	201	1	1.7	--	6337	20	25.2	0.76
PAINT SHOP	777	1	2.5	--	9	0	0.1	--	786	1	2.5	--
PATTERN SHOP	95	0	0.4	--	0	0	0.0	--	95	0	0.4	--
PIPE SHOP	1412	6	5.5	1.10	14	2	0.2	--	1426	8	5.7	1.43
RIGGERS AND STRUCTURAL	2525	9	12.8	0.68	21	0	0.3	--	2546	9	13.1	0.66
ROLL SHOP	502	2	1.8	--	3	0	0.0	--	505	2	1.9	--
WELD SHOP	758	0	1.6	--	2	0	0.0	--	760	0	1.6	--
ALL OTHER	1098	3	6.2	0.47	75	0	0.9	--	1173	3	7.1	0.41
GENERAL RECEIVING AND STORES	382	0	1.4	--	9	0	0.2	--	391	0	1.6	--
PLANT PROTECTION	856	7	3.9	1.83	4	0	0.0	--	860	7	3.9	1.82
POWER AND FUEL	2336	9	9.9	0.90	213	3	2.5	--	2549	12	12.5	0.96
TRANSPORTATION AND YARD	2842	9	12.1	0.73	633	6	4.6	1.37	3475	15	16.7	0.89
TUBE MILLS INCLUDES TUBE FINISHING	635	1	2.3	--	10	0	0.1	--	645	1	2.3	--
RIVER OR MARINE WAYS	293	1	0.9	--	1	0	0.0	--	294	1	0.9	--
TOTAL	51479	153	153.0	1.00	7349	42	42.0	1.00	58828	195	195.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00057

C.O.D. (PREVALENCE) = 17/-181
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	19	16.0	1.21	34	1	0.3	--	5146	20	16.4	1.25
GEN TECHNICAL	3684	15	9.6	1.63	16	0	0.0	--	3700	15	9.6	1.62
COKE PLANT	2381	12	8.1	1.68	1176	10	7.9	1.68	3557	22	16.1	1.68
BLAST FURNACE	4218	10	20.4	0.44 *	1415	9	7.8	1.20	5633	19	28.2	0.62
OPEN HEARTH	9655	32	36.6	0.84	2335	16	15.6	1.05	11990	48	52.1	0.89
BESSEMER CONVERTER	240	1	2.3	--	88	1	1.0	--	328	2	3.2	--
ELECTRIC FURNACE	1250	2	4.0	--	11	0	0.0	--	1261	2	4.1	--
FOUNDRY	1781	12	8.7	1.42	345	0	2.0	--	2126	12	10.7	1.14
HEAT TREAT AND FORGING	1683	10	7.3	1.48	46	2	0.7	--	1729	12	8.0	1.66
BILLET BLOOM AND SLAB MILLS	5783	26	25.1	1.04	419	1	3.1	--	6202	27	28.3	0.94
SOAKING PITS	148	1	0.4	--	28	0	0.0	--	176	1	0.4	--
MERCHANT MILLS	3085	17	19.8	0.82	680	4	6.1	0.56	4565	21	25.9	0.76
PLATE MILL	3005	16	14.8	1.13	436	5	4.6	1.16	3441	21	19.3	1.13
AXLE MILLS	293	1	2.8	--	6	0	0.1	--	299	1	2.9	--
GENERAL FINISHING AND SHIPPING	1309	8	7.0	1.16	213	2	2.5	--	1522	10	9.5	1.06
HOT STRIP MILL	567	1	2.1	--	1	0	0.0	--	568	1	2.1	--
RAIL MILL ROLLING	852	4	4.4	--	97	0	0.7	--	949	4	5.1	0.74
RAIL MILL FINISHING	726	3	3.9	--	145	2	1.1	--	871	5	5.0	1.00
STEEL YARDS	299	2	1.7	--	77	0	0.6	--	376	2	2.3	--
STRUCTURAL MILL	1972	9	6.8	1.44	252	0	1.5	--	2224	9	8.3	1.11
ANNEALING NORMALIZING	2605	8	10.2	0.75	54	1	0.4	--	2659	9	10.6	0.82
BATCH PICKLING AND SHEET DRYERS	137	0	0.7	--	50	0	0.2	--	187	0	0.9	--
COATING	545	1	0.8	--	0	0	0.0	--	545	1	0.8	--
COLD REDUCING MILLS	1933	2	3.7	--	113	0	0.8	--	2046	2	4.5	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.2	--	0	0	0.0	--	254	0	0.2	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	11	8.4	1.51	19	0	0.1	--	1248	11	8.5	1.48
HOT STRIP ROLLING	1623	5	4.2	1.21	2	0	0.0	--	1625	5	4.2	1.21
SHEET FINISHING AND SHIPPING	3306	14	9.9	1.73	108	0	0.7	--	3414	14	10.6	1.55
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	2.0	--	2	0	0.0	--	386	2	2.0	--
TEMPER PASSING AND COLD ROLLING	783	1	1.0	--	0	0	0.0	--	783	1	1.0	--
TIN FINISHING AND SHIPPING	668	3	1.0	--	1	0	0.0	--	669	3	1.0	--
GENERAL LABOR	3153	9	15.9	0.53	1215	9	10.1	0.85	4368	18	26.0	0.63
JANITORS	311	3	3.6	--	422	10	3.8	3.60 **	733	13	7.4	1.98
MASON DEPARTMENT	2511	7	7.0	1.00	696	4	4.4	--	3207	11	11.4	0.96
BLACKSMITH SHOP	555	2	3.5	--	6	0	0.0	--	561	2	3.6	--
CARPENTER SHOP	665	3	4.6	--	1	0	0.0	--	666	3	4.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	11	16.2	0.66	8	0	0.0	--	3208	11	16.2	0.66
ELECTRIC SHOP	1620	7	10.5	0.63	2	0	0.0	--	1622	7	10.5	0.63
GARAGE	242	1	0.8	--	2	0	0.0	--	244	1	0.9	--
LOCOMOTIVE AND CAR REPAIR	261	2	1.4	--	22	1	0.2	--	283	3	1.6	--
MACHINE SHOP	2405	11	12.4	0.88	12	0	0.1	--	2417	11	12.5	0.87
MAINTENANCE NOS	558	1	1.5	--	5	0	0.0	--	563	1	1.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	26	29.6	0.85	201	2	1.9	--	6337	28	31.6	0.87
PAINT SHOP	777	1	3.0	--	9	0	0.1	--	786	1	3.1	--
PATTERN SHOP	95	0	0.5	--	0	0	0.0	--	95	0	0.5	--
PIPE SHOP	1412	9	7.0	1.31	14	2	0.2	--	1426	11	7.2	1.57
RIGGERS AND STRUCTURAL	2525	13	15.8	0.81	21	0	0.3	--	2546	13	16.0	0.79
ROLL SHOP	502	2	2.3	--	3	0	0.0	--	505	2	2.3	--
WELD SHOP	758	0	1.8	--	2	0	0.0	--	760	0	1.8	--
ALL OTHER	1098	4	7.7	0.50	75	0	0.9	--	1173	4	8.6	0.45
GENERAL RECEIVING AND STORES	382	1	1.8	--	9	0	0.2	--	391	1	2.0	--
PLANT PROTECTION	856	9	4.9	1.90	4	0	0.0	--	860	9	4.9	1.89
POWER AND FUEL	2336	11	12.3	0.88	213	3	2.6	--	2549	14	14.9	0.93
TRANSPORTATION AND YARD	2842	12	14.8	0.80	633	7	5.0	1.49	3475	19	19.8	0.96
TUBE MILLS INCLUDES TUBE FINISHING	635	2	2.8	--	10	0	0.1	--	645	2	2.9	--
RIVER OR MARINE WAYS	293	1	1.3	--	1	0	0.0	--	294	1	1.3	--
TOTAL	51479	185	185.0	1.00	7349	45	45.0	1.00	58828	230	230.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00058

MULTIPLE CAUSE OF DEATH STUDY 21-MAY-78

C.O.D. (UNDERLYING) = 177-181
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	12	9.4	1.31	11	0	0.1	--	2374	12	9.5	1.29
GEN TECHNICAL	1575	7	5.0	1.43	6	0	0.0	--	1581	7	5.0	1.42
COKE PLANT	1180	10	4.1	3.10 **	664	7	6.3	1.19	1844	17	10.4	2.01 *
BLAST FURNACE	1730	5	9.9	0.48	591	8	4.6	1.98	2321	13	14.7	0.87
OPEN HEARTH	4075	19	18.3	1.05	1347	9	10.8	0.77	5422	28	29.0	0.96
BESSEMER CONVERTER	118	1	1.1	--	35	0	0.5	--	153	1	1.6	--
ELECTRIC FURNACE	509	0	1.5	--	4	0	0.0	--	513	0	1.6	--
FOUNDRY	764	8	4.6	1.83	169	0	1.3	--	933	8	5.9	1.39
HEAT TREAT AND FORGING	708	6	3.7	1.80	20	1	0.2	--	728	7	3.9	2.00
BILLET BLOOM AND SLAB MILLS	2614	11	12.9	0.83	201	0	1.8	--	2815	11	14.7	0.71
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	9	11.0	0.79	301	2	3.8	--	2287	11	14.7	0.71
PLATE MILL	1442	6	7.1	0.80	246	3	2.6	--	1688	9	9.7	0.90
AXLE MILLS	45	0	0.5	--	0	0	0.0	--	45	0	0.5	--
GENERAL FINISHING AND SHIPPING	511	2	2.5	--	113	0	1.3	--	624	2	3.8	--
HOT STRIP MILL	174	0	0.7	--	0	0	0.0	--	174	0	0.7	--
RAIL MILL ROLLING	288	2	2.0	--	32	0	0.3	--	320	2	2.3	--
RAIL MILL FINISHING	245	2	1.5	--	82	1	0.6	--	327	3	2.2	--
STEEL YARDS	68	1	0.5	--	11	0	0.1	--	79	1	0.6	--
STRUCTURAL MILL	980	6	3.3	2.07	128	0	0.9	--	1108	6	4.1	1.55
ANNEALING NORMALIZING	1214	4	4.9	--	25	0	0.2	--	1239	4	5.1	0.75
BATCH PICKLING AND SHEET DRYERS	45	0	0.3	--	19	0	0.1	--	64	0	0.4	--
COATING	269	0	0.5	--	0	0	0.0	--	269	0	0.5	--
COLD REDUCING MILLS	848	2	2.2	--	65	0	0.6	--	913	2	2.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.2	--	0	0	0.0	--	147	0	0.2	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	8	5.1	1.84	5	0	0.1	--	742	8	5.2	1.80
HOT STRIP ROLLING	864	4	2.5	--	1	0	0.0	--	865	4	2.5	--
SHEET FINISHING AND SHIPPING	1335	6	4.4	1.47	48	0	0.3	--	1383	6	4.8	1.33
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.8	--	0	0	0.0	--	148	0	0.8	--
TEMPER PASSING AND COLD ROLLING	335	0	0.5	--	0	0	0.0	--	335	0	0.5	--
TIN FINISHING AND SHIPPING	348	1	0.7	--	0	0	0.0	--	348	1	0.7	--
GENERAL LABOR	565	0	3.5	--	375	3	3.4	--	940	3	6.8	0.40
JANITORS	112	0	1.2	--	190	7	2.2	3.95 **	302	7	3.4	2.28
MASON DEPARTMENT	758	1	2.5	--	242	0	1.9	--	1000	1	4.4	--
BLACKSMITH SHOP	231	1	1.5	--	5	0	0.0	--	236	1	1.5	--
CARPENTER SHOP	277	1	2.0	--	0	0	0.0	--	277	1	2.0	--
ELECTRIC MAINTENANCE ASSIGNED	1581	5	8.8	0.56	2	0	0.0	--	1583	5	8.8	0.55
ELECTRIC SHOP	760	4	4.9	--	2	0	0.0	--	762	4	4.9	--
GARAGE	98	0	0.4	--	1	0	0.0	--	99	0	0.4	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.7	--	7	1	0.1	--	111	2	0.8	--
MACHINE SHOP	1270	5	6.3	0.79	2	0	0.0	--	1272	5	6.3	0.78
MAINTENANCE NOS	246	1	0.8	--	0	0	0.0	--	246	1	0.8	--
MECHNICAL MAINTENANCE ASSIGNED	2290	13	12.5	1.04	73	1	1.0	--	2363	14	13.5	1.04
PAINT SHOP	197	0	0.8	--	2	0	0.0	--	199	0	0.8	--
PATTERN SHOP	64	0	0.3	--	0	0	0.0	--	64	0	0.3	--
PIPE SHOP	657	2	2.9	--	6	0	0.1	--	663	2	3.0	--
RIGGERS AND STRUCTURAL	1034	3	5.6	0.52	6	0	0.1	--	1040	3	5.7	0.51
ROLL SHOP	314	2	1.4	--	0	0	0.0	--	314	2	1.4	--
WELD SHOP	460	0	1.2	--	2	0	0.0	--	462	0	1.2	--
ALL OTHER	302	3	2.4	--	9	0	0.2	--	311	3	2.6	--
GENERAL RECEIVING AND STORES	168	0	0.9	--	2	0	0.1	--	170	0	1.0	--
PLANT PROTECTION	469	5	2.8	1.84	1	0	0.0	--	470	5	2.8	1.83
POWER AND FUEL	976	5	5.9	0.84	89	1	1.4	--	1065	6	7.3	0.81
TRANSPORTATION AND YARD	871	4	5.4	0.73	194	3	1.7	--	1065	7	7.1	0.99
TUBE MILLS INCLUDES TUBE FINISHING	281	1	1.1	--	2	0	0.0	--	283	1	1.1	--
RIVER OR MARINE WAYS	177	0	0.7	--	1	0	0.0	--	178	0	0.7	--
TOTAL	36364	146	146.0	1.00	4913	41	41.0	1.00	41277	187	187.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00059

C.O.D. (PREVALENCE) = 177-181
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	2363	15	11.4	1.36	11	0	0.1	--	2374	15	11.5	1.34
GEN TECHNICAL	1575	8	6.0	1.36	6	0	0.0	--	1581	8	6.0	1.35
COKE PLANT	1180	10	5.5	2.09	664	7	6.3	1.19	1844	17	11.8	1.66
BLAST FURNACE	1730	6	12.0	0.47	591	8	5.2	1.76	2321	14	17.2	0.79
OPEN HEARTH	4075	22	22.1	0.99	1347	10	11.8	0.78	5422	32	33.9	0.93
BESSEMER CONVERTER	118	1	1.4	--	35	1	0.5	--	153	2	1.9	--
ELECTRIC FURNACE	509	0	1.8	--	4	0	0.0	--	513	0	1.9	--
FOUNDRY	764	10	5.7	1.86	169	0	1.5	--	933	10	7.2	1.43
HEAT TREAT AND FORGING	708	7	4.5	1.67	20	1	0.2	--	728	8	4.8	1.82
BILLET BLOOM AND SLAB MILLS	2614	12	14.9	0.77	201	0	1.8	--	2815	12	16.8	0.67
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	11	12.9	0.83	301	2	3.8	--	2287	13	16.7	0.75
PLATE MILL	1442	10	9.0	1.15	246	4	3.1	--	1688	14	12.1	1.21
AXLE MILLS	45	0	0.6	--	0	0	0.0	--	45	0	0.6	--
GENERAL FINISHING AND SHIPPING	511	2	3.2	--	113	0	1.4	--	624	2	4.5	--
HOT STRIP MILL	174	0	0.8	--	0	0	0.0	--	174	0	0.8	--
RAIL MILL ROLLING	288	2	2.5	--	32	0	0.3	--	320	2	2.8	--
RAIL MILL FINISHING	245	3	1.9	--	82	1	0.8	--	327	4	2.7	--
STEEL YARDS	68	2	0.6	--	11	0	0.1	--	79	2	0.7	--
STRUCTURAL MILL	980	7	4.0	1.93	128	0	1.0	--	1108	7	5.0	1.48
ANNEALING NORMALIZING	1214	4	6.0	0.63	25	0	0.2	--	1239	4	6.2	0.61
BATCH PICKLING AND SHEET DRYERS	45	0	0.4	--	19	0	0.1	--	64	0	0.5	--
COATING	269	0	0.5	--	0	0	0.0	--	269	0	0.5	--
COLD REDUCING MILLS	848	2	2.5	--	65	0	0.6	--	913	2	3.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.2	--	0	0	0.0	--	147	0	0.2	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	8	6.6	1.29	5	0	0.1	--	742	8	6.7	1.27
HOT STRIP ROLLING	864	5	2.8	1.89	1	0	0.0	--	865	5	2.8	1.89
SHEET FINISHING AND SHIPPING	1335	7	5.2	1.44	48	0	0.3	--	1383	7	5.6	1.32
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	1.0	--	0	0	0.0	--	148	1	1.0	--
TEMPER PASSING AND COLD ROLLING	335	0	0.5	--	0	0	0.0	--	335	0	0.5	--
TIN FINISHING AND SHIPPING	348	1	0.7	--	0	0	0.0	--	348	1	0.7	--
GENERAL LABOR	565	2	4.4	--	375	3	3.5	--	940	5	7.9	0.60
JANITORS	112	2	1.5	--	190	7	2.4	3.62 **	302	9	3.9	2.63 *
MASON DEPARTMENT	758	3	3.0	--	242	0	2.0	--	1000	3	5.0	0.59
BLACKSMITH SHOP	231	1	1.8	--	5	0	0.0	--	236	1	1.9	--
CARPENTER SHOP	277	2	2.5	--	0	0	0.0	--	277	2	2.5	--
ELECTRIC MAINTENANCE ASSIGNED	1581	5	10.5	0.46	2	0	0.0	--	1583	5	10.5	0.46
ELECTRIC SHOP	760	6	5.9	1.02	2	0	0.0	--	762	6	5.9	1.02
GARAGE	98	1	0.4	--	1	0	0.0	--	99	1	0.5	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.8	--	7	1	0.1	--	111	2	0.9	--
MACHINE SHOP	1270	6	7.6	0.78	2	0	0.0	--	1272	6	7.7	0.77
MAINTENANCE NOS	246	1	0.9	--	0	0	0.0	--	246	1	0.9	--
MECHNICAL MAINTENANCE ASSIGNED	2290	16	16.2	0.99	73	2	1.1	--	2363	18	17.3	1.05
PAINT SHOP	197	0	1.0	--	2	0	0.0	--	199	0	1.0	--
PATTERN SHOP	64	0	0.4	--	0	0	0.0	--	64	0	0.4	--
PIPE SHOP	657	2	3.7	--	6	0	0.1	--	663	2	3.8	--
RIGGERS AND STRUCTURAL	1034	5	6.9	0.71	6	0	0.1	--	1040	5	7.0	0.70
ROLL SHOP	314	2	1.8	--	0	0	0.0	--	314	2	1.8	--
WELD SHOP	460	0	1.4	--	2	0	0.0	--	462	0	1.4	--
ALL OTHER	302	3	3.0	--	9	0	0.2	--	311	3	3.1	--
GENERAL RECEIVING AND STORES	168	0	1.1	--	2	0	0.1	--	170	0	1.2	--
PLANT PROTECTION	469	7	3.4	2.09	1	0	0.0	--	470	7	3.4	2.08
POWER AND FUEL	976	7	7.4	0.94	89	1	1.5	--	1065	8	8.9	0.90
TRANSPORTATION AND YARD	871	5	6.6	0.74	194	3	1.8	--	1065	8	8.5	0.94
TUBE MILLS INCLUDES TUBE FINISHING	281	1	1.3	--	2	0	0.0	--	283	1	1.4	--
RIVER OR MARINE WAYS	177	0	1.0	--	1	0	0.0	--	178	0	1.0	--
TOTAL	36364	177	177.0	1.00	4913	44	44.0	1.00	41277	221	221.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00060

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Genito-Urinary Organs

ICD CODE: 177-181

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Coke Plant	2.84*	2.02	2.67*	1.68	3.10**	2.09
General Technical	2.02	1.67	1.84*	1.63	1.43	1.36
Blast Furnace	0.50	0.51	0.42*	0.44*	0.48	0.47
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Janitors	3.26*	2.98*	3.42**	3.60**	3.95**	3.62**

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

19000

C.O.D. (UNDERLYING) = 177
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	5	4.6	1.10	18	0	0.1	--	3291	5	4.7	1.07
GEN TECHNICAL	2368	4	2.0	--	14	0	0.0	--	2382	4	2.0	--
COKE PLANT	1635	3	1.8	--	908	5	4.8	1.07	2543	8	6.6	1.32
BLAST FURNACE	2355	2	3.8	--	1101	6	3.6	1.99	3456	8	7.3	1.11
OPEN HEARTH	5797	8	8.2	0.98	1836	5	6.8	0.65	7633	13	15.0	0.84
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	0.8	--	7	0	0.0	--	741	0	0.8	--
FOUNDRY	890	4	1.6	--	253	0	0.3	--	1143	4	1.9	--
HEAT TREAT AND FORGING	1003	1	1.8	--	16	0	0.1	--	1019	1	1.9	--
BILLET BLOOM AND SLAB MILLS	2912	9	5.1	2.00	223	0	1.3	--	3135	9	6.3	1.52
SOAKING PITS	94	1	0.1	--	14	0	0.0	--	108	1	0.1	--
MERCHANT MILLS	2130	3	3.9	--	395	2	2.3	--	2525	5	6.2	0.78
PLATE MILL	1547	2	3.1	--	239	2	1.3	--	1786	4	4.4	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.5	--	82	0	0.6	--	481	0	1.2	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	1	0.6	--	46	0	0.0	--	385	1	0.6	--
RAIL MILL FINISHING	347	0	0.5	--	98	0	0.0	--	445	0	0.5	--
STEEL YARDS	88	0	0.1	--	32	0	0.1	--	120	0	0.2	--
STRUCTURAL MILL	1196	4	1.9	--	164	0	0.5	--	1360	4	2.4	--
ANNEALING NORMALIZING	1353	2	1.9	--	17	0	0.1	--	1370	2	2.0	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.1	--	76	0	0.1	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	2	0.9	--	97	0	0.5	--	1492	2	1.4	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	2.0	--	5	0	0.1	--	571	2	2.0	--
HOT STRIP ROLLING	1008	1	0.9	--	0	0	0.0	--	1008	1	0.9	--
SHEET FINISHING AND SHIPPING	1733	3	2.4	--	36	0	0.2	--	1769	3	2.6	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.2	--	1	0	0.0	--	47	0	0.2	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	1	0.8	--	449	1	1.6	--	995	2	2.4	--
JANITORS	205	0	1.1	--	321	6	2.1	4.07 *	526	6	3.3	2.17
MASON DEPARTMENT	1305	0	1.0	--	438	0	1.4	--	1743	0	2.3	--
BLACKSMITH SHOP	266	0	0.6	--	4	0	0.0	--	270	0	0.6	--
CARPENTER SHOP	406	0	1.1	--	0	0	0.0	--	406	0	1.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	2.7	--	5	0	0.0	--	1610	2	2.7	--
ELECTRIC SHOP	551	1	1.1	--	1	0	0.0	--	552	1	1.1	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.2	--	9	0	0.0	--	130	0	0.3	--
MACHINE SHOP	1442	3	2.6	--	3	0	0.0	--	1445	3	2.6	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	5	4.7	1.07	60	1	0.3	--	2749	6	5.0	1.23
PAINT SHOP	263	0	0.3	--	2	0	0.0	--	265	0	0.3	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	1.2	--	5	1	0.1	--	743	1	1.3	--
RIGGERS AND STRUCTURAL	1189	3	2.2	--	8	0	0.0	--	1197	3	2.2	--
ROLL SHOP	374	2	0.7	--	0	0	0.0	--	374	2	0.7	--
WELD SHOP	644	0	0.5	--	2	0	0.0	--	646	0	0.5	--
ALL OTHER	138	0	0.2	--	5	0	0.0	--	143	0	0.2	--
GENERAL RECEIVING AND STORES	192	0	0.3	--	4	0	0.1	--	196	0	0.4	--
PLANT PROTECTION	674	3	1.7	--	1	0	0.0	--	675	3	1.7	--
POWER AND FUEL	1343	1	2.5	--	62	0	0.4	--	1405	1	2.9	--
TRANSPORTATION AND YARD	1293	0	2.5	--	341	1	1.2	--	1634	1	3.7	--
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.4	--	1	0	0.0	--	230	1	0.4	--
RIVER OR MARINE WAYS	218	0	0.4	--	1	0	0.0	--	219	0	0.4	--
TOTAL	51479	79	79.0	1.00	7349	30	30.0	1.00	58828	109	109.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00062

C.O.D. (PREVALENCE) = 177
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	7	5.7	1.24	18	0	0.1	--	3291	7	5.8	1.22
GEN TECHNICAL	2368	4	2.5	--	14	0	0.0	--	2382	4	2.5	--
COKE PLANT	1635	3	2.3	--	908	5	4.8	1.07	2543	8	7.1	1.18
BLAST FURNACE	2355	3	4.9	--	1101	6	3.8	1.81	3456	9	8.7	1.04
OPEN HEARTH	5797	10	10.4	0.95	1836	6	7.1	0.78	7633	16	17.6	0.89
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	0.9	--	7	0	0.0	--	741	0	0.9	--
FOUNDRY	890	4	2.1	--	253	0	0.5	--	1143	4	2.6	--
HEAT TREAT AND FORGING	1003	1	2.3	--	16	0	0.1	--	1019	1	2.3	--
BILLET BLOOM AND SLAB MILLS	2912	10	6.3	1.74	223	0	1.3	--	3135	10	7.5	1.39
SOAKING PITS	94	1	0.2	--	14	0	0.0	--	108	1	0.2	--
MERCHANT MILLS	2130	3	4.8	--	395	2	2.3	--	2525	5	7.2	0.67
PLATE MILL	1547	3	3.9	--	239	2	1.3	--	1786	5	5.2	0.96
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	0.7	--	82	0	0.6	--	481	1	1.3	--
HOT STRIP MILL	164	0	0.3	--	1	0	0.0	--	165	0	0.3	--
RAIL MILL ROLLING	339	1	0.9	--	46	0	0.0	--	385	1	1.0	--
RAIL MILL FINISHING	347	1	0.6	--	98	0	0.1	--	445	1	0.7	--
STEEL YARDS	88	1	0.2	--	32	0	0.1	--	120	1	0.2	--
STRUCTURAL MILL	1196	5	2.4	2.34	164	0	0.5	--	1360	5	2.9	1.87
ANNEALING NORMALIZING	1353	3	2.5	--	17	0	0.1	--	1370	3	2.5	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.1	--	76	0	0.2	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	2	1.2	--	97	0	0.5	--	1492	2	1.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	2.4	--	5	0	0.1	--	571	2	2.4	--
HOT STRIP ROLLING	1008	1	1.1	--	0	0	0.0	--	1008	1	1.1	--
SHEET FINISHING AND SHIPPING	1733	4	2.9	--	36	0	0.2	--	1769	4	3.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.2	--	1	0	0.0	--	47	0	0.2	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	1	1.0	--	449	1	1.6	--	995	2	2.6	--
JANITORS	205	2	1.4	--	321	6	2.2	3.94 *	526	8	3.6	2.67 *
MASON DEPARTMENT	1305	0	1.3	--	438	0	1.4	--	1743	0	2.7	--
BLACKSMITH SHOP	266	1	0.8	--	4	0	0.0	--	270	1	0.9	--
CARPENTER SHOP	406	1	1.3	--	0	0	0.0	--	406	1	1.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	3.2	--	5	0	0.0	--	1610	2	3.2	--
ELECTRIC SHOP	551	1	1.4	--	1	0	0.0	--	552	1	1.4	--
GARAGE	147	1	0.2	--	0	0	0.0	--	147	1	0.2	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.3	--	9	0	0.0	--	130	0	0.3	--
MACHINE SHOP	1442	3	3.3	--	3	0	0.0	--	1445	3	3.3	--
MAINTENANCE NOS	70	0	0.2	--	2	0	0.0	--	72	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	6	5.7	1.05	60	1	0.3	--	2749	7	6.0	1.18
PAINT SHOP	263	0	0.4	--	2	0	0.0	--	265	0	0.4	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	1.6	--	5	1	0.1	--	743	1	1.7	--
RIGGERS AND STRUCTURAL	1189	3	2.8	--	8	0	0.0	--	1197	3	2.8	--
ROLL SHOP	374	2	1.0	--	0	0	0.0	--	374	2	1.0	--
WELD SHOP	644	0	0.7	--	2	0	0.0	--	646	0	0.7	--
ALL OTHER	138	0	0.2	--	5	0	0.0	--	143	0	0.3	--
GENERAL RECEIVING AND STORES	192	0	0.4	--	4	0	0.1	--	196	0	0.5	--
PLANT PROTECTION	674	4	2.2	--	1	0	0.0	--	675	4	2.2	--
POWER AND FUEL	1343	1	3.1	--	62	0	0.4	--	1405	1	3.5	--
TRANSPORTATION AND YARD	1293	0	3.1	--	341	1	1.2	--	1634	1	4.4	--
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.5	--	1	0	0.0	--	230	1	0.5	--
RIVER OR MARINE WAYS	218	0	0.5	--	1	0	0.0	--	219	0	0.5	--
TOTAL	51479	99	99.0	1.00	7349	31	31.0	1.00	58828	130	130.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 177
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	8	6.7	1.21	34	1	0.2	--	5146	9	7.0	1.33
GEN TECHNICAL	3684	6	3.9	1.60	16	0	0.0	--	3700	6	3.9	1.59
COKE PLANT	2381	5	3.0	2.19	1176	8	6.8	1.44	3557	13	9.7	1.73
BLAST FURNACE	4219	5	8.7	0.52	1415	7	5.1	1.55	5633	12	13.8	0.84
OPEN HEARTH	9655	12	15.9	0.70	2335	12	9.7	1.52	11990	24	25.6	0.91
BESSEMER CONVERTER	240	1	0.9	--	88	0	0.4	--	328	1	1.2	--
ELECTRIC FURNACE	1250	1	1.9	--	11	0	0.0	--	1261	1	1.9	--
FOUNDRY	1781	7	3.6	2.09	345	0	0.5	--	2126	7	4.1	1.80
HEAT TREAT AND FORGING	1683	6	3.9	1.73	46	1	0.4	--	1729	7	4.2	1.87
BILLET BLOOM AND SLAB MILLS	5783	13	10.9	1.25	419	1	2.6	--	6202	14	13.5	1.05
SOAKING PITS	148	1	0.2	--	28	0	0.0	--	176	1	0.2	--
MERCHANT MILLS	3885	9	8.1	1.15	680	4	5.2	0.69	4565	13	13.4	0.96
PLATE MILL	3005	7	8.0	0.82	436	3	2.4	--	3441	10	10.5	0.93
AXLE MILLS	293	1	1.5	--	6	0	0.1	--	299	1	1.6	--
GENERAL FINISHING AND SHIPPING	1309	3	3.2	--	213	1	2.0	--	1522	4	5.2	0.75
HOT STRIP MILL	567	0	0.7	--	1	0	0.0	--	568	0	0.7	--
RAIL MILL ROLLING	852	2	1.5	--	97	0	0.0	--	949	2	1.5	--
RAIL MILL FINISHING	726	0	1.4	--	145	0	0.0	--	871	0	1.4	--
STEEL YARDS	299	1	1.0	--	77	0	0.3	--	376	1	1.3	--
STRUCTURAL MILL	1972	4	3.5	--	252	0	0.8	--	2224	4	4.3	--
ANNEALING NORMALIZING	2605	4	4.6	--	54	1	0.4	--	2659	5	5.0	1.01
BATCH PICKLING AND SHEET DRYERS	137	0	0.4	--	50	0	0.2	--	187	0	0.5	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	2	1.4	--	113	0	0.6	--	2046	2	2.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	7	4.5	2.20	19	0	0.1	--	1248	7	4.7	2.06
HOT STRIP ROLLING	1623	1	1.5	--	2	0	0.0	--	1625	1	1.5	--
SHEET FINISHING AND SHIPPING	3306	7	4.5	2.04	108	0	0.7	--	3414	7	5.2	1.60
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	1.0	--	2	0	0.0	--	386	1	1.0	--
TEMPER PASSING AND COLD ROLLING	783	0	0.3	--	0	0	0.0	--	783	0	0.3	--
TIN FINISHING AND SHIPPING	668	1	0.3	--	1	0	0.0	--	669	1	0.3	--
GENERAL LABOR	3153	4	7.2	0.52	1215	6	6.8	0.84	4368	10	14.0	0.66
JANITORS	311	0	1.7	--	422	8	2.7	4.74 **	733	8	4.4	2.18
MASON DEPARTMENT	2511	2	2.8	--	696	3	2.9	--	3207	5	5.7	0.85
BLACKSMITH SHOP	555	0	1.6	--	6	0	0.0	--	561	0	1.6	--
CARPENTER SHOP	665	0	2.1	--	1	0	0.0	--	666	0	2.1	--
ELECTRIC MAINTENANCE ASSIGNED	3200	6	7.2	0.82	8	0	0.0	--	3208	6	7.2	0.82
ELECTRIC SHOP	1620	3	5.3	0.53	2	0	0.0	--	1622	3	5.3	0.53
GARAGE	242	0	0.3	--	2	0	0.0	--	244	0	0.4	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.7	--	22	1	0.1	--	283	1	0.8	--
MACHINE SHOP	2405	5	5.4	0.91	12	0	0.0	--	2417	5	5.5	0.91
MAINTENANCE NOS	558	0	0.6	--	5	0	0.0	--	563	0	0.6	--
MECHNICAL MAINTENANCE ASSIGNED	6136	8	13.2	0.55	201	1	1.1	--	6337	9	14.4	0.57
PAINT SHOP	777	0	1.3	--	9	0	0.0	--	786	0	1.3	--
PATTERN SHOP	95	0	0.2	--	0	0	0.0	--	95	0	0.2	--
PIPE SHOP	1412	2	3.0	--	14	1	0.2	--	1426	3	3.2	--
RIGGERS AND STRUCTURAL	2525	5	7.0	0.69	21	0	0.2	--	2546	5	7.3	0.66
ROLL SHOP	502	2	1.0	--	3	0	0.0	--	505	2	1.0	--
WELD SHOP	758	0	0.7	--	2	0	0.0	--	760	0	0.7	--
ALL OTHER	1098	3	3.3	--	75	0	0.7	--	1173	3	4.0	--
GENERAL RECEIVING AND STORES	382	0	0.7	--	9	0	0.2	--	391	0	0.9	--
PLANT PROTECTION	856	4	2.3	--	4	0	0.0	--	860	4	2.3	--
POWER AND FUEL	2336	2	5.3	0.35	213	2	1.8	--	2549	4	7.0	0.54
TRANSPORTATION AND YARD	2842	4	6.7	0.57	633	5	3.4	1.58	3475	9	10.2	0.87
TUBE MILLS INCLUDES TUBE FINISHING	635	1	1.4	--	10	0	0.1	--	645	1	1.5	--
RIVER OR MARINE WAYS	293	1	0.5	--	1	0	0.0	--	294	1	0.5	--
TOTAL	51479	79	79.0	1.00	7349	30	30.0	1.00	58828	109	109.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 177
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	10	8.4	1.21	34	1	0.2	--	5146	11	8.7	1.31
GEN TECHNICAL	3684	7	4.9	1.48	16	0	0.0	--	3700	7	4.9	1.48
COKE PLANT	2381	5	3.9	1.44	1176	8	6.8	1.44	3557	13	10.6	1.44
BLAST FURNACE	4218	6	11.0	0.49	1415	7	5.4	1.44	5633	13	16.3	0.75
OPEN HEARTH	9655	15	20.0	0.69	2335	13	10.1	1.68	11990	28	30.1	0.90
BESSEMER CONVERTER	240	1	1.2	--	88	1	0.4	--	328	2	1.6	--
ELECTRIC FURNACE	1250	1	2.3	--	11	0	0.0	--	1261	1	2.3	--
FOUNDRY	1781	9	4.7	2.07	345	0	0.7	--	2126	9	5.4	1.75
HEAT TREAT AND FORGING	1683	7	4.9	1.59	46	1	0.4	--	1729	8	5.2	1.71
BILLET BLOOM AND SLAB MILLS	5783	16	13.5	1.24	419	1	2.6	--	6202	17	16.1	1.07
SOAKING PITS	148	1	0.2	--	28	0	0.0	--	176	1	0.2	--
MERCHANT MILLS	3885	10	10.2	0.97	680	4	5.2	0.69	4565	14	15.4	0.88
PLATE MILL	3005	10	10.0	1.00	436	3	2.4	--	3441	13	12.4	1.07
AXLE MILLS	293	1	2.0	--	6	0	0.1	--	299	1	2.0	--
GENERAL FINISHING AND SHIPPING	1309	5	4.0	1.29	213	1	2.0	--	1522	6	6.0	1.01
HOT STRIP MILL	567	0	0.9	--	1	0	0.0	--	568	0	0.9	--
RAIL MILL ROLLING	852	2	2.1	--	97	0	0.1	--	949	2	2.2	--
RAIL MILL FINISHING	726	1	1.9	--	145	0	0.1	--	871	1	2.0	--
STEEL YARDS	299	2	1.2	--	77	0	0.3	--	376	2	1.5	--
STRUCTURAL MILL	1972	5	4.4	1.19	252	0	0.8	--	2224	5	5.1	0.97
ANNEALING NORMALIZING	2605	5	5.8	0.84	54	1	0.4	--	2659	6	6.1	0.97
BATCH PICKLING AND SHEET DRYERS	137	0	0.4	--	50	0	0.2	--	187	0	0.6	--
COATING	545	0	0.3	--	0	0	0.0	--	545	0	0.3	--
COLD REDUCING MILLS	1933	2	1.7	--	113	0	0.6	--	2046	2	2.3	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	7	5.6	1.46	19	0	0.1	--	1248	7	5.7	1.40
HOT STRIP ROLLING	1623	2	1.8	--	2	0	0.0	--	1625	2	1.8	--
SHEET FINISHING AND SHIPPING	3306	8	5.4	1.87	108	0	0.7	--	3414	8	6.0	1.53
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	1.3	--	2	0	0.0	--	386	1	1.3	--
TEMPER PASSING AND COLD ROLLING	783	0	0.3	--	0	0	0.0	--	783	0	0.3	--
TIN FINISHING AND SHIPPING	668	1	0.3	--	1	0	0.0	--	669	1	0.3	--
GENERAL LABOR	3153	4	8.9	0.41	1215	6	6.8	0.84	4368	10	15.7	0.57
JANITORS	311	2	2.1	--	422	8	2.7	4.57 **	733	10	4.9	2.46 *
MASON DEPARTMENT	2511	2	3.5	--	696	3	3.0	--	3207	5	6.5	0.74
BLACKSMITH SHOP	555	1	2.1	--	6	0	0.0	--	561	1	2.1	--
CARPENTER SHOP	665	1	2.6	--	1	0	0.0	--	666	1	2.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	6	8.8	0.66	8	0	0.0	--	3208	6	8.8	0.66
ELECTRIC SHOP	1620	3	6.4	0.43	2	0	0.0	--	1622	3	6.5	0.43
GARAGE	242	1	0.4	--	2	0	0.0	--	244	1	0.5	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.8	--	22	1	0.1	--	283	1	0.9	--
MACHINE SHOP	2405	6	6.8	0.87	12	0	0.0	--	2417	6	6.9	0.86
MAINTENANCE NOS	558	0	0.7	--	5	0	0.0	--	563	0	0.7	--
MECHNICAL MAINTENANCE ASSIGNED	6136	13	16.5	0.75	201	1	1.1	--	6337	14	17.7	0.76
PAINT SHOP	777	0	1.6	--	9	0	0.0	--	786	0	1.6	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	5	3.8	1.33	14	1	0.2	--	1426	6	4.0	1.54
RIGGERS AND STRUCTURAL	2525	9	8.9	1.02	21	0	0.2	--	2546	9	9.1	0.99
ROLL SHOP	502	2	1.3	--	3	0	0.0	--	505	2	1.3	--
WELD SHOP	758	0	0.9	--	2	0	0.0	--	760	0	0.9	--
ALL OTHER	1098	4	4.2	--	75	0	0.7	--	1173	4	4.9	--
GENERAL RECEIVING AND STORES	382	0	0.9	--	9	0	0.2	--	391	0	1.1	--
PLANT PROTECTION	856	5	2.9	1.76	4	0	0.0	--	860	5	2.9	1.75
POWER AND FUEL	2336	3	6.7	0.43	213	2	1.8	--	2549	5	8.5	0.57
TRANSPORTATION AND YARD	2842	5	8.4	0.57	633	6	3.5	1.92	3475	11	11.9	0.91
TUBE MILLS INCLUDES TUBE FINISHING	635	1	1.7	--	10	0	0.1	--	645	1	1.7	--
RIVER OR MARINE WAYS	293	1	0.6	--	1	0	0.0	--	294	1	0.6	--
TOTAL	51479	99	99.0	1.00	7349	31	31.0	1.00	58828	130	130.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) # 177
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	7	5.0	1.45	11	0	0.1	--	2374	7	5.1	1.42
GEN TECHNICAL	1575	4	2.5	--	6	0	0.0	--	1581	4	2.5	--
COKE PLANT	1180	3	2.1	--	664	5	5.4	0.90	1844	8	7.4	1.11
BLAST FURNACE	1730	2	5.3	0.35	591	6	3.3	2.26	2321	8	8.6	0.92
OPEN HEARTH	4075	8	9.9	0.78	1347	7	7.2	0.96	5422	15	17.1	0.85
BESSEMER CONVERTER	118	1	0.5	--	35	0	0.3	--	153	1	0.8	--
ELECTRIC FURNACE	509	0	0.8	--	4	0	0.0	--	513	0	0.8	--
FOUNDRY	764	5	2.5	2.18	169	0	0.3	--	933	5	2.7	1.95
HEAT TREAT AND FORGING	708	3	2.4	--	20	1	0.1	--	728	4	2.5	--
BILLET BLOOM AND SLAB MILLS	2614	9	6.7	1.44	201	0	1.5	--	2815	9	8.3	1.11
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	5	5.5	0.90	301	2	3.2	--	2287	7	8.6	0.78
PLATE MILL	1442	5	4.9	1.03	246	2	1.7	--	1688	7	6.5	1.10
AXLE MILLS	45	0	0.3	--	0	0	0.0	--	45	0	0.3	--
GENERAL FINISHING AND SHIPPING	511	1	1.4	--	113	0	1.1	--	624	1	2.5	--
HOT STRIP MILL	174	0	0.3	--	0	0	0.0	--	174	0	0.3	--
RAIL MILL ROLLING	288	2	0.9	--	32	0	0.0	--	320	2	0.9	--
RAIL MILL FINISHING	245	0	0.7	--	82	0	0.0	--	327	0	0.7	--
STEEL YARDS	68	1	0.4	--	11	0	0.0	--	79	1	0.4	--
STRUCTURAL MILL	980	4	2.1	--	128	0	0.5	--	1108	4	2.6	--
ANNEALING NORMALIZING	1214	4	2.9	--	25	0	0.2	--	1239	4	3.1	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.2	--	19	0	0.1	--	64	0	0.3	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	2	1.0	--	65	0	0.5	--	913	2	1.4	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	5	3.6	1.61	5	0	0.1	--	742	5	3.7	1.55
HOT STRIP ROLLING	864	1	1.0	--	1	0	0.0	--	865	1	1.0	--
SHEET FINISHING AND SHIPPING	1335	3	2.4	--	48	0	0.3	--	1383	3	2.8	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.5	--	0	0	0.0	--	148	0	0.5	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	1.9	--	375	2	2.5	--	940	2	4.5	--
JANITORS	112	0	0.7	--	190	6	1.7	4.96 **	302	6	2.3	3.11 *
MASON DEPARTMENT	758	1	1.2	--	242	0	1.3	--	1000	1	2.5	--
BLACKSMITH SHOP	231	0	0.8	--	5	0	0.0	--	236	0	0.9	--
CARPENTER SHOP	277	0	1.2	--	0	0	0.0	--	277	0	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1581	1	4.8	--	2	0	0.0	--	1583	1	4.8	--
ELECTRIC SHOP	760	2	3.0	--	2	0	0.0	--	762	2	3.0	--
GARAGE	98	0	0.2	--	1	0	0.0	--	99	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.4	--	7	1	0.1	--	111	1	0.4	--
MACHINE SHOP	1270	3	3.4	--	2	0	0.0	--	1272	3	3.4	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	7.4	0.65	73	1	0.7	--	2363	6	8.2	0.72
PAINT SHOP	197	0	0.4	--	2	0	0.0	--	199	0	0.5	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	1	1.6	--	6	0	0.1	--	663	1	1.7	--
RIGGERS AND STRUCTURAL	1034	3	3.0	--	6	0	0.1	--	1040	3	3.1	--
ROLL SHOP	314	2	0.8	--	0	0	0.0	--	314	2	0.8	--
WELD SHOP	460	0	0.5	--	2	0	0.0	--	462	0	0.5	--
ALL OTHER	302	3	1.2	--	9	0	0.1	--	311	3	1.4	--
GENERAL RECEIVING AND STORES	168	0	0.5	--	2	0	0.1	--	170	0	0.6	--
PLANT PROTECTION	469	2	1.6	--	1	0	0.0	--	470	2	1.7	--
POWER AND FUEL	976	1	3.2	--	89	0	1.0	--	1065	1	4.2	--
TRANSPORTATION AND YARD	871	1	3.1	--	194	2	1.1	--	1065	3	4.3	--
TUBE MILLS INCLUDES TUBE FINISHING	281	1	0.7	--	2	0	0.0	--	283	1	0.7	--
RIVER OR MARINE WAYS	177	0	0.4	--	1	0	0.0	--	178	0	0.4	--
TOTAL	36364	78	78.0	1.00	4913	29	29.0	1.00	41277	107	107.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00066

C.O.D. (PREVALENCE) = 177
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	9	6.2	1.51	11	0	0.1	--	2374	9	6.3	1.48
GEN TECHNICAL	1575	5	3.1	1.66	6	0	0.0	--	1581	5	3.1	1.65
COKE PLANT	1190	3	2.7	--	664	5	5.4	0.90	1844	8	8.1	0.99
BLAST FURNACE	1730	3	6.6	0.42	591	6	3.6	2.01	2321	9	10.2	0.86
OPEN HEARTH	4075	10	12.4	0.78	1347	8	7.5	1.10	5422	18	19.9	0.88
BESSEMER CONVERTER	118	1	0.7	--	35	1	0.3	--	153	2	1.0	--
ELECTRIC FURNACE	509	0	0.9	--	4	0	0.0	--	513	0	1.0	--
FOUNDRY	764	7	3.2	2.34	169	0	0.4	--	933	7	3.6	2.03
HEAT TREAT AND FORGING	708	4	3.1	--	20	1	0.1	--	728	5	3.2	1.70
BILLET BLOOM AND SLAB MILLS	2614	10	8.0	1.31	201	0	1.5	--	2815	10	9.6	1.05
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	5	6.7	0.71	301	2	3.2	--	2287	7	9.9	0.67
PLATE MILL	1442	7	6.1	1.19	246	2	1.7	--	1688	9	7.8	1.21
AXLE MILLS	45	0	0.4	--	0	0	0.0	--	45	0	0.4	--
GENERAL FINISHING AND SHIPPING	511	1	1.7	--	113	0	1.1	--	624	1	2.8	--
HOT STRIP MILL	174	0	0.4	--	0	0	0.0	--	174	0	0.4	--
RAIL MILL ROLLING	288	2	1.3	--	32	0	0.0	--	320	2	1.3	--
RAIL MILL FINISHING	245	1	0.9	--	82	0	0.1	--	327	1	1.1	--
STEEL YARDS	68	2	0.5	--	11	0	0.0	--	79	2	0.5	--
STRUCTURAL MILL	980	5	2.6	2.18	128	0	0.5	--	1108	5	3.1	1.74
ANNEALING NORMALIZING	1214	4	3.6	--	25	0	0.2	--	1239	4	3.8	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.3	--	19	0	0.1	--	64	0	0.4	--
COATING	269	0	0.2	--	0	0	0.0	--	269	0	0.2	--
COLD REDUCING MILLS	848	2	1.2	--	65	0	0.5	--	913	2	1.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	5	4.6	1.13	5	0	0.1	--	742	5	4.7	1.10
HOT STRIP ROLLING	864	2	1.3	--	1	0	0.0	--	865	2	1.3	--
SHEET FINISHING AND SHIPPING	1335	4	2.9	--	48	0	0.3	--	1383	4	3.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.6	--	0	0	0.0	--	148	0	0.6	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	2.4	--	375	2	2.5	--	940	2	4.9	--
JANITORS	112	2	0.9	--	190	6	1.7	4.93 **	302	8	2.6	3.83 **
MASON DEPARTMENT	758	1	1.5	--	242	0	1.4	--	1000	1	2.9	--
BLACKSMITH SHOP	231	0	1.1	--	5	0	0.0	--	236	0	1.1	--
CARPENTER SHOP	277	1	1.4	--	0	0	0.0	--	277	1	1.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	1	5.8	0.16	2	0	0.0	--	1583	1	5.8	0.16
ELECTRIC SHOP	760	2	3.6	--	2	0	0.0	--	762	2	3.6	--
GARAGE	98	1	0.2	--	1	0	0.0	--	99	1	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.5	--	7	1	0.1	--	111	1	0.5	--
MACHINE SHOP	1270	4	4.3	--	2	0	0.0	--	1272	4	4.3	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	7	9.2	0.74	73	1	0.7	--	2363	8	9.9	0.79
PAINT SHOP	197	0	0.6	--	2	0	0.0	--	199	0	0.6	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	1	2.1	--	6	0	0.1	--	663	1	2.2	--
RIGGERS AND STRUCTURAL	1034	5	3.8	1.33	6	0	0.1	--	1040	5	3.9	1.29
ROLL SHOP	314	2	1.0	--	0	0	0.0	--	314	2	1.0	--
WELD SHOP	460	0	0.7	--	2	0	0.0	--	462	0	0.7	--
ALL OTHER	302	3	1.6	--	9	0	0.1	--	311	3	1.7	--
GENERAL RECEIVING AND STORES	168	0	0.6	--	2	0	0.1	--	170	0	0.7	--
PLANT PROTECTION	469	3	2.1	--	1	0	0.0	--	470	3	2.1	--
POWER AND FUEL	976	2	4.1	--	89	0	1.0	--	1065	2	5.1	0.37
TRANSPORTATION AND YARD	871	1	3.9	--	194	2	1.2	--	1065	3	5.1	0.57
TUBE MILLS INCLUDES TUBE FINISHING	281	1	0.8	--	2	0	0.1	--	283	1	0.8	--
RIVER OR MARINE WAYS	177	0	0.5	--	1	0	0.0	--	178	0	0.5	--
TOTAL	36364	97	97.0	1.00	4913	30	30.0	1.00	41277	127	127.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Prostate

ICD CODE: 177

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Janitors	4.07*	3.94*	4.74**	4.57**	4.96**	4.93**

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00003

C.O.D. (UNDERLYING) = 178-179
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	1	0.5	--	18	0	0.0	--	3291	1	0.5	--
GEN TECHNICAL	2368	0	0.4	--	14	0	0.0	--	2382	0	0.4	--
COKE PLANT	1635	0	0.0	--	908	0	0.0	--	2543	0	0.0	--
BLAST FURNACE	2355	0	0.3	--	1101	0	0.0	--	3456	0	0.3	--
OPEN HEARTH	5797	1	0.7	--	1836	0	0.0	--	7633	1	0.7	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.3	--	7	0	0.0	--	741	0	0.3	--
FOUNDRY	890	0	0.2	--	253	0	0.0	--	1143	0	0.2	--
HEAT TREAT AND FORGING	1003	0	0.1	--	16	0	0.0	--	1019	0	0.1	--
BILLET BLOOM AND SLAB MILLS	2912	0	0.3	--	223	0	0.0	--	3135	0	0.3	--
SOAKING PITS	94	0	0.0	--	14	0	0.0	--	108	0	0.0	--
MERCHANT MILLS	2130	0	0.1	--	395	0	0.0	--	2525	0	0.1	--
PLATE MILL	1547	0	0.2	--	239	0	0.0	--	1786	0	0.2	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.0	--	82	0	0.0	--	481	0	0.0	--
HOT STRIP MILL	164	0	0.0	--	1	0	0.0	--	165	0	0.0	--
RAIL MILL ROLLING	339	0	0.1	--	46	0	0.0	--	385	0	0.1	--
RAIL MILL FINISHING	347	0	0.1	--	98	0	0.0	--	445	0	0.1	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	0	0.1	--	164	0	0.0	--	1360	0	0.1	--
ANNEALING NORMALIZING	1353	0	0.2	--	17	0	0.0	--	1370	0	0.2	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.1	--	97	0	0.0	--	1492	0	0.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	0.2	--	5	0	0.0	--	571	1	0.2	--
HOT STRIP ROLLING	1008	0	0.1	--	0	0	0.0	--	1008	0	0.1	--
SHEET FINISHING AND SHIPPING	1733	2	0.7	--	36	0	0.0	--	1769	2	0.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.0	--	0	0	0.0	--	369	0	0.0	--
TIN FINISHING AND SHIPPING	396	0	0.1	--	1	0	0.0	--	397	0	0.1	--
GENERAL LABOR	546	0	0.1	--	449	0	0.0	--	995	0	0.1	--
JANITORS	205	1	0.1	--	321	0	0.0	--	526	1	0.1	--
MASON DEPARTMENT	1305	0	0.2	--	438	0	0.0	--	1743	0	0.2	--
BLACKSMITH SHOP	266	0	0.0	--	4	0	0.0	--	270	0	0.0	--
CARPENTER SHOP	406	0	0.1	--	0	0	0.0	--	406	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	0.3	--	5	0	0.0	--	1610	0	0.3	--
ELECTRIC SHOP	551	0	0.1	--	1	0	0.0	--	552	0	0.1	--
GARAGE	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.0	--	9	0	0.0	--	130	0	0.0	--
MACHINE SHOP	1442	1	0.2	--	3	0	0.0	--	1445	1	0.2	--
MAINTENANCE NOS	70	0	0.0	--	2	0	0.0	--	72	0	0.0	--
MECHNICAL MAINTENANCE ASSIGNED	2689	0	0.5	--	60	0	0.0	--	2749	0	0.5	--
PAINT SHOP	263	0	0.0	--	2	0	0.0	--	265	0	0.0	--
PATTERN SHOP	68	0	0.0	--	0	0	0.0	--	68	0	0.0	--
PIPE SHOP	738	0	0.1	--	5	0	0.0	--	743	0	0.1	--
RIGGERS AND STRUCTURAL	1189	0	0.2	--	8	0	0.0	--	1197	0	0.2	--
ROLL SHOP	374	0	0.0	--	0	0	0.0	--	374	0	0.0	--
WELD SHOP	644	0	0.1	--	2	0	0.0	--	646	0	0.1	--
ALL OTHER	138	0	0.0	--	5	0	0.0	--	143	0	0.0	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	0	0.1	--	1	0	0.0	--	675	0	0.1	--
POWER AND FUEL	1343	1	0.2	--	62	0	0.0	--	1405	1	0.2	--
TRANSPORTATION AND YARD	1293	0	0.3	--	341	0	0.0	--	1634	0	0.3	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.0	--	1	0	0.0	--	219	0	0.0	--
TOTAL	51479	8	8.0	1.00	7349	0	0.0	1.00	58828	8	8.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00039

C.O.D. (PREVALENCE) = 178-179
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	1	0.5	--	18	0	0.0	--	3291	1	0.5	--
GEN TECHNICAL	2368	0	0.4	--	14	0	0.0	--	2382	0	0.4	--
COKE PLANT	1635	0	0.0	--	908	0	0.0	--	2543	0	0.0	--
BLAST FURNACE	2355	0	0.4	--	1101	0	0.1	--	3456	0	0.5	--
OPEN HEARTH	5797	1	0.8	--	1836	0	0.3	--	7633	1	1.1	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.3	--	7	0	0.0	--	741	0	0.3	--
FOUNDRY	890	0	0.3	--	253	0	0.0	--	1143	0	0.3	--
HEAT TREAT AND FORGING	1003	0	0.1	--	16	0	0.0	--	1019	0	0.1	--
BILLET BLOOM AND SLAB MILLS	2912	0	0.4	--	223	0	0.0	--	3135	0	0.4	--
SOAKING PITS	94	0	0.0	--	14	0	0.0	--	108	0	0.0	--
MERCHANT MILLS	2130	0	0.1	--	395	0	0.0	--	2525	0	0.1	--
PLATE MILL	1547	0	0.2	--	239	1	0.2	--	1786	1	0.4	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.0	--	82	0	0.0	--	481	0	0.0	--
HOT STRIP MILL	164	0	0.0	--	1	0	0.0	--	165	0	0.0	--
RAIL MILL ROLLING	339	0	0.1	--	46	0	0.0	--	385	0	0.1	--
RAIL MILL FINISHING	347	0	0.2	--	98	0	0.0	--	445	0	0.2	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	0	0.1	--	164	0	0.1	--	1360	0	0.1	--
ANNEALING NORMALIZING	1353	0	0.2	--	17	0	0.0	--	1370	0	0.2	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.1	--	97	0	0.0	--	1492	0	0.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	1	0.2	--	5	0	0.0	--	571	1	0.2	--
HOT STRIP ROLLING	1008	0	0.1	--	0	0	0.0	--	1008	0	0.1	--
SHEET FINISHING AND SHIPPING	1733	2	0.7	--	36	0	0.0	--	1769	2	0.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.0	--	0	0	0.0	--	369	0	0.0	--
TIN FINISHING AND SHIPPING	396	0	0.1	--	1	0	0.0	--	397	0	0.1	--
GENERAL LABOR	546	0	0.1	--	449	0	0.1	--	995	0	0.1	--
JANITORS	205	1	0.1	--	321	0	0.1	--	526	1	0.2	--
MASON DEPARTMENT	1305	0	0.2	--	438	0	0.0	--	1743	0	0.2	--
BLACKSMITH SHOP	266	0	0.0	--	4	0	0.0	--	270	0	0.1	--
CARPENTER SHOP	406	0	0.1	--	0	0	0.0	--	406	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	0.3	--	5	0	0.0	--	1610	0	0.3	--
ELECTRIC SHOP	551	0	0.1	--	1	0	0.0	--	552	0	0.1	--
GARAGE	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.0	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	1	0.3	--	3	0	0.0	--	1445	1	0.3	--
MAINTENANCE NOS	70	0	0.0	--	2	0	0.0	--	72	0	0.0	--
MECHNICAL MAINTENANCE ASSIGNED	2689	0	0.5	--	60	0	0.0	--	2749	0	0.5	--
PAINT SHOP	263	0	0.0	--	2	0	0.0	--	265	0	0.0	--
PATTERN SHOP	68	0	0.0	--	0	0	0.0	--	68	0	0.0	--
PIPE SHOP	738	0	0.1	--	5	0	0.0	--	743	0	0.1	--
RIGGERS AND STRUCTURAL	1189	0	0.2	--	8	0	0.0	--	1197	0	0.2	--
ROLL SHOP	374	0	0.0	--	0	0	0.0	--	374	0	0.0	--
WELD SHOP	644	0	0.1	--	2	0	0.0	--	646	0	0.1	--
ALL OTHER	138	0	0.0	--	5	0	0.0	--	143	0	0.0	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	1	0.1	--	1	0	0.0	--	675	1	0.1	--
POWER AND FUEL	1343	1	0.3	--	62	0	0.0	--	1405	1	0.3	--
TRANSPORTATION AND YARD	1293	0	0.4	--	341	0	0.1	--	1634	0	0.5	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.0	--	1	0	0.0	--	219	0	0.0	--
TOTAL	51479	9	9.0	1.00	7349	1	1.0	1.00	58828	10	10.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

000173

C.O.D. (UNDERLYING) = 175-179
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	2	0.7	--	34	0	0.0	--	5146	2	0.7	--
GEN TECHNICAL	3684	0	0.5	--	16	0	0.0	--	3700	0	0.5	--
COKE PLANT	2381	0	0.1	--	1176	0	0.0	--	3557	0	0.1	--
BLAST FURNACE	4218	0	0.4	--	1415	0	0.0	--	5633	0	0.4	--
OPEN HEARTH	9655	2	1.2	--	2335	0	0.0	--	11990	2	1.2	--
BESSEMER CONVERTER	240	0	0.0	--	88	0	0.0	--	328	0	0.0	--
ELECTRIC FURNACE	1250	1	0.5	--	11	0	0.0	--	1261	1	0.5	--
FOUNDRY	1781	0	0.5	--	345	0	0.0	--	2126	0	0.5	--
HEAT TREAT AND FORGING	1633	0	0.2	--	46	0	0.0	--	1729	0	0.2	--
BILLET BLOOM AND SLAB MILLS	5783	0	0.9	--	419	0	0.0	--	6202	0	0.9	--
SOAKING PITS	148	0	0.0	--	28	0	0.0	--	176	0	0.0	--
MERCHANT MILLS	3885	0	0.2	--	680	0	0.0	--	4565	0	0.2	--
PLATE MILL	3005	0	0.4	--	436	0	0.0	--	3441	0	0.4	--
AXLE MILLS	293	0	0.1	--	6	0	0.0	--	299	0	0.1	--
GENERAL FINISHING AND SHIPPING	1309	0	0.1	--	213	0	0.0	--	1522	0	0.1	--
HOT STRIP MILL	567	0	0.0	--	1	0	0.0	--	568	0	0.0	--
RAIL MILL ROLLING	852	0	0.2	--	97	0	0.0	--	949	0	0.2	--
RAIL MILL FINISHING	726	0	0.2	--	145	0	0.0	--	871	0	0.2	--
STEEL YARDS	299	0	0.0	--	77	0	0.0	--	376	0	0.0	--
STRUCTURAL MILL	1972	0	0.1	--	252	0	0.0	--	2224	0	0.1	--
ANNEALING NORMALIZING	2605	0	0.4	--	54	0	0.0	--	2659	0	0.4	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.1	--	50	0	0.0	--	187	0	0.1	--
COATING	545	0	0.1	--	0	0	0.0	--	545	0	0.1	--
COLD REDUCING MILLS	1933	0	0.2	--	113	0	0.0	--	2046	0	0.2	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.0	--	0	0	0.0	--	254	0	0.0	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	1	0.4	--	19	0	0.0	--	1248	1	0.4	--
HOT STRIP ROLLING	1623	0	0.2	--	2	0	0.0	--	1625	0	0.2	--
SHEET FINISHING AND SHIPPING	3306	2	1.3	--	108	0	0.0	--	3414	2	1.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.1	--	0	0	0.0	--	783	0	0.1	--
TIN FINISHING AND SHIPPING	668	1	0.2	--	1	0	0.0	--	669	1	0.2	--
GENERAL LABOR	3153	0	0.4	--	1215	0	0.0	--	4368	0	0.4	--
JANITORS	311	1	0.1	--	422	0	0.0	--	733	1	0.1	--
MASON DEPARTMENT	2511	0	0.3	--	696	0	0.0	--	3207	0	0.3	--
BLACKSMITH SHOP	555	0	0.1	--	6	0	0.0	--	561	0	0.1	--
CARPENTER SHOP	665	0	0.1	--	1	0	0.0	--	666	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	3200	0	0.5	--	8	0	0.0	--	3208	0	0.5	--
ELECTRIC SHOP	1620	0	0.2	--	2	0	0.0	--	1622	0	0.2	--
GARAGE	242	0	0.0	--	2	0	0.0	--	244	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.0	--	22	0	0.0	--	283	0	0.0	--
MACHINE SHOP	2405	1	0.3	--	12	0	0.0	--	2417	1	0.3	--
MAINTENANCE NOS	558	0	0.2	--	5	0	0.0	--	563	0	0.2	--
MECHANICAL MAINTENANCE ASSIGNED	6136	1	1.2	--	201	0	0.0	--	6337	1	1.2	--
PAINT SHOP	777	0	0.1	--	9	0	0.0	--	786	0	0.1	--
PATTERN SHOP	95	0	0.0	--	0	0	0.0	--	95	0	0.0	--
PIPE SHOP	1412	0	0.2	--	14	0	0.0	--	1426	0	0.2	--
RIGGERS AND STRUCTURAL	2525	0	0.3	--	21	0	0.0	--	2546	0	0.3	--
ROLL SHOP	502	0	0.1	--	3	0	0.0	--	505	0	0.1	--
WELD SHOP	758	0	0.1	--	2	0	0.0	--	760	0	0.1	--
ALL OTHER	1098	0	0.2	--	75	0	0.0	--	1173	0	0.2	--
GENERAL RECEIVING AND STORES	382	0	0.1	--	9	0	0.0	--	391	0	0.1	--
PLANT PROTECTION	856	0	0.1	--	4	0	0.0	--	860	0	0.1	--
POWER AND FUEL	2336	1	0.3	--	213	0	0.0	--	2549	1	0.3	--
TRANSPORTATION AND YARD	2842	0	0.7	--	633	0	0.0	--	3475	0	0.7	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.3	--	10	0	0.0	--	645	0	0.3	--
RIVER OR MARINE WAYS	293	0	0.0	--	1	0	0.0	--	294	0	0.0	--
TOTAL	51479	8	8.0	1.00	7349	0	0.0	1.00	58828	8	8.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 178-179
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	2	0.7	--	34	0	0.0	--	5146	2	0.7	--
GEN TECHNICAL	3684	0	0.5	--	16	0	0.0	--	3700	0	0.5	--
COKE PLANT	2381	0	0.1	--	1176	0	0.0	--	3557	0	0.1	--
BLAST FURNACE	4218	0	0.6	--	1415	0	0.1	--	5633	0	0.7	--
OPEN HEARTH	9655	2	1.4	--	2335	0	0.5	--	11990	2	1.8	--
BESSEMER CONVERTER	240	0	0.1	--	88	0	0.0	--	328	0	0.1	--
ELECTRIC FURNACE	1250	1	0.5	--	11	0	0.0	--	1261	1	0.5	--
FOUNDRY	1781	0	0.5	--	345	0	0.0	--	2126	0	0.6	--
HEAT TREAT AND FORGING	1683	0	0.2	--	46	1	0.1	--	1729	1	0.3	--
BILLET BLOOM AND SLAB MILLS	5783	0	0.9	--	419	0	0.0	--	6202	0	0.9	--
SOAKING PITS	148	0	0.0	--	28	0	0.0	--	176	0	0.0	--
MERCHANT MILLS	3885	0	0.2	--	680	0	0.0	--	4565	0	0.2	--
PLATE MILL	3005	0	0.4	--	436	1	0.4	--	3441	1	0.8	--
AXLE MILLS	293	0	0.1	--	6	0	0.0	--	299	0	0.1	--
GENERAL FINISHING AND SHIPPING	1309	0	0.1	--	213	0	0.0	--	1522	0	0.1	--
HOT STRIP MILL	567	0	0.0	--	1	0	0.0	--	568	0	0.0	--
RAIL MILL ROLLING	852	0	0.3	--	97	0	0.0	--	949	0	0.3	--
RAIL MILL FINISHING	726	0	0.4	--	145	0	0.0	--	871	0	0.4	--
STEEL YARDS	299	0	0.0	--	77	0	0.1	--	376	0	0.1	--
STRUCTURAL MILL	1972	0	0.1	--	252	0	0.1	--	2224	0	0.2	--
ANNEALING NORMALIZING	2605	0	0.4	--	54	0	0.0	--	2659	0	0.4	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.1	--	50	0	0.0	--	187	0	0.1	--
COATING	545	0	0.1	--	0	0	0.0	--	545	0	0.1	--
COLD REDUCING MILLS	1933	0	0.2	--	113	0	0.0	--	2046	0	0.2	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.0	--	0	0	0.0	--	254	0	0.0	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	1	0.4	--	19	0	0.0	--	1248	1	0.4	--
HOT STRIP ROLLING	1623	0	0.2	--	2	0	0.0	--	1625	0	0.2	--
SHEET FINISHING AND SHIPPING	3306	2	1.3	--	108	0	0.0	--	3414	2	1.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.1	--	0	0	0.0	--	783	0	0.1	--
TIN FINISHING AND SHIPPING	668	1	0.2	--	1	0	0.0	--	669	1	0.2	--
GENERAL LABOR	3153	0	0.5	--	1215	0	0.4	--	4368	0	0.9	--
JANITORS	311	1	0.2	--	422	1	0.1	--	733	2	0.2	--
MASON DEPARTMENT	2511	0	0.3	--	696	0	0.1	--	3207	0	0.4	--
BLACKSMITH SHOP	555	0	0.1	--	6	0	0.0	--	561	0	0.1	--
CARPENTER SHOP	665	0	0.2	--	1	0	0.0	--	666	0	0.2	--
ELECTRIC MAINTENANCE ASSIGNED	3200	0	0.6	--	8	0	0.0	--	3208	0	0.6	--
ELECTRIC SHOP	1620	0	0.3	--	2	0	0.0	--	1622	0	0.3	--
GARAGE	242	0	0.0	--	2	0	0.0	--	244	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.1	--	22	0	0.0	--	283	0	0.1	--
MACHINE SHOP	2405	1	0.5	--	12	0	0.0	--	2417	1	0.5	--
MAINTENANCE NOS	558	0	0.2	--	5	0	0.0	--	563	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	6136	1	1.5	--	201	0	0.1	--	6337	1	1.6	--
PAINT SHOP	777	0	0.1	--	9	0	0.0	--	786	0	0.1	--
PATTERN SHOP	95	0	0.0	--	0	0	0.0	--	95	0	0.0	--
PIPE SHOP	1412	0	0.2	--	14	0	0.0	--	1426	0	0.2	--
RIGGERS AND STRUCTURAL	2525	0	0.4	--	21	0	0.0	--	2546	0	0.4	--
ROLL SHOP	502	0	0.1	--	3	0	0.0	--	505	0	0.1	--
WELD SHOP	758	0	0.1	--	2	0	0.0	--	760	0	0.1	--
ALL OTHER	1098	0	0.3	--	75	0	0.0	--	1173	0	0.3	--
GENERAL RECEIVING AND STORES	382	0	0.1	--	9	0	0.0	--	391	0	0.1	--
PLANT PROTECTION	856	1	0.2	--	4	0	0.0	--	860	1	0.2	--
POWER AND FUEL	2336	1	0.5	--	213	0	0.0	--	2549	1	0.5	--
TRANSPORTATION AND YARD	2842	0	0.9	--	633	0	0.2	--	3475	0	1.0	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.3	--	10	0	0.0	--	645	0	0.3	--
RIVER OR MARINE WAYS	293	0	0.0	--	1	0	0.0	--	294	0	0.0	--
TOTAL	51479	9	9.0	1.00	7349	1	1.0	1.00	58828	10	10.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 178-179
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	1	0.3	--	11	0	0.0	--	2374	1	0.3	--
GEN TECHNICAL	1575	0	0.2	--	6	0	0.0	--	1581	0	0.2	--
COKE PLANT	1180	0	0.1	--	664	0	0.0	--	1844	0	0.1	--
BLAST FURNACE	1730	0	0.1	--	591	0	0.0	--	2321	0	0.1	--
OPEN HEARTH	4075	1	0.4	--	1347	0	0.0	--	5422	1	0.4	--
BESSEMER CONVERTER	118	0	0.0	--	35	0	0.0	--	153	0	0.0	--
ELECTRIC FURNACE	509	0	0.3	--	4	0	0.0	--	513	0	0.3	--
FOUNDRY	764	0	0.1	--	169	0	0.0	--	933	0	0.1	--
HEAT TREAT AND FORGING	708	0	0.2	--	20	0	0.0	--	728	0	0.2	--
BILLET BLOOM AND SLAB MILLS	2614	0	0.3	--	201	0	0.0	--	2815	0	0.3	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	0	0.2	--	301	0	0.0	--	2287	0	0.2	--
PLATE MILL	1442	0	0.2	--	246	0	0.0	--	1688	0	0.2	--
AXLE MILLS	45	0	0.0	--	0	0	0.0	--	45	0	0.0	--
GENERAL FINISHING AND SHIPPING	511	0	0.0	--	113	0	0.0	--	624	0	0.0	--
HOT STRIP MILL	174	0	0.0	--	0	0	0.0	--	174	0	0.0	--
RAIL MILL ROLLING	288	0	0.0	--	32	0	0.0	--	320	0	0.0	--
RAIL MILL FINISHING	245	0	0.0	--	82	0	0.0	--	327	0	0.0	--
STEEL YARDS	68	0	0.0	--	11	0	0.0	--	79	0	0.0	--
STRUCTURAL MILL	980	0	0.1	--	128	0	0.0	--	1108	0	0.1	--
ANNEALING NORMALIZING	1214	0	0.2	--	25	0	0.0	--	1239	0	0.2	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.1	--	65	0	0.0	--	913	0	0.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	0.2	--	5	0	0.0	--	742	1	0.2	--
HOT STRIP ROLLING	864	0	0.1	--	1	0	0.0	--	865	0	0.1	--
SHEET FINISHING AND SHIPPING	1335	2	0.7	--	48	0	0.0	--	1383	2	0.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.0	--	0	0	0.0	--	335	0	0.0	--
TIN FINISHING AND SHIPPING	348	1	0.2	--	0	0	0.0	--	348	1	0.2	--
GENERAL LABOR	565	0	0.1	--	375	0	0.0	--	940	0	0.1	--
JANITORS	112	0	0.1	--	190	0	0.0	--	302	0	0.1	--
MASON DEPARTMENT	758	0	0.1	--	242	0	0.0	--	1000	0	0.1	--
BLACKSMITH SHOP	231	0	0.0	--	5	0	0.0	--	236	0	0.0	--
CARPENTER SHOP	277	0	0.1	--	0	0	0.0	--	277	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	0	0.3	--	2	0	0.0	--	1583	0	0.3	--
ELECTRIC SHOP	760	0	0.1	--	2	0	0.0	--	762	0	0.1	--
GARAGE	98	0	0.0	--	1	0	0.0	--	99	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.0	--	7	0	0.0	--	111	0	0.0	--
MACHINE SHOP	1270	0	0.2	--	2	0	0.0	--	1272	0	0.2	--
MAINTENANCE NOS	246	0	0.1	--	0	0	0.0	--	246	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	1	0.4	--	73	0	0.0	--	2363	1	0.4	--
PAINT SHOP	197	0	0.0	--	2	0	0.0	--	199	0	0.0	--
PATTERN SHOP	64	0	0.0	--	0	0	0.0	--	64	0	0.0	--
PIPE SHOP	657	0	0.0	--	6	0	0.0	--	663	0	0.0	--
RIGGERS AND STRUCTURAL	1034	0	0.1	--	6	0	0.0	--	1040	0	0.1	--
ROLL SHOP	314	0	0.0	--	0	0	0.0	--	314	0	0.0	--
WELD SHOP	460	0	0.0	--	2	0	0.0	--	462	0	0.0	--
ALL OTHER	302	0	0.1	--	9	0	0.0	--	311	0	0.1	--
GENERAL RECEIVING AND STORES	168	0	0.0	--	2	0	0.0	--	170	0	0.0	--
PLANT PROTECTION	469	0	0.1	--	1	0	0.0	--	470	0	0.1	--
POWER AND FUEL	976	1	0.2	--	89	0	0.0	--	1065	1	0.2	--
TRANSPORTATION AND YARD	871	0	0.2	--	194	0	0.0	--	1065	0	0.2	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.0	--	1	0	0.0	--	178	0	0.0	--
TOTAL	36364	6	6.0	1.00	4913	0	0.0	1.00	41277	6	6.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 178-179
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	2363	1	0.4	--	11	0	0.0	--	2374	1	0.4	--
GEN TECHNICAL	1575	0	0.2	--	6	0	0.0	--	1581	0	0.2	--
COKE PLANT	1180	0	0.1	--	664	0	0.0	--	1844	0	0.1	--
BLAST FURNACE	1730	0	0.3	--	591	0	0.1	--	2321	0	0.4	--
OPEN HEARTH	4075	1	0.6	--	1347	0	0.3	--	5422	1	0.9	--
BESSEMER CONVERTER	118	0	0.0	--	35	0	0.0	--	153	0	0.0	--
ELECTRIC FURNACE	509	0	0.3	--	4	0	0.0	--	513	0	0.3	--
FOUNDRY	764	0	0.2	--	169	0	0.0	--	933	0	0.2	--
HEAT TREAT AND FORGING	708	0	0.2	--	20	0	0.0	--	728	0	0.2	--
BILLET BLOOM AND SLAB MILLS	2614	0	0.4	--	201	0	0.0	--	2815	0	0.4	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	0	0.2	--	301	0	0.0	--	2287	0	0.2	--
PLATE MILL	1442	0	0.2	--	246	1	0.3	--	1688	1	0.5	--
AXLE MILLS	45	0	0.0	--	0	0	0.0	--	45	0	0.0	--
GENERAL FINISHING AND SHIPPING	511	0	0.0	--	113	0	0.0	--	624	0	0.0	--
HOT STRIP MILL	174	0	0.0	--	0	0	0.0	--	174	0	0.0	--
RAIL MILL ROLLING	288	0	0.0	--	32	0	0.0	--	320	0	0.0	--
RAIL MILL FINISHING	245	0	0.1	--	82	0	0.0	--	327	0	0.1	--
STEEL YARDS	68	0	0.0	--	11	0	0.0	--	79	0	0.0	--
STRUCTURAL MILL	980	0	0.1	--	128	0	0.1	--	1108	0	0.1	--
ANNEALING NORMALIZING	1214	0	0.2	--	25	0	0.0	--	1239	0	0.2	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.1	--	65	0	0.0	--	913	0	0.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	0.2	--	5	0	0.0	--	742	1	0.2	--
HOT STRIP ROLLING	864	0	0.1	--	1	0	0.0	--	865	0	0.1	--
SHEET FINISHING AND SHIPPING	1335	2	0.7	--	48	0	0.0	--	1383	2	0.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.0	--	0	0	0.0	--	335	0	0.0	--
TIN FINISHING AND SHIPPING	348	1	0.2	--	0	0	0.0	--	348	1	0.2	--
GENERAL LABOR	565	0	0.2	--	375	0	0.1	--	940	0	0.2	--
JANITORS	112	0	0.1	--	190	0	0.1	--	302	0	0.1	--
MASON DEPARTMENT	758	0	0.1	--	242	0	0.0	--	1000	0	0.1	--
BLACKSMITH SHOP	231	0	0.0	--	5	0	0.0	--	236	0	0.1	--
CARPENTER SHOP	277	0	0.1	--	0	0	0.0	--	277	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	0	0.4	--	2	0	0.0	--	1583	0	0.4	--
ELECTRIC SHOP	760	0	0.2	--	2	0	0.0	--	762	0	0.2	--
GARAGE	98	0	0.0	--	1	0	0.0	--	99	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.0	--	7	0	0.0	--	111	0	0.0	--
MACHINE SHOP	1270	0	0.3	--	2	0	0.0	--	1272	0	0.3	--
MAINTENANCE NOS	246	0	0.1	--	0	0	0.0	--	246	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	1	0.5	--	73	0	0.1	--	2363	1	0.6	--
PAINT SHOP	197	0	0.0	--	2	0	0.0	--	199	0	0.0	--
PATTERN SHOP	64	0	0.0	--	0	0	0.0	--	64	0	0.0	--
PIPE SHOP	657	0	0.1	--	6	0	0.0	--	663	0	0.1	--
RIGGERS AND STRUCTURAL	1034	0	0.1	--	6	0	0.0	--	1040	0	0.1	--
ROLL SHOP	314	0	0.0	--	0	0	0.0	--	314	0	0.0	--
WELD SHOP	460	0	0.0	--	2	0	0.0	--	462	0	0.0	--
ALL OTHER	302	0	0.1	--	9	0	0.0	--	311	0	0.1	--
GENERAL RECEIVING AND STORES	168	0	0.1	--	2	0	0.0	--	170	0	0.1	--
PLANT PROTECTION	469	1	0.1	--	1	0	0.0	--	470	1	0.1	--
POWER AND FUEL	976	1	0.3	--	89	0	0.0	--	1065	1	0.3	--
TRANSPORTATION AND YARD	871	0	0.3	--	194	0	0.1	--	1065	0	0.4	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.0	--	1	0	0.0	--	178	0	0.0	--
TOTAL	36364	7	7.0	1.00	4913	1	1.0	1.00	41277	8	8.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 180
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	1	1.9	--	18	0	0.0	--	3291	1	1.9	--
GEN TECHNICAL	2368	2	1.0	--	14	0	0.0	--	2382	2	1.0	--
COKE PLANT	1635	5	1.0	9.15 **	908	1	0.5	--	2543	6	1.6	10.15 **
BLAST FURNACE	2355	1	1.6	--	1101	1	0.4	--	3456	2	2.0	--
OPEN HEARTH	5797	3	3.6	--	1836	0	0.8	--	7633	3	4.4	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.1	--	7	0	0.0	--	741	0	0.1	--
FOUNDRY	890	1	0.7	--	253	0	0.4	--	1143	1	1.1	--
HEAT TREAT AND FORGING	1003	1	0.5	--	16	0	0.0	--	1019	1	0.5	--
BILLET BLOOM AND SLAB MILLS	2912	1	2.2	--	223	0	0.0	--	3135	1	2.2	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	2	1.8	--	395	0	0.1	--	2525	2	2.0	--
PLATE MILL	1547	2	0.7	--	239	0	0.2	--	1786	2	0.9	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.3	--	82	0	0.1	--	481	0	0.4	--
HOT STRIP MILL	164	0	0.1	--	1	0	0.0	--	165	0	0.1	--
RAIL MILL ROLLING	339	0	0.4	--	46	0	0.1	--	385	0	0.5	--
RAIL MILL FINISHING	347	2	0.3	--	98	0	0.3	--	445	2	0.5	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	1	0.6	--	164	0	0.1	--	1360	1	0.6	--
ANNEALING NORMALIZING	1353	0	0.7	--	17	0	0.0	--	1370	0	0.7	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.7	--	97	0	0.0	--	1492	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	0.1	--	5	0	0.0	--	571	0	0.1	--
HOT STRIP ROLLING	1008	1	0.7	--	0	0	0.0	--	1008	1	0.7	--
SHEET FINISHING AND SHIPPING	1733	0	0.5	--	36	0	0.0	--	1769	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.3	--	449	0	0.2	--	995	0	0.4	--
JANITORS	205	0	0.2	--	321	0	0.2	--	526	0	0.5	--
MASON DEPARTMENT	1305	0	0.5	--	438	0	0.2	--	1743	0	0.7	--
BLACKSMITH SHOP	266	0	0.2	--	4	0	0.0	--	270	0	0.2	--
CARPENTER SHOP	406	0	0.3	--	0	0	0.0	--	406	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	4	1.0	--	5	0	0.0	--	1610	4	1.0	--
ELECTRIC SHOP	551	0	0.3	--	1	0	0.0	--	552	0	0.3	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	0	1.0	--	3	0	0.0	--	1445	0	1.0	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	2	1.7	--	60	0	0.1	--	2749	2	1.8	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	1	0.5	--	5	1	0.0	--	743	2	0.5	--
RIGGERS AND STRUCTURAL	1189	1	0.9	--	8	0	0.0	--	1197	1	0.9	--
ROLL SHOP	374	0	0.3	--	0	0	0.0	--	374	0	0.3	--
WELD SHOP	644	0	0.4	--	2	0	0.0	--	646	0	0.4	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	0	0.6	--	1	0	0.0	--	675	0	0.6	--
POWER AND FUEL	1343	0	0.9	--	62	1	0.1	--	1405	1	1.0	--
TRANSPORTATION AND YARD	1293	0	0.8	--	341	0	0.2	--	1634	0	1.0	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.0	--	1	0	0.0	--	230	0	0.0	--
RIVER OR MARINE WAYS	218	0	0.2	--	1	0	0.0	--	219	0	0.2	--
TOTAL	51479	31	31.0	1.00	7349	4	4.0	1.00	58828	35	35.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 180
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	1	2.1	--	18	0	0.0	--	3291	1	2.1	--
GEN TECHNICAL	2368	2	1.1	--	14	0	0.0	--	2382	2	1.1	--
COKE PLANT	1635	5	1.0	9.15 **	908	1	0.5	--	2543	6	1.6	10.15 **
BLAST FURNACE	2355	1	1.7	--	1101	1	0.5	--	3456	2	2.2	--
OPEN HEARTH	5797	4	3.9	--	1836	0	1.1	--	7633	4	5.0	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.2	--	7	0	0.0	--	741	0	0.2	--
FOUNDRY	890	1	0.7	--	253	0	0.4	--	1143	1	1.2	--
HEAT TREAT AND FORGING	1003	1	0.6	--	16	0	0.0	--	1019	1	0.6	--
BILLET BLOOM AND SLAB MILLS	2912	1	2.5	--	223	0	0.0	--	3135	1	2.5	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	3	2.0	--	395	0	0.1	--	2525	3	2.1	--
PLATE MILL	1547	3	0.9	--	239	0	0.4	--	1786	3	1.3	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.3	--	82	0	0.1	--	481	0	0.4	--
HOT STRIP MILL	164	0	0.1	--	1	0	0.0	--	165	0	0.1	--
RAIL MILL ROLLING	339	0	0.4	--	46	0	0.1	--	385	0	0.5	--
RAIL MILL FINISHING	347	2	0.3	--	98	0	0.3	--	445	2	0.5	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	1	0.7	--	164	0	0.1	--	1360	1	0.8	--
ANNEALING NORMALIZING	1353	0	0.8	--	17	0	0.0	--	1370	0	0.8	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.7	--	97	0	0.0	--	1492	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	0.3	--	5	0	0.0	--	571	0	0.3	--
HOT STRIP ROLLING	1008	1	0.7	--	0	0	0.0	--	1008	1	0.7	--
SHEET FINISHING AND SHIPPING	1733	0	0.7	--	36	0	0.0	--	1769	0	0.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.3	--	449	0	0.2	--	995	0	0.5	--
JANITORS	205	0	0.3	--	321	0	0.3	--	526	0	0.6	--
MASON DEPARTMENT	1305	0	0.6	--	438	0	0.2	--	1743	0	0.8	--
BLACKSMITH SHOP	266	0	0.2	--	4	0	0.0	--	270	0	0.2	--
CARPENTER SHOP	406	0	0.4	--	0	0	0.0	--	406	0	0.4	--
ELECTRIC MAINTENANCE ASSIGNED	1605	4	1.1	--	5	0	0.0	--	1610	4	1.1	--
ELECTRIC SHOP	551	0	0.4	--	1	0	0.0	--	552	0	0.4	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	0	1.1	--	3	0	0.0	--	1445	0	1.1	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	2	1.9	--	60	1	0.1	--	2749	3	2.0	--
PAINT SHOP	263	0	0.2	--	2	0	0.0	--	265	0	0.2	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	1	0.6	--	5	1	0.0	--	743	2	0.6	--
RIGGERS AND STRUCTURAL	1189	1	0.9	--	8	0	0.0	--	1197	1	0.9	--
ROLL SHOP	374	0	0.3	--	0	0	0.0	--	374	0	0.3	--
WELD SHOP	644	0	0.4	--	2	0	0.0	--	646	0	0.4	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	0	0.6	--	1	0	0.0	--	675	0	0.6	--
POWER AND FUEL	1343	0	1.0	--	62	1	0.1	--	1405	1	1.1	--
TRANSPORTATION AND YARD	1293	0	0.9	--	341	0	0.3	--	1634	0	1.2	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.2	--	1	0	0.0	--	219	0	0.2	--
TOTAL	51479	34	34.0	1.00	7349	5	5.0	1.00	58828	39	39.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

T.D.D. (DISREGARDED) = 280
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	1	3.0	--	34	0	0.0	--	5146	1	3.1	--
GEN TECHNICAL	3684	3	2.0	--	16	0	0.0	--	3700	3	2.0	--
COKE PLANT	2381	5	1.6	6.11 **	1176	1	0.7	--	3557	6	2.3	6.50 **
BLAST FURNACE	4218	1	3.7	--	1415	1	0.6	--	5633	2	4.3	--
OPEN HEARTH	9655	6	6.4	0.92	2335	1	1.3	--	11990	7	7.7	0.89
BESSEMER CONVERTER	240	0	0.4	--	88	0	0.2	--	328	0	0.6	--
ELECTRIC FURNACE	1250	0	0.3	--	11	0	0.0	--	1261	0	0.3	--
FOUNDRY	1781	1	1.2	--	345	0	0.5	--	2126	1	1.8	--
HEAT TREAT AND FORGING	1683	2	0.9	--	46	0	0.1	--	1729	2	1.0	--
BILLET BLOOM AND SLAB MILLS	5783	3	4.3	--	419	0	0.1	--	6202	3	4.4	--
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	2	3.7	--	680	0	0.3	--	4565	2	4.0	--
PLATE MILL	3005	3	1.6	--	436	0	0.4	--	3441	3	2.0	--
AXLE MILLS	293	0	0.2	--	6	0	0.0	--	299	0	0.2	--
GENERAL FINISHING AND SHIPPING	1309	0	1.2	--	213	0	0.3	--	1522	0	1.4	--
HOT STRIP MILL	567	1	0.5	--	1	0	0.0	--	568	1	0.5	--
RAIL MILL ROLLING	852	1	0.9	--	97	0	0.3	--	949	1	1.3	--
RAIL MILL FINISHING	726	2	0.8	--	145	0	0.5	--	871	2	1.3	--
STEEL YARDS	299	0	0.2	--	77	0	0.1	--	376	0	0.2	--
STRUCTURAL MILL	1972	3	1.0	--	252	0	0.1	--	2224	3	1.1	--
ANNEALING NORMALIZING	2605	1	1.3	--	54	0	0.0	--	2659	1	1.3	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.0	--	50	0	0.0	--	187	0	0.0	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	0	0.9	--	113	0	0.0	--	2046	0	0.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	0	0.4	--	19	0	0.0	--	1248	0	0.4	--
HOT STRIP ROLLING	1623	1	1.1	--	2	0	0.0	--	1625	1	1.1	--
SHEET FINISHING AND SHIPPING	3306	1	0.9	--	108	0	0.0	--	3414	1	0.9	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.1	--	2	0	0.0	--	386	0	0.1	--
TEMPER PASSING AND COLD ROLLING	783	0	0.4	--	0	0	0.0	--	783	0	0.4	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	0	2.5	--	1215	1	0.8	--	4368	1	3.4	--
JANITORS	311	0	0.4	--	422	0	0.3	--	733	0	0.7	--
MASON DEPARTMENT	2511	1	1.3	--	696	0	0.4	--	3207	1	1.8	--
BLACKSMITH SHOP	555	0	0.5	--	6	0	0.0	--	561	0	0.5	--
CARPENTER SHOP	665	0	0.6	--	1	0	0.0	--	666	0	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	5	2.6	2.12	8	0	0.0	--	3208	5	2.6	2.12
ELECTRIC SHOP	1620	0	1.5	--	2	0	0.0	--	1622	0	1.5	--
GARAGE	242	0	0.1	--	2	0	0.0	--	244	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.2	--	22	0	0.0	--	283	1	0.2	--
MACHINE SHOP	2405	0	1.9	--	12	0	0.0	--	2417	0	1.9	--
MAINTENANCE NOS	558	1	0.4	--	5	0	0.0	--	563	1	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	6136	4	4.3	--	201	0	0.2	--	6337	4	4.5	--
PAINT SHOP	777	0	0.6	--	9	0	0.0	--	786	0	0.6	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	3	1.2	--	14	1	0.0	--	1426	4	1.2	--
RIGGERS AND STRUCTURAL	2525	2	2.4	--	21	0	0.0	--	2546	2	2.4	--
ROLL SHOP	502	0	0.4	--	3	0	0.0	--	505	0	0.4	--
WELD SHOP	758	0	0.4	--	2	0	0.0	--	760	0	0.4	--
ALL OTHER	1098	0	1.0	--	75	0	0.1	--	1173	0	1.1	--
GENERAL RECEIVING AND STORES	382	0	0.3	--	9	0	0.0	--	391	0	0.3	--
PLANT PROTECTION	856	0	0.7	--	4	0	0.0	--	860	0	0.7	--
POWER AND FUEL	2336	2	1.9	--	213	1	0.3	--	2549	3	2.2	--
TRANSPORTATION AND YARD	2842	2	2.0	--	633	1	0.4	--	3475	3	2.4	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.1	--	10	0	0.0	--	645	0	0.1	--
RIVER OR MARINE WAYS	293	0	0.2	--	1	0	0.0	--	294	0	0.2	--
TOTAL	51479	31	31.0	1.00	7349	4	4.0	1.00	58828	35	35.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00017

C.O.D. (PREVALENCE) = 180
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	1	3.3	--	34	0	0.0	--	5146	1	3.3	--
GEN TECHNICAL	3684	3	2.2	--	16	0	0.0	--	3700	3	2.2	--
COKE PLANT	2381	5	1.6	6.11 **	1176	1	0.7	--	3557	6	2.3	6.50 **
BLAST FURNACE	4218	1	3.9	--	1415	1	0.8	--	5633	2	4.7	--
OPEN HEARTH	9655	7	7.1	0.98	2335	1	1.7	--	11990	8	8.9	0.88
BESSEMER CONVERTER	240	0	0.4	--	88	0	0.2	--	328	0	0.6	--
ELECTRIC FURNACE	1250	0	0.4	--	11	0	0.0	--	1261	0	0.4	--
FOUNDRY	1781	1	1.4	--	345	0	0.6	--	2126	1	2.0	--
HEAT TREAT AND FORGING	1683	2	1.1	--	46	0	0.1	--	1729	2	1.2	--
BILLET BLOOM AND SLAB MILLS	5783	4	5.0	--	419	0	0.1	--	6202	4	5.1	0.74
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	3	4.0	--	680	0	0.3	--	4565	3	4.3	--
PLATE MILL	3005	4	2.0	--	436	0	0.7	--	3441	4	2.8	--
AXLE MILLS	293	0	0.3	--	6	0	0.0	--	299	0	0.3	--
GENERAL FINISHING AND SHIPPING	1309	0	1.3	--	213	0	0.3	--	1522	0	1.6	--
HOT STRIP MILL	567	1	0.5	--	1	0	0.0	--	568	1	0.5	--
RAIL MILL ROLLING	852	1	0.9	--	97	0	0.3	--	949	1	1.3	--
RAIL MILL FINISHING	726	2	0.8	--	145	0	0.5	--	871	2	1.3	--
STEEL YARDS	299	0	0.2	--	77	0	0.1	--	376	0	0.4	--
STRUCTURAL MILL	1972	3	1.2	--	252	0	0.2	--	2224	3	1.4	--
ANNEALING NORMALIZING	2605	1	1.5	--	54	0	0.0	--	2659	1	1.5	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.1	--	50	0	0.0	--	187	0	0.1	--
COATING	545	0	0.2	--	0	0	0.0	--	545	0	0.2	--
COLD REDUCING MILLS	1933	0	0.9	--	113	0	0.0	--	2046	0	0.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	1	0.7	--	19	0	0.0	--	1248	1	0.7	--
HOT STRIP ROLLING	1623	1	1.1	--	2	0	0.0	--	1625	1	1.1	--
SHEET FINISHING AND SHIPPING	3306	2	1.2	--	108	0	0.0	--	3414	2	1.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.4	--	0	0	0.0	--	783	0	0.4	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	1	2.8	--	1215	2	1.2	--	4368	3	3.9	--
JANITORS	311	0	0.4	--	422	0	0.4	--	733	0	0.8	--
MASON DEPARTMENT	2511	1	1.4	--	696	0	0.5	--	3207	1	1.9	--
BLACKSMITH SHOP	555	0	0.5	--	6	0	0.0	--	561	0	0.6	--
CARPENTER SHOP	665	0	0.7	--	1	0	0.0	--	666	0	0.7	--
ELECTRIC MAINTENANCE ASSIGNED	3200	5	2.9	1.88	8	0	0.0	--	3208	5	2.9	1.88
ELECTRIC SHOP	1620	0	1.8	--	2	0	0.0	--	1622	0	1.8	--
GARAGE	242	0	0.1	--	2	0	0.0	--	244	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.2	--	22	0	0.0	--	283	1	0.3	--
MACHINE SHOP	2405	0	2.1	--	12	0	0.0	--	2417	0	2.1	--
MAINTENANCE NOS	558	1	0.4	--	5	0	0.0	--	563	1	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	6136	5	4.8	1.06	201	1	0.3	--	6337	6	5.1	1.22
PAINT SHOP	777	0	0.6	--	9	0	0.0	--	786	0	0.6	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	3	1.3	--	14	1	0.0	--	1426	4	1.3	--
RIGGERS AND STRUCTURAL	2525	2	2.7	--	21	0	0.0	--	2546	2	2.7	--
ROLL SHOP	502	0	0.4	--	3	0	0.0	--	505	0	0.4	--
WELD SHOP	758	0	0.4	--	2	0	0.0	--	760	0	0.4	--
ALL OTHER	1098	0	1.1	--	75	0	0.1	--	1173	0	1.2	--
GENERAL RECEIVING AND STORES	382	0	0.3	--	9	0	0.0	--	391	0	0.3	--
PLANT PROTECTION	856	0	0.8	--	4	0	0.0	--	860	0	0.8	--
POWER AND FUEL	2336	2	2.1	--	213	1	0.3	--	2549	3	2.4	--
TRANSPORTATION AND YARD	2842	2	2.3	--	633	1	0.6	--	3475	3	2.8	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.2	--	10	0	0.0	--	645	0	0.2	--
RIVER OR MARINE WAYS	293	0	0.2	--	1	0	0.0	--	294	0	0.2	--
TOTAL	51479	34	34.0	1.00	7349	5	5.0	1.00	58828	39	39.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 180
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	1	2.1	--	11	0	0.0	--	2374	1	2.1	--
GEN TECHNICAL	1575	2	1.3	--	6	0	0.0	--	1581	2	1.3	--
COKE PLANT	1180	5	0.9	13.76 **	664	1	0.5	--	1844	6	1.5	15.20 **
BLAST FURNACE	1730	1	2.1	--	591	1	0.4	--	2321	2	2.5	--
OPEN HEARTH	4075	5	4.0	1.30	1347	0	1.0	--	5422	5	5.0	1.01
BESSEMER CONVERTER	118	0	0.2	--	35	0	0.1	--	153	0	0.3	--
ELECTRIC FURNACE	509	0	0.1	--	4	0	0.0	--	513	0	0.1	--
FOUNDRY	764	1	0.8	--	169	0	0.5	--	933	1	1.3	--
HEAT TREAT AND FORGING	708	2	0.5	--	20	0	0.0	--	728	2	0.6	--
BILLET BLOOM AND SLAB MILLS	2614	1	2.7	--	201	0	0.0	--	2815	1	2.8	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	2	2.4	--	301	0	0.2	--	2287	2	2.6	--
PLATE MILL	1442	1	1.0	--	246	0	0.3	--	1688	1	1.3	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	0	0.5	--	113	0	0.2	--	624	0	0.7	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.5	--	32	0	0.1	--	320	0	0.7	--
RAIL MILL FINISHING	245	2	0.4	--	82	0	0.3	--	327	2	0.7	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	2	0.7	--	128	0	0.1	--	1108	2	0.7	--
ANNEALING NORMALIZING	1214	0	0.8	--	25	0	0.0	--	1239	0	0.8	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.7	--	65	0	0.0	--	913	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	0.2	--	5	0	0.0	--	742	0	0.2	--
HOT STRIP ROLLING	864	1	0.8	--	1	0	0.0	--	865	1	0.8	--
SHEET FINISHING AND SHIPPING	1335	0	0.5	--	48	0	0.0	--	1383	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.0	--	0	0	0.0	--	148	0	0.0	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	0.7	--	375	0	0.3	--	940	0	1.0	--
JANITORS	112	0	0.1	--	190	0	0.2	--	302	0	0.3	--
MASON DEPARTMENT	758	0	0.6	--	242	0	0.2	--	1000	0	0.8	--
BLACKSMITH SHOP	231	0	0.2	--	5	0	0.0	--	236	0	0.3	--
CARPENTER SHOP	277	0	0.3	--	0	0	0.0	--	277	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	1.6	--	2	0	0.0	--	1583	4	1.6	--
ELECTRIC SHOP	760	0	0.8	--	2	0	0.0	--	762	0	0.8	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.1	--	7	0	0.0	--	111	0	0.1	--
MACHINE SHOP	1270	0	1.2	--	2	0	0.0	--	1272	0	1.2	--
MAINTENANCE NOS	246	1	0.2	--	0	0	0.0	--	246	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	3	2.2	--	73	0	0.1	--	2363	3	2.3	--
PAINT SHOP	197	0	0.2	--	2	0	0.0	--	199	0	0.2	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	1	0.6	--	6	0	0.0	--	663	1	0.6	--
RIGGERS AND STRUCTURAL	1034	0	1.1	--	6	0	0.0	--	1040	0	1.1	--
ROLL SHOP	314	0	0.3	--	0	0	0.0	--	314	0	0.3	--
WELD SHOP	460	0	0.4	--	2	0	0.0	--	462	0	0.4	--
ALL OTHER	302	0	0.4	--	9	0	0.0	--	311	0	0.4	--
GENERAL RECEIVING AND STORES	168	0	0.2	--	2	0	0.0	--	170	0	0.2	--
PLANT PROTECTION	469	0	0.5	--	1	0	0.0	--	470	0	0.5	--
POWER AND FUEL	976	1	1.1	--	89	1	0.1	--	1065	2	1.2	--
TRANSPORTATION AND YARD	871	0	0.9	--	194	1	0.2	--	1065	1	1.0	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	30	30.0	1.00	4913	4	4.0	1.00	41277	34	34.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00073

C.O.D. (PREVALENCE) = 180
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	1	2.3	--	11	0	0.0	--	2374	1	2.3	--
GEN TECHNICAL	1575	2	1.4	--	6	0	0.0	--	1581	2	1.4	--
COKE PLANT	1180	5	0.9	13.76 **	664	1	0.5	--	1844	6	1.5	15.20 **
BLAST FURNACE	1730	1	2.2	--	591	1	0.5	--	2321	2	2.7	--
OPEN HEARTH	4075	6	4.4	1.46	1347	0	1.3	--	5422	6	5.7	1.06
BESSEMER CONVERTER	118	0	0.2	--	35	0	0.1	--	153	0	0.3	--
ELECTRIC FURNACE	509	0	0.2	--	4	0	0.0	--	513	0	0.2	--
FOUNDRY	764	1	0.9	--	169	0	0.5	--	933	1	1.4	--
HEAT TREAT AND FORGING	708	2	0.7	--	20	0	0.0	--	728	2	0.7	--
BILLET BLOOM AND SLAB MILLS	2614	1	3.2	--	201	0	0.0	--	2815	1	3.2	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	3	2.6	--	301	0	0.2	--	2287	3	2.7	--
PLATE MILL	1442	2	1.3	--	246	0	0.5	--	1688	2	1.8	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	0	0.6	--	113	0	0.2	--	624	0	0.8	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.5	--	32	0	0.1	--	320	0	0.7	--
RAIL MILL FINISHING	245	2	0.4	--	82	0	0.3	--	327	2	0.7	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	2	0.8	--	128	0	0.1	--	1108	2	0.9	--
ANNEALING NORMALIZING	1214	0	0.9	--	25	0	0.0	--	1239	0	0.9	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.7	--	65	0	0.0	--	913	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	0.5	--	5	0	0.0	--	742	0	0.5	--
HOT STRIP ROLLING	864	1	0.8	--	1	0	0.0	--	865	1	0.8	--
SHEET FINISHING AND SHIPPING	1335	0	0.6	--	48	0	0.0	--	1383	0	0.6	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	0.7	--	375	0	0.4	--	940	0	1.1	--
JANITORS	112	0	0.1	--	190	0	0.3	--	302	0	0.4	--
MASON DEPARTMENT	758	0	0.6	--	242	0	0.2	--	1000	0	0.8	--
BLACKSMITH SHOP	231	0	0.3	--	5	0	0.0	--	236	0	0.3	--
CARPENTER SHOP	277	0	0.4	--	0	0	0.0	--	277	0	0.4	--
ELECTRIC MAINTENANCE ASSIGNED	1381	4	1.8	--	2	0	0.0	--	1383	4	1.8	--
ELECTRIC SHOP	760	0	1.0	--	2	0	0.0	--	762	0	1.0	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.1	--	7	0	0.0	--	111	0	0.1	--
MACHINE SHOP	1270	0	1.3	--	2	0	0.0	--	1272	0	1.3	--
MAINTENANCE NOS	246	1	0.2	--	0	0	0.0	--	246	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	3	2.5	--	73	1	0.2	--	2363	4	2.6	--
PAINT SHOP	197	0	0.2	--	2	0	0.0	--	199	0	0.2	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	1	0.7	--	6	0	0.0	--	663	1	0.7	--
RIGGERS AND STRUCTURAL	1034	0	1.2	--	6	0	0.0	--	1040	0	1.2	--
ROLL SHOP	314	0	0.3	--	0	0	0.0	--	314	0	0.3	--
WELD SHOP	460	0	0.4	--	2	0	0.0	--	462	0	0.4	--
ALL OTHER	302	0	0.5	--	9	0	0.0	--	311	0	0.5	--
GENERAL RECEIVING AND STORES	168	0	0.2	--	2	0	0.0	--	170	0	0.2	--
PLANT PROTECTION	469	0	0.6	--	1	0	0.0	--	470	0	0.6	--
POWER AND FUEL	976	1	1.2	--	89	1	0.1	--	1065	2	1.3	--
TRANSPORTATION AND YARD	871	0	1.0	--	194	1	0.2	--	1065	1	1.2	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	33	33.0	1.00	4913	5	5.0	1.00	41277	38	38.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00060

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Kidney

ICD CODE: 180

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Coke Plant	9.16**	9.16**	6.11**	6.11**	13.76**	13.76**
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

130081

C.O.D. (UNDERLYING) = 181
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	3	2.0	--	18	0	0.0	--	3291	3	2.0	--
GEN TECHNICAL	2368	2	0.8	--	14	0	0.0	--	2382	2	0.6	--
COKE PLANT	1635	1	1.0	--	908	1	0.4	--	2543	2	1.4	--
BLAST FURNACE	2355	1	2.0	--	1101	1	1.1	--	3456	2	3.1	--
OPEN HEARTH	5797	5	3.7	1.44	1836	2	2.4	--	7633	7	6.0	1.21
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.3	--	7	0	0.0	--	741	0	0.3	--
FOUNDRY	890	2	1.0	--	253	0	0.5	--	1143	2	1.4	--
HEAT TREAT AND FORGING	1003	0	0.4	--	16	0	0.0	--	1019	0	0.5	--
BILLET BLOOM AND SLAB MILLS	2912	0	2.5	--	223	0	0.2	--	3135	0	2.7	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	2	2.0	--	395	0	0.3	--	2525	2	2.3	--
PLATE MILL	1547	0	0.8	--	239	1	0.5	--	1786	1	1.3	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	0.2	--	82	0	0.0	--	481	1	0.2	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	0	0.4	--	46	0	0.1	--	385	0	0.5	--
RAIL MILL FINISHING	347	0	0.3	--	98	1	0.3	--	445	1	0.5	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	0	0.5	--	164	0	0.3	--	1360	0	0.8	--
ANNEALING NORMALIZING	1353	0	1.0	--	17	0	0.0	--	1370	0	1.0	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.6	--	97	0	0.1	--	1492	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	0.6	--	5	0	0.0	--	571	2	0.6	--
HOT STRIP ROLLING	1008	2	0.6	--	0	0	0.0	--	1008	2	0.6	--
SHEET FINISHING AND SHIPPING	1733	0	0.8	--	36	0	0.0	--	1769	0	0.8	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.0	--	0	0	0.0	--	369	0	0.0	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.3	--	449	0	0.3	--	995	0	0.7	--
JANITORS	205	0	0.6	--	321	1	0.5	--	526	1	1.0	--
MASON DEPARTMENT	1305	0	0.6	--	438	1	0.4	--	1743	1	1.0	--
BLACKSMITH SHOP	266	0	0.3	--	4	0	0.0	--	270	0	0.3	--
CARPENTER SHOP	406	1	0.5	--	0	0	0.0	--	406	1	0.5	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	1.2	--	5	0	0.0	--	1610	0	1.2	--
ELECTRIC SHOP	551	2	0.5	--	1	0	0.0	--	552	2	0.5	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.1	--
MACHINE SHOP	1442	1	1.4	--	3	0	0.0	--	1445	1	1.4	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	4	1.7	--	60	0	0.1	--	2749	4	1.8	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	0.5	--	5	0	0.0	--	743	0	0.5	--
RIGGERS AND STRUCTURAL	1189	0	1.1	--	8	0	0.0	--	1197	0	1.1	--
ROLL SHOP	374	0	0.3	--	0	0	0.0	--	374	0	0.3	--
WELD SHOP	644	0	0.3	--	2	0	0.0	--	646	0	0.3	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	2	0.6	--	1	0	0.0	--	675	2	0.6	--
POWER AND FUEL	1343	2	1.0	--	62	0	0.1	--	1405	2	1.1	--
TRANSPORTATION AND YARD	1293	2	1.0	--	341	0	0.4	--	1634	2	1.4	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.2	--	1	0	0.0	--	230	0	0.2	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	35	35.0	1.00	7349	8	8.0	1.00	58828	43	43.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00022

C.O.D. (PREVALENCE) = 181
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	4	2.4	--	18	0	0.0	--	3291	4	2.4	--
GEN TECHNICAL	2368	2	1.0	--	14	0	0.0	--	2382	2	1.0	--
COKE PLANT	1635	1	1.6	--	908	1	0.4	--	2543	2	2.0	--
BLAST FURNACE	2355	1	2.3	--	1101	1	1.1	--	3456	2	3.4	--
OPEN HEARTH	5797	5	4.4	1.16	1836	2	2.4	--	7633	7	6.7	1.05
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	0.4	--	7	0	0.0	--	741	0	0.4	--
FOUNDRY	890	2	1.1	--	253	0	0.5	--	1143	2	1.5	--
HEAT TREAT AND FORGING	1003	0	0.5	--	16	0	0.0	--	1019	0	0.6	--
BILLET BLOOM AND SLAB MILLS	2912	0	2.6	--	223	0	0.2	--	3135	0	2.8	--
SOAKING PITS	94	0	0.1	--	14	0	0.0	--	108	0	0.1	--
MERCHANT MILLS	2130	3	2.5	--	395	0	0.3	--	2525	3	2.8	--
PLATE MILL	1547	1	0.9	--	239	1	0.5	--	1786	2	1.5	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	0.3	--	82	0	0.0	--	481	1	0.4	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	0	0.5	--	46	0	0.1	--	385	0	0.6	--
RAIL MILL FINISHING	347	0	0.3	--	98	1	0.3	--	445	1	0.6	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	0	0.6	--	164	0	0.3	--	1360	0	0.9	--
ANNEALING NORMALIZING	1353	0	1.1	--	17	0	0.0	--	1370	0	1.1	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.6	--	97	0	0.1	--	1492	0	0.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	0.8	--	5	0	0.0	--	571	2	0.8	--
HOT STRIP ROLLING	1008	2	0.6	--	0	0	0.0	--	1008	2	0.6	--
SHEET FINISHING AND SHIPPING	1733	0	1.0	--	36	0	0.0	--	1769	0	1.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	1	0.1	--	1	0	0.0	--	47	1	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.0	--	0	0	0.0	--	369	0	0.0	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	1	0.5	--	449	0	0.3	--	995	1	0.9	--
JANITORS	205	0	0.6	--	321	1	0.5	--	526	1	1.0	--
MASON DEPARTMENT	1305	1	0.7	--	438	1	0.4	--	1743	2	1.1	--
BLACKSMITH SHOP	266	0	0.4	--	4	0	0.0	--	270	0	0.4	--
CARPENTER SHOP	406	1	0.6	--	0	0	0.0	--	406	1	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	1605	0	1.4	--	5	0	0.0	--	1610	0	1.4	--
ELECTRIC SHOP	551	2	0.5	--	1	0	0.0	--	552	2	0.5	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.1	--	9	0	0.0	--	130	0	0.2	--
MACHINE SHOP	1442	1	1.5	--	3	0	0.0	--	1445	1	1.5	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	5	2.7	2.01	60	0	0.1	--	2749	5	2.8	1.96
PAINT SHOP	263	0	0.2	--	2	0	0.0	--	265	0	0.2	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	0	0.7	--	5	0	0.0	--	743	0	0.7	--
RIGGERS AND STRUCTURAL	1189	0	1.3	--	8	0	0.0	--	1197	0	1.4	--
ROLL SHOP	374	0	0.4	--	0	0	0.0	--	374	0	0.4	--
WELD SHOP	644	0	0.4	--	2	0	0.0	--	646	0	0.4	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.2	--
GENERAL RECEIVING AND STORES	192	0	0.2	--	4	0	0.0	--	196	0	0.2	--
PLANT PROTECTION	674	2	0.7	--	1	0	0.0	--	675	2	0.7	--
POWER AND FUEL	1343	3	1.3	--	62	0	0.1	--	1405	3	1.4	--
TRANSPORTATION AND YARD	1293	2	1.2	--	341	0	0.4	--	1634	2	1.6	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.2	--	1	0	0.0	--	230	0	0.2	--
RIVER OR MARINE WAYS	218	0	0.3	--	1	0	0.0	--	219	0	0.3	--
TOTAL	51479	43	43.0	1.00	7349	8	8.0	1.00	58828	51	51.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 181
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	5	2.9	1.88	34	0	0.0	--	5146	5	2.9	1.84
GEN TECHNICAL	3684	5	1.6	3.46 *	16	0	0.0	--	3700	5	1.6	3.41 *
COKE PLANT	2381	2	1.4	--	1176	1	0.5	--	3557	3	1.9	--
BLAST FURNACE	4218	2	4.2	--	1415	1	1.6	--	5633	3	5.8	0.46
OPEN HEARTH	9655	7	6.7	1.07	2335	2	3.3	--	11990	9	10.0	0.87
BESSEMER CONVERTER	240	0	0.5	--	88	0	0.3	--	328	0	0.9	--
ELECTRIC FURNACE	1250	0	0.6	--	11	0	0.0	--	1261	0	0.6	--
FOUNDRY	1781	2	1.8	--	345	0	0.6	--	2126	2	2.5	--
HEAT TREAT AND FORGING	1683	1	0.9	--	46	0	0.1	--	1729	1	1.1	--
BILLET BLOOM AND SLAB MILLS	5783	5	5.1	0.97	419	0	0.4	--	6202	5	5.5	0.87
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	3	4.4	--	680	0	0.6	--	4565	3	5.1	0.54
PLATE MILL	3005	1	1.9	--	436	1	1.0	--	3441	2	2.9	--
AXLE MILLS	293	0	0.3	--	6	0	0.0	--	299	0	0.3	--
GENERAL FINISHING AND SHIPPING	1309	1	1.1	--	213	1	0.2	--	1522	2	1.3	--
HOT STRIP MILL	567	0	0.6	--	1	0	0.0	--	568	0	0.6	--
RAIL MILL ROLLING	852	1	0.9	--	97	0	0.3	--	949	1	1.2	--
RAIL MILL FINISHING	726	0	0.8	--	145	2	0.5	--	871	2	1.2	--
STEEL YARDS	299	0	0.2	--	77	0	0.2	--	376	0	0.3	--
STRUCTURAL MILL	1972	1	0.9	--	252	0	0.4	--	2224	1	1.3	--
ANNEALING NORMALIZING	2605	2	2.2	--	54	0	0.0	--	2659	2	2.2	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.1	--	50	0	0.0	--	187	0	0.1	--
COATING	545	1	0.1	--	0	0	0.0	--	545	1	0.1	--
COLD REDUCING MILLS	1933	0	0.9	--	113	0	0.1	--	2046	0	1.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.0	--	0	0	0.0	--	254	0	0.0	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	2	1.4	--	19	0	0.0	--	1248	2	1.4	--
HOT STRIP ROLLING	1623	2	1.1	--	2	0	0.0	--	1625	2	1.1	--
SHEET FINISHING AND SHIPPING	3306	1	1.7	--	108	0	0.0	--	3414	1	1.7	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.3	--	2	0	0.0	--	386	0	0.3	--
TEMPER PASSING AND COLD ROLLING	783	1	0.1	--	0	0	0.0	--	783	1	0.1	--
TIN FINISHING AND SHIPPING	668	1	0.2	--	1	0	0.0	--	669	1	0.2	--
GENERAL LABOR	3153	2	2.8	--	1215	1	1.8	--	4368	3	4.6	--
JANITORS	311	0	0.8	--	422	1	0.6	--	733	1	1.4	--
MASON DEPARTMENT	2511	0	1.4	--	696	1	0.8	--	3207	1	2.2	--
BLACKSMITH SHOP	555	1	0.7	--	6	0	0.0	--	561	1	0.7	--
CARPENTER SHOP	665	1	0.8	--	1	0	0.0	--	666	1	0.8	--
ELECTRIC MAINTENANCE ASSIGNED	3200	0	3.2	--	8	0	0.0	--	3208	0	3.2	--
ELECTRIC SHOP	1620	2	1.8	--	2	0	0.0	--	1622	2	1.8	--
GARAGE	242	0	0.2	--	2	0	0.0	--	244	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.3	--	22	0	0.0	--	283	1	0.3	--
MACHINE SHOP	2405	4	2.4	--	12	0	0.0	--	2417	4	2.5	--
MAINTENANCE NOS	558	0	0.3	--	5	0	0.0	--	563	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	6136	6	4.8	1.33	201	0	0.3	--	6337	6	5.1	1.21
PAINT SHOP	777	1	0.6	--	9	0	0.0	--	786	1	0.6	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	1	1.2	--	14	0	0.0	--	1426	1	1.2	--
RIGGERS AND STRUCTURAL	2525	2	3.0	--	21	0	0.1	--	2546	2	3.1	--
ROLL SHOP	502	0	0.4	--	3	0	0.0	--	505	0	0.4	--
WELD SHOP	758	0	0.4	--	2	0	0.0	--	760	0	0.4	--
ALL OTHER	1098	0	1.6	--	75	0	0.1	--	1173	0	1.7	--
GENERAL RECEIVING AND STORES	382	0	0.4	--	9	0	0.0	--	391	0	0.4	--
PLANT PROTECTION	856	3	0.8	--	4	0	0.0	--	860	3	0.8	--
POWER AND FUEL	2336	4	2.4	--	213	0	0.5	--	2549	4	2.9	--
TRANSPORTATION AND YARD	2842	3	2.6	--	633	0	0.8	--	3475	3	3.3	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.5	--	10	0	0.0	--	645	0	0.5	--
RIVER OR MARINE WAYS	293	0	0.2	--	1	0	0.0	--	294	0	0.2	--
TOTAL	51479	35	35.0	1.00	7349	8	8.0	1.00	58828	43	43.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL,RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 181
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	6	3.6	1.81	34	0	0.0	--	5146	6	3.6	1.79
GEN TECHNICAL	3684	5	2.0	2.66	16	0	0.0	--	3700	5	2.0	2.64
COKE PLANT	2381	2	2.7	--	1176	1	0.5	--	3557	3	3.1	--
BLAST FURNACE	4218	3	4.9	--	1415	1	1.6	--	5633	4	6.5	0.57
OPEN HEARTH	9655	8	8.1	0.99	2335	2	3.3	--	11990	10	11.4	0.84
BESSEMER CONVERTER	240	0	0.6	--	88	0	0.3	--	328	0	1.0	--
ELECTRIC FURNACE	1250	0	0.8	--	11	0	0.0	--	1261	0	0.8	--
FOUNDRY	1781	2	2.1	--	345	0	0.6	--	2126	2	2.7	--
HEAT TREAT AND FORGING	1683	1	1.1	--	46	0	0.1	--	1729	1	1.3	--
BILLET BLOOM AND SLAB MILLS	5783	6	5.8	1.06	419	0	0.4	--	6202	6	6.2	0.96
SOAKING PITS	148	0	0.1	--	28	0	0.0	--	176	0	0.1	--
MERCHANT MILLS	3885	4	5.3	0.71	680	0	0.6	--	4565	4	6.0	0.62
PLATE MILL	3005	2	2.3	--	436	1	1.0	--	3441	3	3.3	--
AXLE MILLS	293	0	0.4	--	6	0	0.0	--	299	0	0.4	--
GENERAL FINISHING AND SHIPPING	1309	3	1.7	--	213	1	0.2	--	1522	4	1.9	--
HOT STRIP MILL	567	0	0.6	--	1	0	0.0	--	568	0	0.6	--
RAIL MILL ROLLING	852	1	1.1	--	97	0	0.3	--	949	1	1.4	--
RAIL MILL FINISHING	726	0	0.9	--	145	2	0.5	--	871	2	1.4	--
STEEL YARDS	299	0	0.2	--	77	0	0.2	--	376	0	0.4	--
STRUCTURAL MILL	1972	1	1.1	--	252	0	0.4	--	2224	1	1.5	--
ANNEALING NORMALIZING	2605	2	2.5	--	54	0	0.0	--	2659	2	2.5	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.1	--	50	0	0.0	--	187	0	0.1	--
COATING	545	1	0.1	--	0	0	0.0	--	545	1	0.1	--
COLD REDUCING MILLS	1933	0	0.9	--	113	0	0.1	--	2046	0	1.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.0	--	0	0	0.0	--	254	0	0.0	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	2	1.8	--	19	0	0.0	--	1248	2	1.8	--
HOT STRIP ROLLING	1623	2	1.1	--	2	0	0.0	--	1625	2	1.1	--
SHEET FINISHING AND SHIPPING	3306	2	2.0	--	108	0	0.0	--	3414	2	2.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	0.4	--	2	0	0.0	--	386	1	0.4	--
TEMPER PASSING AND COLD ROLLING	783	1	0.1	--	0	0	0.0	--	783	1	0.1	--
TIN FINISHING AND SHIPPING	668	1	0.2	--	1	0	0.0	--	669	1	0.2	--
GENERAL LABOR	3153	4	3.7	--	1215	1	1.8	--	4368	5	5.5	0.89
JANITORS	311	0	0.8	--	422	1	0.6	--	733	1	1.5	--
MASON DEPARTMENT	2511	4	1.7	--	696	1	0.8	--	3207	5	2.5	2.07
BLACKSMITH SHOP	555	1	0.8	--	6	0	0.0	--	561	1	0.8	--
CARPENTER SHOP	665	2	1.2	--	1	0	0.0	--	666	2	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	3200	0	4.0	--	8	0	0.0	--	3208	0	4.0	--
ELECTRIC SHOP	1620	4	2.0	--	2	0	0.0	--	1622	4	2.0	--
GARAGE	242	0	0.2	--	2	0	0.0	--	244	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.3	--	22	0	0.0	--	283	1	0.4	--
MACHINE SHOP	2405	4	3.0	--	12	0	0.0	--	2417	4	3.0	--
MAINTENANCE NOS	558	0	0.3	--	5	0	0.0	--	563	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	6136	7	6.9	1.02	201	0	0.3	--	6337	7	7.2	0.96
PAINT SHOP	777	1	0.7	--	9	0	0.0	--	786	1	0.7	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	1	1.7	--	14	0	0.0	--	1426	1	1.7	--
RIGGERS AND STRUCTURAL	2525	2	3.8	--	21	0	0.1	--	2546	2	3.9	--
ROLL SHOP	502	0	0.5	--	3	0	0.0	--	505	0	0.6	--
WELD SHOP	758	0	0.4	--	2	0	0.0	--	760	0	0.4	--
ALL OTHER	1098	0	2.1	--	75	0	0.1	--	1173	0	2.2	--
GENERAL RECEIVING AND STORES	382	1	0.5	--	9	0	0.0	--	391	1	0.5	--
PLANT PROTECTION	856	3	1.0	--	4	0	0.0	--	860	3	1.0	--
POWER AND FUEL	2336	5	3.0	1.74	213	0	0.5	--	2549	5	3.5	1.46
TRANSPORTATION AND YARD	2842	5	3.3	1.61	633	0	0.8	--	3475	5	4.0	1.27
TUBE MILLS INCLUDES TUBE FINISHING	635	1	0.6	--	10	0	0.0	--	645	1	0.6	--
RIVER OR MARINE WAYS	293	0	0.4	--	1	0	0.0	--	294	0	0.4	--
TOTAL	51479	43	43.0	1.00	7349	8	8.0	1.00	58828	51	51.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 1 DEATHS

C.O.D. (UNDERLYING) = 181
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	3	2.0	--	11	0	0.0	--	2374	3	2.0	--
GEN TECHNICAL	1575	1	1.0	--	6	0	0.0	--	1581	1	1.0	--
COKE PLANT	1180	2	1.0	--	864	1	0.4	--	1844	3	1.4	--
BLAST FURNACE	1730	2	2.4	--	591	1	1.1	--	2321	3	3.5	--
OPEN HEARTH	4075	5	4.0	1.33	1347	2	2.6	--	5422	7	6.6	1.09
BESSEMER CONVERTER	118	0	0.3	--	35	0	0.1	--	153	0	0.5	--
ELECTRIC FURNACE	509	0	0.3	--	4	0	0.0	--	513	0	0.3	--
FOUNDRY	764	2	1.2	--	169	0	0.5	--	933	2	1.7	--
HEAT TREAT AND FORGING	708	1	0.5	--	20	0	0.1	--	728	1	0.6	--
BILLET BLOOM AND SLAB MILLS	2614	1	3.1	--	201	0	0.2	--	2815	1	3.3	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	2	2.9	--	301	0	0.5	--	2287	2	3.4	--
PLATE MILL	1442	0	1.0	--	246	1	0.7	--	1688	1	1.7	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	1	0.5	--	113	0	0.1	--	624	1	0.6	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.5	--	32	0	0.1	--	320	0	0.7	--
RAIL MILL FINISHING	245	0	0.4	--	82	1	0.3	--	327	1	0.7	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.4	--	128	0	0.3	--	1108	0	0.7	--
ANNEALING NORMALIZING	1214	0	1.1	--	25	0	0.0	--	1239	0	1.1	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.1	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.5	--	65	0	0.1	--	913	0	0.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	2	1.0	--	5	0	0.0	--	742	2	1.0	--
HOT STRIP ROLLING	864	2	0.6	--	1	0	0.0	--	865	2	0.6	--
SHEET FINISHING AND SHIPPING	1335	1	0.8	--	48	0	0.0	--	1383	1	0.8	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.0	--	0	0	0.0	--	335	0	0.0	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	0.8	--	375	1	0.5	--	940	1	1.3	--
JANITORS	112	0	0.3	--	190	1	0.4	--	302	1	0.7	--
MASON DEPARTMENT	758	0	0.6	--	242	0	0.4	--	1000	0	1.0	--
BLACKSMITH SHOP	231	1	0.4	--	5	0	0.0	--	236	1	0.4	--
CARPENTER SHOP	277	1	0.5	--	0	0	0.0	--	277	1	0.5	--
ELECTRIC MAINTENANCE ASSIGNED	1581	0	2.0	--	2	0	0.0	--	1583	0	2.1	--
ELECTRIC SHOP	760	2	1.0	--	2	0	0.0	--	762	2	1.0	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAB REPAIR	104	1	0.1	--	7	0	0.0	--	111	1	0.2	--
MACHINE SHOP	1270	2	1.5	--	2	0	0.0	--	1272	2	1.5	--
MAINTENANCE NOS	246	0	0.2	--	0	0	0.0	--	246	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	4	2.5	--	73	0	0.2	--	2363	4	2.7	--
PAINT SHOP	197	0	0.2	--	2	0	0.0	--	199	0	0.2	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	0	0.6	--	6	0	0.0	--	663	0	0.6	--
RIGGERS AND STRUCTURAL	1034	0	1.3	--	6	0	0.0	--	1040	0	1.4	--
ROLL SHOP	314	0	0.3	--	0	0	0.0	--	314	0	0.3	--
WELD SHOP	460	0	0.3	--	2	0	0.0	--	462	0	0.3	--
ALL OTHER	302	0	0.7	--	9	0	0.0	--	311	0	0.7	--
GENERAL RECEIVING AND STORES	168	0	0.2	--	2	0	0.0	--	170	0	0.2	--
PLANT PROTECTION	469	3	0.5	--	1	0	0.0	--	470	3	0.5	--
POWER AND FUEL	976	2	1.4	--	89	0	0.3	--	1065	2	1.7	--
TRANSPORTATION AND YARD	871	3	1.2	--	194	0	0.3	--	1065	3	1.6	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.2	--	2	0	0.0	--	283	0	0.2	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	32	32.0	1.00	4913	8	8.0	1.00	41277	40	40.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 181
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	4	2.5	--	11	0	0.0	--	2374	4	2.5	--
GEN TECHNICAL	1575	1	1.3	--	6	0	0.0	--	1581	1	1.3	--
COKE PLANT	1180	2	1.8	--	664	1	0.4	--	1844	3	2.2	--
BLAST FURNACE	1730	2	2.9	--	591	1	1.1	--	2321	3	3.9	--
OPEN HEARTH	4075	5	4.8	1.05	1347	2	2.6	--	5422	7	7.4	0.93
BESSEMER CONVERTER	118	0	0.4	--	35	0	0.1	--	153	0	0.5	--
ELECTRIC FURNACE	509	0	0.3	--	4	0	0.0	--	513	0	0.3	--
FOUNDRY	764	2	1.4	--	169	0	0.5	--	933	2	1.9	--
HEAT TREAT AND FORGING	708	1	0.6	--	20	0	0.1	--	728	1	0.7	--
BILLET BLOOM AND SLAB MILLS	2614	1	3.3	--	201	0	0.2	--	2815	1	3.6	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	3	3.5	--	301	0	0.5	--	2287	3	3.9	--
PLATE MILL	1442	1	1.3	--	246	1	0.7	--	1688	2	2.0	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	1	0.8	--	113	0	0.1	--	624	1	0.9	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.6	--	32	0	0.1	--	320	0	0.8	--
RAIL MILL FINISHING	245	0	0.5	--	82	1	0.3	--	327	1	0.8	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.5	--	128	0	0.3	--	1108	0	0.9	--
ANNEALING NORMALIZING	1214	0	1.2	--	25	0	0.0	--	1239	0	1.2	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.1	--	19	0	0.0	--	64	0	0.1	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.5	--	65	0	0.1	--	913	0	0.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	2	1.3	--	5	0	0.0	--	742	2	1.3	--
HOT STRIP ROLLING	864	2	0.6	--	1	0	0.0	--	865	2	0.6	--
SHEET FINISHING AND SHIPPING	1335	1	1.0	--	48	0	0.0	--	1383	1	1.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.2	--	0	0	0.0	--	148	1	0.2	--
TEMPER PASSING AND COLD ROLLING	335	0	0.0	--	0	0	0.0	--	335	0	0.0	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	2	1.2	--	375	1	0.5	--	940	3	1.7	--
JANITORS	112	0	0.4	--	190	1	0.4	--	302	1	0.7	--
MASON DEPARTMENT	758	2	0.8	--	242	0	0.4	--	1000	2	1.2	--
BLACKSMITH SHOP	231	1	0.4	--	5	0	0.0	--	236	1	0.4	--
CARPENTER SHOP	277	1	0.6	--	0	0	0.0	--	277	1	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	1581	0	2.5	--	2	0	0.0	--	1583	0	2.5	--
ELECTRIC SHOP	760	4	1.1	--	2	0	0.0	--	762	4	1.1	--
GARAGE	98	0	0.1	--	1	0	0.0	--	99	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.2	--	7	0	0.0	--	111	1	0.2	--
MACHINE SHOP	1270	2	1.8	--	2	0	0.0	--	1272	2	1.8	--
MAINTENANCE NOS	246	0	0.2	--	0	0	0.0	--	246	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	4.0	1.30	73	0	0.2	--	2363	5	4.2	1.24
PAINT SHOP	197	0	0.3	--	2	0	0.0	--	199	0	0.3	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	0	0.9	--	6	0	0.0	--	663	0	0.9	--
RIGGERS AND STRUCTURAL	1034	0	1.7	--	6	0	0.0	--	1040	0	1.7	--
ROLL SHOP	314	0	0.4	--	0	0	0.0	--	314	0	0.4	--
WELD SHOP	460	0	0.3	--	2	0	0.0	--	462	0	0.3	--
ALL OTHER	302	0	0.8	--	9	0	0.0	--	311	0	0.9	--
GENERAL RECEIVING AND STORES	168	0	0.3	--	2	0	0.0	--	170	0	0.3	--
PLANT PROTECTION	469	3	0.7	--	1	0	0.0	--	470	3	0.7	--
POWER AND FUEL	976	3	1.8	--	89	0	0.3	--	1065	3	2.1	--
TRANSPORTATION AND YARD	871	4	1.5	--	194	0	0.3	--	1065	4	1.8	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.3	--	2	0	0.0	--	283	0	0.3	--
RIVER OR MARINE WAYS	177	0	0.4	--	1	0	0.0	--	178	0	0.4	--
TOTAL	36364	40	40.0	1.00	4913	6	8.0	1.00	41277	48	48.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00067

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Bladder and Other Urinary Organs

ICD CODE: 181

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	--	--	3.46*	2.66	--	--
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

00083

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

C.O.D. (UNDERLYING) = 190-191
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	2	0.9	--	18	0	0.0	--	3291	2	0.9	--
GEN TECHNICAL	2368	0	0.6	--	14	0	0.0	--	2382	0	0.6	--
COKE PLANT	1635	0	0.4	--	908	0	0.0	--	2543	0	0.4	--
BLAST FURNACE	2355	1	0.7	--	1101	0	0.1	--	3456	1	0.8	--
OPEN HEARTH	5797	1	1.8	--	1836	0	0.3	--	7633	1	2.1	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.0	--	7	0	0.0	--	741	0	0.0	--
FOUNDRY	890	0	0.2	--	253	0	0.0	--	1143	0	0.2	--
HEAT TREAT AND FORGING	1003	0	0.5	--	16	0	0.0	--	1019	0	0.5	--
BILLET BLOOM AND SLAB MILLS	2912	0	0.7	--	223	0	0.0	--	3135	0	0.7	--
SOAKING PITS	94	0	0.0	--	14	0	0.0	--	108	0	0.0	--
MERCHANT MILLS	2130	1	0.6	--	395	0	0.0	--	2525	1	0.6	--
PLATE MILL	1547	2	0.7	--	239	0	0.2	--	1786	2	0.9	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.1	--	82	0	0.0	--	481	0	0.1	--
HOT STRIP MILL	164	0	0.1	--	1	0	0.0	--	165	0	0.1	--
RAIL MILL ROLLING	339	0	0.1	--	46	0	0.0	--	385	0	0.1	--
RAIL MILL FINISHING	347	0	0.1	--	98	0	0.0	--	445	0	0.1	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	0	0.5	--	164	0	0.1	--	1360	0	0.6	--
ANNEALING NORMALIZING	1353	0	0.4	--	17	0	0.0	--	1370	0	0.4	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	0	0.5	--	97	0	0.0	--	1492	0	0.5	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	0.0	--	5	0	0.0	--	571	0	0.0	--
HOT STRIP ROLLING	1008	0	0.3	--	0	0	0.0	--	1008	0	0.3	--
SHEET FINISHING AND SHIPPING	1733	0	0.2	--	36	0	0.0	--	1769	0	0.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.1	--	0	0	0.0	--	369	0	0.1	--
TIN FINISHING AND SHIPPING	396	0	0.1	--	1	0	0.0	--	397	0	0.1	--
GENERAL LABOR	546	1	0.2	--	449	1	0.1	--	995	2	0.3	--
JANITORS	205	0	0.0	--	321	0	0.1	--	526	0	0.1	--
MASON DEPARTMENT	1305	1	0.4	--	438	0	0.0	--	1743	1	0.4	--
BLACKSMITH SHOP	266	0	0.1	--	4	0	0.0	--	270	0	0.1	--
CARPENTER SHOP	406	0	0.1	--	0	0	0.0	--	406	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	0.4	--	5	0	0.0	--	1610	2	0.4	--
ELECTRIC SHOP	551	0	0.2	--	1	0	0.0	--	552	0	0.2	--
GARAGE	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.0	--	9	0	0.0	--	130	0	0.0	--
MACHINE SHOP	1442	1	0.4	--	3	0	0.0	--	1445	1	0.4	--
MAINTENANCE NOS	70	0	0.0	--	2	0	0.0	--	72	0	0.0	--
MECHNICAL MAINTENANCE ASSIGNED	2689	0	0.6	--	60	0	0.0	--	2749	0	0.7	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.0	--	0	0	0.0	--	68	0	0.0	--
PIPE SHOP	738	0	0.2	--	5	0	0.0	--	743	0	0.2	--
RIGGERS AND STRUCTURAL	1189	0	0.4	--	8	0	0.0	--	1197	0	0.4	--
ROLL SHOP	374	0	0.1	--	0	0	0.0	--	374	0	0.1	--
WELD SHOP	644	0	0.2	--	2	0	0.0	--	646	0	0.2	--
ALL OTHER	138	0	0.0	--	5	0	0.0	--	143	0	0.0	--
GENERAL RECEIVING AND STORES	192	0	0.0	--	4	0	0.0	--	196	0	0.0	--
PLANT PROTECTION	674	1	0.2	--	1	0	0.0	--	675	1	0.2	--
POWER AND FUEL	1343	0	0.4	--	62	0	0.0	--	1405	0	0.4	--
TRANSPORTATION AND YARD	1293	1	0.2	--	341	0	0.1	--	1634	1	0.3	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.0	--	1	0	0.0	--	230	0	0.0	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	14	14.0	1.00	7349	1	1.0	1.00	58828	15	15.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00039

C.O.D. (PREVALENCE) = 190-191
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	2	1.0	--	18	0	0.0	--	3291	2	1.0	--
GEN TECHNICAL	2368	0	0.6	--	14	0	0.0	--	2382	0	0.6	--
COKE PLANT	1635	0	0.4	--	908	0	0.0	--	2543	0	0.4	--
BLAST FURNACE	2355	1	0.7	--	1101	0	0.1	--	3456	1	0.8	--
OPEN HEARTH	5797	1	1.9	--	1836	0	0.3	--	7633	1	2.2	--
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	1	0.1	--	7	0	0.0	--	741	1	0.1	--
FOUNDRY	890	0	0.3	--	253	0	0.0	--	1143	0	0.3	--
HEAT TREAT AND FORGING	1003	0	0.5	--	16	0	0.0	--	1019	0	0.5	--
BILLET BLOOM AND SLAB MILLS	2912	0	0.8	--	223	0	0.0	--	3135	0	0.8	--
SOAKING PITS	94	0	0.0	--	14	0	0.0	--	108	0	0.0	--
MERCHANT MILLS	2130	1	0.6	--	395	0	0.0	--	2525	1	0.6	--
PLATE MILL	1547	2	0.7	--	239	0	0.2	--	1786	2	0.9	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.1	--	82	0	0.0	--	481	0	0.1	--
HOT STRIP MILL	164	0	0.1	--	1	0	0.0	--	165	0	0.1	--
RAIL MILL ROLLING	339	0	0.1	--	46	0	0.0	--	385	0	0.1	--
RAIL MILL FINISHING	347	0	0.1	--	98	0	0.0	--	445	0	0.1	--
STEEL YARDS	88	0	0.0	--	32	0	0.0	--	120	0	0.0	--
STRUCTURAL MILL	1196	0	0.5	--	164	0	0.1	--	1360	0	0.6	--
ANNEALING NORMALIZING	1353	0	0.5	--	17	0	0.0	--	1370	0	0.5	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	1	0.5	--	97	0	0.0	--	1492	1	0.5	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.0	--	0	0	0.0	--	205	0	0.0	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	0.3	--	5	0	0.0	--	571	0	0.3	--
HOT STRIP ROLLING	1008	0	0.3	--	0	0	0.0	--	1008	0	0.3	--
SHEET FINISHING AND SHIPPING	1733	0	0.5	--	36	0	0.0	--	1769	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.1	--	0	0	0.0	--	369	0	0.1	--
TIN FINISHING AND SHIPPING	396	0	0.1	--	1	0	0.0	--	397	0	0.1	--
GENERAL LABOR	546	1	0.2	--	449	1	0.1	--	995	2	0.3	--
JANITORS	205	0	0.1	--	321	0	0.1	--	526	0	0.2	--
MASON DEPARTMENT	1305	1	0.4	--	438	0	0.0	--	1743	1	0.4	--
BLACKSMITH SHOP	266	0	0.1	--	4	0	0.0	--	270	0	0.1	--
CARPENTER SHOP	406	0	0.1	--	0	0	0.0	--	406	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	0.4	--	5	0	0.0	--	1610	2	0.4	--
ELECTRIC SHOP	551	0	0.2	--	1	0	0.0	--	552	0	0.2	--
GARAGE	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.0	--	9	0	0.0	--	130	0	0.0	--
MACHINE SHOP	1442	1	0.4	--	3	0	0.0	--	1445	1	0.4	--
MAINTENANCE NOS	70	0	0.0	--	2	0	0.0	--	72	0	0.0	--
MECHNICAL MAINTENANCE ASSIGNED	2689	0	0.7	--	60	0	0.0	--	2749	0	0.8	--
PAINT SHOP	263	0	0.1	--	2	0	0.0	--	265	0	0.1	--
PATTERN SHOP	68	0	0.0	--	0	0	0.0	--	68	0	0.0	--
PIPE SHOP	738	0	0.3	--	5	0	0.0	--	743	0	0.3	--
RIGGERS AND STRUCTURAL	1189	0	0.4	--	8	0	0.0	--	1197	0	0.4	--
ROLL SHOP	374	0	0.1	--	0	0	0.0	--	374	0	0.1	--
WELD SHOP	644	0	0.2	--	2	0	0.0	--	646	0	0.2	--
ALL OTHER	138	0	0.0	--	5	0	0.0	--	143	0	0.0	--
GENERAL RECEIVING AND STORES	192	0	0.1	--	4	0	0.0	--	196	0	0.1	--
PLANT PROTECTION	674	1	0.3	--	1	0	0.0	--	675	1	0.3	--
POWER AND FUEL	1343	0	0.4	--	62	0	0.0	--	1405	0	0.4	--
TRANSPORTATION AND YARD	1293	1	0.3	--	341	0	0.1	--	1634	1	0.4	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.0	--	1	0	0.0	--	230	0	0.0	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	16	16.0	1.00	7349	1	1.0	1.00	58828	17	17.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00030

C.O.D. (UNDERLYING) = 190-191
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	3	1.5	--	34	0	0.0	--	5146	3	1.6	--
GEN TECHNICAL	3684	0	1.0	--	16	0	0.0	--	3700	0	1.0	--
COKE PLANT	2381	0	0.7	--	1176	0	0.0	--	3557	0	0.7	--
BLAST FURNACE	4218	2	1.2	--	1415	0	0.1	--	5633	2	1.3	--
OPEN HEARTH	9655	3	3.0	--	2335	1	0.5	--	11990	4	3.4	--
BESSEMER CONVERTER	240	0	0.0	--	88	0	0.0	--	328	0	0.0	--
ELECTRIC FURNACE	1250	0	0.0	--	11	0	0.0	--	1261	0	0.1	--
FOUNDRY	1781	1	0.4	--	345	0	0.0	--	2126	1	0.4	--
HEAT TREAT AND FORGING	1683	0	0.8	--	46	0	0.1	--	1729	0	0.8	--
BILLET BLOOM AND SLAB MILLS	5783	0	1.2	--	419	0	0.0	--	6202	0	1.3	--
SOAKING PITS	148	0	0.0	--	28	0	0.0	--	176	0	0.0	--
MERCHANT MILLS	3885	1	1.1	--	680	0	0.0	--	4565	1	1.1	--
PLATE MILL	3005	2	1.4	--	436	1	0.4	--	3441	3	1.8	--
AXLE MILLS	293	0	0.2	--	6	0	0.0	--	299	0	0.2	--
GENERAL FINISHING AND SHIPPING	1309	0	0.5	--	213	0	0.0	--	1522	0	0.6	--
HOT STRIP MILL	567	0	0.2	--	1	0	0.0	--	568	0	0.2	--
RAIL MILL ROLLING	852	0	0.1	--	97	0	0.0	--	949	0	0.1	--
RAIL MILL FINISHING	726	0	0.1	--	145	0	0.0	--	871	0	0.1	--
STEEL YARDS	299	0	0.2	--	77	0	0.1	--	376	0	0.3	--
STRUCTURAL MILL	1972	1	0.9	--	252	0	0.1	--	2224	1	0.9	--
ANNEALING NORMALIZING	2605	0	0.6	--	54	0	0.0	--	2659	0	0.6	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.0	--	50	0	0.0	--	187	0	0.0	--
COATING	545	0	0.1	--	0	0	0.0	--	545	0	0.1	--
COLD REDUCING MILLS	1933	0	0.6	--	113	0	0.0	--	2046	0	0.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	0	0.0	--	19	0	0.0	--	1248	0	0.0	--
HOT STRIP ROLLING	1623	0	0.5	--	2	0	0.0	--	1625	0	0.5	--
SHEET FINISHING AND SHIPPING	3306	0	0.3	--	108	0	0.0	--	3414	0	0.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.0	--	2	0	0.0	--	386	0	0.0	--
TEMPER PASSING AND COLD ROLLING	783	0	0.2	--	0	0	0.0	--	783	0	0.2	--
TIN FINISHING AND SHIPPING	668	0	0.1	--	1	0	0.0	--	669	0	0.1	--
GENERAL LABOR	3153	2	0.9	--	1215	1	0.3	--	4368	3	1.3	--
JANITORS	311	0	0.0	--	422	0	0.1	--	733	0	0.1	--
MASON DEPARTMENT	2511	1	0.7	--	696	0	0.1	--	3207	1	0.7	--
BLACKSMITH SHOP	555	0	0.2	--	6	0	0.0	--	561	0	0.2	--
CARPENTER SHOP	665	0	0.2	--	1	0	0.0	--	666	0	0.2	--
ELECTRIC MAINTENANCE ASSIGNED	3200	2	0.9	--	8	0	0.0	--	3208	2	0.9	--
ELECTRIC SHOP	1620	0	0.6	--	2	0	0.0	--	1622	0	0.6	--
GARAGE	242	0	0.1	--	2	0	0.0	--	244	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.1	--	22	0	0.0	--	283	0	0.1	--
MACHINE SHOP	2405	1	0.8	--	12	0	0.0	--	2417	1	0.8	--
MAINTENANCE NOS	558	1	0.2	--	5	0	0.0	--	563	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	6136	2	1.6	--	201	0	0.1	--	6337	2	1.7	--
PAINT SHOP	777	0	0.2	--	9	0	0.0	--	786	0	0.2	--
PATTERN SHOP	95	0	0.0	--	0	0	0.0	--	95	0	0.0	--
PIPE SHOP	1412	0	0.4	--	14	0	0.0	--	1426	0	0.5	--
RIGGERS AND STRUCTURAL	2525	0	0.9	--	21	0	0.0	--	2546	0	0.9	--
ROLL SHOP	502	0	0.2	--	3	0	0.0	--	505	0	0.2	--
WELD SHOP	758	0	0.2	--	2	0	0.0	--	760	0	0.2	--
ALL OTHER	1098	0	0.3	--	75	0	0.0	--	1173	0	0.4	--
GENERAL RECEIVING AND STORES	382	0	0.1	--	9	0	0.0	--	391	0	0.1	--
PLANT PROTECTION	856	1	0.3	--	4	0	0.0	--	860	1	0.3	--
POWER AND FUEL	2336	0	0.7	--	213	0	0.0	--	2549	0	0.8	--
TRANSPORTATION AND YARD	2842	2	0.7	--	633	1	0.2	--	3475	3	0.9	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.0	--	10	0	0.0	--	645	0	0.0	--
RIVER OR MARINE WAYS	293	0	0.1	--	1	0	0.0	--	294	0	0.1	--
TOTAL	51479	14	14.0	1.00	7349	1	1.0	1.00	58828	15	15.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00031

C.O.D. (PREVALENCE) = 190-191
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	3	1.6	--	34	0	0.0	--	5146	3	1.7	--
GEN TECHNICAL	3684	0	1.0	--	16	0	0.0	--	3700	0	1.0	--
COKE PLANT	2381	0	0.7	--	1176	0	0.0	--	3557	0	0.7	--
BLAST FURNACE	4218	2	1.2	--	1415	0	0.1	--	5633	2	1.3	--
OPEN HEARTH	9655	4	3.2	--	2335	1	0.5	--	11990	5	3.6	1.64
BESSEMER CONVERTER	240	0	0.0	--	88	0	0.0	--	328	0	0.0	--
ELECTRIC FURNACE	1250	1	0.3	--	11	0	0.0	--	1261	1	0.3	--
FOUNDRY	1781	1	0.5	--	345	0	0.0	--	2126	1	0.6	--
HEAT TREAT AND FORGING	1683	0	0.8	--	46	0	0.1	--	1729	0	0.8	--
BILLET BLOOM AND SLAB MILLS	5783	0	1.6	--	419	0	0.0	--	6202	0	1.6	--
SOAKING PITS	148	0	0.0	--	28	0	0.0	--	176	0	0.0	--
MERCHANT MILLS	3885	1	1.1	--	680	0	0.0	--	4565	1	1.1	--
PLATE MILL	3005	2	1.5	--	436	1	0.4	--	3441	3	1.9	--
AXLE MILLS	293	0	0.2	--	6	0	0.0	--	299	0	0.2	--
GENERAL FINISHING AND SHIPPING	1309	0	0.5	--	213	0	0.0	--	1522	0	0.6	--
HOT STRIP MILL	567	0	0.2	--	1	0	0.0	--	568	0	0.2	--
RAIL MILL ROLLING	852	0	0.1	--	97	0	0.0	--	949	0	0.1	--
RAIL MILL FINISHING	726	0	0.1	--	145	0	0.0	--	871	0	0.1	--
STEEL YARDS	299	0	0.2	--	77	0	0.1	--	376	0	0.3	--
STRUCTURAL MILL	1972	1	0.9	--	252	0	0.1	--	2224	1	0.9	--
ANNEALING NORMALIZING	2605	0	1.1	--	54	0	0.0	--	2659	0	1.1	--
BATCH PICKLING AND SHEET DRYERS	137	0	0.0	--	50	0	0.0	--	187	0	0.0	--
COATING	545	0	0.1	--	0	0	0.0	--	545	0	0.1	--
COLD REDUCING MILLS	1933	1	0.6	--	113	0	0.0	--	2046	1	0.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	0	0.7	--	19	0	0.0	--	1248	0	0.7	--
HOT STRIP ROLLING	1623	0	0.5	--	2	0	0.0	--	1625	0	0.5	--
SHEET FINISHING AND SHIPPING	3306	0	0.8	--	108	0	0.0	--	3414	0	0.8	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.2	--	2	0	0.0	--	386	0	0.2	--
TEMPER PASSING AND COLD ROLLING	783	0	0.2	--	0	0	0.0	--	783	0	0.2	--
TIN FINISHING AND SHIPPING	668	0	0.1	--	1	0	0.0	--	669	0	0.1	--
GENERAL LABOR	3153	2	1.0	--	1215	1	0.3	--	4368	3	1.3	--
JANITORS	311	0	0.2	--	422	0	0.1	--	733	0	0.3	--
MASON DEPARTMENT	2511	1	0.7	--	696	0	0.1	--	3207	1	0.8	--
BLACKSMITH SHOP	555	0	0.2	--	6	0	0.0	--	561	0	0.2	--
CARPENTER SHOP	665	0	0.3	--	1	0	0.0	--	666	0	0.3	--
ELECTRIC MAINTENANCE ASSIGNED	3200	2	0.9	--	8	0	0.0	--	3208	2	0.9	--
ELECTRIC SHOP	1620	0	0.6	--	2	0	0.0	--	1622	0	0.6	--
GARAGE	242	0	0.1	--	2	0	0.0	--	244	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	261	0	0.1	--	22	0	0.0	--	283	0	0.1	--
MACHINE SHOP	2405	1	0.8	--	12	0	0.0	--	2417	1	0.8	--
MAINTENANCE NOS	558	1	0.2	--	5	0	0.0	--	563	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	6136	3	2.0	--	201	0	0.1	--	6337	3	2.1	--
PAINT SHOP	777	0	0.3	--	9	0	0.0	--	786	0	0.3	--
PATTERN SHOP	95	0	0.0	--	0	0	0.0	--	95	0	0.0	--
PIPE SHOP	1412	0	0.5	--	14	0	0.0	--	1426	0	0.6	--
RIGGERS AND STRUCTURAL	2525	0	0.9	--	21	0	0.0	--	2546	0	0.9	--
ROLL SHOP	502	0	0.2	--	3	0	0.0	--	505	0	0.2	--
WELD SHOP	758	0	0.2	--	2	0	0.0	--	760	0	0.2	--
ALL OTHER	1098	0	0.5	--	75	0	0.0	--	1173	0	0.5	--
GENERAL RECEIVING AND STORES	382	0	0.1	--	9	0	0.0	--	391	0	0.1	--
PLANT PROTECTION	856	1	0.4	--	4	0	0.0	--	860	1	0.4	--
POWER AND FUEL	2336	0	0.7	--	213	0	0.0	--	2549	0	0.8	--
TRANSPORTATION AND YARD	2842	2	0.9	--	633	1	0.2	--	3475	3	1.1	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.2	--	10	0	0.0	--	645	0	0.2	--
RIVER OR MARINE WAYS	293	0	0.1	--	1	0	0.0	--	294	0	0.1	--
TOTAL	51479	16	16.0	1.00	7349	1	1.0	1.00	58828	17	17.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00032

C.O.D. (UNDERLYING) = 190-191
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	1	0.7	--	11	0	0.0	--	2374	1	0.7	--
GEN TECHNICAL	1575	0	0.5	--	6	0	0.0	--	1581	0	0.5	--
COKE PLANT	1180	0	0.4	--	664	0	0.0	--	1844	0	0.4	--
BLAST FURNACE	1730	1	0.5	--	591	0	0.1	--	2321	1	0.5	--
OPEN HEARTH	4075	1	1.3	--	1347	0	0.3	--	5422	1	1.7	--
BESSEMER CONVERTER	118	0	0.0	--	35	0	0.0	--	153	0	0.0	--
ELECTRIC FURNACE	509	0	0.0	--	4	0	0.0	--	513	0	0.0	--
FOUNDRY	764	0	0.1	--	169	0	0.0	--	933	0	0.1	--
HEAT TREAT AND FORGING	708	0	0.4	--	20	0	0.0	--	728	0	0.4	--
BILLET BLOOM AND SLAB MILLS	2614	0	0.5	--	201	0	0.0	--	2815	0	0.5	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	1	0.6	--	301	0	0.0	--	2287	1	0.6	--
PLATE MILL	1442	2	0.7	--	246	0	0.3	--	1688	2	1.0	--
AXLE MILLS	45	0	0.0	--	0	0	0.0	--	45	0	0.0	--
GENERAL FINISHING AND SHIPPING	511	0	0.2	--	113	0	0.0	--	624	0	0.3	--
HOT STRIP MILL	174	0	0.1	--	0	0	0.0	--	174	0	0.1	--
RAIL MILL ROLLING	288	0	0.0	--	32	0	0.0	--	320	0	0.0	--
RAIL MILL FINISHING	245	0	0.0	--	82	0	0.0	--	327	0	0.0	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.5	--	128	0	0.1	--	1108	0	0.5	--
ANNEALING NORMALIZING	1214	0	0.2	--	25	0	0.0	--	1239	0	0.2	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	0	0.2	--	65	0	0.0	--	913	0	0.2	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	0.0	--	5	0	0.0	--	742	0	0.0	--
HOT STRIP ROLLING	864	0	0.3	--	1	0	0.0	--	865	0	0.3	--
SHEET FINISHING AND SHIPPING	1335	0	0.1	--	48	0	0.0	--	1383	0	0.1	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.0	--	0	0	0.0	--	148	0	0.0	--
TEMPER PASSING AND COLD ROLLING	335	0	0.1	--	0	0	0.0	--	335	0	0.1	--
TIN FINISHING AND SHIPPING	348	0	0.1	--	0	0	0.0	--	348	0	0.1	--
GENERAL LABOR	565	1	0.2	--	375	0	0.1	--	940	1	0.3	--
JANITORS	112	0	0.0	--	190	0	0.1	--	302	0	0.1	--
MASON DEPARTMENT	758	1	0.2	--	242	0	0.0	--	1000	1	0.3	--
BLACKSMITH SHOP	231	0	0.1	--	5	0	0.0	--	236	0	0.1	--
CARPENTER SHOP	277	0	0.1	--	0	0	0.0	--	277	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	0.4	--	2	0	0.0	--	1583	2	0.4	--
ELECTRIC SHOP	760	0	0.3	--	2	0	0.0	--	762	0	0.3	--
GARAGE	98	0	0.0	--	1	0	0.0	--	99	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.0	--	7	0	0.0	--	111	0	0.0	--
MACHINE SHOP	1270	0	0.4	--	2	0	0.0	--	1272	0	0.4	--
MAINTENANCE NOS	246	0	0.1	--	0	0	0.0	--	246	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	0	0.9	--	73	0	0.1	--	2363	0	0.9	--
PAINT SHOP	197	0	0.1	--	2	0	0.0	--	199	0	0.1	--
PATTERN SHOP	64	0	0.0	--	0	0	0.0	--	64	0	0.0	--
PIPE SHOP	657	0	0.2	--	6	0	0.0	--	663	0	0.2	--
RIGGERS AND STRUCTURAL	1034	0	0.4	--	6	0	0.0	--	1040	0	0.4	--
ROLL SHOP	314	0	0.1	--	0	0	0.0	--	314	0	0.1	--
WELD SHOP	460	0	0.1	--	2	0	0.0	--	462	0	0.1	--
ALL OTHER	302	0	0.1	--	9	0	0.0	--	311	0	0.1	--
GENERAL RECEIVING AND STORES	168	0	0.0	--	2	0	0.0	--	170	0	0.0	--
PLANT PROTECTION	469	1	0.2	--	1	0	0.0	--	470	1	0.2	--
POWER AND FUEL	976	0	0.3	--	89	0	0.0	--	1065	0	0.3	--
TRANSPORTATION AND YARD	871	1	0.2	--	194	1	0.1	--	1065	2	0.3	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.0	--	2	0	0.0	--	283	0	0.0	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	178	0	0.1	--
TOTAL	36364	10	10.0	1.00	4913	1	1.0	1.00	41277	11	11.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00053

C.O.D. (PREVALENCE) = 190-191
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	1	0.8	--	11	0	0.0	--	2374	1	0.8	--
GEN TECHNICAL	1575	0	0.5	--	6	0	0.0	--	1581	0	0.5	--
COKE PLANT	1180	0	0.4	--	664	0	0.0	--	1844	0	0.4	--
BLAST FURNACE	1730	1	0.5	--	591	0	0.1	--	2321	1	0.5	--
OPEN HEARTH	4075	2	1.5	--	1347	0	0.3	--	5422	2	1.8	--
BESSEMER CONVERTER	118	0	0.0	--	35	0	0.0	--	153	0	0.0	--
ELECTRIC FURNACE	509	0	0.1	--	4	0	0.0	--	513	0	0.1	--
FOUNDRY	764	0	0.2	--	169	0	0.0	--	933	0	0.2	--
HEAT TREAT AND FORGING	708	0	0.4	--	20	0	0.0	--	728	0	0.4	--
BILLET BLOOM AND SLAB MILLS	2614	0	0.7	--	201	0	0.0	--	2815	0	0.7	--
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	1	0.6	--	301	0	0.0	--	2287	1	0.6	--
PLATE MILL	1442	2	0.8	--	246	0	0.3	--	1688	2	1.1	--
AXLE MILLS	45	0	0.0	--	0	0	0.0	--	45	0	0.0	--
GENERAL FINISHING AND SHIPPING	511	0	0.2	--	113	0	0.0	--	624	0	0.3	--
HOT STRIP MILL	174	0	0.1	--	0	0	0.0	--	174	0	0.1	--
RAIL MILL ROLLING	288	0	0.0	--	32	0	0.0	--	320	0	0.0	--
RAIL MILL FINISHING	245	0	0.0	--	82	0	0.0	--	327	0	0.0	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	0	0.5	--	128	0	0.1	--	1108	0	0.5	--
ANNEALING NORMALIZING	1214	0	0.6	--	25	0	0.0	--	1239	0	0.6	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.0	--	19	0	0.0	--	64	0	0.0	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	1	0.3	--	65	0	0.0	--	913	1	0.3	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.0	--	0	0	0.0	--	147	0	0.0	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	0.7	--	5	0	0.0	--	742	0	0.7	--
HOT STRIP ROLLING	864	0	0.3	--	1	0	0.0	--	865	0	0.3	--
SHEET FINISHING AND SHIPPING	1335	0	0.5	--	48	0	0.0	--	1383	0	0.5	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.1	--	0	0	0.0	--	148	0	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.1	--	0	0	0.0	--	335	0	0.1	--
TIN FINISHING AND SHIPPING	348	0	0.1	--	0	0	0.0	--	348	0	0.1	--
GENERAL LABOR	565	1	0.2	--	375	0	0.1	--	940	1	0.3	--
JANITORS	112	0	0.1	--	190	0	0.1	--	302	0	0.2	--
MASON DEPARTMENT	758	1	0.2	--	242	0	0.0	--	1000	1	0.3	--
BLACKSMITH SHOP	231	0	0.1	--	5	0	0.0	--	236	0	0.1	--
CARPENTER SHOP	277	0	0.1	--	0	0	0.0	--	277	0	0.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	0.5	--	2	0	0.0	--	1583	2	0.5	--
ELECTRIC SHOP	760	0	0.3	--	2	0	0.0	--	762	0	0.3	--
GARAGE	98	0	0.0	--	1	0	0.0	--	99	0	0.0	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.0	--	7	0	0.0	--	111	0	0.0	--
MACHINE SHOP	1270	0	0.4	--	2	0	0.0	--	1272	0	0.4	--
MAINTENANCE NOS	246	0	0.1	--	0	0	0.0	--	246	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	0	1.0	--	73	0	0.1	--	2363	0	1.1	--
PAINT SHOP	197	0	0.1	--	2	0	0.0	--	199	0	0.1	--
PATTERN SHOP	64	0	0.0	--	0	0	0.0	--	64	0	0.0	--
PIPE SHOP	657	0	0.3	--	6	0	0.0	--	663	0	0.3	--
RIGGERS AND STRUCTURAL	1034	0	0.4	--	6	0	0.0	--	1040	0	0.4	--
ROLL SHOP	314	0	0.1	--	0	0	0.0	--	314	0	0.1	--
WELD SHOP	460	0	0.1	--	2	0	0.0	--	462	0	0.1	--
ALL OTHER	302	0	0.1	--	9	0	0.0	--	311	0	0.1	--
GENERAL RECEIVING AND STORES	168	0	0.0	--	2	0	0.0	--	170	0	0.0	--
PLANT PROTECTION	469	1	0.3	--	1	0	0.0	--	470	1	0.3	--
POWER AND FUEL	976	0	0.3	--	89	0	0.0	--	1065	0	0.3	--
TRANSPORTATION AND YARD	871	1	0.3	--	194	1	0.1	--	1065	2	0.4	--
TUBE MILLS INCLUDES TUBE FINISHING	231	0	0.1	--	2	0	0.0	--	283	0	0.1	--
RIVER OR MARINE WAYS	177	0	0.1	--	1	0	0.0	--	176	0	0.1	--
TOTAL	36364	12	12.0	1.00	4913	1	1.0	1.00	41277	13	13.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL,RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00054

C.O.D. (UNDERLYING) = 200-205
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	6	7.7	0.77	18	0	0.1	--	3291	6	7.7	0.76
GEN TECHNICAL	2368	6	4.3	1.44	14	0	0.0	--	2382	6	4.3	1.43
COKE PLANT	1635	2	3.9	--	908	4	2.4	--	2543	6	6.3	0.92
BLAST FURNACE	2355	9	5.3	1.77	1101	1	2.5	--	3456	10	7.8	1.31
OPEN HEARTH	5797	16	13.4	1.23	1836	3	4.7	--	7633	19	18.1	1.06
BESSEMER CONVERTER	24	2	0.1	--	0	0	0.0	--	24	2	0.1	--
ELECTRIC FURNACE	734	2	2.1	--	7	0	0.0	--	741	2	2.1	--
FOUNDRY	890	1	2.4	--	253	1	0.4	--	1143	2	2.8	--
HEAT TREAT AND FORGING	1003	8	2.3	4.59 **	16	0	0.1	--	1019	8	2.4	4.41 **
BILLET BLOOM AND SLAB MILLS	2912	7	8.6	0.79	223	0	0.4	--	3135	7	9.0	0.76
SOAKING PITS	94	0	0.3	--	14	0	0.0	--	108	0	0.3	--
MERCHANT MILLS	2130	7	6.1	1.17	395	1	0.9	--	2525	8	7.0	1.16
PLATE MILL	1547	3	3.9	--	239	0	0.8	--	1786	3	4.7	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	1.0	--	82	0	0.4	--	481	0	1.5	--
HOT STRIP MILL	164	0	0.5	--	1	0	0.0	--	165	0	0.5	--
RAIL MILL ROLLING	339	0	0.9	--	46	0	0.1	--	385	0	1.0	--
RAIL MILL FINISHING	347	1	0.7	--	98	0	0.1	--	445	1	0.8	--
STEEL YARDS	88	0	0.2	--	32	0	0.1	--	120	0	0.3	--
STRUCTURAL MILL	1196	3	2.6	--	164	1	0.6	--	1360	4	3.2	--
ANNEALING NORMALIZING	1353	4	3.7	--	17	0	0.0	--	1370	4	3.7	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.0	--	76	0	0.1	--
COATING	328	0	0.7	--	0	0	0.0	--	328	0	0.7	--
COLD REDUCING MILLS	1395	2	2.4	--	97	0	0.3	--	1492	2	2.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.4	--	0	0	0.0	--	205	0	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	3.1	--	5	0	0.0	--	571	3	3.1	--
HOT STRIP ROLLING	1008	0	2.3	--	0	0	0.0	--	1008	0	2.3	--
SHEET FINISHING AND SHIPPING	1733	0	5.2	0.00 *	36	0	0.0	--	1769	0	5.2	0.00 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	1	0.2	--	1	0	0.0	--	47	1	0.2	--
TEMPER PASSING AND COLD ROLLING	369	2	0.8	--	0	0	0.0	--	369	2	0.8	--
TIN FINISHING AND SHIPPING	396	3	1.0	--	1	0	0.0	--	397	3	1.0	--
GENERAL LABOR	546	1	1.2	--	449	1	1.2	--	995	2	2.3	--
JANITORS	205	0	1.1	--	321	1	0.8	--	526	1	2.0	--
MASON DEPARTMENT	1305	4	2.4	--	438	3	0.9	--	1743	7	3.3	2.23
BLACKSMITH SHOP	266	2	0.8	--	4	0	0.0	--	270	2	0.8	--
CARPENTER SHOP	406	1	1.2	--	0	0	0.0	--	406	1	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	4.7	--	5	0	0.0	--	1610	3	4.7	--
ELECTRIC SHOP	551	2	1.5	--	1	0	0.0	--	552	2	1.5	--
GARAGE	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.3	--	9	0	0.0	--	130	1	0.3	--
MACHINE SHOP	1442	2	3.6	--	3	0	0.0	--	1445	2	3.6	--
MAINTENANCE NOS	70	0	0.3	--	2	0	0.0	--	72	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	8	7.7	1.04	60	0	0.1	--	2749	8	7.9	1.02
PAINT SHOP	263	0	0.6	--	2	0	0.0	--	265	0	0.7	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	2	1.9	--	5	0	0.0	--	743	2	1.9	--
RIGGERS AND STRUCTURAL	1189	4	3.2	--	8	0	0.0	--	1197	4	3.2	--
ROLL SHOP	374	2	1.1	--	0	0	0.0	--	374	2	1.1	--
WELD SHOP	644	0	1.4	--	2	0	0.0	--	646	0	1.4	--
ALL OTHER	138	0	0.3	--	5	1	0.0	--	143	1	0.4	--
GENERAL RECEIVING AND STORES	192	3	0.5	--	4	0	0.0	--	196	3	0.5	--
PLANT PROTECTION	674	0	2.2	--	1	0	0.0	--	675	0	2.2	--
POWER AND FUEL	1343	3	3.4	--	62	0	0.2	--	1405	3	3.5	--
TRANSPORTATION AND YARD	1293	3	3.3	--	341	1	0.8	--	1634	4	4.1	--
TUBE MILLS INCLUDES TUBE FINISHING	229	2	1.0	--	1	0	0.0	--	230	2	1.0	--
RIVER OR MARINE WAYS	218	0	0.7	--	1	0	0.0	--	219	0	0.7	--
TOTAL	51479	131	131.0	1.00	7349	18	18.0	1.00	58828	149	149.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

C.O.D. (PREVALENCE) = 200-205
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE D	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE D	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL D	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	6	8.2	0.72	18	0	0.1	--	3291	6	8.2	0.72
GEN TECHNICAL	2368	6	4.5	1.37	14	0	0.0	--	2382	6	4.5	1.36
COKE PLANT	1635	2	4.0	--	908	4	2.8	--	2543	6	6.9	0.82
BLAST FURNACE	2355	9	5.6	1.65	1101	2	2.9	--	3456	11	8.5	1.32
OPEN HEARTH	5797	17	14.2	1.23	1836	4	5.5	0.64	7633	21	19.7	1.08
BESSEMER CONVERTER	24	2	0.1	--	0	0	0.0	--	24	2	0.1	--
ELECTRIC FURNACE	734	2	2.2	--	7	0	0.0	--	741	2	2.2	--
FOUNDRY	890	1	2.6	--	253	1	0.4	--	1143	2	3.0	--
HEAT TREAT AND FORGING	1003	9	2.5	4.89 **	16	0	0.1	--	1019	9	2.6	4.69 **
BILLET BLOOM AND SLAB MILLS	2912	7	9.2	0.73	223	0	0.5	--	3135	7	9.7	0.69
SOAKING PITS	94	0	0.3	--	14	0	0.0	--	108	0	0.3	--
MERCHANT MILLS	2130	7	6.5	1.09	395	2	1.0	--	2525	9	7.5	1.22
PLATE MILL	1547	3	4.2	--	239	0	1.1	--	1786	3	5.3	0.55
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	1.1	--	82	0	0.5	--	481	1	1.5	--
HOT STRIP MILL	164	0	0.5	--	1	0	0.0	--	165	0	0.5	--
RAIL MILL ROLLING	339	0	0.9	--	46	0	0.1	--	385	0	1.0	--
RAIL MILL FINISHING	347	1	0.7	--	98	0	0.1	--	445	1	0.8	--
STEEL YARDS	88	0	0.2	--	32	0	0.1	--	120	0	0.3	--
STRUCTURAL MILL	1196	3	2.8	--	164	1	0.7	--	1360	4	3.4	--
ANNEALING NORMALIZING	1353	5	4.1	1.26	17	0	0.0	--	1370	5	4.1	1.25
BATCH PICKLING AND SHEET DRYERS	55	0	0.2	--	21	0	0.0	--	76	0	0.2	--
COATING	328	0	0.8	--	0	0	0.0	--	328	0	0.8	--
COLD REDUCING MILLS	1395	3	2.6	--	97	0	0.4	--	1492	3	3.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.4	--	0	0	0.0	--	205	0	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	3.4	--	5	0	0.0	--	571	3	3.4	--
HOT STRIP ROLLING	1008	0	2.6	--	0	0	0.0	--	1008	0	2.6	--
SHEET FINISHING AND SHIPPING	1733	1	5.7	0.15	36	0	0.0	--	1769	1	5.7	0.15
STAINLESS ANNEAL PICKLG AND PROCESSING	46	1	0.3	--	1	0	0.0	--	47	1	0.3	--
TEMPER PASSING AND COLD ROLLING	369	2	0.9	--	0	0	0.0	--	369	2	0.9	--
TIN FINISHING AND SHIPPING	396	4	1.1	--	1	0	0.0	--	397	4	1.1	--
GENERAL LABOR	546	1	1.3	--	449	1	1.4	--	995	2	2.6	--
JANITORS	205	0	1.3	--	321	1	0.9	--	526	1	2.3	--
MASON DEPARTMENT	1305	4	2.5	--	438	3	1.1	--	1743	7	3.6	2.06
BLACKSMITH SHOP	266	2	0.8	--	4	0	0.0	--	270	2	0.8	--
CARPENTER SHOP	406	1	1.2	--	0	0	0.0	--	406	1	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	5.0	--	5	0	0.0	--	1610	3	5.0	--
ELECTRIC SHOP	551	2	1.6	--	1	0	0.0	--	552	2	1.6	--
GARAGE	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.3	--	9	0	0.0	--	130	1	0.4	--
MACHINE SHOP	1442	2	3.9	--	3	0	0.0	--	1445	2	3.9	--
MAINTENANCE NOS	70	0	0.3	--	2	0	0.0	--	72	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	8	8.1	0.99	60	0	0.2	--	2749	8	8.2	0.97
PAINT SHOP	263	0	0.7	--	2	0	0.0	--	265	0	0.7	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	3	2.0	--	5	0	0.0	--	743	3	2.0	--
RIGGERS AND STRUCTURAL	1189	4	3.4	--	8	0	0.0	--	1197	4	3.4	--
ROLL SHOP	374	3	1.2	--	0	0	0.0	--	374	3	1.2	--
WELD SHOP	644	0	1.5	--	2	0	0.0	--	646	0	1.5	--
ALL OTHER	138	0	0.4	--	5	1	0.0	--	143	1	0.4	--
GENERAL RECEIVING AND STORES	192	3	0.5	--	4	0	0.0	--	196	3	0.6	--
PLANT PROTECTION	674	0	2.5	--	1	0	0.0	--	675	0	2.5	--
POWER AND FUEL	1343	3	3.5	--	62	0	0.2	--	1405	3	3.7	--
TRANSPORTATION AND YARD	1293	3	3.5	--	341	1	0.9	--	1634	4	4.4	--
TUBE MILLS INCLUDES TUBE FINISHING	229	2	1.0	--	1	0	0.0	--	230	2	1.0	--
RIVER OR MARINE WAYS	218	0	0.7	--	1	0	0.0	--	219	0	0.7	--
TOTAL	51479	140	140.0	1.00	7349	21	21.0	1.00	58828	161	161.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 23-MAY-74

C.O.D. (UNDERLYING) = 200-205
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	10	12.5	0.79	34	1	0.1	--	5146	11	12.5	0.87
GEN TECHNICAL	3684	9	7.9	1.16	16	0	0.0	--	3700	9	7.9	1.15
COKE PLANT	2381	4	6.1	0.59	1176	4	3.3	--	3557	8	9.3	0.77
BLAST FURNACE	4218	19	11.6	1.83 *	1415	2	3.4	--	5633	21	15.0	1.52
OPEN HEARTH	9655	28	24.9	1.17	2335	5	6.2	0.71	11990	33	31.1	1.08
BESSEMER CONVERTER	240	3	1.0	--	88	0	0.2	--	328	3	1.2	--
ELECTRIC FURNACE	1250	5	4.1	1.30	11	0	0.0	--	1261	5	4.1	1.29
FOUNDRY	1781	9	5.5	1.72	345	2	0.5	--	2126	11	6.0	1.94
HEAT TREAT AND FORGING	1683	9	4.3	2.76 *	46	0	0.2	--	1729	9	4.4	2.50 *
BILLET BLOOM AND SLAB MILLS	5783	17	18.2	0.91	419	0	0.9	--	6202	17	19.2	0.85
SOAKING PITS	148	0	0.4	--	28	0	0.0	--	176	0	0.4	--
MERCHANT MILLS	3885	13	12.5	1.05	680	3	2.1	--	4565	16	14.6	1.12
PLATE MILL	3005	5	8.9	0.53	436	1	1.5	--	3441	6	10.4	0.53
AXLE MILLS	293	2	1.2	--	6	0	0.0	--	299	2	1.3	--
GENERAL FINISHING AND SHIPPING	1309	2	4.8	--	213	1	1.0	--	1522	3	5.7	0.50
HOT STRIP MILL	567	0	1.6	--	1	0	0.0	--	568	0	1.6	--
RAIL MILL ROLLING	852	2	2.2	--	97	0	0.1	--	949	2	2.3	--
RAIL MILL FINISHING	726	2	1.9	--	145	0	0.2	--	871	2	2.1	--
STEEL YARDS	299	1	1.0	--	77	0	0.2	--	376	1	1.3	--
STRUCTURAL MILL	1972	6	4.4	1.44	252	2	0.9	--	2224	8	5.3	1.64
ANNEALING NORMALIZING	2605	12	8.5	1.55	54	0	0.0	--	2659	12	8.5	1.55
BATCH PICKLING AND SHEET DRYERS	137	0	0.6	--	50	0	0.0	--	187	0	0.6	--
COATING	545	2	1.2	--	0	0	0.0	--	545	2	1.2	--
COLD REDUCING MILLS	1933	4	3.6	--	113	0	0.3	--	2046	4	4.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.5	--	0	0	0.0	--	254	0	0.5	--
FLYING SHEARS AND SLITTERS	28	1	0.1	--	0	0	0.0	--	28	1	0.1	--
HOT PACK MILLS	1229	6	6.8	0.83	19	0	0.0	--	1248	6	6.8	0.83
HOT STRIP ROLLING	1623	1	3.9	--	2	0	0.0	--	1625	1	3.9	--
SHEET FINISHING AND SHIPPING	3306	7	10.3	0.58	108	0	0.0	--	3414	7	10.4	0.58
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	1.7	--	2	0	0.0	--	386	2	1.7	--
TEMPER PASSING AND COLD ROLLING	783	2	1.7	--	0	0	0.0	--	783	2	1.7	--
TIN FINISHING AND SHIPPING	668	5	1.6	5.15 *	1	0	0.0	--	669	5	1.6	5.15 *
GENERAL LABOR	3153	13	9.8	1.37	1215	4	3.9	--	4368	17	13.8	1.28
JANITORS	311	0	1.7	--	422	1	1.1	--	733	1	2.8	--
MASON DEPARTMENT	2511	9	5.9	1.57	696	4	1.6	--	3207	13	7.5	1.83
BLACKSMITH SHOP	555	3	2.0	--	6	0	0.0	--	561	3	2.1	--
CARPENTER SHOP	665	1	2.5	--	1	0	0.0	--	666	1	2.5	--
ELECTRIC MAINTENANCE ASSIGNED	3200	9	10.7	0.83	8	0	0.0	--	3208	9	10.7	0.83
ELECTRIC SHOP	1620	6	6.2	0.97	2	0	0.0	--	1622	6	6.2	0.97
GARAGE	242	0	0.6	--	2	0	0.0	--	244	0	0.6	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.8	--	22	0	0.1	--	283	1	0.8	--
MACHINE SHOP	2405	5	7.2	0.68	12	0	0.1	--	2417	5	7.2	0.67
MAINTENANCE NOS	558	1	1.9	--	5	0	0.0	--	563	1	1.9	--
MECHNICAL MAINTENANCE ASSIGNED	6136	23	19.1	1.26	201	1	0.5	--	6337	24	19.6	1.29
PAINT SHOP	777	2	2.1	--	9	0	0.0	--	786	2	2.1	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	4	4.6	--	14	0	0.1	--	1426	4	4.7	--
RIGGERS AND STRUCTURAL	2525	10	9.2	1.10	21	0	0.1	--	2546	10	9.3	1.09
ROLL SHOP	502	3	1.5	--	3	0	0.0	--	505	3	1.5	--
WELD SHOP	758	0	1.7	--	2	0	0.0	--	760	0	1.7	--
ALL OTHER	1098	4	4.3	--	75	2	0.3	--	1173	6	4.6	1.31
GENERAL RECEIVING AND STORES	382	3	1.2	--	9	0	0.0	--	391	3	1.2	--
PLANT PROTECTION	856	0	3.0	--	4	0	0.0	--	860	0	3.0	--
POWER AND FUEL	2336	7	7.0	1.00	213	0	0.7	--	2549	7	7.7	0.90
TRANSPORTATION AND YARD	2842	9	8.5	1.06	633	2	1.8	--	3475	11	10.3	1.07
TUBE MILLS INCLUDES TUBE FINISHING	635	3	2.8	--	10	0	0.0	--	645	3	2.8	--
RIVER OR MARINE WAYS	293	0	0.9	--	1	0	0.0	--	294	0	0.9	--
TOTAL	51479	131	131.0	1.00	7349	18	18.0	1.00	58828	149	149.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00057

C.O.D. (PREVALENCE) = 200-205
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	11	13.1	0.82	34	1	0.1	--	5146	12	13.2	0.90
GEN TECHNICAL	3684	10	8.2	1.24	16	0	0.0	--	3700	10	8.3	1.23
COKE PLANT	2381	4	6.2	0.57	1176	4	3.7	--	3557	8	10.0	0.70
BLAST FURNACE	4218	19	12.3	1.70	1415	3	3.8	--	5633	22	16.1	1.48
OPEN HEARTH	9655	30	26.5	1.18	2335	6	7.3	0.73	11990	36	33.7	1.09
BESSEMER CONVERTER	240	3	1.1	--	88	0	0.3	--	328	3	1.3	--
ELECTRIC FURNACE	1250	5	4.3	1.20	11	0	0.0	--	1261	5	4.3	1.20
FOUNDRY	1781	9	5.9	1.59	345	2	0.6	--	2126	11	6.5	1.77
HEAT TREAT AND FORGING	1683	10	4.6	2.85 *	46	0	0.2	--	1729	10	4.9	2.65 *
BILLET BLOOM AND SLAB MILLS	5783	17	19.5	0.83	419	0	1.1	--	6202	17	20.5	0.78
SOAKING PITS	148	0	0.4	--	28	0	0.0	--	176	0	0.4	--
MERCHANT MILLS	3885	13	13.4	0.96	680	4	2.4	--	4565	17	15.8	1.10
PLATE MILL	3005	6	9.8	0.57	436	1	1.9	--	3441	7	11.7	0.55
AXLE MILLS	293	2	1.4	--	6	1	0.0	--	299	3	1.4	--
GENERAL FINISHING AND SHIPPING	1309	3	5.0	--	213	1	1.0	--	1522	4	6.0	0.65
HOT STRIP MILL	567	0	1.8	--	1	0	0.0	--	568	0	1.8	--
RAIL MILL ROLLING	852	2	2.2	--	97	0	0.1	--	949	2	2.3	--
RAIL MILL FINISHING	726	2	1.9	--	145	0	0.2	--	871	2	2.1	--
STEEL YARDS	299	1	1.1	--	77	0	0.3	--	376	1	1.4	--
STRUCTURAL MILL	1972	7	4.8	1.60	252	2	1.0	--	2224	9	5.8	1.73
ANNEALING NORMALIZING	2605	13	9.3	1.52	54	0	0.0	--	2659	13	9.3	1.52
BATCH PICKLING AND SHEET DRYERS	137	0	0.6	--	50	0	0.0	--	187	0	0.7	--
COATING	545	2	1.3	--	0	0	0.0	--	545	2	1.3	--
COLD REDUCING MILLS	1933	5	4.0	1.28	113	0	0.5	--	2046	5	4.5	1.12
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.5	--	0	0	0.0	--	254	0	0.5	--
FLYING SHEARS AND SLITTERS	28	1	0.1	--	0	0	0.0	--	28	1	0.1	--
HOT PACK MILLS	1229	8	7.5	1.10	19	0	0.0	--	1248	8	7.5	1.10
HOT STRIP ROLLING	1623	1	4.3	--	2	0	0.0	--	1625	1	4.3	--
SHEET FINISHING AND SHIPPING	3306	8	11.1	0.63	108	0	0.0	--	3414	8	11.2	0.63
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	1.9	--	2	0	0.0	--	386	2	1.9	--
TEMPER PASSING AND COLD ROLLING	783	2	1.9	--	0	0	0.0	--	783	2	1.9	--
TIN FINISHING AND SHIPPING	668	6	1.8	6.18 **	1	0	0.0	--	669	6	1.8	6.18 **
GENERAL LABOR	3153	14	10.5	1.39	1215	4	4.6	--	4368	18	15.1	1.23
JANITORS	311	0	1.9	--	422	1	1.3	--	733	1	3.2	--
MASON DEPARTMENT	2511	9	6.2	1.51	696	4	1.8	--	3207	13	7.9	1.72
BLACKSMITH SHOP	555	4	2.2	--	6	0	0.0	--	561	4	2.2	--
CARPENTER SHOP	665	1	2.6	--	1	0	0.0	--	666	1	2.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	9	11.4	0.77	8	0	0.0	--	3208	9	11.4	0.77
ELECTRIC SHOP	1620	6	6.7	0.89	2	0	0.0	--	1622	6	6.7	0.89
GARAGE	242	0	0.6	--	2	0	0.0	--	244	0	0.6	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.8	--	22	0	0.1	--	283	1	0.9	--
MACHINE SHOP	2405	5	7.7	0.63	12	0	0.1	--	2417	5	7.7	0.63
MAINTENANCE NOS	558	1	2.1	--	5	0	0.0	--	563	1	2.1	--
MECHNICAL MAINTENANCE ASSIGNED	6136	23	20.2	1.18	201	1	0.6	--	6337	24	20.8	1.20
PAINT SHOP	777	2	2.2	--	9	0	0.0	--	786	2	2.3	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	5	4.8	1.03	14	0	0.1	--	1426	5	4.9	1.02
RIGGERS AND STRUCTURAL	2525	10	9.8	1.02	21	0	0.1	--	2546	10	9.9	1.01
ROLL SHOP	502	4	1.6	--	3	0	0.0	--	505	4	1.6	--
WELD SHOP	758	0	1.8	--	2	0	0.0	--	760	0	1.8	--
ALL OTHER	1098	4	4.7	--	75	2	0.3	--	1173	6	5.1	1.19
GENERAL RECEIVING AND STORES	382	3	1.2	--	9	0	0.0	--	391	3	1.3	--
PLANT PROTECTION	856	0	3.3	--	4	0	0.0	--	860	0	3.3	--
POWER AND FUEL	2336	7	7.4	0.94	213	0	0.9	--	2549	7	8.3	0.83
TRANSPORTATION AND YARD	2842	9	9.1	0.99	633	3	2.0	--	3475	12	11.1	1.09
TUBE MILLS INCLUDES TUBE FINISHING	635	3	3.0	--	10	0	0.0	--	645	3	3.0	--
RIVER OR MARINE WAYS	293	0	0.9	--	1	0	0.0	--	294	0	0.9	--
TOTAL	51479	140	140.0	1.00	7349	21	21.0	1.00	58828	161	161.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00058

C.O.D. (UNDERLYING) = 200-205
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	4	7.3	0.53	11	0	0.0	--	2374	4	7.4	0.53
GEN TECHNICAL	1575	4	4.3	--	6	0	0.0	--	1581	4	4.3	--
COKE PLANT	1180	3	4.1	--	664	4	2.4	--	1844	7	6.5	1.12
BLAST FURNACE	1730	10	5.8	1.82	591	0	1.9	--	2321	10	7.8	1.32
OPEN HEARTH	4075	12	13.1	0.90	1347	5	4.9	1.03	5422	17	18.0	0.93
BESSEMER CONVERTER	118	1	0.6	--	35	0	0.1	--	153	1	0.7	--
ELECTRIC FURNACE	509	1	1.8	--	4	0	0.0	--	513	1	1.8	--
FOUNDRY	764	4	3.3	--	169	1	0.4	--	933	5	3.6	1.41
HEAT TREAT AND FORGING	708	5	2.1	3.06	20	0	0.1	--	728	5	2.2	2.87
BILLET BLOOM AND SLAB MILLS	2614	8	10.4	0.73	201	0	0.5	--	2815	8	10.9	0.69
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	7	7.6	0.92	301	1	1.3	--	2287	8	8.8	0.89
PLATE MILL	1442	2	4.5	--	246	0	1.1	--	1688	2	5.6	0.33
AXLE MILLS	45	1	0.2	--	0	0	0.0	--	45	1	0.2	--
GENERAL FINISHING AND SHIPPING	511	0	2.1	--	113	0	0.7	--	624	0	2.8	--
HOT STRIP MILL	174	0	0.6	--	0	0	0.0	--	174	0	0.6	--
RAIL MILL ROLLING	288	1	1.2	--	32	0	0.1	--	320	1	1.3	--
RAIL MILL FINISHING	245	1	0.9	--	82	0	0.2	--	327	1	1.1	--
STEEL YARDS	68	1	0.3	--	11	0	0.1	--	79	1	0.3	--
STRUCTURAL MILL	980	3	2.1	--	128	1	0.6	--	1108	4	2.8	--
ANNEALING NORMALIZING	1214	4	5.1	0.76	25	0	0.0	--	1239	4	5.1	0.76
BATCH PICKLING AND SHEET DRYERS	45	0	0.3	--	19	0	0.0	--	64	0	0.3	--
COATING	269	1	0.8	--	0	0	0.0	--	269	1	0.8	--
COLD REDUCING MILLS	848	2	2.4	--	65	0	0.2	--	913	2	2.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	4	4.9	--	5	0	0.0	--	742	4	4.9	--
HOT STRIP ROLLING	864	1	2.8	--	1	0	0.0	--	865	1	2.8	--
SHEET FINISHING AND SHIPPING	1335	3	5.4	0.51	48	0	0.0	--	1383	3	5.4	0.51
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	0.8	--	0	0	0.0	--	148	2	0.8	--
TEMPER PASSING AND COLD ROLLING	335	2	0.9	--	0	0	0.0	--	335	2	0.9	--
TIN FINISHING AND SHIPPING	348	3	1.1	--	0	0	0.0	--	348	3	1.1	--
GENERAL LABOR	565	2	2.2	--	375	3	1.4	--	940	5	3.7	1.39
JANITORS	112	0	0.7	--	190	1	0.7	--	302	1	1.4	--
MASON DEPARTMENT	758	4	2.1	--	242	2	0.8	--	1000	6	2.9	2.16
BLACKSMITH SHOP	231	2	0.9	--	5	0	0.0	--	236	2	0.9	--
CARPENTER SHOP	277	1	1.1	--	0	0	0.0	--	277	1	1.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	6.6	0.59	2	0	0.0	--	1583	4	6.6	0.58
ELECTRIC SHOP	760	2	2.9	--	2	0	0.0	--	762	2	2.9	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.4	--	7	0	0.0	--	111	1	0.4	--
MACHINE SHOP	1270	3	4.2	--	2	0	0.0	--	1272	3	4.2	--
MAINTENANCE NOS	246	0	1.0	--	0	0	0.0	--	246	0	1.0	--
MECHNICAL MAINTENANCE ASSIGNED	2290	9	9.1	0.99	73	0	0.3	--	2363	9	9.3	0.96
PAINT SHOP	197	0	0.7	--	2	0	0.0	--	199	0	0.7	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	2	2.3	--	6	0	0.0	--	663	2	2.3	--
RIGGERS AND STRUCTURAL	1034	4	3.8	--	6	0	0.0	--	1040	4	3.9	--
ROLL SHOP	314	2	1.1	--	0	0	0.0	--	314	2	1.1	--
WELD SHOP	460	0	1.3	--	2	0	0.0	--	462	0	1.3	--
ALL OTHER	302	2	1.5	--	9	0	0.1	--	311	2	1.5	--
GENERAL RECEIVING AND STORES	168	2	0.7	--	2	0	0.0	--	170	2	0.7	--
PLANT PROTECTION	469	0	1.8	--	1	0	0.0	--	470	0	1.8	--
POWER AND FUEL	976	4	3.5	--	89	0	0.4	--	1065	4	3.9	--
TRANSPORTATION AND YARD	871	3	3.3	--	194	1	0.8	--	1065	4	4.0	--
TUBE MILLS INCLUDES TUBE FINISHING	281	3	1.5	--	2	0	0.0	--	283	3	1.5	--
RIVER OR MARINE WAYS	177	0	0.7	--	1	0	0.0	--	178	0	0.7	--
TOTAL	36364	119	119.0	1.00	4913	17	17.0	1.00	41277	136	136.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00059

C.O.D. (PREVALENCE) = 200-205
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	4	7.8	0.49	11	0	0.1	--	2374	4	7.9	0.49
GEN TECHNICAL	1575	5	4.5	1.11	6	0	0.0	--	1581	5	4.6	1.10
COKE PLANT	1180	3	4.2	--	664	4	2.8	--	1844	7	7.0	0.99
BLAST FURNACE	1730	10	6.3	1.67	591	1	2.3	--	2321	11	8.6	1.31
OPEN HEARTH	4075	13	14.1	0.91	1347	6	5.7	1.00	5422	19	19.8	0.95
BESSEMER CONVERTER	118	1	0.6	--	35	0	0.2	--	153	1	0.8	--
ELECTRIC FURNACE	509	1	1.9	--	4	0	0.0	--	513	1	1.9	--
FOUNDRY	764	4	3.5	--	169	1	0.4	--	933	5	4.0	1.28
HEAT TREAT AND FORGING	708	6	2.3	3.38 *	20	0	0.1	--	728	6	2.4	3.16 *
BILLET BLOOM AND SLAB MILLS	2614	8	11.2	0.67	201	0	0.6	--	2815	8	11.8	0.63
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	7	8.2	0.84	301	2	1.5	--	2287	9	9.7	0.92
PLATE MILL	1442	2	5.0	0.36	246	0	1.4	--	1688	2	6.4	0.28
AXLE MILLS	45	1	0.3	--	0	0	0.0	--	45	1	0.3	--
GENERAL FINISHING AND SHIPPING	511	1	2.2	--	113	0	0.7	--	624	1	2.9	--
HOT STRIP MILL	174	0	0.7	--	0	0	0.0	--	174	0	0.7	--
RAIL MILL ROLLING	288	1	1.2	--	32	0	0.1	--	320	1	1.3	--
RAIL MILL FINISHING	245	1	0.9	--	82	0	0.2	--	327	1	1.1	--
STEEL YARDS	68	1	0.3	--	11	0	0.1	--	79	1	0.4	--
STRUCTURAL MILL	980	3	2.3	--	128	1	0.7	--	1108	4	3.0	--
ANNEALING NORMALIZING	1214	5	5.7	0.87	25	0	0.0	--	1239	5	5.7	0.87
BATCH PICKLING AND SHEET DRYERS	45	0	0.3	--	19	0	0.0	--	64	0	0.3	--
COATING	269	1	0.8	--	0	0	0.0	--	269	1	0.8	--
COLD REDUCING MILLS	848	3	2.6	--	65	0	0.3	--	913	3	3.0	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	6	5.4	1.14	5	0	0.0	--	742	6	5.4	1.14
HOT STRIP ROLLING	864	1	3.1	--	1	0	0.0	--	865	1	3.1	--
SHEET FINISHING AND SHIPPING	1335	4	5.9	0.64	48	0	0.0	--	1383	4	5.9	0.64
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	0.9	--	0	0	0.0	--	148	2	0.9	--
TEMPER PASSING AND COLD ROLLING	335	2	1.0	--	0	0	0.0	--	335	2	1.0	--
TIN FINISHING AND SHIPPING	348	4	1.2	--	0	0	0.0	--	348	4	1.2	--
GENERAL LABOR	565	2	2.4	--	375	3	1.7	--	940	5	4.1	1.24
JANITORS	112	0	0.7	--	190	1	0.8	--	302	1	1.6	--
MASON DEPARTMENT	758	4	2.2	--	242	2	1.0	--	1000	6	3.2	1.97
BLACKSMITH SHOP	231	3	1.0	--	5	0	0.0	--	236	3	1.0	--
CARPENTER SHOP	277	1	1.2	--	0	0	0.0	--	277	1	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	7.1	0.54	2	0	0.0	--	1583	4	7.1	0.54
ELECTRIC SHOP	760	2	3.2	--	2	0	0.0	--	762	2	3.2	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.4	--	7	0	0.0	--	111	1	0.5	--
MACHINE SHOP	1270	3	4.5	--	2	0	0.0	--	1272	3	4.5	--
MAINTENANCE NOS	246	0	1.2	--	0	0	0.0	--	246	0	1.2	--
MECHNICAL MAINTENANCE ASSIGNED	2290	9	9.7	0.92	73	0	0.3	--	2363	9	10.0	0.89
PAINT SHOP	197	0	0.8	--	2	0	0.0	--	199	0	0.8	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	3	2.4	--	6	0	0.0	--	663	3	2.5	--
RIGGERS AND STRUCTURAL	1034	4	4.1	--	6	0	0.0	--	1040	4	4.2	--
ROLL SHOP	314	3	1.1	--	0	0	0.0	--	314	3	1.1	--
WELD SHOP	460	0	1.4	--	2	0	0.0	--	462	0	1.4	--
ALL OTHER	302	2	1.7	--	9	0	0.1	--	311	2	1.7	--
GENERAL RECEIVING AND STORES	168	2	0.7	--	2	0	0.0	--	170	2	0.7	--
PLANT PROTECTION	469	0	2.0	--	1	0	0.0	--	470	0	2.0	--
POWER AND FUEL	976	4	3.8	--	89	0	0.5	--	1065	4	4.3	--
TRANSPORTATION AND YARD	871	3	3.5	--	194	2	0.9	--	1065	5	4.4	1.15
TUBE MILLS INCLUDES TUBE FINISHING	281	3	1.6	--	2	0	0.0	--	283	3	1.6	--
RIVER OR MARINE WAYS	177	0	0.7	--	1	0	0.0	--	178	0	0.7	--
TOTAL	36364	128	128.0	1.00	4913	20	20.0	1.00	41277	148	148.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00100

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cancer of Lymphatic and Hematopoietic Tissues

ICD CODE: 200-205

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Heat Treat. and Forging	4.59**	4.89**	2.76*	2.85*	3.06	3.38*
Blast Furnace	1.77	1.66	1.83*	1.70	1.82	1.67
Tin Finishing and Shipping	--	--	5.15*	6.18**	--	--
Sheet Finishing and Shipping	0.00*	0.15	0.58	0.63	0.51	0.64
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

001001

C.O.D. (UNDERLYING) = 165,170,192-199
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	9	9.4	0.96	18	0	0.1	--	3291	9	9.4	0.95
GEN TECHNICAL	2368	6	5.1	1.18	14	0	0.1	--	2382	6	5.2	1.17
COKE PLANT	1635	4	4.7	--	908	5	4.5	1.25	2543	9	9.2	0.96
BLAST FURNACE	2355	2	6.9	0.28	1101	1	3.2	--	3456	3	10.1	0.28 *
OPEN HEARTH	5797	19	17.1	1.13	1836	7	6.5	1.13	7633	26	23.6	1.13
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	2	1.4	--	7	0	0.0	--	741	2	1.5	--
FOUNDRY	890	1	2.9	--	253	2	1.2	--	1143	3	4.1	--
HEAT TREAT AND FORGING	1003	6	3.3	2.01	16	1	0.1	--	1019	7	3.4	2.31
BILLET BLOOM AND SLAB MILLS	2912	10	10.1	0.99	223	2	1.8	--	3135	12	11.9	1.01
SOAKING PITS	94	0	0.2	--	14	0	0.0	--	108	0	0.3	--
MERCHANT MILLS	2130	8	7.7	1.05	395	0	1.6	--	2525	8	9.3	0.85
PLATE MILL	1547	7	5.1	1.45	239	3	1.1	--	1786	10	6.3	1.78
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	1.1	--	82	1	0.7	--	481	2	1.7	--
HOT STRIP MILL	164	2	0.8	--	1	0	0.0	--	165	2	0.8	--
RAIL MILL ROLLING	339	1	0.8	--	46	0	0.4	--	385	1	1.2	--
RAIL MILL FINISHING	347	0	0.7	--	98	0	0.5	--	445	0	1.2	--
STEEL YARDS	88	0	0.2	--	32	0	0.1	--	120	0	0.3	--
STRUCTURAL MILL	1196	2	3.9	--	164	0	0.8	--	1360	2	4.6	--
ANNEALING NORMALIZING	1353	6	4.8	1.28	17	1	0.3	--	1370	7	5.1	1.44
BATCH PICKLING AND SHEET DRYERS	55	1	0.1	--	21	0	0.2	--	76	1	0.3	--
COATING	328	0	0.9	--	0	0	0.0	--	328	0	0.9	--
COLD REDUCING MILLS	1395	3	3.8	--	97	0	0.3	--	1492	3	4.0	--
CONTINUOUS PICKLING AND ELFC CLEANING	205	0	0.5	--	0	0	0.0	--	205	0	0.5	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	2.1	--	5	1	0.2	--	571	3	2.3	--
HOT STRIP ROLLING	1008	7	3.6	2.08	0	0	0.0	--	1008	7	3.6	2.08
SHEET FINISHING AND SHIPPING	1733	6	4.3	1.49	36	0	0.5	--	1769	6	4.9	1.29
STAINLESS ANNEAL PICKLG AND PROCESSING	46	1	0.1	--	1	0	0.0	--	47	1	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.9	--	0	0	0.0	--	369	0	0.9	--
TIN FINISHING AND SHIPPING	396	2	1.1	--	1	0	0.0	--	397	2	1.1	--
GENERAL LABOR	546	1	1.6	--	449	2	1.7	--	995	3	3.3	--
JANITORS	205	1	1.2	--	321	2	2.0	--	526	3	3.2	--
MASON DEPARTMENT	1305	5	2.8	1.85	438	1	1.1	--	1743	6	3.9	1.56
BLACKSMITH SHOP	266	1	1.0	--	4	0	0.0	--	270	1	1.0	--
CARPENTER SHOP	406	2	1.5	--	0	0	0.0	--	406	2	1.5	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	4.9	--	5	0	0.0	--	1610	2	4.9	--
ELECTRIC SHOP	551	3	2.0	--	1	0	0.0	--	552	3	2.0	--
GARAGE	147	1	0.4	--	0	0	0.0	--	147	1	0.4	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.4	--	9	0	0.0	--	130	1	0.5	--
MACHINE SHOP	1442	3	4.6	--	3	0	0.0	--	1445	3	4.7	--
MAINTENANCE NOS	70	0	0.3	--	2	0	0.0	--	72	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	5	8.0	0.60	60	0	0.2	--	2749	5	8.3	0.58
PAINT SHOP	263	0	0.7	--	2	0	0.0	--	265	0	0.7	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	2	2.3	--	5	0	0.0	--	743	2	2.4	--
RIGGERS AND STRUCTURAL	1189	1	4.2	--	8	0	0.0	--	1197	1	4.2	--
ROLL SHOP	374	1	1.3	--	0	0	0.0	--	374	1	1.3	--
WELD SHOP	644	4	1.8	--	2	0	0.0	--	646	4	1.8	--
ALL OTHER	138	0	0.4	--	5	0	0.0	--	143	0	0.4	--
GENERAL RECEIVING AND STORES	192	1	0.6	--	4	0	0.0	--	196	1	0.7	--
PLANT PROTECTION	674	3	2.8	--	1	0	0.0	--	675	3	2.8	--
POWER AND FUEL	1343	6	4.0	1.53	62	0	0.4	--	1405	6	4.4	1.39
TRANSPORTATION AND YARD	1293	5	3.5	1.43	341	2	1.2	--	1634	7	4.8	1.49
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.6	--	1	0	0.0	--	230	0	0.6	--
RIVER OR MARINE WAYS	218	0	0.7	--	1	0	0.0	--	219	0	0.8	--
TOTAL	51479	156	156.0	1.00	7349	31	31.0	1.00	58828	187	187.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00102

C.O.D. (PREVALENCE) : 165,170,192-199
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	48	49.3	0.97	18	0	0.3	--	3291	48	49.7	0.96
GEN TECHNICAL	2368	36	25.5	1.44 *	14	0	0.2	--	2382	36	25.7	1.43 *
COKE PLANT	1635	26	22.4	1.19	908	24	20.6	1.30	2543	50	43.0	1.23
BLAST FURNACE	2355	25	38.9	0.62 *	1101	11	17.0	0.59	3456	36	55.9	0.61 **
OPEN HEARTH	5797	83	90.5	0.90	1836	35	34.9	1.00	7633	118	125.5	0.93
BESSEMER CONVERTER	24	1	0.7	--	0	0	0.0	--	24	1	0.7	--
ELECTRIC FURNACE	734	6	9.4	0.62	7	0	0.1	--	741	6	9.5	0.61
FOUNDRY	890	21	18.0	1.18	253	3	4.2	--	1143	24	22.2	1.09
HEAT TREAT AND FORGING	1003	19	16.1	1.21	16	1	0.6	--	1019	20	16.7	1.23
BILLET BLOOM AND SLAB MILLS	2912	62	53.3	1.19	223	4	5.4	0.68	3135	66	58.8	1.14
SOAKING PITS	94	4	1.3	--	14	0	0.1	--	108	4	1.4	--
MERCHANT MILLS	2130	36	39.0	0.91	395	6	8.1	0.71	2525	42	47.1	0.88
PLATE MILL	1547	30	26.5	1.16	239	12	8.4	1.58	1786	42	35.0	1.25
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	3	5.4	0.54	82	3	2.9	--	481	6	8.3	0.71
HOT STRIP MILL	164	3	3.7	--	1	0	0.0	--	165	3	3.7	--
RAIL MILL ROLLING	339	7	7.1	0.98	46	0	0.9	--	385	7	8.0	0.86
RAIL MILL FINISHING	347	5	5.6	0.89	98	1	1.7	--	445	6	7.3	0.81
STEEL YARDS	88	0	1.0	--	32	0	0.5	--	120	0	1.6	--
STRUCTURAL MILL	1196	16	18.3	0.86	164	4	4.2	--	1360	20	22.6	0.87
ANNEALING NORMALIZING	1353	22	23.1	0.95	17	1	0.5	--	1370	23	23.7	0.97
BATCH PICKLING AND SHEET DRYERS	55	1	0.7	--	21	0	0.5	--	76	1	1.1	--
COATING	328	2	4.2	--	0	0	0.0	--	328	2	4.2	--
COLD REDUCING MILLS	1395	16	16.9	0.94	97	3	1.7	--	1492	19	18.6	1.02
CONTINUOUS PICKLING AND ELEC CLEANING	205	3	2.2	--	0	0	0.0	--	205	3	2.2	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	18	14.9	1.25	5	1	0.3	--	571	19	15.2	1.31
HOT STRIP ROLLING	1008	20	16.4	1.24	0	0	0.0	--	1008	20	16.4	1.24
SHEET FINISHING AND SHIPPING	1733	26	26.0	1.00	36	0	1.1	--	1769	26	27.1	0.95
STAINLESS ANNEAL PICKLG AND PROCESSING	46	5	1.1	5.37 **	1	0	0.0	--	47	5	1.1	5.37 **
TEMPER PASSING AND COLD ROLLING	369	4	4.6	--	0	0	0.0	--	369	4	4.6	--
TIN FINISHING AND SHIPPING	396	4	5.2	0.76	1	0	0.0	--	397	4	5.2	0.76
GENERAL LABOR	546	6	8.2	0.73	449	11	8.8	1.28	995	17	17.0	1.00
JANITORS	205	9	7.6	1.19	321	9	8.7	1.03	526	18	16.4	1.11
MASON DEPARTMENT	1305	13	13.8	0.94	438	7	5.8	1.22	1743	20	19.6	1.02
BLACKSMITH SHOP	266	8	5.8	1.38	4	0	0.1	--	270	8	6.0	1.36
CARPENTER SHOP	406	9	8.3	1.08	0	0	0.0	--	406	9	8.3	1.08
ELECTRIC MAINTENANCE ASSIGNED	1605	31	27.6	1.13	5	0	0.0	--	1610	31	27.6	1.13
ELECTRIC SHOP	551	9	10.8	0.83	1	0	0.0	--	552	9	10.8	0.83
GARAGE	147	3	2.0	--	0	0	0.0	--	147	3	2.0	--
LOCOMOTIVE AND CAR REPAIR	121	1	2.3	--	9	1	0.2	--	130	2	2.5	--
MACHINE SHOP	1442	29	25.5	1.15	3	0	0.1	--	1445	29	25.5	1.14
MAINTENANCE NOS	70	1	1.8	--	2	0	0.0	--	72	1	1.8	--
MECHNICAL MAINTENANCE ASSIGNED	2689	46	44.2	1.05	60	1	1.6	--	2749	47	45.8	1.03
PAINT SHOP	263	4	3.8	--	2	0	0.1	--	265	4	3.8	--
PATTERN SHOP	68	0	1.2	--	0	0	0.0	--	68	0	1.2	--
PIPE SHOP	738	6	12.0	0.49	5	2	0.1	--	743	8	12.1	0.66
RIGGERS AND STRUCTURAL	1189	18	22.0	0.81	8	1	0.1	--	1197	19	22.1	0.85
ROLL SHOP	374	5	7.1	0.70	0	0	0.0	--	374	5	7.1	0.70
WELD SHOP	644	7	8.6	0.81	2	0	0.0	--	646	7	8.6	0.81
ALL OTHER	138	2	2.1	--	5	0	0.1	--	143	2	2.3	--
GENERAL RECEIVING AND STORES	192	4	3.4	--	4	0	0.1	--	196	4	3.5	--
PLANT PROTECTION	674	19	14.9	1.29	1	0	0.0	--	675	19	14.9	1.28
POWER AND FUEL	1343	20	22.2	0.89	62	3	2.3	--	1405	23	24.5	0.94
TRANSPORTATION AND YARD	1293	24	21.0	1.15	341	5	6.3	0.79	1634	29	27.3	1.07
TUBE MILLS INCLUDES TUBE FINISHING	229	3	4.3	--	1	0	0.0	--	230	3	4.3	--
RIVER OR MARINE WAYS	218	3	3.7	--	1	0	0.0	--	219	3	3.7	--
TOTAL	51479	832	832.0	1.00	7349	149	149.0	1.00	58828	981	981.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00103

C.O.D. (UNDERLYING) = 165,170,192-199
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	15	15.5	0.96	34	0	0.1	--	5146	15	15.6	0.96
GEN TECHNICAL	3684	11	9.5	1.18	16	0	0.1	--	3700	11	9.5	1.17
COKE PLANT	2381	7	7.3	0.95	1176	5	6.2	0.52	3557	12	13.5	0.82
BLAST FURNACE	4218	6	14.2	0.37 *	1415	3	4.5	--	5633	9	18.7	0.43 *
OPEN HEARTH	9655	30	30.9	0.96	2335	8	8.8	0.83	11990	38	39.7	0.94
BESSEMER CONVERTER	240	0	1.1	--	88	0	0.8	--	328	0	1.9	--
ELECTRIC FURNACE	1250	2	2.8	--	11	0	0.0	--	1261	2	2.8	--
FOUNDRY	1781	3	5.8	0.49	345	5	1.8	4.17 *	2126	8	7.6	1.06
HEAT TREAT AND FORGING	1683	9	6.0	1.68	46	1	0.2	--	1729	10	6.2	1.82
BILLET BLOOM AND SLAB MILLS	5783	24	19.9	1.28	419	3	3.0	--	6202	27	22.9	1.25
SOAKING PITS	148	0	0.3	--	28	1	0.1	--	176	1	0.4	--
MERCHANT MILLS	3885	15	15.6	0.95	680	0	3.2	--	4565	15	18.8	0.76
PLATE MILL	3005	12	11.5	1.06	436	4	2.2	--	3441	16	13.8	1.26
AXLE MILLS	293	1	1.6	--	6	0	0.0	--	299	1	1.6	--
GENERAL FINISHING AND SHIPPING	1309	7	5.1	1.44	213	1	1.5	--	1522	8	6.5	1.26
HOT STRIP MILL	567	5	2.8	1.86	1	0	0.0	--	568	5	2.8	1.86
RAIL MILL ROLLING	852	1	2.0	--	97	1	0.8	--	949	2	2.8	--
RAIL MILL FINISHING	726	2	1.8	--	145	1	1.1	--	871	3	2.8	--
STEEL YARDS	299	1	1.3	--	77	0	0.3	--	376	1	1.6	--
STRUCTURAL MILL	1972	4	6.7	0.54	252	2	1.2	--	2224	6	7.9	0.72
ANNEALING NORMALIZING	2605	11	9.3	1.22	54	2	0.9	--	2659	13	10.2	1.35
BATCH PICKLING AND SHEET DRYERS	137	1	0.4	--	50	0	0.5	--	187	1	0.9	--
COATING	545	1	1.4	--	0	0	0.0	--	545	1	1.4	--
COLD REDUCING MILLS	1933	3	5.4	0.53	113	0	0.3	--	2046	3	5.7	0.50
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.6	--	0	0	0.0	--	254	0	0.6	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	3	4.7	--	19	1	0.4	--	1248	4	5.1	0.71
HOT STRIP ROLLING	1623	8	6.1	1.38	2	0	0.0	--	1625	8	6.1	1.38
SHEET FINISHING AND SHIPPING	3306	10	8.2	1.30	108	2	1.8	--	3414	12	10.1	1.30
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	1.1	--	2	0	0.0	--	386	1	1.1	--
TEMPER PASSING AND COLD ROLLING	783	3	2.0	--	0	0	0.0	--	783	3	2.0	--
TIN FINISHING AND SHIPPING	668	4	1.9	--	1	0	0.0	--	669	4	1.9	--
GENERAL LABOR	3153	7	11.9	0.57	1215	7	5.8	1.27	4368	14	17.7	0.76
JANITORS	311	2	1.8	--	422	2	2.7	--	733	4	4.5	--
MASON DEPARTMENT	2511	11	6.4	1.79	696	3	2.1	--	3207	14	8.5	1.74
BLACKSMITH SHOP	555	2	2.4	--	6	0	0.0	--	561	2	2.4	--
CARPENTER SHOP	665	2	2.9	--	1	0	0.0	--	666	2	2.9	--
ELECTRIC MAINTENANCE ASSIGNED	3200	7	12.1	0.55	8	0	0.0	--	3208	7	12.1	0.55
ELECTRIC SHOP	1620	4	7.7	0.51	2	0	0.0	--	1622	4	7.7	0.50
GARAGE	242	1	0.8	--	2	0	0.0	--	244	1	0.8	--
LOCOMOTIVE AND CAR REPAIR	261	1	1.0	--	22	0	0.1	--	283	1	1.1	--
MACHINE SHOP	2405	6	8.8	0.66	12	0	0.1	--	2417	6	8.9	0.65
MAINTENANCE NOS	558	2	2.2	--	5	0	0.0	--	563	2	2.2	--
MECHANICAL MAINTENANCE ASSIGNED	6136	19	20.3	0.92	201	1	1.3	--	6337	20	21.6	0.91
PAINT SHOP	777	2	2.5	--	9	1	0.1	--	786	3	2.6	--
PATTERN SHOP	95	0	0.4	--	0	0	0.0	--	95	0	0.4	--
PIPE SHOP	1412	2	5.4	0.36	14	0	0.1	--	1426	2	5.5	0.35
RIGGERS AND STRUCTURAL	2525	10	11.1	0.89	21	0	0.1	--	2546	10	11.2	0.89
ROLL SHOP	502	2	1.8	--	3	0	0.1	--	505	2	1.8	--
WELD SHOP	758	4	2.1	--	2	0	0.0	--	760	4	2.2	--
ALL OTHER	1098	6	5.3	1.14	75	0	0.6	--	1173	6	5.9	1.01
GENERAL RECEIVING AND STORES	382	3	1.4	--	9	0	0.1	--	391	3	1.4	--
PLANT PROTECTION	856	3	3.6	--	4	0	0.0	--	860	3	3.6	--
POWER AND FUEL	2336	13	8.3	1.65	213	1	1.2	--	2549	14	9.5	1.54
TRANSPORTATION AND YARD	2842	10	9.5	1.06	633	2	3.0	--	3475	12	12.5	0.96
TUBE MILLS INCLUDES TURE FINISHING	635	2	1.8	--	10	1	0.2	--	645	3	1.9	--
RIVER OR MARINE WAYS	293	1	1.0	--	1	0	0.0	--	294	1	1.1	--
TOTAL	51479	156	156.0	1.00	7349	31	31.0	1.00	58828	187	187.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 3-MAY-74

C.O.D. (PREVALENCE) = 165,170,192-199
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	80	79.2	1.01	34	0	0.8	--	5146	80	79.9	1.00
GEN TECHNICAL	3684	65	48.8	1.38 *	16	0	0.2	--	3700	65	49.0	1.37 *
COKE PLANT	2381	38	34.6	1.12	1176	32	29.0	1.31	3557	70	63.5	1.17
BLAST FURNACE	4218	52	80.3	0.60 **	1415	17	23.7	0.66	5633	69	104.0	0.62 **
OPEN HEARTH	9655	156	164.9	0.93	2335	47	48.7	0.94	11990	203	213.6	0.93
BESSEMER CONVERTER	240	5	8.1	0.60	88	1	2.7	--	328	6	10.9	0.53
ELECTRIC FURNACE	1250	14	18.5	0.73	11	0	0.2	--	1261	14	18.6	0.72
FOUNDRY	1781	36	37.0	0.97	345	9	6.2	1.60	2126	45	43.2	1.05
HEAT TREAT AND FORGING	1683	40	31.1	1.38	46	2	1.9	--	1729	42	33.0	1.35
BILLET BLOOM AND SLAB MILLS	5783	127	110.0	1.22	419	7	10.4	0.59	6202	134	120.4	1.16
SOAKING PITS	148	4	1.9	--	28	1	0.2	--	176	5	2.1	2.51
MERCHANT MILLS	3885	80	80.9	0.99	680	13	17.2	0.70	4565	93	98.1	0.93
PLATE MILL	3005	65	63.2	1.04	436	21	16.2	1.52	3441	86	79.5	1.13
AXLE MILLS	293	9	10.2	0.87	6	0	0.2	--	299	9	10.4	0.86
GENERAL FINISHING AND SHIPPING	1309	26	27.6	0.94	213	5	7.6	0.63	1522	31	35.1	0.87
HOT STRIP MILL	567	13	12.1	1.08	1	0	0.0	--	568	13	12.1	1.08
RAIL MILL ROLLING	852	12	16.9	0.66	97	1	2.2	--	949	13	19.0	0.63
RAIL MILL FINISHING	726	17	15.0	1.16	145	3	3.1	--	871	20	18.1	1.13
STEEL YARDS	299	6	7.4	0.80	77	0	2.2	--	376	6	9.6	0.61
STRUCTURAL MILL	1972	32	32.3	0.99	252	6	6.5	0.91	2224	38	38.8	0.98
ANNEALING NORMALIZING	2605	45	49.1	0.90	54	3	1.8	--	2659	48	50.9	0.93
BATCH PICKLING AND SHEET DRYERS	137	1	2.8	--	50	0	1.2	--	187	1	3.9	--
COATING	545	5	6.8	0.71	0	0	0.0	--	545	5	6.8	0.71
COLD REDUCING MILLS	1933	23	24.9	0.92	113	4	2.2	--	2046	27	27.1	0.99
CONTINUOUS PICKLING AND ELEC CLEANING	254	3	2.7	--	0	0	0.0	--	254	3	2.7	--
FLYING SHEARS AND SLITTERS	28	0	0.4	--	0	0	0.0	--	28	0	0.4	--
HOT PACK MILLS	1229	32	32.9	0.96	19	2	0.8	--	1248	34	33.6	1.02
HOT STRIP ROLLING	1623	30	27.2	1.12	2	0	0.0	--	1625	30	27.2	1.12
SHEET FINISHING AND SHIPPING	3306	51	50.6	1.01	108	2	3.5	--	3414	53	54.1	0.97
STAINLESS ANNEAL PICKLG AND PROCESSING	384	7	7.8	0.88	2	0	0.0	--	386	7	7.8	0.88
TEMPER PASSING AND COLD ROLLING	783	9	9.9	0.89	0	0	0.0	--	783	9	9.9	0.89
TIN FINISHING AND SHIPPING	668	9	8.8	1.03	1	0	0.0	--	669	9	8.8	1.03
GENERAL LABOR	3153	60	65.1	0.91	1215	36	34.4	1.07	4368	96	99.5	0.96
JANITORS	311	15	11.4	1.34	422	13	11.7	1.13	733	28	23.1	1.24
MASON DEPARTMENT	2511	34	33.3	1.02	696	17	11.4	1.59	3207	51	44.7	1.15
BLACKSMITH SHOP	555	18	14.0	1.30	6	0	0.2	--	561	18	14.2	1.29
CARPENTER SHOP	665	14	16.7	0.83	1	0	0.0	--	666	14	16.7	0.83
ELECTRIC MAINTENANCE ASSIGNED	3200	67	69.5	0.96	8	0	0.1	--	3208	67	69.6	0.96
ELECTRIC SHOP	1620	26	42.1	0.59 *	2	0	0.0	--	1622	26	42.1	0.59 *
GARAGE	242	5	4.1	1.24	2	0	0.2	--	244	5	4.2	1.19
LOCOMOTIVE AND CAR REPAIR	261	5	5.6	0.89	22	1	0.5	--	283	6	6.1	0.98
MACHINE SHOP	2405	53	49.3	1.08	12	0	0.3	--	2417	53	49.6	1.07
MAINTENANCE NOS	558	9	11.2	0.79	5	0	0.1	--	563	9	11.2	0.78
MECHNICAL MAINTENANCE ASSIGNED	6136	123	117.6	1.06	201	6	6.7	0.88	6337	129	124.3	1.05
PAINT SHOP	777	16	13.3	1.21	9	1	0.2	--	786	17	13.5	1.27
PATTERN SHOP	95	0	2.0	--	0	0	0.0	--	95	0	2.0	--
PIPE SHOP	1412	28	28.8	0.97	14	3	0.5	--	1426	31	29.3	1.06
RIGGERS AND STRUCTURAL	2525	60	62.3	0.96	21	1	0.7	--	2546	61	63.0	0.96
ROLL SHOP	502	6	9.7	0.61	3	0	0.2	--	505	6	9.8	0.60
WELD SHOP	758	11	10.3	1.07	2	0	0.0	--	760	11	10.3	1.07
ALL OTHER	1098	32	30.1	1.07	75	4	3.2	--	1173	36	33.3	1.09
GENERAL RECEIVING AND STORES	382	10	7.7	1.31	9	0	0.4	--	391	10	8.1	1.24
PLANT PROTECTION	856	28	19.9	1.43	4	0	0.1	--	860	28	20.0	1.42
POWER AND FUEL	2336	46	47.9	0.96	213	7	7.0	1.00	2549	53	55.0	0.96
TRANSPORTATION AND YARD	2842	55	55.6	0.99	633	20	15.0	1.40	3475	75	70.6	1.07
TUBE MILLS INCLUDES TUBE FINISHING	635	13	12.5	1.04	10	1	0.3	--	645	14	12.8	1.11
RIVER OR MARINE WAYS	293	5	5.1	0.97	1	0	0.0	--	294	5	5.2	0.97
TOTAL	51479	832	832.0	1.00	7349	149	149.0	1.00	58828	981	981.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00125

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = 165,170,192-199
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	9	9.4	0.95	11	0	0.1	--	2374	9	9.5	0.95
GEN TECHNICAL	1575	9	5.3	1.76	6	0	0.0	--	1581	9	5.4	1.74
COKE PLANT	1180	3	4.8	--	664	5	4.7	1.16	1844	8	9.5	0.77
BLAST FURNACE	1730	3	7.7	0.36	591	1	2.7	--	2321	4	10.4	0.35
OPEN HEARTH	4075	17	17.1	0.99	1347	7	6.4	1.18	5422	24	23.5	1.03
BESSEMER CONVERTER	118	0	0.6	--	35	0	0.3	--	153	0	0.9	--
ELECTRIC FURNACE	509	2	1.1	--	4	0	0.0	--	513	2	1.1	--
FOUNDRY	764	0	3.2	--	169	3	1.3	--	933	3	4.5	--
HEAT TREAT AND FORGING	708	8	3.5	2.79 *	20	1	0.1	--	728	9	3.6	3.01 **
BILLET BLOOM AND SLAB MILLS	2614	13	11.5	1.16	201	2	2.2	--	2815	15	13.7	1.13
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	8	9.9	0.78	301	0	1.9	--	2287	8	11.8	0.68
PLATE MILL	1442	10	6.4	1.80	246	3	1.5	--	1688	13	7.9	1.95
AXLE MILLS	45	0	0.3	--	0	0	0.0	--	45	0	0.3	--
GENERAL FINISHING AND SHIPPING	511	3	2.2	--	113	1	1.0	--	624	4	3.3	--
HOT STRIP MILL	174	2	0.9	--	0	0	0.0	--	174	2	0.9	--
RAIL MILL ROLLING	288	1	0.9	--	32	0	0.5	--	320	1	1.4	--
RAIL MILL FINISHING	245	0	0.7	--	82	0	0.6	--	327	0	1.4	--
STEEL YARDS	68	0	0.4	--	11	0	0.1	--	79	0	0.5	--
STRUCTURAL MILL	980	2	3.8	--	128	0	0.9	--	1108	2	4.7	--
ANNEALING NORMALIZING	1214	7	5.1	1.44	25	1	0.6	--	1239	8	5.7	1.49
BATCH PICKLING AND SHEET DRYERS	45	1	0.2	--	19	0	0.3	--	64	1	0.5	--
COATING	269	1	0.8	--	0	0	0.0	--	269	1	0.8	--
COLD REDUCING MILLS	848	2	3.1	--	65	0	0.2	--	913	2	3.3	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	3	3.0	--	5	0	0.3	--	742	3	3.3	--
HOT STRIP ROLLING	864	6	3.8	1.66	1	0	0.0	--	865	6	3.8	1.68
SHEET FINISHING AND SHIPPING	1335	6	3.4	2.03	48	0	1.0	--	1383	6	4.4	1.45
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.4	--	0	0	0.0	--	148	1	0.4	--
TEMPER PASSING AND COLD ROLLING	335	0	0.9	--	0	0	0.0	--	335	0	0.9	--
TIN FINISHING AND SHIPPING	348	2	1.1	--	0	0	0.0	--	348	2	1.1	--
GENERAL LABOR	565	1	2.9	--	375	1	2.2	--	940	2	5.1	0.39
JANITORS	112	0	0.7	--	190	1	1.6	--	302	1	2.3	--
MASON DEPARTMENT	758	6	2.6	2.36	242	2	1.1	--	1000	8	3.7	2.23 *
BLACKSMITH SHOP	231	1	1.1	--	5	0	0.0	--	236	1	1.2	--
CARPENTER SHOP	277	1	1.4	--	0	0	0.0	--	277	1	1.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	4	7.1	0.54	2	0	0.0	--	1583	4	7.1	0.54
ELECTRIC SHOP	760	2	4.1	--	2	0	0.0	--	762	2	4.1	--
GARAGE	98	1	0.4	--	1	0	0.0	--	99	1	0.4	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.5	--	7	0	0.0	--	111	1	0.6	--
MACHINE SHOP	1270	3	5.2	0.57	2	0	0.0	--	1272	3	5.2	0.56
MAINTENANCE NOS	246	2	1.1	--	0	0	0.0	--	246	2	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	7	10.4	0.64	73	0	0.6	--	2363	7	11.0	0.63
PAINT SHOP	197	1	0.8	--	2	0	0.0	--	199	1	0.8	--
PATTERN SHOP	64	0	0.3	--	0	0	0.0	--	64	0	0.3	--
PIPE SHOP	657	1	2.7	--	6	0	0.0	--	663	1	2.8	--
RIGGERS AND STRUCTURAL	1034	1	4.9	--	6	0	0.0	--	1040	1	4.9	--
ROLL SHOP	314	2	1.3	--	0	0	0.0	--	314	2	1.3	--
WELD SHOP	460	3	1.6	--	2	0	0.0	--	462	3	1.6	--
ALL OTHER	302	4	1.9	--	9	0	0.0	--	311	4	1.9	--
GENERAL RECEIVING AND STORES	168	1	0.8	--	2	0	0.0	--	170	1	0.8	--
PLANT PROTECTION	469	2	2.4	--	1	0	0.0	--	470	2	2.4	--
POWER AND FUEL	976	8	4.5	1.86	89	1	0.7	--	1065	9	5.2	1.82
TRANSPORTATION AND YARD	871	3	3.8	--	194	1	1.2	--	1065	4	5.0	0.79
TUBE MILLS INCLUDES TUBE FINISHING	281	1	0.7	--	2	1	0.1	--	283	2	0.8	--
RIVER OR MARINE WAYS	177	0	0.8	--	1	0	0.0	--	178	0	0.8	--
TOTAL	36364	138	138.0	1.00	4913	29	29.0	1.00	41277	167	167.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 165,170,192-199
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	44	48.9	0.89	11	0	0.4	--	2374	44	49.3	0.88
GEN TECHNICAL	1575	41	27.9	1.52 *	6	0	0.2	--	1581	41	28.0	1.51 *
COKE PLANT	1180	27	22.9	1.21	664	25	21.0	1.41	1844	52	43.9	1.28
BLAST FURNACE	1730	26	44.2	0.56 **	591	9	14.7	0.55	2321	35	58.8	0.56 **
OPEN HEARTH	4075	91	93.2	0.97	1347	37	34.8	1.11	5422	128	128.0	1.00
BESSEMER CONVERTER	118	4	4.8	--	35	0	1.3	--	153	4	6.1	0.65
ELECTRIC FURNACE	509	5	7.9	0.61	4	0	0.1	--	513	5	8.1	0.60
FOUNDRY	764	25	22.2	1.14	169	4	4.4	--	933	29	26.6	1.10
HEAT TREAT AND FORGING	708	28	18.3	1.57 *	20	2	0.9	--	728	30	19.3	1.70 *
BILLET BLOOM AND SLAB MILLS	2614	74	62.8	1.22	201	4	6.6	0.49	2815	78	69.4	1.15
SOAKING PITS	19	2	0.6	--	0	0	0.0	--	19	2	0.6	--
MERCHANT MILLS	1986	49	51.2	0.95	301	8	10.4	0.73	2287	57	61.6	0.91
PLATE MILL	1442	39	36.0	1.11	246	10	10.3	0.96	1688	49	46.3	1.08
AXLE MILLS	45	2	2.1	--	0	0	0.0	--	45	2	2.1	--
GENERAL FINISHING AND SHIPPING	511	8	11.7	0.67	113	3	4.9	--	624	11	16.7	0.64
HOT STRIP MILL	174	3	4.1	--	0	0	0.0	--	174	3	4.1	--
RAIL MILL ROLLING	288	10	9.0	1.13	32	0	1.0	--	320	10	10.0	0.99
RAIL MILL FINISHING	245	7	6.9	1.01	82	1	1.9	--	327	8	8.9	0.89
STEEL YARDS	68	2	2.4	--	11	0	0.4	--	79	2	2.8	--
STRUCTURAL MILL	980	21	18.4	1.16	128	4	4.1	--	1108	25	22.6	1.13
ANNEALING NORMALIZING	1214	28	27.1	1.04	25	1	1.1	--	1239	29	28.2	1.03
BATCH PICKLING AND SHEET DRYERS	45	1	1.3	--	19	0	0.7	--	64	1	2.0	--
COATING	269	4	4.0	--	0	0	0.0	--	269	4	4.0	--
COLD REDUCING MILLS	848	12	14.9	0.80	65	3	1.5	--	913	15	16.4	0.91
CONTINUOUS PICKLING AND ELEC CLEANING	147	2	2.0	--	0	0	0.0	--	147	2	2.0	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	26	23.2	1.17	5	0	0.4	--	742	26	23.7	1.14
HOT STRIP ROLLING	864	20	17.4	1.16	1	0	0.0	--	865	20	17.5	1.16
SHEET FINISHING AND SHIPPING	1335	24	24.3	0.99	48	0	2.0	--	1383	24	26.3	0.90
STAINLESS ANNEAL PICKLG AND PROCESSING	148	6	3.5	1.81	0	0	0.0	--	148	6	3.5	1.81
TEMPER PASSING AND COLD ROLLING	335	4	4.8	--	0	0	0.0	--	335	4	4.8	--
TIN FINISHING AND SHIPPING	348	4	5.4	0.72	0	0	0.0	--	348	4	5.4	0.72
GENERAL LABOR	565	12	15.6	0.76	375	9	11.7	0.75	940	21	27.3	0.76
JANITORS	112	6	4.3	1.42	190	10	6.9	1.51	302	16	11.2	1.47
MASON DEPARTMENT	758	15	13.4	1.12	242	6	5.3	1.14	1000	21	18.7	1.13
BLACKSMITH SHOP	231	9	6.9	1.33	5	0	0.2	--	236	9	7.0	1.29
CARPENTER SHOP	277	5	8.0	0.62	0	0	0.0	--	277	5	8.0	0.62
ELECTRIC MAINTENANCE ASSIGNED	1581	48	42.5	1.14	2	0	0.0	--	1583	48	42.6	1.14
ELECTRIC SHOP	760	15	22.4	0.65	2	0	0.1	--	762	15	22.5	0.65
GARAGE	98	5	2.2	2.37	1	0	0.1	--	99	5	2.3	2.26
LOCOMOTIVE AND CAR REPAIR	104	4	2.9	--	7	0	0.2	--	111	4	3.1	--
MACHINE SHOP	1270	34	29.4	1.17	2	0	0.1	--	1272	34	29.5	1.16
MAINTENANCE NOS	246	5	5.6	0.88	0	0	0.0	--	246	5	5.6	0.88
MECHNICAL MAINTENANCE ASSIGNED	2290	66	58.5	1.15	73	3	3.6	--	2363	69	62.1	1.13
PAINT SHOP	197	9	4.4	2.08	2	0	0.0	--	199	9	4.5	2.06
PATTERN SHOP	64	0	1.6	--	0	0	0.0	--	64	0	1.6	--
PIPE SHOP	657	10	14.3	0.69	6	1	0.2	--	663	11	14.5	0.75
RIGGERS AND STRUCTURAL	1034	17	26.9	0.62	6	1	0.3	--	1040	18	27.2	0.65
ROLL SHOP	314	5	7.0	0.71	0	0	0.0	--	314	5	7.0	0.71
WELD SHOP	460	7	7.6	0.92	2	0	0.0	--	462	7	7.7	0.91
ALL OTHER	302	16	11.3	1.44	9	1	0.4	--	311	17	11.8	1.48
GENERAL RECEIVING AND STORES	168	6	4.7	1.28	2	0	0.1	--	170	6	4.8	1.26
PLANT PROTECTION	469	14	12.8	1.09	1	0	0.1	--	470	14	12.9	1.09
POWER AND FUEL	976	27	26.4	1.02	89	5	4.0	1.26	1065	32	30.4	1.05
TRANSPORTATION AND YARD	871	22	23.0	0.96	194	8	5.4	1.54	1065	30	28.4	1.06
TUBE MILLS INCLUDES TUBE FINISHING	281	6	6.2	0.97	2	1	0.1	--	283	7	6.3	1.13
RIVER OR MARINE WAYS	177	2	3.6	--	1	0	0.0	--	178	2	3.7	--
TOTAL	36364	753	753.0	1.00	4913	137	137.0	1.00	41277	890	890.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: All Other Cancers

ICD CODE: 165,170,192-199

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	1.18	1.44*	1.18	1.38*	1.76	1.52*
Blast Furnace	0.28	0.62*	0.37*	0.60**	0.36	0.56**
Stainless Anneal.Picklg. & Processing	--	5.37**	--	0.88	--	1.81
Electric Shop	--	0.83	0.51	0.59*	--	0.65
Heat Treat. and Forging	2.01	1.21	1.68	1.38	2.79*	1.67*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Foundry	--	--	4.17*	1.60	--	--

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

MULTIPLE CAUSE OF DEATH STUDY 11-JUN-74

C.O.D. (UNDERLYING) = 330-334,400-468,592-594
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	3273	245	241.6	1.02	18	1	1.6	--	3291	246	243.2	1.01
GEN TECHNICAL	2368	121	125.5	0.96	14	2	0.8	--	2382	123	126.3	0.97
COKE PLANT	1635	112	115.9	0.96	908	64	72.2	0.81	2543	176	188.1	0.91
BLAST FURNACE	2355	170	183.9	0.91	1101	59	67.6	0.84	3456	229	251.5	0.89
OPEN HEARTH	5797	397	436.9	0.89 *	1836	123	135.2	0.86	7633	520	572.1	0.88 *
BESSEMER CONVERTER	24	5	3.6	1.45	0	0	0.0	--	24	5	3.6	1.45
ELECTRIC FURNACE	734	45	44.6	1.01	7	0	0.5	--	741	45	45.1	1.00
FOUNDRY	890	67	82.0	0.80	253	21	17.1	1.31	1143	88	99.1	0.87
HEAT TREAT AND FORGING	1003	79	79.9	0.99	16	2	1.6	--	1019	81	81.5	0.99
BILLET BLOOM AND SLAB MILLS	2912	251	257.0	0.97	223	21	22.9	0.89	3135	272	279.9	0.97
SOAKING PITS	94	5	6.3	0.77	14	0	0.4	--	108	5	6.7	0.72
MERCHANT MILLS	2130	178	194.8	0.90	395	37	32.8	1.16	2525	215	227.6	0.93
PLATE MILL	1547	137	131.9	1.05	239	32	25.7	1.35	1786	169	157.6	1.09
AXLE MILLS	6	1	0.5	--	0	0	0.0	--	6	1	0.5	--
GENERAL FINISHING AND SHIPPING	399	39	29.7	1.35	82	13	9.6	1.46	481	52	39.3	1.38 *
HOT STRIP MILL	164	24	17.4	1.44	1	0	0.1	--	165	24	17.5	1.44
RAIL MILL ROLLING	339	26	28.8	0.89	46	1	3.8	--	385	27	32.6	0.81
RAIL MILL FINISHING	347	27	22.7	1.22	98	8	7.5	1.07	445	35	30.3	1.18
STEEL YARDS	88	8	5.1	1.68	32	0	1.6	--	120	8	6.7	1.23
STRUCTURAL MILL	1196	100	91.7	1.11	164	10	12.2	0.80	1360	110	103.9	1.07
ANNEALING NORMALIZING	1353	107	110.7	0.96	17	2	1.9	--	1370	109	112.7	0.96
BATCH PICKLING AND SHEET DRYERS	55	7	3.5	2.25	21	2	2.0	--	76	9	5.5	1.76
COATING	328	23	24.8	0.91	0	0	0.0	--	328	23	24.8	0.91
COLD REDUCING MILLS	1395	79	77.7	1.02	97	9	7.1	1.30	1492	88	84.8	1.04
CONTINUOUS PICKLING AND ELEC CLEANING	205	9	9.8	0.91	0	0	0.0	--	205	9	9.8	0.91
FLYING SHEARS AND SLITTERS	8	0	0.9	--	0	0	0.0	--	8	0	0.9	--
HOT PACK MILLS	566	54	73.0	0.69 *	5	0	0.7	--	571	54	73.7	0.68 *
HOT STRIP ROLLING	1008	73	74.1	0.98	0	0	0.0	--	1008	73	74.1	0.98
SHEET FINISHING AND SHIPPING	1733	158	130.3	1.28 **	36	6	4.1	1.80	1769	164	134.4	1.30 **
STAINLESS ANNEAL PICKLG AND PROCESSING	46	5	6.1	0.78	1	0	0.0	--	47	5	6.1	0.78
TEMPER PASSING AND COLD ROLLING	369	20	21.3	0.93	0	0	0.0	--	369	20	21.3	0.93
TIN FINISHING AND SHIPPING	396	32	31.8	1.01	1	0	0.0	--	397	32	31.8	1.01
GENERAL LABOR	546	37	42.2	0.86	449	28	30.6	0.90	995	65	72.8	0.88
JANITORS	205	60	45.8	1.40 *	321	37	33.1	1.14	526	97	78.9	1.28 *
MASON DEPARTMENT	1305	66	65.8	1.00	438	30	24.7	1.25	1743	96	90.4	1.07
BLACKSMITH SHOP	266	27	28.8	0.93	4	2	0.4	--	270	29	29.2	0.99
CARPENTER SHOP	406	28	43.1	0.62 *	0	0	0.0	--	406	28	43.1	0.62 *
ELECTRIC MAINTENANCE ASSIGNED	1605	134	129.5	1.04	5	0	0.2	--	1610	134	129.7	1.04
ELECTRIC SHOP	551	38	51.4	0.72	1	0	0.1	--	552	38	51.5	0.72
GARAGE	147	6	9.7	0.59	0	0	0.0	--	147	6	9.7	0.59
LOCOMOTIVE AND CAR REPAIR	121	10	10.9	0.91	9	1	0.6	--	130	11	11.5	0.95
MACHINE SHOP	1442	141	126.3	1.13	3	0	0.4	--	1445	141	126.7	1.13
MAINTENANCE NOS	70	10	9.2	1.09	2	0	0.0	--	72	10	9.3	1.09
MECHNICAL MAINTENANCE ASSIGNED	2689	250	222.4	1.15 *	60	8	5.6	1.47	2749	258	228.0	1.16 *
PAINT SHOP	263	18	18.6	0.97	2	0	0.1	--	265	18	18.7	0.96
PATTERN SHOP	68	6	5.7	1.06	0	0	0.0	--	68	6	5.7	1.06
PIPE SHOP	738	67	61.4	1.10	5	1	0.6	--	743	68	62.1	1.11
RIGGERS AND STRUCTURAL	1189	101	107.9	0.93	8	1	0.4	--	1197	102	108.3	0.93
ROLL SHOP	374	33	34.9	0.94	0	0	0.0	--	374	33	34.9	0.94
WELD SHOP	644	48	40.5	1.20	2	0	0.1	--	646	48	40.7	1.20
ALL OTHER	138	11	10.4	1.06	5	0	0.4	--	143	11	10.8	1.02
GENERAL RECEIVING AND STORES	192	13	18.9	0.65	4	0	1.1	--	196	13	20.0	0.61
PLANT PROTECTION	674	110	75.9	1.53 **	1	0	0.1	--	675	110	76.0	1.53 **
POWER AND FUEL	1343	95	106.4	0.88	62	9	7.5	1.22	1405	104	113.9	0.90
TRANSPORTATION AND YARD	1293	113	101.4	1.13	341	27	22.6	1.22	1634	140	124.0	1.15
TUBE MILLS INCLUDES TUBE FINISHING	229	19	20.1	0.94	1	0	0.0	--	230	19	20.2	0.94
RIVER OR MARINE WAYS	218	27	21.0	1.33	1	1	0.0	--	219	28	21.0	1.39
TOTAL	51479	4072	4072.0	1.00	7349	558	558.0	1.00	58828	4630	4630.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00103

C.O.D. (PREVALENCE) = 330-334,400-468,592-594
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	280	281.9	0.99	18	1	1.9	--	3291	281	283.8	0.99
GEN TECHNICAL	2368	154	145.5	1.07	14	2	0.9	--	2382	156	146.4	1.08
COKE PLANT	1635	132	133.0	0.99	908	85	88.0	0.94	2543	217	221.0	0.97
BLAST FURNACE	2355	205	215.2	0.94	1101	72	81.9	0.85	3456	277	297.0	0.92
OPEN HEARTH	5797	462	510.0	0.88 *	1836	146	163.8	0.84	7633	608	673.9	0.87 **
BESSEMER CONVERTER	24	5	4.2	1.22	0	0	0.0	--	24	5	4.2	1.22
ELECTRIC FURNACE	734	51	52.1	0.97	7	1	0.8	--	741	52	52.9	0.98
FOUNDRY	890	85	96.3	0.87	253	26	21.3	1.30	1143	111	117.6	0.93
HEAT TREAT AND FORGING	1003	89	92.9	0.95	16	6	1.9	3.70 **	1019	95	94.9	1.00
BILLET BLOOM AND SLAB MILLS	2912	295	303.4	0.97	223	26	28.5	0.88	3135	321	331.9	0.96
SOAKING PITS	94	6	7.6	0.78	14	0	0.5	--	108	6	8.1	0.72
MERCHANT MILLS	2130	211	228.9	0.91	395	41	39.9	1.03	2525	252	268.8	0.92
PLATE MILL	1547	165	154.0	1.09	239	39	30.7	1.39	1786	204	184.7	1.14
AXLE MILLS	6	1	0.6	--	0	0	0.0	--	6	1	0.6	--
GENERAL FINISHING AND SHIPPING	399	42	34.0	1.27	82	15	11.7	1.36	481	57	45.8	1.29
HOT STRIP MILL	164	25	20.2	1.27	1	0	0.1	--	165	25	20.3	1.27
RAIL MILL ROLLING	339	32	34.0	0.93	46	3	5.0	--	385	35	38.9	0.88
RAIL MILL FINISHING	347	31	26.5	1.20	98	8	9.6	0.81	445	39	36.1	1.09
STEEL YARDS	88	9	5.9	1.66	32	0	1.9	--	120	9	7.8	1.18
STRUCTURAL MILL	1196	114	106.6	1.09	164	12	14.7	0.79	1360	126	121.3	1.05
ANNEALING NORMALIZING	1353	127	130.5	0.97	17	2	2.5	--	1370	129	133.0	0.96
BATCH PICKLING AND SHEET DRYERS	55	7	4.1	1.89	21	2	2.6	--	76	9	6.7	1.42
COATING	328	25	28.0	0.88	0	0	0.0	--	328	25	28.0	0.88
COLD REDUCING MILLS	1395	95	90.8	1.05	97	10	8.5	1.20	1492	105	99.3	1.07
CONTINUOUS PICKLING AND ELEC CLEANING	205	12	11.1	1.09	0	0	0.0	--	205	12	11.1	1.09
FLYING SHEARS AND SLITTERS	8	0	1.0	--	0	0	0.0	--	8	0	1.0	--
HOT PACK MILLS	566	68	86.7	0.73 *	5	0	1.0	--	571	68	87.7	0.72 *
HOT STRIP ROLLING	1008	81	86.3	0.93	0	0	0.0	--	1008	81	86.3	0.93
SHEET FINISHING AND SHIPPING	1733	177	151.6	1.23 *	36	8	5.3	1.90	1769	185	156.9	1.24 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	6	7.2	0.79	1	0	0.0	--	47	6	7.2	0.79
TEMPER PASSING AND COLD ROLLING	369	23	23.9	0.96	0	0	0.0	--	369	23	23.9	0.96
TIN FINISHING AND SHIPPING	396	34	35.8	0.94	1	0	0.0	--	397	34	35.8	0.94
GENERAL LABOR	546	43	48.7	0.87	449	33	36.9	0.88	995	76	85.6	0.87
JANITORS	205	68	53.5	1.35 *	321	46	41.5	1.14	526	114	95.0	1.25 *
MASON DEPARTMENT	1305	81	76.4	1.07	438	36	29.6	1.26	1743	117	106.0	1.12
BLACKSMITH SHOP	266	32	33.5	0.95	4	2	0.4	--	270	34	34.0	1.00
CARPENTER SHOP	406	34	50.1	0.65 *	0	0	0.0	--	406	34	50.1	0.65 *
ELECTRIC MAINTENANCE ASSIGNED	1605	146	151.6	0.96	5	0	0.2	--	1610	146	151.8	0.96
ELECTRIC SHOP	551	47	60.0	0.76	1	0	0.1	--	552	47	60.1	0.76
GARAGE	147	6	11.2	0.50	0	0	0.0	--	147	6	11.2	0.50
LOCOMOTIVE AND CAR REPAIR	121	12	12.7	0.94	9	1	0.6	--	130	13	13.3	0.97
MACHINE SHOP	1442	163	147.6	1.12	3	0	0.5	--	1445	163	148.1	1.12
MAINTENANCE NOS	70	12	10.6	1.16	2	0	0.0	--	72	12	10.6	1.16
MECHNICAL MAINTENANCE ASSIGNED	2689	297	258.4	1.18 **	60	9	6.7	1.39	2749	306	265.2	1.19 **
PAINT SHOP	263	21	21.6	0.97	2	0	0.2	--	265	21	21.8	0.96
PATTERN SHOP	68	7	6.6	1.06	0	0	0.0	--	68	7	6.6	1.06
PIPE SHOP	738	74	71.1	1.05	5	2	0.7	--	743	76	71.8	1.07
RIGGERS AND STRUCTURAL	1189	115	125.9	0.90	8	1	0.5	--	1197	116	126.4	0.91
ROLL SHOP	374	42	40.7	1.04	0	0	0.0	--	374	42	40.7	1.04
WELD SHOP	644	51	47.1	1.09	2	0	0.2	--	646	51	47.3	1.09
ALL OTHER	138	13	12.1	1.08	5	0	0.5	--	143	13	12.7	1.03
GENERAL RECEIVING AND STORES	192	15	21.7	0.66	4	0	1.2	--	196	15	22.9	0.62
PLANT PROTECTION	674	128	88.7	1.54 **	1	0	0.1	--	675	128	88.8	1.54 **
POWER AND FUEL	1343	109	124.2	0.86	62	10	9.0	1.13	1405	119	133.2	0.88
TRANSPORTATION AND YARD	1293	134	118.7	1.15	341	34	27.9	1.26	1634	168	146.6	1.17
TUBE MILLS INCLUDES TUBE FINISHING	229	20	23.6	0.83	1	0	0.0	--	230	20	23.6	0.83
RIVER OR MARINE WAYS	218	31	23.9	1.35	1	1	0.0	--	219	32	23.9	1.40
TOTAL	51479	4750	4750.0	1.00	7349	680	680.0	1.00	58828	5430	5430.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 15-MAY-74

C.O.D. (UNDERLYING) = 330-334,400-468,592-594
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	421	394.1	1.08	34	2	3.7	--	5146	423	397.8	1.08
GEN TECHNICAL	3684	229	237.9	0.96	16	3	0.9	--	3700	232	238.8	0.97
COKE PLANT	2381	192	183.1	1.07	1176	93	100.8	0.81	3557	285	284.0	1.01
BLAST FURNACE	4218	354	384.4	0.90	1415	89	94.1	0.93	5633	443	478.5	0.91
OPEN HEARTH	9655	755	806.4	0.91 *	2335	176	185.4	0.91	11990	931	991.7	0.91 *
BESSEMER CONVERTER	240	31	35.1	0.87	88	10	11.3	0.87	328	41	46.4	0.87
ELECTRIC FURNACE	1250	103	91.5	1.17	11	0	0.8	--	1261	103	92.3	1.15
FOUNDRY	1781	172	172.2	1.00	345	26	24.6	1.08	2126	198	196.7	1.01
HEAT TREAT AND FORGING	1683	156	153.1	1.03	46	4	6.1	0.63	1729	160	159.2	1.01
BILLET BLOOM AND SLAB MILLS	5783	517	531.8	0.96	419	50	43.7	1.23	6202	567	575.5	0.98
SOAKING PITS	148	8	8.7	0.91	28	1	0.9	--	176	9	9.6	0.93
MERCHANT MILLS	3885	408	407.8	1.00	680	78	67.9	1.22	4565	486	475.7	1.03
PLATE MILL	3005	327	310.8	1.08	436	55	48.7	1.22	3441	382	359.6	1.10
AXLE MILLS	293	44	48.8	0.89	6	2	0.6	--	299	46	49.4	0.92
GENERAL FINISHING AND SHIPPING	1309	178	145.1	1.28 **	213	25	27.6	0.88	1522	203	172.7	1.22 *
HOT STRIP MILL	567	63	54.7	1.18	1	0	0.1	--	568	63	54.8	1.17
RAIL MILL ROLLING	852	70	70.5	0.99	97	6	9.4	0.56	949	76	79.9	0.94
RAIL MILL FINISHING	726	69	61.7	1.15	145	12	13.0	0.90	871	81	74.7	1.11
STEEL YARDS	299	32	36.1	0.87	77	4	6.6	0.57	376	36	42.7	0.82
STRUCTURAL MILL	1972	172	160.8	1.09	252	16	18.9	0.82	2224	188	179.6	1.06
ANNEALING NORMALIZING	2605	228	236.9	0.95	54	7	6.4	1.15	2659	235	243.3	0.96
BATCH PICKLING AND SHEET DRYERS	137	20	13.7	1.56	50	8	5.1	1.90	187	28	18.8	1.63 *
COATING	545	33	39.5	0.80	0	0	0.0	--	545	33	39.5	0.80
COLD REDUCING MILLS	1933	121	116.4	1.05	113	12	8.9	1.42	2046	133	125.3	1.07
CONTINUOUS PICKLING AND ELEC CLEANING	254	11	12.5	0.87	0	0	0.0	--	254	11	12.5	0.87
FLYING SHEARS AND SLITTERS	28	0	1.9	--	0	0	0.0	--	28	0	1.9	--
HOT PACK MILLS	1229	153	165.4	0.88	19	3	2.6	--	1248	156	168.0	0.89
HOT STRIP ROLLING	1623	129	124.2	1.05	2	0	0.1	--	1625	129	124.3	1.05
SHEET FINISHING AND SHIPPING	3306	256	248.9	1.04	108	16	13.5	1.64	3414	272	262.3	1.06
STAINLESS ANNEAL PICKLG AND PROCESSING	384	58	42.0	1.50 **	2	0	0.1	--	386	58	42.0	1.50 **
TEMPER PASSING AND COLD ROLLING	783	53	48.5	1.12	0	0	0.0	--	783	53	48.5	1.12
TIN FINISHING AND SHIPPING	668	51	49.9	1.03	1	0	0.0	--	669	51	49.9	1.03
GENERAL LABOR	3153	380	319.7	1.24 **	1215	107	116.6	0.88	4368	487	436.3	1.15 **
JANITORS	311	82	66.6	1.30 *	422	45	43.4	1.04	733	127	110.0	1.19
MASON DEPARTMENT	2511	168	163.0	1.04	696	62	47.7	1.40 *	3207	230	210.6	1.11
BLACKSMITH SHOP	555	70	68.7	1.02	6	3	0.7	--	561	73	69.4	1.06
CARPENTER SHOP	665	70	85.7	0.80	1	0	0.1	--	666	70	85.8	0.79
ELECTRIC MAINTENANCE ASSIGNED	3200	343	325.8	1.06	8	1	0.6	--	3208	344	326.4	1.06
ELECTRIC SHOP	1620	203	206.2	0.98	2	0	0.2	--	1622	203	206.5	0.98
GARAGE	242	19	19.1	0.99	2	0	0.5	--	244	19	19.6	0.97
LOCOMOTIVE AND CAR REPAIR	261	29	26.3	1.12	22	3	1.6	--	283	32	27.9	1.16
MACHINE SHOP	2405	265	245.0	1.10	12	0	1.3	--	2417	265	246.3	1.09
MAINTENANCE NOS	558	47	58.6	0.76	5	0	0.2	--	563	47	58.8	0.76
MECHNICAL MAINTENANCE ASSIGNED	6136	629	581.5	1.11 *	201	28	22.7	1.29	6337	657	604.2	1.12 *
PAINT SHOP	777	64	66.5	0.96	9	1	0.9	--	786	65	67.3	0.96
PATTERN SHOP	95	8	9.3	0.85	0	0	0.0	--	95	8	9.3	0.85
PIPE SHOP	1412	151	145.6	1.04	14	2	2.0	--	1426	153	147.5	1.04
RIGGERS AND STRUCTURAL	2525	290	301.9	0.95	21	3	2.4	--	2546	293	304.3	0.96
ROLL SHOP	502	44	47.3	0.92	3	0	0.5	--	505	44	47.8	0.91
WELD SHOP	758	62	49.0	1.29	2	0	0.1	--	760	62	49.2	1.29
ALL OTHER	1098	155	152.1	1.02	75	10	10.1	0.99	1173	165	162.2	1.02
GENERAL RECEIVING AND STORES	382	39	41.1	0.94	9	1	2.0	--	391	40	43.0	0.92
PLANT PROTECTION	856	134	100.7	1.39 **	4	1	0.4	--	860	135	101.1	1.40 **
POWER AND FUEL	2336	235	231.9	1.02	213	22	26.9	0.80	2549	257	258.7	0.99
TRANSPORTATION AND YARD	2842	287	273.0	1.06	633	63	53.7	1.21	3475	350	326.7	1.09
TUBE MILLS INCLUDES TUBE FINISHING	635	68	62.9	1.10	10	0	0.9	--	645	68	63.8	1.08
RIVER OR MARINE WAYS	293	34	28.4	1.23	1	1	0.0	--	294	35	28.4	1.27
TOTAL	51479	4072	4072.0	1.00	7349	558	558.0	1.00	58828	4630	4630.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 330-334,400-468,592-594
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	481	458.3	1.06	34	2	4.3	--	5146	483	462.6	1.05
GEN TECHNICAL	3684	275	276.0	1.00	16	3	1.1	--	3700	278	277.1	1.00
COKE PLANT	2381	224	210.1	1.09	1176	117	122.6	0.88	3557	341	332.7	1.04
BLAST FURNACE	4218	422	451.5	0.92	1415	104	113.9	0.88	5633	526	565.4	0.91
OPEN HEARTH	9655	888	942.1	0.92 *	2335	214	224.6	0.91	11990	1102	1166.7	0.92 *
BESSEMER CONVERTER	240	39	41.6	0.93	88	13	14.0	0.92	328	52	55.6	0.93
ELECTRIC FURNACE	1250	115	107.4	1.09	11	1	1.1	--	1261	116	108.5	1.09
FOUNDRY	1781	208	202.3	1.03	345	36	30.8	1.24	2126	244	233.1	1.06
HEAT TREAT AND FORGING	1683	180	178.5	1.01	46	12	7.3	1.81	1729	192	185.8	1.04
BILLET BLOOM AND SLAB MILLS	5783	609	627.2	0.96	419	57	53.7	1.10	6202	666	680.9	0.97
SOAKING PITS	148	9	10.4	0.86	28	1	1.1	--	176	10	11.4	0.86
MERCHANT MILLS	3885	483	478.6	1.01	680	94	82.7	1.21	4565	577	561.3	1.04
PLATE MILL	3005	383	363.0	1.09	436	68	58.6	1.29	3441	451	421.6	1.12
AXLE MILLS	293	50	57.4	0.85	6	2	0.7	--	299	52	58.1	0.88
GENERAL FINISHING AND SHIPPING	1309	199	169.3	1.22 *	213	29	33.4	0.83	1522	228	202.7	1.16
HOT STRIP MILL	567	70	63.9	1.11	1	0	0.1	--	568	70	63.9	1.11
RAIL MILL ROLLING	852	85	82.6	1.04	97	8	11.8	0.60	949	93	94.4	0.98
RAIL MILL FINISHING	726	93	72.5	1.20	145	13	16.5	0.73	871	96	89.0	1.10
STEEL YARDS	299	38	42.2	0.88	77	5	7.8	0.61	376	43	50.0	0.84
STRUCTURAL MILL	1972	202	187.1	1.11	252	20	22.8	0.85	2224	222	209.9	1.08
ANNEALING NORMALIZING	2605	276	278.8	0.99	54	10	8.5	1.30	2659	286	287.3	0.99
BATCH PICKLING AND SHEET DRYERS	137	23	16.4	1.50	50	9	6.5	1.60	187	32	22.9	1.52 *
COATING	545	36	44.7	0.77	0	0	0.0	--	545	36	44.7	0.77
COLD REDUCING MILLS	1933	141	135.4	1.05	113	14	10.7	1.39	2046	155	146.1	1.07
CONTINUOUS PICKLING AND ELEC CLEANING	2[illegible]	14	14.1	0.99	0	0	0.0	--	2[illegible]	14	14.1	0.99
FLYING SHEARS AND SLITTERS	28	0	2.2	--	0	0	0.0	--	28	0	2.2	--
HOT PACK MILLS	1229	186	196.0	0.92	19	3	3.4	--	1248	189	199.5	0.91
HOT STRIP ROLLING	1623	144	144.5	1.00	2	0	0.1	--	1625	144	144.5	1.00
SHEET FINISHING AND SHIPPING	3306	292	290.0	1.01	108	19	17.3	1.31	3414	311	307.2	1.02
STAINLESS ANNEAL PICKLG AND PROCESSING	384	63	49.5	1.36 *	2	0	0.1	--	386	63	49.6	1.36 *
TEMPER PASSING AND COLD ROLLING	783	58	54.7	1.08	0	0	0.0	--	783	58	54.7	1.08
TIN FINISHING AND SHIPPING	668	57	56.2	1.02	1	0	0.0	--	669	57	56.2	1.02
GENERAL LABOR	3153	426	373.5	1.18 **	1215	134	141.3	0.92	4368	560	514.8	1.12 *
JANITORS	311	92	77.9	1.23	422	55	54.2	1.02	733	147	132.1	1.14
MASON DEPARTMENT	2511	201	189.8	1.07	696	78	58.2	1.46 **	3207	279	248.0	1.15 *
BLACKSMITH SHOP	555	83	80.6	1.03	6	3	0.9	--	561	86	81.4	1.06
CARPENTER SHOP	665	81	99.8	0.79 *	1	0	0.1	--	666	81	99.9	0.79 *
ELECTRIC MAINTENANCE ASSIGNED	3200	386	382.5	1.01	8	1	0.7	--	3208	387	383.2	1.01
ELECTRIC SHOP	1620	237	242.1	0.97	2	0	0.3	--	1622	237	242.4	0.97
GARAGE	242	20	22.2	0.89	2	0	0.7	--	244	20	22.9	0.86
LOCOMOTIVE AND CAR REPAIR	261	36	30.8	1.19	22	3	2.0	--	283	39	32.7	1.22
MACHINE SHOP	2405	302	286.3	1.07	12	0	1.5	--	2417	302	287.8	1.06
MAINTENANCE NOS	558	54	66.1	0.78	5	0	0.3	--	563	54	66.4	0.77
MECHNICAL MAINTENANCE ASSIGNED	6136	737	678.4	1.12 **	201	33	27.3	1.26	6337	770	705.6	1.13 **
PAINT SHOP	777	73	77.6	0.93	9	1	1.1	--	786	74	78.7	0.93
PATTERN SHOP	95	10	10.9	0.91	0	0	0.0	--	95	10	10.9	0.91
PIPE SHOP	1412	177	169.4	1.05	14	3	2.3	--	1426	180	171.7	1.06
RIGGERS AND STRUCTURAL	2525	341	354.0	0.95	21	3	2.9	--	2546	344	356.9	0.96
ROLL SHOP	502	55	55.0	1.00	3	1	0.7	--	505	56	55.7	1.01
WELD SHOP	758	66	57.1	1.17	2	0	0.2	--	760	66	57.2	1.17
ALL OTHER	1098	176	177.7	0.99	75	11	12.4	0.87	1173	187	190.1	0.98
GENERAL RECEIVING AND STORES	382	43	47.6	0.89	9	2	2.2	--	391	45	49.8	0.89
PLANT PROTECTION	856	157	117.6	1.41 **	4	1	0.4	--	860	158	118.0	1.41 **
POWER AND FUEL	2336	270	271.2	0.99	213	28	32.8	0.83	2549	298	303.9	0.98
TRANSPORTATION AND YARD	2842	338	319.1	1.07	633	80	65.6	1.28	3475	418	384.7	1.11
TUBE MILLS INCLUDES TUBE FINISHING	635	75	73.8	1.02	10	0	1.2	--	645	75	75.1	1.00
RIVER OR MARINE WAYS	293	40	32.4	1.28	1	1	0.0	--	294	41	32.4	1.32
TOTAL	51479	4750	4750.0	1.00	7349	680	680.0	1.00	58828	5430	5430.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00112

C.O.D. (UNDERLYING) = 330-334,400-468,592-594
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	254	248.4	1.03	11	1	1.5	--	2374	255	250.0	1.02
GEN TECHNICAL	1575	145	142.5	1.02	6	2	0.7	--	1581	147	143.1	1.03
COKE PLANT	1180	125	124.1	1.01	664	63	71.3	0.80	1844	188	195.4	0.95
BLAST FURNACE	1730	201	215.2	0.92	591	51	57.6	0.86	2321	252	272.8	0.93
OPEN HEARTH	4075	438	466.5	0.92	1347	127	132.7	0.93	5422	565	599.2	0.93
BESSEMER CONVERTER	118	15	20.9	0.69	35	7	5.3	1.38	153	22	26.1	0.82
ELECTRIC FURNACE	509	39	39.6	0.98	4	0	0.5	--	513	39	40.1	0.97
FOUNDRY	764	96	107.4	0.88	169	19	17.3	1.13	933	115	124.6	0.91
HEAT TREAT AND FORGING	708	93	92.7	1.00	20	1	2.6	--	728	94	95.3	0.98
BILLET BLOOM AND SLAB MILLS	2614	315	311.2	1.02	201	28	27.2	1.05	2815	343	338.4	1.02
SOAKING PITS	19	3	2.7	--	0	0	0.0	--	19	3	2.7	--
MERCHANT MILLS	1986	238	260.7	0.89	301	50	40.3	1.33	2287	288	301.1	0.96
PLATE MILL	1442	190	181.2	1.07	246	39	31.1	1.39	1688	229	212.2	1.11
AXLE MILLS	45	9	9.6	0.93	0	0	0.0	--	45	9	9.6	0.93
GENERAL FINISHING AND SHIPPING	511	83	64.0	1.35 *	113	16	15.4	1.05	624	99	79.4	1.30 *
HOT STRIP MILL	174	25	19.5	1.32	0	0	0.0	--	174	25	19.5	1.32
RAIL MILL ROLLING	288	36	38.6	0.92	32	4	4.6	--	320	40	43.2	0.93
RAIL MILL FINISHING	245	33	31.1	1.08	82	9	8.2	1.12	327	42	39.3	1.08
STEEL YARDS	68	9	11.8	0.74	11	0	0.9	--	79	9	12.8	0.68
STRUCTURAL MILL	980	103	95.4	1.10	128	9	11.4	0.76	1108	112	106.7	1.05
ANNEALING NORMALIZING	1214	114	135.7	0.81 *	25	7	3.6	2.65	1239	121	139.2	0.86
BATCH PICKLING AND SHEET DRYERS	45	12	7.3	1.80	19	4	2.5	--	64	16	9.8	1.80 *
COATING	269	24	25.0	0.95	0	0	0.0	--	269	24	25.0	0.95
COLD REDUCING MILLS	848	69	70.7	0.97	65	9	6.7	1.40	913	78	77.4	1.01
CONTINUOUS PICKLING AND ELEC CLEANING	147	8	8.9	0.89	0	0	0.0	--	147	8	8.9	0.89
FLYING SHEARS AND SLITTERS	5	0	0.5	--	0	0	0.0	--	5	0	0.5	--
HOT PACK MILLS	737	107	123.4	0.81	5	1	1.1	--	742	108	124.5	0.81
HOT STRIP ROLLING	864	81	79.4	1.02	1	0	0.1	--	865	81	79.4	1.02
SHEET FINISHING AND SHIPPING	1335	135	124.9	1.11	48	9	7.8	1.30	1383	144	132.7	1.11
STAINLESS ANNEAL PICKLG AND PROCESSING	148	24	19.1	1.32	0	0	0.0	--	148	24	19.1	1.32
TEMPER PASSING AND COLD ROLLING	335	22	22.3	0.99	0	0	0.0	--	335	22	22.3	0.99
TIN FINISHING AND SHIPPING	348	35	33.9	1.04	0	0	0.0	--	348	35	33.9	1.04
GENERAL LABOR	565	99	78.9	1.30 *	375	41	40.8	1.01	940	140	119.7	1.20
JANITORS	112	37	28.0	1.42	190	18	25.6	0.67	302	55	53.6	1.03
MASON DEPARTMENT	158	75	68.3	1.11	242	28	21.5	1.36	1000	103	89.8	1.17
BLACKSMITH SHOP	231	34	34.2	0.99	5	3	0.7	--	236	37	34.9	1.07
CARPENTER SHOP	277	31	42.6	0.70	0	0	0.0	--	277	31	42.6	0.70
ELECTRIC MAINTENANCE ASSIGNED	1581	204	203.0	1.01	2	1	0.1	--	1583	205	203.1	1.01
ELECTRIC SHOP	760	108	110.8	0.97	2	0	0.2	--	762	108	111.1	0.97
GARAGE	98	7	10.5	0.64	1	0	0.4	--	99	7	10.8	0.65
LOCOMOTIVE AND CAR REPAIR	104	12	14.0	0.84	7	1	0.8	--	111	13	14.8	0.87
MACHINE SHOP	1270	171	151.1	1.16	2	0	0.4	--	1272	171	151.5	1.15
MAINTENANCE NOS	246	23	30.9	0.71	0	0	0.0	--	246	23	30.9	0.71
MECHNICAL MAINTENANCE ASSIGNED	2290	331	301.9	1.12	73	15	11.2	1.41	2363	346	313.1	1.13 *
PAINT SHOP	197	21	23.2	0.90	2	0	0.1	--	199	21	23.4	0.89
PATTERN SHOP	64	7	7.8	0.89	0	0	0.0	--	64	7	7.8	0.89
PIPE SHOP	657	76	75.6	1.01	6	2	0.9	--	663	78	76.5	1.02
RIGGERS AND STRUCTURAL	1034	122	135.9	0.88	6	0	1.0	--	1040	122	136.9	0.88
ROLL SHOP	314	35	35.1	1.00	0	0	0.0	--	314	35	35.1	1.00
WELD SHOP	460	46	37.5	1.25	2	0	0.1	--	462	46	37.6	1.25
ALL OTHER	302	56	56.5	0.99	9	0	1.5	--	311	56	58.0	0.96
GENERAL RECEIVING AND STORES	168	18	25.3	0.67	2	0	1.0	--	170	18	26.3	0.68
PLANT PROTECTION	469	92	67.9	1.42 **	1	0	0.1	--	470	92	68.8	1.42 **
POWER AND FUEL	976	133	131.7	1.01	89	12	13.8	0.86	1065	145	145.5	1.00
TRANSPORTATION AND YARD	871	122	115.6	1.07	194	20	18.7	1.08	1065	142	134.3	1.07
TUBE MILLS INCLUDES TUBE FINISHING	281	36	30.3	1.23	2	0	0.2	--	283	36	30.5	1.22
RIVER OR MARINE WAYS	177	27	21.0	1.34	1	1	0.0	--	178	28	21.1	1.39
TOTAL	36364	3797	3797.0	1.00	4913	505	505.0	1.00	41277	4302	4302.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 22-MAY-74

C.O.D. (PREVALENCE) = 330-334,400-468,592-594
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	291	289.5	1.01	11	1	1.6	--	2374	292	291.3	1.00
GEN TECHNICAL	1575	177	165.2	1.08	6	2	0.8	--	1581	179	166.0	1.09
COKE PLANT	1180	146	142.2	1.03	664	82	86.7	0.90	1844	228	228.9	0.99
BLAST FURNACE	1730	241	251.9	0.95	591	63	69.7	0.88	2321	304	321.6	0.93
OPEN HEARTH	4075	514	544.5	0.93	1347	154	161.7	0.92	5422	668	706.2	0.93
BESSEMER CONVERTER	118	20	24.6	0.79	35	7	6.4	1.10	153	27	31.0	0.85
ELECTRIC FURNACE	509	45	46.4	0.96	4	0	0.7	--	513	45	47.1	0.95
FOUNDRY	764	120	125.9	0.94	169	27	21.6	1.36	933	147	147.5	1.00
HEAT TREAT AND FORGING	708	103	107.8	0.94	20	6	3.1	2.11	728	109	110.9	0.98
BILLET BLOOM AND SLAB MILLS	2614	365	366.3	1.00	201	32	33.4	0.94	2815	397	399.7	0.99
SOAKING PITS	19	3	3.2	--	0	0	0.0	--	19	3	3.2	--
MERCHANT MILLS	1986	286	305.1	0.92	301	54	49.0	1.14	2287	340	354.0	0.95
PLATE MILL	1442	218	211.7	1.04	246	46	37.6	1.35	1688	264	249.3	1.08
AXLE MILLS	45	9	11.3	0.77	0	0	0.0	--	45	9	11.3	0.77
GENERAL FINISHING AND SHIPPING	511	91	74.2	1.27 *	113	19	19.0	1.00	624	110	93.2	1.22
HOT STRIP MILL	174	26	22.7	1.16	0	0	0.0	--	174	26	22.7	1.16
RAIL MILL ROLLING	288	41	45.5	0.88	32	5	5.8	0.83	320	46	51.2	0.88
RAIL MILL FINISHING	245	36	36.2	0.99	82	9	10.4	0.84	327	45	46.6	0.96
STEEL YARDS	68	10	13.8	0.69	11	0	1.2	--	79	10	15.0	0.63
STRUCTURAL MILL	980	115	111.0	1.05	128	11	14.0	0.75	1108	126	125.0	1.01
ANNEALING NORMALIZING	1214	147	159.8	0.90	25	8	4.6	2.21	1239	155	164.4	0.93
BATCH PICKLING AND SHEET DRYERS	45	14	8.8	1.76	19	5	3.1	1.80	64	19	11.9	1.77 *
COATING	269	26	28.4	0.90	0	0	0.0	--	269	26	28.4	0.90
COLD REDUCING MILLS	848	81	82.5	0.98	65	10	8.1	1.27	913	91	90.6	1.00
CONTINUOUS PICKLING AND ELEC CLEANING	147	11	10.1	1.09	0	0	0.0	--	147	11	10.1	1.09
FLYING SHEARS AND SLITTERS	5	0	0.5	--	0	0	0.0	--	5	0	0.5	--
HOT PACK MILLS	737	134	146.3	0.87	5	1	1.5	--	742	135	147.8	0.87
HOT STRIP ROLLING	864	89	92.5	0.96	1	0	0.1	--	865	89	92.6	0.95
SHEET FINISHING AND SHIPPING	1335	160	145.8	1.13	48	10	9.5	1.10	1383	170	155.2	1.13
STAINLESS ANNEAL PICKLG AND PROCESSING	148	25	22.5	1.14	0	0	0.0	--	148	25	22.5	1.14
TEMPER PASSING AND COLD ROLLING	335	25	25.3	0.99	0	0	0.0	--	335	25	25.3	0.99
TIN FINISHING AND SHIPPING	348	37	38.4	0.95	0	0	0.0	--	348	37	38.4	0.95
GENERAL LABOR	565	114	91.9	1.29 *	375	45	50.0	0.86	940	159	141.9	1.14
JANITORS	112	39	32.5	1.26	190	24	32.1	0.71	302	63	64.6	0.97
MASON DEPARTMENT	758	91	79.2	1.17	242	35	25.9	1.44	1000	126	105.1	1.23 *
BLACKSMITH SHOP	231	41	40.0	1.03	5	3	0.9	--	236	44	40.8	1.09
CARPENTER SHOP	277	37	49.5	0.72	0	0	0.0	--	277	37	49.5	0.72
ELECTRIC MAINTENANCE ASSIGNED	1581	226	238.2	0.94	2	1	0.2	--	1583	227	238.4	0.94
ELECTRIC SHOP	760	127	129.5	0.98	2	0	0.3	--	762	127	129.8	0.97
GARAGE	98	7	12.1	0.54	1	0	0.6	--	99	7	12.7	0.51
LOCOMOTIVE AND CAR REPAIR	104	14	16.3	0.84	7	1	1.0	--	111	15	17.3	0.85
MACHINE SHOP	1270	196	176.0	1.14	2	0	0.5	--	1272	196	176.5	1.13
MAINTENANCE NOS	246	26	34.9	0.71	0	0	0.0	--	246	26	34.9	0.71
MECHNICAL MAINTENANCE ASSIGNED	2290	389	351.4	1.14 *	73	18	13.4	1.41	2363	407	364.8	1.15 *
PAINT SHOP	197	23	27.0	0.84	2	0	0.2	--	199	23	27.2	0.83
PATTERN SHOP	64	9	9.1	0.99	0	0	0.0	--	64	9	9.1	0.99
PIPE SHOP	657	84	87.7	0.95	6	2	1.0	--	663	86	88.7	0.96
RIGGERS AND STRUCTURAL	1034	138	158.3	0.85	6	0	1.2	--	1040	138	159.5	0.85
ROLL SHOP	314	42	40.8	1.03	0	0	0.0	--	314	42	40.8	1.03
WELD SHOP	460	48	43.5	1.11	2	0	0.2	--	462	48	43.7	1.11
ALL OTHER	302	62	66.3	0.92	9	0	1.8	--	311	62	68.1	0.90
GENERAL RECEIVING AND STORES	168	20	29.3	0.64	2	0	1.0	--	170	20	30.3	0.61
PLANT PROTECTION	469	107	79.1	1.43 **	1	0	0.2	--	470	107	79.3	1.42 **
POWER AND FUEL	976	153	153.5	1.00	89	16	17.0	0.93	1065	169	170.5	0.99
TRANSPORTATION AND YARD	871	145	134.8	1.09	194	26	23.3	1.14	1065	171	158.1	1.10
TUBE MILLS INCLUDES TUBE FINISHING	281	39	35.7	1.11	2	0	0.3	--	283	39	36.0	1.10
RIVER OR MARINE WAYS	177	31	24.0	1.35	1	1	0.0	--	178	32	24.0	1.40
TOTAL	36364	4423	4423.0	1.00	4913	616	616.0	1.00	41277	5039	5039.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00114

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cardiovascular-Renal Disease

ICD CODE: 330-334, 400-468, 592-594

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Open Hearth	0.89*	0.88*	0.91*	0.92*	0.92	0.93
Hot Pack Mills	0.69*	0.73*	0.88	0.92	0.81	0.87
Sheet Finishing and Shipping	1.28**	1.23*	1.04	1.01	1.11	1.13
Janitors	1.40*	1.35*	1.30*	1.23	1.42	1.26
Carpenter Shop	0.62*	0.65*	0.80	0.79*	0.70	0.72
Mechanical Maintenance Assigned	1.15*	1.18**	1.11*	1.12**	1.12	1.14*
Plant Protection	1.53**	1.54**	1.39**	1.41**	1.42**	1.43**
General Finishing and Shipping	1.35	1.27	1.28**	1.22*	1.35*	1.27*
Stainless Anneal.Picklg. & Processing	0.79	0.79	1.50**	1.36*	1.32	1.14
General Labor	0.87	0.87	1.24**	1.18**	1.30*	1.29*
Annealing Normalizing	0.96	0.94	0.95	0.99	0.81*	0.90
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Heat Treat. and Forging	--	3.70**	0.63	1.81	--	2.11
Mason Dept.	1.25	1.26	1.40*	1.46**	1.36	1.44

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00115

C.O.D. (UNDERLYING) = 330-334
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	3273	34	34.4	0.99	18	0	0.4	--	3291	34	34.7	0.98
GEN TECHNICAL	2368	7	17.6	0.38 *	14	1	0.2	--	2382	8	17.7	0.43 *
COKE PLANT	1635	19	18.3	1.04	908	15	16.9	0.82	2543	34	35.2	0.96
BLAST FURNACE	2355	27	26.8	1.01	1101	10	14.1	0.66	3456	37	40.9	0.89
OPEN HEARTH	5797	51	62.1	0.80	1836	27	27.4	0.98	7633	78	89.5	0.84
BESSEMER CONVERTER	24	1	0.6	--	0	0	0.0	--	24	1	0.6	--
ELECTRIC FURNACE	734	5	5.7	0.87	7	0	0.1	--	741	5	5.8	0.85
FOUNDRY	890	15	12.0	1.27	253	4	3.0	--	1143	19	14.9	1.30
HEAT TREAT AND FORGING	1003	11	11.0	1.00	16	0	0.3	--	1019	11	11.4	0.96
BILLET BLOOM AND SLAB MILLS	2912	31	37.2	0.81	123	7	5.5	1.42	3135	38	42.6	0.87
SOAKING PITS	94	0	0.9	--	14	0	0.1	--	108	0	1.0	--
MERCHANT MILLS	2130	33	29.7	1.13	395	7	7.8	0.88	2525	40	37.6	1.08
PLATE MILL	1547	15	18.6	0.78	239	5	4.3	1.19	1786	20	22.9	0.85
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	6	4.3	1.41	82	4	2.2	--	481	10	6.6	1.58
HOT STRIP MILL	164	3	2.7	--	1	0	0.0	--	165	3	2.7	--
RAIL MILL ROLLING	339	3	3.7	--	46	0	0.5	--	385	3	4.3	--
RAIL MILL FINISHING	347	5	2.9	1.83	98	0	1.3	--	445	5	4.2	1.22
STEEL YARDS	88	1	0.7	--	32	0	0.4	--	120	1	1.1	--
STRUCTURAL MILL	1196	10	12.3	0.80	164	2	2.6	--	1360	12	14.8	0.79
ANNEALING NORMALIZING	1353	19	16.3	1.18	17	0	0.4	--	1370	19	16.7	1.15
BATCH PICKLING AND SHEET DRYERS	55	0	0.6	--	21	1	0.5	--	76	1	1.0	--
COATING	328	3	3.7	--	0	0	0.0	--	328	3	3.7	--
COLD REDUCING MILLS	1395	14	10.4	1.39	97	3	1.8	--	1492	17	12.1	1.45
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	1.1	--	0	0	0.0	--	205	0	1.1	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	10	11.2	0.88	5	0	0.1	--	571	10	11.3	0.87
HOT STRIP ROLLING	1008	9	10.2	0.87	0	0	0.0	--	1008	9	10.2	0.87
SHEET FINISHING AND SHIPPING	1733	26	18.8	1.50	36	1	1.1	--	1769	27	19.8	1.47
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	1.0	--	1	0	0.0	--	47	2	1.0	--
TEMPER PASSING AND COLD ROLLING	369	1	2.4	--	0	0	0.0	--	369	1	2.4	--
TIN FINISHING AND SHIPPING	396	4	4.7	--	1	0	0.0	--	397	4	4.7	--
GENERAL LABOR	546	5	6.5	0.76	449	4	6.4	0.60	995	9	12.9	0.68
JANITORS	205	14	8.3	1.76	321	10	6.8	1.54	526	24	15.1	1.66 *
MASON DEPARTMENT	1305	13	9.5	1.38	438	8	5.1	1.62	1743	21	14.7	1.46
BLACKSMITH SHOP	266	3	4.6	--	4	0	0.1	--	270	3	4.6	--
CARPENTER SHOP	406	4	6.7	0.59	0	0	0.0	--	406	4	6.7	0.59
ELECTRIC MAINTENANCE ASSIGNED	1605	21	17.7	1.20	5	0	0.0	--	1610	21	17.7	1.20
ELECTRIC SHOP	551	5	7.3	0.68	1	0	0.0	--	552	5	7.4	0.67
GARAGE	147	2	1.4	--	0	0	0.0	--	147	2	1.4	--
LOCOMOTIVE AND CAR REPAIR	121	1	1.5	--	9	0	0.1	--	130	1	1.6	--
MACHINE SHOP	1442	31	19.1	1.68 **	3	0	0.1	--	1445	31	19.2	1.67 **
MAINTENANCE NOS	70	0	1.4	--	2	0	0.0	--	72	0	1.4	--
MECHNICAL MAINTENANCE ASSIGNED	2689	26	32.8	0.78	60	1	1.1	--	2749	27	33.9	0.78
PAINT SHOP	263	2	2.6	--	2	0	0.0	--	265	2	2.6	--
PATTERN SHOP	68	0	0.8	--	0	0	0.0	--	68	0	0.8	--
PIPE SHOP	738	10	9.2	1.10	5	0	0.1	--	743	10	9.3	1.08
RIGGERS AND STRUCTURAL	1189	17	16.0	1.07	8	0	0.1	--	1197	17	16.1	1.06
ROLL SHOP	374	5	5.1	0.98	0	0	0.0	--	374	5	5.1	0.98
WELD SHOP	644	11	5.3	2.15 *	2	0	0.0	--	646	11	5.3	2.14 *
ALL OTHER	138	2	1.5	--	5	0	0.1	--	143	2	1.6	--
GENERAL RECEIVING AND STORES	192	0	3.1	--	4	0	0.2	--	196	0	3.3	--
PLANT PROTECTION	674	13	11.6	1.13	1	0	0.0	--	675	13	11.6	1.13
POWER AND FUEL	1343	11	15.1	0.72	62	1	1.6	--	1405	12	16.7	0.71
TRANSPORTATION AND YARD	1293	22	14.8	1.53	341	6	4.4	1.41	1634	28	19.1	1.50 *
TUBE MILLS INCLUDES TUBE FINISHING	229	2	2.5	--	1	0	0.0	--	230	2	2.5	--
RIVER OR MARINE WAYS	218	5	3.3	1.55	1	0	0.0	--	219	5	3.3	1.55
TOTAL	51479	590	590.0	1.00	7349	117	117.0	1.00	58828	707	707.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 330-334
FIRST JOB IN 1953

WORK-AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	3273	46	51.9	0.88	18	0	0.5	--	3291	46	52.5	0.87
GEN TECHNICAL	2368	15	26.3	0.55 *	14	1	0.2	--	2382	16	26.5	0.59 *
COKE PLANT	1635	30	25.8	1.19	908	21	23.8	0.81	2543	51	49.6	1.04
BLAST FURNACE	2355	45	41.2	1.10	1101	20	22.4	0.87	3456	65	63.6	1.03
OPEN HEARTH	5797	79	95.4	0.80	1836	39	46.3	0.78	7633	118	141.6	0.80 *
BESSEMER CONVERTER	24	1	0.9	--	0	0	0.0	--	24	1	0.9	--
ELECTRIC FURNACE	734	10	8.1	1.27	7	0	0.2	--	741	10	8.3	1.24
FOUNDRY	890	21	18.3	1.16	253	7	5.0	1.50	1143	28	23.3	1.22
HEAT TREAT AND FORGING	1003	19	18.5	1.03	16	2	0.6	--	1019	21	19.1	1.11
BILLET BLOOM AND SLAB MILLS	2912	57	54.7	1.05	223	9	7.9	1.19	3135	66	62.6	1.06
SOAKING PITS	94	0	1.4	--	14	0	0.1	--	108	0	1.5	--
MERCHANT MILLS	2130	49	43.0	1.16	395	10	11.9	0.82	2525	59	54.8	1.09
PLATE MILL	1547	30	30.6	0.98	239	13	8.9	1.67	1786	43	39.5	1.11
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	7	6.6	1.07	82	6	3.2	2.05	481	13	9.8	1.36
HOT STRIP MILL	164	4	3.8	--	1	0	0.0	--	165	4	3.8	--
RAIL MILL ROLLING	339	6	6.3	0.95	46	0	1.1	--	385	6	7.4	0.79
RAIL MILL FINISHING	347	8	4.8	1.76	98	0	2.1	--	445	8	6.8	1.18
STEEL YARDS	88	1	1.2	--	32	0	0.6	--	120	1	1.8	--
STRUCTURAL MILL	1196	18	20.6	0.86	164	4	4.7	--	1360	22	25.3	0.85
ANNEALING NORMALIZING	1353	23	23.1	0.99	17	0	0.6	--	1370	23	23.7	0.97
BATCH PICKLING AND SHEET DRYERS	55	1	0.8	--	21	1	0.7	--	76	2	1.4	--
COATING	328	3	4.9	--	0	0	0.0	--	328	3	4.9	--
COLD REDUCING MILLS	1395	18	14.7	1.25	97	5	2.6	2.09	1492	23	17.3	1.37
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	1.5	--	0	0	0.0	--	205	1	1.5	--
FLYING SHEARS AND SLITTERS	8	0	0.2	--	0	0	0.0	--	8	0	0.2	--
HOT PACK MILLS	566	13	16.0	0.78	5	0	0.2	--	571	13	16.2	0.77
HOT STRIP ROLLING	1008	15	14.5	1.04	0	0	0.0	--	1008	15	14.5	1.04
SHEET FINISHING AND SHIPPING	1733	32	26.1	1.28	36	1	1.3	--	1769	33	27.5	1.25
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	1.5	--	1	0	0.0	--	47	2	1.5	--
TEMPER PASSING AND COLD ROLLING	369	1	3.4	--	0	0	0.0	--	369	1	3.4	--
TIN FINISHING AND SHIPPING	396	5	6.3	0.76	1	0	0.0	--	397	5	6.3	0.76
GENERAL LABOR	546	7	9.2	0.75	449	6	10.2	0.56	995	13	19.4	0.65
JANITORS	205	20	11.8	1.79 *	321	18	11.9	1.63	526	38	23.7	1.71 **
MASON DEPARTMENT	1305	17	13.9	1.23	438	12	8.3	1.51	1743	29	22.2	1.33
BLACKSMITH SHOP	266	9	6.8	1.33	4	0	0.1	--	270	9	6.9	1.31
CARPENTER SHOP	406	5	9.9	0.50	0	0	0.0	--	406	5	9.9	0.50
ELECTRIC MAINTENANCE ASSIGNED	1605	25	26.8	0.93	5	0	0.1	--	1610	25	26.9	0.92
ELECTRIC SHOP	551	6	11.5	0.51	1	0	0.0	--	552	6	11.5	0.51
GARAGE	147	2	2.0	--	0	0	0.0	--	147	2	2.0	--
LOCOMOTIVE AND CAR REPAIR	121	3	2.3	--	9	0	0.2	--	130	3	2.5	--
MACHINE SHOP	1442	38	28.7	1.35	3	0	0.1	--	1445	38	28.8	1.35
MAINTENANCE NOS	70	1	2.0	--	2	0	0.0	--	72	1	2.0	--
MECHNICAL MAINTENANCE ASSIGNED	2689	49	48.0	1.02	60	2	1.9	--	2749	51	49.9	1.03
PAINT SHOP	263	4	3.8	--	2	0	0.1	--	265	4	3.9	--
PATTERN SHOP	68	1	1.3	--	0	0	0.0	--	68	1	1.3	--
PIPE SHOP	738	13	13.5	0.96	5	1	0.2	--	743	14	13.7	1.03
RIGGERS AND STRUCTURAL	1189	27	24.0	1.14	8	0	0.1	--	1197	27	24.1	1.13
ROLL SHOP	374	7	7.8	0.89	0	0	0.0	--	374	7	7.8	0.89
WELD SHOP	644	11	7.8	1.43	2	0	0.0	--	646	11	7.9	1.42
ALL OTHER	138	4	2.2	--	5	0	0.2	--	143	4	2.4	--
GENERAL RECEIVING AND STORES	192	2	4.4	--	4	0	0.2	--	196	2	4.6	--
PLANT PROTECTION	674	18	17.2	1.05	1	0	0.0	--	675	18	17.2	1.05
POWER AND FUEL	1343	15	23.7	0.62	62	1	2.6	--	1405	16	26.2	0.60 *
TRANSPORTATION AND YARD	1293	30	22.7	1.35	341	10	7.8	1.32	1634	40	30.5	1.34
TUBE MILLS INCLUDES TUBE FINISHING	229	2	3.7	--	1	0	0.0	--	230	2	3.7	--
RIVER OR MARINE WAYS	218	6	4.6	1.33	1	0	0.0	--	219	6	4.6	1.33
TOTAL	51479	882	882.0	1.00	7349	189	189.0	1.00	58828	1071	1071.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 330-334
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	59	55.5	1.07	34	0	0.7	--	5146	59	56.2	1.06
GEN TECHNICAL	3684	22	33.0	0.65	16	1	0.2	--	3700	23	33.2	0.67
COKE PLANT	2381	27	29.0	0.92	1176	23	23.7	0.93	3557	50	52.7	0.92
BLAST FURNACE	4218	57	55.8	1.03	1415	21	19.6	1.10	5633	78	75.4	1.04
OPEN HEARTH	9655	101	115.1	0.84	2335	39	37.3	1.08	11990	140	152.5	0.89
BESSEMER CONVERTER	240	3	5.1	0.57	88	1	2.1	--	328	4	7.2	0.54
ELECTRIC FURNACE	1250	15	12.9	1.20	11	0	0.2	--	1261	15	13.0	1.18
FOUNDRY	1781	31	25.2	1.26	345	4	4.4	--	2126	35	29.6	1.21
HEAT TREAT AND FORGING	1683	17	21.8	0.74	46	2	0.9	--	1729	19	22.8	0.81
BILLET BLOOM AND SLAB MILLS	5783	61	76.3	0.74	419	15	10.2	1.71	6202	76	86.5	0.84
SOAKING PITS	148	0	1.2	--	28	0	0.1	--	176	0	1.4	--
MERCHANT MILLS	3885	74	63.3	1.24	680	20	16.1	1.36	4565	94	79.4	1.26
PLATE MILL	3005	43	45.4	0.92	436	9	8.5	1.10	3441	52	53.8	0.95
AXLE MILLS	293	9	7.6	1.20	6	0	0.1	--	299	9	7.7	1.18
GENERAL FINISHING AND SHIPPING	1309	26	21.9	1.21	213	8	6.2	1.34	1522	34	28.2	1.24
HOT STRIP MILL	567	9	8.1	1.12	1	0	0.0	--	568	9	8.1	1.12
RAIL MILL ROLLING	852	11	9.1	1.27	97	4	1.5	--	949	15	10.6	1.55
RAIL MILL FINISHING	726	9	8.1	1.14	145	1	2.1	--	871	10	10.2	0.98
STEEL YARDS	299	3	5.4	0.54	77	1	1.1	--	376	4	6.5	0.60
STRUCTURAL MILL	1972	18	21.6	0.80	252	2	4.0	--	2224	20	25.6	0.74
ANNEALING NORMALIZING	2605	35	34.9	1.01	54	1	1.4	--	2659	36	36.2	0.99
BATCH PICKLING AND SHEET DRYERS	137	0	2.2	--	50	3	1.3	--	187	3	3.5	--
COATING	545	5	6.0	0.81	0	0	0.0	--	545	5	6.0	0.81
COLD REDUCING MILLS	1933	21	15.7	1.38	113	3	2.2	--	2046	24	17.9	1.39
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	1.4	--	0	0	0.0	--	254	0	1.4	--
FLYING SHEARS AND SLITTERS	28	0	0.3	--	0	0	0.0	--	28	0	0.3	--
HOT PACK MILLS	1229	24	25.8	0.89	19	1	0.5	--	1248	25	26.4	0.92
HOT STRIP ROLLING	1623	15	17.3	0.85	2	0	0.0	--	1625	15	17.3	0.85
SHEET FINISHING AND SHIPPING	3306	42	34.8	1.32	108	3	3.3	--	3414	45	38.1	1.29
STAINLESS ANNEAL PICKLG AND PROCESSING	384	8	6.6	1.25	2	0	0.0	--	386	8	6.6	1.24
TEMPER PASSING AND COLD ROLLING	783	3	6.1	0.44	0	0	0.0	--	783	3	6.1	0.44
TIN FINISHING AND SHIPPING	668	7	7.1	0.98	1	0	0.0	--	669	7	7.1	0.98
GENERAL LABOR	3153	54	46.1	1.20	1215	23	24.0	0.95	4368	77	70.1	1.12
JANITORS	311	19	11.9	1.69 *	422	13	8.8	1.57	733	32	20.6	1.64 *
MASON DEPARTMENT	2511	27	22.9	1.20	696	14	9.9	1.50	3207	41	32.8	1.28
BLACKSMITH SHOP	555	10	10.6	0.94	6	0	0.1	--	561	10	10.7	0.93
CARPENTER SHOP	665	14	13.3	1.05	1	0	0.0	--	666	14	13.3	1.05
ELECTRIC MAINTENANCE ASSIGNED	3200	44	46.6	0.94	8	1	0.1	--	3208	45	46.8	0.96
ELECTRIC SHOP	1620	25	30.4	0.80	2	0	0.1	--	1622	25	33.5	0.80
GARAGE	242	5	2.8	1.85	2	0	0.1	--	244	5	2.9	1.78
LOCOMOTIVE AND CAR REPAIR	261	8	3.7	2.23 *	22	0	0.2	--	283	8	3.9	2.09
MACHINE SHOP	2405	48	36.9	1.34	12	0	0.3	--	2417	48	37.2	1.33
MAINTENANCE NOS	558	5	8.3	0.56	5	0	0.1	--	563	5	8.3	0.55
MECHNICAL MAINTENANCE ASSIGNED	6136	87	86.4	1.01	201	4	4.3	--	6337	91	90.8	1.00
PAINT SHOP	777	8	9.7	0.82	9	0	0.2	--	786	8	9.8	0.81
PATTERN SHOP	95	0	1.4	--	0	0	0.0	--	95	0	1.4	--
PIPE SHOP	1412	20	21.9	0.91	14	0	0.4	--	1426	20	22.3	0.89
RIGGERS AND STRUCTURAL	2525	44	45.3	0.97	21	0	0.6	--	2546	44	45.9	0.95
ROLL SHOP	502	7	6.9	1.02	3	0	0.1	--	505	7	7.0	1.00
WELD SHOP	758	11	6.5	1.74	2	0	0.0	--	760	11	6.5	1.73
ALL OTHER	1098	24	24.4	0.98	75	3	2.4	--	1173	27	26.8	1.01
GENERAL RECEIVING AND STORES	382	3	6.6	0.43	9	0	0.4	--	391	3	7.0	0.41
PLANT PROTECTION	856	19	15.4	1.25	4	0	0.1	--	860	19	15.5	1.25
POWER AND FUEL	2336	26	34.8	0.73	213	4	5.8	0.67	2549	30	40.7	0.72
TRANSPORTATION AND YARD	2842	41	40.5	1.01	633	15	10.8	1.46	3475	56	51.4	1.10
TUBE MILLS INCLUDES TUBE FINISHING	635	10	8.8	1.16	10	0	0.2	--	645	10	9.0	1.14
RIVER OR MARINE WAYS	293	5	4.4	1.13	1	0	0.0	--	294	5	4.4	1.15
TOTAL	51479	590	590.0	1.00	7349	117	117.0	1.00	58828	707	707.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 330-334
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	82	83.7	0.98	34	0	1.1	--	5146	82	84.7	0.96
GEN TECHNICAL	3684	38	49.8	0.75	16	1	0.3	--	3700	39	50.1	0.76
COKE PLANT	2381	42	40.7	1.04	1176	31	33.4	0.82	3557	73	74.0	0.98
BLAST FURNACE	4218	85	85.8	0.99	1415	34	31.6	1.10	5633	119	117.4	1.02
OPEN HEARTH	9655	160	177.1	0.87	2335	61	63.8	0.92	11990	221	240.9	0.88
BESSEMER CONVERTER	240	6	8.1	0.73	88	2	3.6	--	328	8	11.7	0.67
ELECTRIC FURNACE	1250	22	18.2	1.26	11	0	0.3	--	1261	22	18.5	1.23
FOUNDRY	1781	49	38.3	1.32	345	9	7.2	1.30	2126	58	45.5	1.32
HEAT TREAT AND FORGING	1683	39	36.7	1.08	46	5	2.0	2.74	1729	44	38.7	1.17
BILLET BLOOM AND SLAB MILLS	5783	104	112.8	0.89	419	20	15.1	1.48	6202	124	127.9	0.96
SOAKING PITS	148	0	1.9	--	28	0	0.2	--	176	0	2.1	--
MERCHANT MILLS	3885	103	91.3	1.18	680	31	24.6	1.40	4565	134	116.0	1.22
PLATE MILL	3005	77	74.7	1.05	436	24	17.0	1.81	3441	101	91.7	1.17
AXLE MILLS	293	15	12.8	1.19	6	0	0.2	--	299	15	13.0	1.18
GENERAL FINISHING AND SHIPPING	1309	40	33.3	1.23	213	13	9.7	1.43	1522	53	43.0	1.27
HOT STRIP MILL	567	12	11.5	1.05	1	0	0.0	--	568	12	11.5	1.04
RAIL MILL ROLLING	852	18	15.2	1.23	97	5	2.6	2.36	949	23	17.9	1.38
RAIL MILL FINISHING	726	19	13.5	1.53	145	3	3.7	--	871	22	17.2	1.36
STEEL YARDS	299	5	8.9	0.54	77	1	2.2	--	376	6	11.1	0.52
STRUCTURAL MILL	1972	38	36.4	1.06	252	7	7.2	0.97	2224	45	43.6	1.04
ANNEALING NORMALIZING	2605	46	49.7	0.91	54	1	1.9	--	2659	47	51.6	0.89
BATCH PICKLING AND SHEET DRYERS	137	2	3.1	--	50	3	1.7	--	187	5	4.8	1.06
COATING	545	5	7.9	0.60	0	0	0.0	--	545	5	7.9	0.60
COLD REDUCING MILLS	1933	29	22.1	1.36	113	5	3.3	1.59	2046	34	25.4	1.39
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	1.9	--	0	0	0.0	--	254	1	1.9	--
FLYING SHEARS AND SLITTERS	28	0	0.4	--	0	0	0.0	--	28	0	0.4	--
HOT PACK MILLS	1229	33	36.8	0.85	19	1	0.8	--	1248	34	37.6	0.86
HOT STRIP ROLLING	1623	26	24.5	1.07	2	0	0.0	--	1625	26	24.6	1.07
SHEET FINISHING AND SHIPPING	3306	57	48.9	1.25	108	4	4.3	--	3414	61	53.2	1.23
STAINLESS ANNEAL PICKLG AND PROCESSING	384	10	9.3	1.09	2	0	0.0	--	386	10	9.3	1.09
TEMPER PASSING AND COLD ROLLING	783	3	8.3	0.32	0	0	0.0	--	783	3	8.3	0.32
TIN FINISHING AND SHIPPING	668	10	9.6	1.06	1	0	0.0	--	669	10	9.6	1.06
GENERAL LABOR	3153	82	70.9	1.18	1215	38	40.7	0.91	4368	120	111.7	1.09
JANITORS	311	27	17.0	1.68 *	422	23	15.4	1.63	733	50	32.5	1.66 **
MASON DEPARTMENT	2511	35	34.1	1.03	696	23	15.9	1.60	3207	58	50.0	1.18
BLACKSMITH SHOP	555	18	16.2	1.12	6	0	0.2	--	561	18	16.4	1.10
CARPENTER SHOP	665	19	19.9	0.95	1	0	0.0	--	666	19	19.9	0.95
ELECTRIC MAINTENANCE ASSIGNED	3200	68	71.5	0.95	8	1	0.2	--	3208	69	71.7	0.96
ELECTRIC SHOP	1620	40	47.9	0.81	2	0	0.1	--	1622	40	47.9	0.81
GARAGE	242	5	4.1	1.24	2	0	0.2	--	244	5	4.3	1.18
LOCOMOTIVE AND CAB REPAIR	261	11	5.8	1.98 *	22	0	0.5	--	283	11	6.2	1.82
MACHINE SHOP	2405	66	55.9	1.20	12	0	0.4	--	2417	66	56.4	1.19
MAINTENANCE NOS	558	8	11.3	0.68	5	0	0.1	--	563	8	11.3	0.67
MECHNICAL MAINTENANCE ASSIGNED	6136	144	130.0	1.14	201	6	7.6	0.77	6337	150	137.7	1.11
PAINT SHOP	777	13	14.5	0.89	9	0	0.3	--	786	13	14.7	0.88
PATTERN SHOP	95	1	2.1	--	0	0	0.0	--	95	1	2.1	--
PIPE SHOP	1412	31	32.4	0.95	14	1	0.7	--	1426	32	33.1	0.97
RIGGERS AND STRUCTURAL	2525	78	69.3	1.15	21	0	0.9	--	2546	78	70.2	1.13
ROLL SHOP	502	10	10.5	0.95	3	0	0.2	--	505	10	10.6	0.94
WELD SHOP	758	12	9.6	1.26	2	0	0.0	--	760	12	9.7	1.25
ALL OTHER	1098	40	35.4	1.14	75	4	3.6	--	1173	44	39.0	1.14
GENERAL RECEIVING AND STORES	382	6	9.5	0.62	9	0	0.5	--	391	6	10.0	0.58
PLANT PROTECTION	856	27	23.0	1.19	4	0	0.1	--	860	27	23.1	1.19
POWER AND FUEL	2336	41	53.4	0.75	213	6	9.5	0.61	2549	47	62.9	0.73 *
TRANSPORTATION AND YARD	2842	66	62.3	1.07	633	22	18.4	1.23	3475	88	80.7	1.10
TUBE MILLS INCLUDES TUBE FINISHING	635	12	12.6	0.95	10	0	0.2	--	645	12	12.8	0.93
RIVER OR MARINE WAYS	293	6	6.1	0.98	1	0	0.0	--	294	6	6.1	0.98
TOTAL	51479	882	882.0	1.00	7349	189	189.0	1.00	58828	1071	1071.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 21-MAY-74

C.O.D. (UNDERLYING) = 330-334
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	35	35.8	0.97	11	0	0.3	--	2374	35	36.2	0.96
GEN TECHNICAL	1575	13	20.2	0.63	6	1	0.1	--	1581	14	20.4	0.67
COKE PLANT	1180	22	18.8	1.20	664	18	17.7	1.03	1844	40	36.5	1.14
BLAST FURNACE	1730	37	31.9	1.18	591	10	12.0	0.81	2321	47	43.9	1.08
OPEN HEARTH	4075	61	67.9	0.88	1347	28	26.9	1.07	5422	89	94.8	0.92
BESSEMER CONVERTER	118	2	3.1	--	35	1	1.0	--	153	3	4.1	--
ELECTRIC FURNACE	509	6	5.5	1.10	4	0	0.1	--	513	6	5.6	1.08
FOUNDRY	764	22	16.5	1.37	169	4	2.8	--	933	26	19.3	1.39
HEAT TREAT AND FORGING	708	15	13.8	1.10	20	0	0.5	--	728	15	14.3	1.06
BILLET BLOOM AND SLAB MILLS	2614	33	45.4	0.68	201	8	6.6	1.31	2815	41	52.0	0.74
SOAKING PITS	19	0	0.4	--	0	0	0.0	--	19	0	0.4	--
MERCHANT MILLS	1986	38	40.6	0.92	301	13	10.1	1.36	2287	51	50.7	1.01
PLATE MILL	1442	23	27.2	0.81	246	5	5.2	0.94	1688	28	32.5	0.83
AXLE MILLS	45	1	1.6	--	0	0	0.0	--	45	1	1.6	--
GENERAL FINISHING AND SHIPPING	511	17	9.6	1.87 *	113	6	3.7	1.80	624	23	13.3	1.85 **
HOT STRIP MILL	174	4	2.9	--	0	0	0.0	--	174	4	2.9	--
RAIL MILL ROLLING	288	5	5.1	0.97	32	3	0.7	--	320	8	5.8	1.44
RAIL MILL FINISHING	245	5	4.1	1.25	82	0	1.2	--	327	5	5.3	0.93
STEEL YARDS	68	2	1.9	--	11	0	0.2	--	79	2	2.1	--
STRUCTURAL MILL	980	10	13.2	0.73	128	1	2.5	--	1108	11	15.7	0.67
ANNEALING NORMALIZING	1214	19	20.3	0.93	25	1	0.7	--	1239	20	21.0	0.95
BATCH PICKLING AND SHEET DRYERS	45	0	1.3	--	19	1	0.5	--	64	1	1.8	--
COATING	269	3	4.0	--	0	0	0.0	--	269	3	4.0	--
COLD REDUCING MILLS	848	13	9.9	1.34	65	3	1.7	--	913	16	11.7	1.41
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	1.0	--	0	0	0.0	--	147	0	1.0	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	19	20.8	0.88	5	0	0.2	--	742	19	21.0	0.87
HOT STRIP ROLLING	864	10	10.8	0.92	1	0	0.0	--	865	10	10.8	0.92
SHEET FINISHING AND SHIPPING	1335	24	18.3	1.41	48	3	1.9	--	1383	27	20.2	1.46
STAINLESS ANNEAL PICKLG AND PROCESSING	148	4	3.2	--	0	0	0.0	--	148	4	3.2	--
TEMPER PASSING AND COLD ROLLING	335	1	2.7	--	0	0	0.0	--	335	1	2.7	--
TIN FINISHING AND SHIPPING	348	4	5.2	0.74	0	0	0.0	--	348	4	5.2	0.74
GENERAL LABOR	565	15	12.1	1.26	375	7	8.9	0.76	940	22	21.0	1.05
JANITORS	112	10	5.3	2.00	190	5	5.2	0.95	302	15	10.5	1.47
MASON DEPARTMENT	758	15	10.0	1.53	242	8	4.6	1.86	1000	23	14.6	1.63 *
BLACKSMITH SHOP	231	6	5.4	1.10	5	0	0.1	--	236	6	5.6	1.08
CARPENTER SHOP	277	5	6.8	0.73	0	0	0.0	--	277	5	6.8	0.73
ELECTRIC MAINTENANCE ASSIGNED	1581	30	29.6	1.02	2	1	0.0	--	1583	31	29.6	1.05
ELECTRIC SHOP	760	12	16.4	0.72	2	0	0.1	--	762	12	16.5	0.71
GARAGE	98	2	1.5	--	1	0	0.1	--	99	2	1.6	--
LOCOMOTIVE AND CAR REPAIR	104	2	2.0	--	7	0	0.1	--	111	2	2.1	--
MACHINE SHOP	1270	35	23.1	1.57 *	2	0	0.1	--	1272	35	23.2	1.57 *
MAINTENANCE NOS	246	4	4.4	--	0	0	0.0	--	246	4	4.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	40	46.2	0.85	73	2	2.1	--	2363	42	48.3	0.85
PAINT SHOP	197	3	3.5	--	2	0	0.0	--	199	3	3.5	--
PATTERN SHOP	64	0	1.2	--	0	0	0.0	--	64	0	1.2	--
PIPE SHOP	657	10	11.4	0.87	6	0	0.2	--	663	10	11.6	0.86
RIGGERS AND STRUCTURAL	1034	23	20.5	1.13	6	0	0.3	--	1040	23	20.7	1.12
ROLL SHOP	314	5	5.1	0.98	0	0	0.0	--	314	5	5.1	0.98
WELD SHOP	460	10	4.8	2.14 *	2	0	0.0	--	462	10	4.9	2.13 *
ALL OTHER	302	8	9.5	0.83	9	0	0.4	--	311	8	9.9	0.80
GENERAL RECEIVING AND STORES	168	1	4.1	--	2	0	0.1	--	170	1	4.2	--
PLANT PROTECTION	469	13	10.7	1.23	1	0	0.0	--	470	13	10.8	1.22
POWER AND FUEL	976	19	20.1	0.94	89	1	3.0	--	1065	20	23.1	0.86
TRANSPORTATION AND YARD	871	18	17.6	1.03	194	4	3.7	--	1065	22	21.2	1.04
TUBE MILLS INCLUDES TUBE FINISHING	281	6	4.1	1.53	2	0	0.0	--	283	6	4.1	1.52
RIVER OR MARINE WAYS	177	4	3.1	--	1	0	0.0	--	178	4	3.2	--
TOTAL	36364	554	554.0	1.00	4913	108	108.0	1.00	41277	662	662.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00120

C.O.D. (PREVALENCE) = 330-334
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	49	54.6	0.89	11	0	0.5	--	2374	49	55.1	0.88
GEN TECHNICAL	1575	24	30.7	0.77	6	1	0.2	--	1581	25	30.9	0.80
COKE PLANT	1180	33	27.1	1.26	664	23	24.4	0.90	1844	56	51.5	1.12
BLAST FURNACE	1730	57	49.4	1.18	591	20	20.0	1.00	2321	77	69.4	1.13
OPEN HEARTH	4075	92	105.5	0.65	1347	43	47.4	0.86	5422	135	152.9	0.85
BESSEMER CONVERTER	118	4	4.9	--	35	1	1.8	--	153	5	6.7	0.73
ELECTRIC FURNACE	509	11	7.8	1.48	4	0	0.2	--	513	11	8.0	1.44
FOUNDRY	764	32	25.0	1.31	169	7	5.0	1.50	933	39	30.1	1.34
HEAT TREAT AND FORGING	708	27	23.2	1.20	20	3	1.0	--	728	30	24.2	1.29
BILLET BLOOM AND SLAB MILLS	2614	62	67.6	0.90	201	12	9.6	1.36	2815	74	77.2	0.95
SOAKING PITS	19	0	0.6	--	0	0	0.0	--	19	0	0.6	--
MERCHANT MILLS	1986	54	59.2	0.90	301	19	15.2	1.33	2287	73	74.3	0.98
PLATE MILL	1442	44	44.7	0.98	246	15	11.1	1.53	1688	59	55.8	1.08
AXLE MILLS	45	2	2.6	--	0	0	0.0	--	45	2	2.6	--
GENERAL FINISHING AND SHIPPING	511	24	14.6	1.71 *	113	9	5.5	1.61	624	33	20.1	1.74 **
HOT STRIP MILL	174	5	4.2	1.20	0	0	0.0	--	174	5	4.2	1.20
RAIL MILL ROLLING	288	8	8.7	0.91	32	3	1.4	--	320	11	10.1	1.10
RAIL MILL FINISHING	245	11	6.9	1.70	82	0	2.1	--	327	11	9.1	1.24
STEEL YARDS	68	3	3.1	--	11	0	0.4	--	79	3	3.6	--
STRUCTURAL MILL	980	17	22.1	0.74	128	3	4.7	--	1108	20	26.8	0.72
ANNEALING NORMALIZING	1214	25	29.2	0.83	25	1	1.0	--	1239	26	30.2	0.84
BATCH PICKLING AND SHEET DRYERS	45	1	1.8	--	19	1	0.7	--	64	2	2.5	--
COATING	269	3	5.2	0.55	0	0	0.0	--	269	3	5.2	0.55
COLD REDUCING MILLS	848	17	14.1	1.23	65	5	2.4	2.26	913	22	16.6	1.37
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	1.4	--	0	0	0.0	--	147	1	1.4	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	26	29.4	0.84	5	0	0.3	--	742	26	29.7	0.83
HOT STRIP ROLLING	864	17	15.6	1.10	1	0	0.0	--	865	17	15.6	1.10
SHEET FINISHING AND SHIPPING	1335	29	25.5	1.17	48	3	2.5	--	1383	32	28.1	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	148	5	4.4	1.15	0	0	0.0	--	148	5	4.4	1.15
TEMPER PASSING AND COLD ROLLING	335	1	3.6	--	0	0	0.0	--	335	1	3.6	--
TIN FINISHING AND SHIPPING	348	6	6.9	0.85	0	0	0.0	--	348	6	6.9	0.85
GENERAL LABOR	565	23	17.9	1.30	375	10	14.2	0.67	940	33	32.1	1.03
JANITORS	112	13	7.5	1.85	190	10	9.6	1.05	302	23	17.1	1.40
MASON DEPARTMENT	758	19	14.8	1.31	242	13	7.6	1.83	1000	32	22.4	1.47 *
BLACKSMITH SHOP	231	12	8.4	1.47	5	0	0.2	--	236	12	8.6	1.42
CARPENTER SHOP	277	7	10.0	0.69	0	0	0.0	--	277	7	10.0	0.69
ELECTRIC MAINTENANCE ASSIGNED	1581	45	45.4	0.99	2	1	0.1	--	1583	46	45.4	1.01
ELECTRIC SHOP	760	19	26.3	0.71	2	0	0.1	--	762	19	26.3	0.70
GARAGE	98	2	2.3	--	1	0	0.1	--	99	2	2.4	--
LOCOMOTIVE AND CAR REPAIR	104	3	3.1	--	7	0	0.3	--	111	3	3.4	--
MACHINE SHOP	1270	45	35.2	1.31	2	0	0.1	--	1272	45	35.3	1.31
MAINTENANCE NOS	246	5	6.0	0.82	0	0	0.0	--	246	5	6.0	0.82
MECHNICAL MAINTENANCE ASSIGNED	2290	69	69.3	0.99	73	4	3.9	--	2363	73	73.3	1.00
PAINT SHOP	197	5	5.2	0.95	2	0	0.0	--	199	5	5.3	0.95
PATTERN SHOP	64	1	1.8	--	0	0	0.0	--	64	1	1.8	--
PIPE SHOP	657	13	16.9	0.76	6	0	0.3	--	663	13	17.2	0.75
RIGGERS AND STRUCTURAL	1034	35	31.1	1.14	6	0	0.4	--	1040	35	31.5	1.12
ROLL SHOP	314	7	7.8	0.89	0	0	0.0	--	314	7	7.8	0.89
WELD SHOP	460	10	7.3	1.39	2	0	0.0	--	462	10	7.3	1.38
ALL OTHER	302	16	13.7	1.18	9	0	0.6	--	311	16	14.3	1.13
GENERAL RECEIVING AND STORES	168	3	6.0	0.48	2	0	0.2	--	170	3	6.2	0.46
PLANT PROTECTION	469	18	16.0	1.13	1	0	0.1	--	470	18	16.1	1.13
POWER AND FUEL	976	27	31.0	0.86	89	1	4.8	--	1065	28	35.8	0.77
TRANSPORTATION AND YARD	871	30	27.2	1.11	194	6	7.0	0.85	1065	36	34.2	1.06
TUBE MILLS INCLUDES TUBE FINISHING	281	7	5.9	1.20	2	0	0.0	--	283	7	6.0	1.19
RIVER OR MARINE WAYS	177	5	4.4	1.14	1	0	0.0	--	178	5	4.4	1.14
TOTAL	36364	835	835.0	1.00	4913	177	177.0	1.00	41277	1012	1012.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Vascular Lesions of Central Nervous System

ICD CODE: 330-334

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	0.38*	0.55*	0.65	0.75	0.63	0.77
Machine Shop	1.68**	1.35	1.34	1.20	1.57*	1.31
Weld Shop	2.15*	1.43	1.74	1.26	2.14*	1.39
Janitors	1.76	1.79*	1.69*	1.68*	2.00	1.85
Locomotive and Car Repair	--	--	2.23*	1.98*	--	--
General Finishing and Shipping	1.41	1.07	1.21	1.23	1.87*	1.71*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00122

C.O.D. (UNDERLYING) = 420-422
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	3273	171	173.1	0.99	18	1	0.9	--	3291	172	174.0	0.99
GEN TECHNICAL	2368	96	90.5	1.07	14	1	0.4	--	2382	97	91.0	1.07
COKE PLANT	1635	81	82.5	0.98	908	34	38.1	0.83	2543	115	120.6	0.94
BLAST FURNACE	2355	114	130.6	0.86	1101	32	35.7	0.88	3456	146	166.3	0.86
OPEN HEARTH	5797	290	312.4	0.91	1836	73	71.9	1.02	7633	363	384.3	0.93
BESSEMER CONVERTER	24	4	2.5	--	0	0	0.0	--	24	4	2.5	--
ELECTRIC FURNACE	734	32	33.0	0.96	7	0	0.3	--	741	32	33.4	0.95
FOUNDRY	890	41	58.0	0.68 *	253	14	9.7	1.64	1143	55	67.7	0.79
HEAT TREAT AND FORGING	1003	57	56.9	1.00	16	1	0.7	--	1019	58	57.7	1.01
BILLET BLOOM AND SLAB MILLS	2912	177	185.9	0.94	223	9	13.1	0.63	3135	186	199.0	0.92
SOAKING PITS	94	5	4.5	1.11	14	0	0.2	--	108	5	4.7	1.06
MERCHANT MILLS	2130	127	139.6	0.89	395	20	16.9	1.22	2525	147	156.5	0.93
PLATE MILL	1547	101	93.9	1.09	239	15	13.7	1.13	1786	116	107.6	1.10
AXLE MILLS	6	1	0.3	--	0	0	0.0	--	6	1	0.3	--
GENERAL FINISHING AND SHIPPING	399	28	21.6	1.33	82	8	5.0	1.74	481	36	26.6	1.40
HOT STRIP MILL	164	17	12.4	1.41	1	0	0.0	--	165	17	12.4	1.41
RAIL MILL ROLLING	339	18	20.3	0.87	46	1	2.5	--	385	19	22.8	0.81
RAIL MILL FINISHING	347	18	16.2	1.13	98	4	4.4	--	445	22	20.6	1.08
STEEL YARDS	88	6	3.6	1.76	32	0	0.7	--	120	6	4.3	1.44
STRUCTURAL MILL	1196	78	65.9	1.22	164	4	5.8	0.66	1360	82	71.8	1.17
ANNEALING NORMALIZING	1353	77	79.8	0.96	17	1	1.3	--	1370	78	81.1	0.96
BATCH PICKLING AND SHEET DRYERS	55	6	2.6	2.63	21	1	1.4	--	76	7	4.0	1.93
COATING	328	12	17.8	0.65	0	0	0.0	--	328	12	17.8	0.65
COLD REDUCING MILLS	1395	53	56.1	0.94	97	3	3.7	--	1492	56	59.8	0.93
CONTINUOUS PICKLING AND ELEC CLEANING	205	9	7.7	1.19	0	0	0.0	--	205	9	7.7	1.19
FLYING SHEARS AND SLITTERS	8	0	0.6	--	0	0	0.0	--	8	0	0.6	--
HOT PACK MILLS	566	39	54.3	0.67 *	5	0	0.5	--	571	39	54.8	0.66 *
HOT STRIP ROLLING	1008	54	53.8	1.00	0	0	0.0	--	1008	54	53.8	1.00
SHEET FINISHING AND SHIPPING	1733	114	96.4	1.23	36	5	2.5	2.69	1769	119	99.0	1.26 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	3	4.4	--	1	0	0.0	--	47	3	4.4	--
TEMPER PASSING AND COLD ROLLING	369	17	16.4	1.04	0	0	0.0	--	369	17	16.4	1.04
TIN FINISHING AND SHIPPING	396	23	23.0	1.00	1	0	0.0	--	397	23	23.0	1.00
GENERAL LABOR	546	24	29.9	0.79	449	12	16.0	0.72	995	36	45.9	0.77
JANITORS	205	42	32.1	1.37	321	17	19.0	0.88	526	59	51.1	1.18
MASON DEPARTMENT	1305	43	47.3	0.90	438	14	13.2	1.07	1743	57	60.5	0.94
BLACKSMITH SHOP	266	23	20.2	1.15	4	1	0.2	--	270	24	20.5	1.19
CARPENTER SHOP	406	21	30.6	0.67	0	0	0.0	--	406	21	30.6	0.67
ELECTRIC MAINTENANCE ASSIGNED	1605	98	94.4	1.04	5	0	0.2	--	1610	98	94.6	1.04
ELECTRIC SHOP	551	30	36.6	0.81	1	0	0.0	--	552	30	36.7	0.81
GARAGE	147	4	6.9	0.55	0	0	0.0	--	147	4	6.9	0.55
LOCOMOTIVE AND CAR REPAIR	121	8	7.9	1.02	9	1	0.3	--	130	9	8.2	1.11
MACHINE SHOP	1442	90	89.8	1.00	3	0	0.3	--	1445	90	90.0	1.00
MAINTENANCE NOS	70	9	6.7	1.40	2	0	0.0	--	72	9	6.7	1.40
MECHNICAL MAINTENANCE ASSIGNED	2689	194	160.4	1.25 **	60	4	3.3	--	2749	198	163.7	1.25 **
PAINT SHOP	263	14	13.5	1.04	2	0	0.0	--	265	14	13.6	1.03
PATTERN SHOP	68	5	4.0	1.27	0	0	0.0	--	68	5	4.0	1.27
PIPE SHOP	738	45	44.3	1.02	5	1	0.4	--	743	46	44.7	1.03
RIGGERS AND STRUCTURAL	1189	68	77.0	0.87	8	1	0.2	--	1197	69	77.2	0.89
ROLL SHOP	374	27	25.1	1.08	0	0	0.0	--	374	27	25.1	1.08
WELD SHOP	644	33	29.6	1.12	2	0	0.1	--	646	33	29.7	1.12
ALL OTHER	138	8	7.5	1.08	5	0	0.2	--	143	8	7.7	1.04
GENERAL RECEIVING AND STORES	192	10	13.1	0.74	4	0	0.6	--	196	10	13.7	0.71
PLANT PROTECTION	674	79	54.4	1.51 **	1	0	0.0	--	675	79	54.5	1.50 **
POWER AND FUEL	1343	70	76.1	0.91	62	6	4.0	1.56	1405	76	80.2	0.94
TRANSPORTATION AND YARD	1293	80	72.8	1.11	341	15	12.2	1.26	1634	95	84.9	1.13
TUBE MILLS INCLUDES TUBE FINISHING	229	15	15.1	0.99	1	0	0.0	--	230	15	15.1	0.99
RIVER OR MARINE WAYS	218	18	15.1	1.22	1	1	0.0	--	219	19	15.1	1.29
TOTAL	51479	2927	2927.0	1.00	7349	300	300.0	1.00	58828	3227	3227.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 420-422
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	197	197.6	1.00	18	1	1.0	--	3291	198	198.6	1.00
GEN TECHNICAL	2368	112	102.4	1.10	14	1	0.5	--	2382	113	102.9	1.11
COKE PLANT	1635	88	92.3	0.95	908	46	46.3	0.99	2543	134	138.6	0.96
BLAST FURNACE	2355	132	150.1	0.86	1101	38	42.6	0.87	3456	171	192.7	0.89
OPEN HEARTH	5797	341	358.4	0.94	1836	79	86.8	0.87	7633	420	445.3	0.93
BESSEMER CONVERTER	24	4	2.9	--	0	0	0.0	--	24	4	2.9	--
ELECTRIC FURNACE	734	35	36.5	0.95	7	1	0.4	--	741	36	37.0	0.97
FOUNDRY	890	51	67.3	0.73 *	253	17	11.9	1.64	1143	68	79.1	0.86
HEAT TREAT AND FORGING	1003	62	65.5	0.94	16	3	1.0	--	1019	65	66.5	0.97
BILLET BLOOM AND SLAB MILLS	2912	203	212.7	0.95	223	12	15.8	0.70	3135	215	228.5	0.93
SOAKING PITS	94	6	5.2	1.16	14	0	0.2	--	108	6	5.4	1.11
MERCHANT MILLS	2130	144	159.9	0.88	395	24	20.6	1.20	2525	168	180.5	0.92
PLATE MILL	1547	115	107.9	1.08	239	23	17.1	1.49	1786	138	125.0	1.13
AXLE MILLS	6	1	0.4	--	0	0	0.0	--	6	1	0.4	--
GENERAL FINISHING AND SHIPPING	399	32	23.9	1.38	82	9	6.1	1.59	481	41	30.1	1.42 *
HOT STRIP MILL	164	19	14.2	1.38	1	0	0.0	--	165	19	14.3	1.37
RAIL MILL ROLLING	339	24	23.8	1.01	46	3	3.1	--	385	27	26.9	1.01
RAIL MILL FINISHING	347	22	18.7	1.20	98	4	5.4	0.72	445	26	24.1	1.09
STEEL YARDS	88	7	4.1	1.81	32	0	0.9	--	120	7	5.1	1.43
STRUCTURAL MILL	1196	85	75.7	1.15	164	6	7.6	0.77	1360	91	83.3	1.11
ANNEALING NORMALIZING	1353	90	91.3	0.98	17	1	1.5	--	1370	91	92.8	0.98
BATCH PICKLING AND SHEET DRYERS	55	6	2.9	2.37	21	1	1.6	--	76	7	4.4	1.59
COATING	328	14	19.3	0.70	0	0	0.0	--	328	14	19.3	0.73
COLD REDUCING MILLS	1395	63	64.0	0.98	97	3	4.4	--	1492	66	68.4	0.96
CONTINUOUS PICKLING AND ELEC CLEANING	205	11	8.3	1.35	0	0	0.0	--	205	11	8.3	1.35
FLYING SHEARS AND SLITTERS	8	0	0.7	--	0	0	0.0	--	8	0	0.7	--
HOT PACK MILLS	566	47	61.1	0.72	5	0	0.6	--	571	47	61.7	0.72 *
HOT STRIP ROLLING	1008	59	61.2	0.96	0	0	0.0	--	1008	59	61.2	0.96
SHEET FINISHING AND SHIPPING	1733	125	107.1	1.22	36	5	3.1	2.01	1769	130	110.1	1.23 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	5	4.9	1.01	1	0	0.0	--	47	5	5.0	1.01
TEMPER PASSING AND COLD ROLLING	369	18	17.7	1.02	0	0	0.0	--	369	18	17.7	1.02
TIN FINISHING AND SHIPPING	396	25	25.1	1.00	1	0	0.0	--	397	25	25.1	1.00
GENERAL LABOR	546	30	34.0	0.87	449	16	19.4	0.80	995	46	53.5	0.85
JANITORS	205	50	36.6	1.45 *	321	22	23.3	0.94	526	72	59.9	1.21
MASON DEPARTMENT	1305	50	53.7	0.93	438	16	15.7	1.02	1743	66	69.4	0.95
BLACKSMITH SHOP	266	24	23.3	1.03	4	1	0.3	--	270	25	23.6	1.07
CARPENTER SHOP	406	25	35.1	0.69	0	0	0.0	--	406	25	35.1	0.69
ELECTRIC MAINTENANCE ASSIGNED	1605	107	107.0	1.00	5	0	0.2	--	1610	107	107.2	1.00
ELECTRIC SHOP	551	34	42.1	0.80	1	0	0.0	--	552	34	42.1	0.79
GARAGE	147	4	7.9	0.47	0	0	0.0	--	147	4	7.9	0.47
LOCOMOTIVE AND CAR REPAIR	121	8	9.0	0.88	9	1	0.4	--	130	9	9.4	0.95
MACHINE SHOP	1442	105	103.0	1.02	3	0	0.3	--	1445	105	103.3	1.02
MAINTENANCE NOS	70	9	7.5	1.23	2	0	0.0	--	72	9	7.5	1.23
MECHNICAL MAINTENANCE ASSIGNED	2689	214	181.2	1.22 **	60	4	3.9	--	2749	218	185.1	1.21 *
PAINT SHOP	263	15	15.3	0.98	2	0	0.1	--	265	15	15.3	0.98
PATTERN SHOP	68	6	4.7	1.30	0	0	0.0	--	68	6	4.7	1.30
PIPE SHOP	738	46	50.0	0.91	5	1	0.4	--	743	47	50.5	0.93
RIGGERS AND STRUCTURAL	1189	78	88.3	0.87	8	1	0.3	--	1197	79	88.5	0.88
ROLL SHOP	374	34	28.7	1.20	0	0	0.0	--	374	34	28.7	1.20
WELD SHOP	644	36	33.5	1.08	2	0	0.1	--	646	36	33.6	1.08
ALL OTHER	138	9	8.6	1.05	5	0	0.3	--	143	9	8.9	1.02
GENERAL RECEIVING AND STORES	192	12	14.8	0.79	4	0	0.7	--	196	12	15.5	0.75
PLANT PROTECTION	674	92	62.2	1.55 **	1	0	0.1	--	675	92	62.3	1.55 **
POWER AND FUEL	1343	79	87.4	0.89	62	6	4.9	1.25	1405	85	92.3	0.91
TRANSPORTATION AND YARD	1293	89	83.2	1.08	341	18	15.1	1.22	1634	107	98.3	1.10
TUBE MILLS INCLUDES TUBE FINISHING	229	15	16.6	0.89	1	0	0.0	--	230	15	16.7	0.89
RIVER OR MARINE WAYS	218	20	16.7	1.22	1	1	0.0	--	219	21	16.7	1.29
TOTAL	51479	3334	3334.0	1.00	7349	364	364.0	1.00	58828	3698	3698.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 420-422
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	303	283.9	1.08	34	2	2.1	--	5146	305	285.9	1.08
GEN TECHNICAL	3684	170	172.0	0.99	16	2	0.6	--	3700	172	172.6	1.00
COKE PLANT	2381	139	130.6	1.09	1176	49	53.0	0.83	3557	188	183.6	1.04
BLAST FURNACE	4218	249	274.9	0.88	1415	45	50.2	0.87	5633	294	325.0	0.88
OPEN HEARTH	9655	560	579.1	0.95	2335	99	99.4	0.99	11990	659	678.4	0.96
BESSEMER CONVERTER	240	25	24.7	1.02	88	5	6.9	0.70	328	30	31.6	0.94
ELECTRIC FURNACE	1250	74	67.5	1.12	11	0	0.5	--	1261	74	68.0	1.11
FOUNDRY	1781	121	122.5	0.99	345	18	14.0	1.41	2126	139	136.5	1.02
HEAT TREAT AND FORGING	1683	113	107.9	1.06	46	1	3.4	--	1729	114	111.4	1.03
BILLET BLOOM AND SLAB MILLS	5783	380	386.2	0.98	419	24	24.7	0.96	6202	404	410.9	0.98
SOAKING PITS	148	7	6.3	1.12	28	1	0.4	--	176	8	6.7	1.21
MERCHANT MILLS	3885	294	292.0	1.01	680	39	36.2	1.11	4565	333	328.2	1.02
PLATE MILL	3005	224	218.8	1.04	436	24	25.6	0.91	3441	246	244.4	1.02
AXLE MILLS	293	25	33.3	0.72	6	2	0.4	--	299	27	33.7	0.78
GENERAL FINISHING AND SHIPPING	1309	126	104.6	1.24 *	213	13	14.4	0.88	1522	139	119.0	1.20
HOT STRIP MILL	567	47	39.0	1.23	1	0	0.0	--	568	47	39.0	1.23
RAIL MILL ROLLING	852	47	49.9	0.93	97	2	5.8	0.27	949	49	55.7	0.85
RAIL MILL FINISHING	726	48	43.6	1.13	145	7	7.9	0.87	871	55	51.4	1.09
STEEL YARDS	299	24	25.1	0.95	77	3	3.4	--	376	27	28.6	0.94
STRUCTURAL MILL	1972	133	115.3	1.21	252	8	9.0	0.87	2224	141	124.4	1.18
ANNEALING NORMALIZING	2605	164	172.4	0.94	54	5	4.1	1.36	2659	169	176.5	0.95
BATCH PICKLING AND SHEET DRYERS	137	17	10.1	1.82 *	50	4	3.3	--	187	21	13.4	1.71 *
COATING	545	17	28.0	0.57 *	0	0	0.0	--	545	17	28.0	0.57 *
COLD REDUCING MILLS	1933	85	84.4	1.01	113	3	4.7	--	2046	88	89.1	0.99
CONTINUOUS PICKLING AND ELEC CLEANING	254	10	9.7	1.04	0	0	0.0	--	254	10	9.7	1.04
FLYING SHEARS AND SLITTERS	28	0	1.5	--	0	0	0.0	--	28	0	1.5	--
HOT PACK MILLS	1229	114	122.7	0.89	19	2	1.7	--	1248	116	124.4	0.90
HOT STRIP ROLLING	1623	99	89.7	1.12	2	0	0.0	--	1625	99	89.8	1.12
SHEET FINISHING AND SHIPPING	3306	188	184.5	1.03	108	10	8.4	1.58	3414	198	192.9	1.04
STAINLESS ANNEAL PICKLG AND PROCESSING	384	42	30.7	1.45 *	2	0	0.0	--	386	42	30.7	1.45 *
TEMPER PASSING AND COLD ROLLING	783	42	36.7	1.18	0	0	0.0	--	783	42	36.7	1.18
TIN FINISHING AND SHIPPING	668	37	36.6	1.01	1	0	0.0	--	669	37	36.6	1.01
GENERAL LABOR	3153	272	227.9	1.23 **	1215	56	61.7	0.87	4368	328	289.5	1.16 *
JANITORS	311	57	46.7	1.26	422	21	25.1	0.81	733	78	71.8	1.10
MASON DEPARTMENT	2511	123	118.4	1.04	696	26	26.1	1.00	3207	149	144.5	1.03
BLACKSMITH SHOP	555	54	48.6	1.12	6	1	0.4	--	561	55	49.0	1.13
CARPENTER SHOP	665	51	60.8	0.83	1	0	0.1	--	666	51	60.8	0.83
ELECTRIC MAINTENANCE ASSIGNED	3200	257	234.1	1.12	8	0	0.3	--	3208	257	234.4	1.11
ELECTRIC SHOP	1620	157	146.5	1.09	2	0	0.1	--	1622	157	146.6	1.09
GARAGE	242	11	13.7	0.79	2	0	0.3	--	244	11	14.0	0.77
LOCOMOTIVE AND CAR REPAIR	261	17	18.8	0.90	22	2	1.0	--	283	19	19.8	0.96
MACHINE SHOP	2405	180	174.4	1.04	12	0	0.7	--	2417	180	175.1	1.03
MAINTENANCE NOS	558	37	43.1	0.83	5	0	0.1	--	563	37	43.2	0.83
MECHNICAL MAINTENANCE ASSIGNED	6136	462	415.9	1.15 *	201	15	13.0	1.18	6337	477	429.0	1.15 **
PAINT SHOP	777	47	48.0	0.98	9	1	0.5	--	786	48	48.4	0.99
PATTERN SHOP	95	7	6.5	1.08	0	0	0.0	--	95	7	6.5	1.08
PIPE SHOP	1412	107	104.5	1.03	14	1	1.2	--	1426	108	105.7	1.02
RIGGERS AND STRUCTURAL	2525	199	214.3	0.92	21	3	1.3	--	2546	202	215.6	0.93
ROLL SHOP	502	33	34.0	0.97	3	0	0.3	--	505	33	34.3	0.96
WELD SHOP	758	46	35.8	1.31	2	0	0.1	--	760	46	35.9	1.30
ALL OTHER	1098	113	107.8	1.06	75	3	5.4	0.53	1173	116	113.2	1.03
GENERAL RECEIVING AND STORES	382	29	28.7	1.01	9	1	1.1	--	391	30	29.8	1.01
PLANT PROTECTION	856	94	71.9	1.34 **	4	1	0.2	--	860	95	72.1	1.35 **
POWER AND FUEL	2336	179	164.4	1.10	213	13	14.9	0.86	2549	192	179.3	1.08
TRANSPORTATION AND YARD	2842	210	195.2	1.09	633	39	29.5	1.39	3475	249	224.7	1.13
TUBE MILLS INCLUDES TUBE FINISHING	635	51	46.6	1.12	10	0	0.6	--	645	51	47.3	1.10
RIVER OR MARINE WAYS	293	23	20.5	1.14	1	1	0.0	--	294	24	20.5	1.20
TOTAL	51479	2927	2927.0	1.00	7349	300	300.0	1.00	58828	3227	3227.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 420-422
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN AUMINISTRATIVE AND CLERICAL	5112	341	323.4	1.07	34	2	2.4	--	5146	343	325.8	1.06
GEN TECHNICAL	3684	191	195.1	0.98	16	2	0.6	--	3700	193	195.7	0.98
COKE PLANT	2381	157	146.2	1.10	1176	63	64.4	0.95	3557	220	210.6	1.07
BLAST FURNACE	4218	285	315.4	0.88	1415	51	60.1	0.81	5633	336	375.5	0.87 *
OPEN HEARTH	9655	645	662.8	0.96	2335	112	120.4	0.88	11990	757	783.2	0.95
BESSEMER CONVERTER	240	30	28.9	1.04	88	6	8.3	0.70	328	36	37.2	0.96
ELECTRIC FURNACE	1250	79	75.1	1.07	11	1	0.6	--	1261	80	75.7	1.07
FOUNDRY	1781	140	140.9	0.99	345	24	17.1	1.60	2126	164	158.0	1.05
HEAT TREAT AND FORGING	1683	128	125.0	1.03	46	6	4.2	1.48	1729	134	129.2	1.05
BILLET BLOOM AND SLAB MILLS	5783	433	440.2	0.98	419	29	29.6	0.97	6202	462	469.8	0.98
SOAKING PITS	148	8	7.2	1.12	28	1	0.5	--	176	9	7.7	1.19
MERCHANT MILLS	3885	340	334.4	1.02	680	47	43.9	1.10	4565	387	378.4	1.03
PLATE MILL	3005	263	252.8	1.06	436	34	32.4	1.08	3441	297	285.2	1.07
AXLE MILLS	293	32	39.2	0.79	6	2	0.4	--	299	34	39.6	0.84
GENERAL FINISHING AND SHIPPING	1309	142	118.6	1.24 *	213	15	17.6	0.81	1522	157	136.2	1.18
HOT STRIP MILL	567	52	44.9	1.18	1	0	0.0	--	568	52	44.9	1.18
RAIL MILL ROLLING	852	60	58.0	1.04	97	4	7.0	0.49	949	64	65.0	0.98
RAIL MILL FINISHING	726	55	50.8	1.11	145	8	9.6	0.79	871	63	60.4	1.06
STEEL YARDS	299	29	29.1	1.00	77	3	4.3	--	376	32	33.5	0.95
STRUCTURAL MILL	1972	151	132.5	1.19	252	11	11.8	0.92	2224	162	144.3	1.17
ANNEALING NORMALIZING	2605	190	195.5	0.96	54	6	5.0	1.33	2659	196	200.5	0.97
BATCH PICKLING AND SHEET DRYERS	137	17	11.4	1.58	50	4	3.9	--	187	21	15.3	1.46
COATING	545	20	30.6	0.62 *	0	0	0.0	--	545	20	30.6	0.62 *
COLD REDUCING MILLS	1933	100	95.6	1.05	113	4	5.6	0.69	2046	104	101.2	1.03
CONTINUOUS PICKLING AND ELEC CLEANING	254	12	10.5	1.16	0	0	0.0	--	254	12	10.5	1.16
FLYING SHEARS AND SLITTERS	28	0	1.6	--	0	0	0.0	--	28	0	1.6	--
HOT PACK MILLS	1229	130	137.6	0.91	19	2	2.1	--	1248	132	139.7	0.91
HOT STRIP ROLLING	1623	110	102.3	1.09	2	0	0.0	--	1625	110	102.3	1.09
SHEET FINISHING AND SHIPPING	3306	205	204.9	1.00	108	11	10.1	1.24	3414	216	215.0	1.01
STAINLESS ANNEAL PICKLG AND PROCESSING	384	47	34.3	1.46 *	2	0	0.0	--	386	47	34.4	1.46 *
TEMPER PASSING AND COLD ROLLING	783	44	39.8	1.13	0	0	0.0	--	783	44	39.8	1.13
TIN FINISHING AND SHIPPING	668	41	39.9	1.03	1	0	0.0	--	669	41	39.9	1.03
GENERAL LABOR	3153	296	260.2	1.17 *	1215	72	76.3	0.92	4368	368	336.5	1.12
JANITORS	311	66	53.3	1.29	422	27	30.6	0.86	733	93	83.9	1.13
MASON DEPARTMENT	2511	140	134.1	1.05	696	34	31.3	1.10	3207	174	165.5	1.06
BLACKSMITH SHOP	555	59	56.0	1.06	6	1	0.5	--	561	60	56.6	1.07
CARPENTER SHOP	665	59	69.7	0.83	1	0	0.1	--	666	59	69.8	0.83
ELECTRIC MAINTENANCE ASSIGNED	3200	289	268.6	1.09	8	0	0.4	--	3208	289	268.9	1.09
ELECTRIC SHOP	1620	178	169.2	1.06	2	0	0.1	--	1622	178	169.3	1.06
GARAGE	242	12	15.7	0.75	2	0	0.4	--	244	12	16.1	0.73
LOCOMOTIVE AND CAR REPAIR	261	21	21.7	0.97	22	2	1.2	--	283	23	22.8	1.01
MACHINE SHOP	2405	206	200.2	1.03	12	0	0.8	--	2417	206	201.0	1.03
MAINTENANCE NOS	558	40	47.1	0.82	5	0	0.1	--	563	40	47.3	0.82
MECHNICAL MAINTENANCE ASSIGNED	6136	528	474.1	1.15 **	201	15	15.7	0.95	6337	543	489.8	1.15 **
PAINT SHOP	777	51	54.7	0.93	9	1	0.6	--	786	52	55.3	0.94
PATTERN SHOP	95	9	7.6	1.20	0	0	0.0	--	95	9	7.6	1.20
PIPE SHOP	1412	121	119.0	1.02	14	1	1.3	--	1426	122	120.4	1.02
RIGGERS AND STRUCTURAL	2525	233	246.8	0.93	21	3	1.6	--	2546	236	248.4	0.94
ROLL SHOP	502	41	38.8	1.06	3	0	0.4	--	505	41	39.2	1.05
WELD SHOP	758	50	40.5	1.25	2	0	0.1	--	760	50	40.6	1.25
ALL OTHER	1098	123	123.8	0.99	75	4	6.7	0.57	1173	127	130.6	0.97
GENERAL RECEIVING AND STORES	382	33	32.6	1.01	9	2	1.3	--	391	35	33.9	1.04
PLANT PROTECTION	856	112	82.3	1.41 **	4	1	0.3	--	860	113	82.6	1.42 **
POWER AND FUEL	2336	198	189.5	1.05	213	16	18.2	0.86	2549	214	207.7	1.04
TRANSPORTATION AND YARD	2842	241	223.3	1.09	633	46	36.0	1.34	3475	287	259.3	1.13
TUBE MILLS INCLUDES TUBE FINISHING	635	52	51.7	1.01	10	0	0.8	--	645	52	52.4	0.99
RIVER OR MARINE WAYS	293	28	22.7	1.27	1	1	0.0	--	294	29	22.8	1.32
TOTAL	51479	3334	3334.0	1.00	7349	364	364.0	1.00	58828	3698	3698.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 21-MAY-74

C.O.D. (UNDERLYING) = 420-422
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	178	177.7	1.00	11	1	0.9	--	2374	179	178.6	1.00
GEN TECHNICAL	1575	108	102.3	1.06	6	1	0.4	--	1581	109	102.7	1.07
COKE PLANT	1180	88	89.4	0.98	664	30	35.7	0.75	1844	118	125.0	0.93
BLAST FURNACE	1730	133	152.5	0.85	591	30	30.5	0.98	2321	163	183.0	0.87
OPEN HEARTH	4075	321	332.3	0.96	1347	74	69.6	1.11	5422	395	401.9	0.98
BESSEMER CONVERTER	118	12	14.6	0.81	35	5	3.2	1.65	153	17	17.8	0.95
ELECTRIC FURNACE	509	23	29.4	0.76	4	0	0.3	--	513	23	29.7	0.75
FOUNDRY	764	61	76.0	0.78	169	13	10.0	1.44	933	74	86.0	0.84
HEAT TREAT AND FORGING	708	65	64.3	1.01	20	0	1.2	--	728	65	65.5	0.99
BILLET BLOOM AND SLAB MILLS	2614	237	225.6	1.07	201	12	15.5	0.68	2815	249	241.1	1.04
SOAKING PITS	19	2	1.9	--	0	0	0.0	--	19	2	1.9	--
MERCHANT MILLS	1986	176	186.1	0.93	301	23	20.5	1.15	2287	199	206.6	0.95
PLATE MILL	1442	130	126.0	1.04	246	18	16.3	1.15	1688	148	142.3	1.05
AXLE MILLS	45	5	6.4	0.77	0	0	0.0	--	45	5	6.4	0.77
GENERAL FINISHING AND SHIPPING	511	54	46.2	1.19	113	9	7.6	1.23	624	63	53.8	1.20
HOT STRIP MILL	174	17	14.0	1.24	0	0	0.0	--	174	17	14.0	1.24
RAIL MILL ROLLING	288	25	27.1	0.91	32	1	3.0	--	320	26	30.2	0.84
RAIL MILL FINISHING	245	23	21.8	1.06	82	5	4.8	1.04	327	28	26.7	1.06
STEEL YARDS	68	6	8.0	0.74	11	0	0.3	--	79	6	8.3	0.71
STRUCTURAL MILL	980	79	67.7	1.21	128	3	5.0	0.57	1108	82	72.7	1.16
ANNEALING NORMALIZING	1214	83	99.2	0.81	25	5	2.3	3.17	1239	88	101.5	0.84
BATCH PICKLING AND SHEET DRYERS	45	12	5.4	2.55 **	19	2	1.6	--	64	14	7.0	2.27 **
COATING	269	12	17.5	0.66	0	0	0.0	--	269	12	17.5	0.66
COLD REDUCING MILLS	848	46	50.9	0.89	65	3	3.4	--	913	49	54.4	0.59
CONTINUOUS PICKLING AND ELEC CLEANING	147	8	6.9	1.17	0	0	0.0	--	147	8	6.9	1.17
FLYING SHEARS AND SLITTERS	5	0	0.3	--	0	0	0.0	--	5	0	0.3	--
HOT PACK MILLS	737	77	91.0	0.79	5	1	0.7	--	742	78	91.7	0.80
HOT STRIP ROLLING	864	60	57.7	1.05	1	0	0.0	--	865	60	57.7	1.04
SHEET FINISHING AND SHIPPING	1335	98	92.8	1.07	48	6	5.0	1.37	1383	104	97.6	1.08
STAINLESS ANNEAL PICKLG AND PROCESSING	148	16	14.0	1.16	0	0	0.0	--	148	16	14.0	1.16
TEMPER PASSING AND COLD ROLLING	335	19	17.1	1.12	0	0	0.0	--	335	19	17.1	1.12
TIN FINISHING AND SHIPPING	348	26	24.5	1.08	0	0	0.0	--	348	26	24.5	1.08
GENERAL LABOR	565	68	56.1	1.24	375	19	20.9	0.89	940	87	77.0	1.15
JANITORS	112	26	19.4	1.41	190	7	14.4	0.46	302	33	33.8	0.97
MASON DEPARTMENT	758	50	49.1	1.02	242	12	11.4	1.06	1000	62	60.6	1.03
BLACKSMITH SHOP	231	27	23.9	1.14	5	1	0.4	--	236	28	24.3	1.16
CARPENTER SHOP	277	23	30.2	0.75	0	0	0.0	--	277	23	30.2	0.75
ELECTRIC MAINTENANCE ASSIGNED	1581	150	145.6	1.03	2	0	0.0	--	1583	150	145.6	1.03
ELECTRIC SHOP	760	87	78.1	1.13	2	0	0.1	--	762	87	78.2	1.13
GARAGE	98	5	7.5	0.64	1	0	0.3	--	99	5	7.8	0.62
LOCOMOTIVE AND CAR REPAIR	104	8	10.0	0.79	7	0	0.4	--	111	8	10.4	0.75
MACHINE SHOP	1270	110	106.9	1.03	2	0	0.3	--	1272	110	107.1	1.03
MAINTENANCE NOS	246	16	22.7	0.67	0	0	0.0	--	246	16	22.7	0.67
MECHNICAL MAINTENANCE ASSIGNED	2290	252	215.1	1.21 **	73	8	6.2	1.32	2363	260	221.4	1.21 **
PAINT SHOP	197	16	16.7	0.96	2	0	0.1	--	199	16	16.8	0.95
PATTERN SHOP	64	6	5.4	1.11	0	0	0.0	--	64	6	5.4	1.11
PIPE SHOP	657	52	54.4	0.95	6	1	0.6	--	663	53	54.9	0.96
RIGGERS AND STRUCTURAL	1034	79	96.6	0.80	6	0	0.5	--	1040	79	97.1	0.80
ROLL SHOP	314	28	25.2	1.12	0	0	0.0	--	314	28	25.2	1.12
WELD SHOP	460	33	27.5	1.21	2	0	0.1	--	462	33	27.6	1.21
ALL OTHER	302	41	39.5	1.04	9	0	0.7	--	311	41	40.2	1.02
GENERAL RECEIVING AND STORES	168	14	17.4	0.79	2	0	0.5	--	170	14	17.9	0.76
PLANT PROTECTION	469	62	48.0	1.32 *	1	0	0.1	--	470	62	48.1	1.32 *
POWER AND FUEL	976	93	92.9	1.00	89	10	7.6	1.37	1065	103	100.5	1.03
TRANSPORTATION AND YARD	871	89	82.1	1.09	194	11	10.1	1.10	1065	100	92.2	1.10
TUBE MILLS INCLUDES TUBE FINISHING	281	26	22.8	1.16	2	0	0.1	--	283	26	22.9	1.16
RIVER OR MARINE WAYS	177	19	15.3	1.28	1	1	0.0	--	178	20	15.3	1.35
TOTAL	36364	2727	2727.0	1.00	4913	266	266.0	1.00	41277	2993	2993.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00127

MULTIPLE CAUSE OF DEATH STUDY 28-MAY-74

C.O.D. (PREVALENCE) = 420-422
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	202	203.3	0.99	11	1	1.0	--	2374	203	204.3	0.99
GEN TECHNICAL	1575	121	116.5	1.04	6	1	0.4	--	1581	122	116.9	1.05
COKE PLANT	1180	96	100.2	0.95	664	41	43.9	0.89	1844	137	144.1	0.93
BLAST FURNACE	1730	154	175.6	0.86	591	34	36.4	0.92	2321	188	212.0	0.87
OPEN HEARTH	4075	376	382.3	0.98	1347	83	84.8	0.97	5422	459	467.1	0.98
BESSEMER CONVERTER	118	14	17.1	0.80	35	5	3.7	1.38	153	19	20.9	0.90
ELECTRIC FURNACE	509	26	32.7	0.77	4	0	0.4	--	513	26	33.1	0.76
FOUNDRY	764	72	87.9	0.80	169	18	12.2	1.74	933	90	100.1	0.88
HEAT TREAT AND FORGING	708	71	75.0	0.94	20	2	1.7	--	728	73	76.6	0.94
BILLET BLOOM AND SLAB MILLS	2614	265	257.0	1.04	201	17	18.6	0.87	2815	282	275.6	1.03
SOAKING PITS	19	2	2.2	--	0	0	0.0	--	19	2	2.2	--
MERCHANT MILLS	1986	201	213.0	0.93	301	27	25.1	1.10	2287	228	238.1	0.95
PLATE MILL	1442	147	146.1	1.01	246	26	20.9	1.37	1688	173	166.9	1.05
AXLE MILLS	45	5	7.5	0.64	0	0	0.0	--	45	5	7.5	0.64
GENERAL FINISHING AND SHIPPING	511	58	52.2	1.13	113	10	9.6	1.06	624	68	61.8	1.12
HOT STRIP MILL	174	19	16.0	1.21	0	0	0.0	--	174	19	16.0	1.21
RAIL MILL ROLLING	288	30	31.9	0.93	32	2	3.6	--	320	32	35.5	0.88
RAIL MILL FINISHING	245	27	25.6	1.06	82	5	5.8	0.83	327	32	31.4	1.02
STEEL YARDS	68	8	9.4	0.84	11	0	0.5	--	79	8	9.9	0.79
STRUCTURAL MILL	980	87	78.0	1.14	128	4	6.9	0.54	1108	91	84.9	1.09
ANNEALING NORMALIZING	1214	100	112.4	0.87	25	5	2.8	2.30	1239	105	115.2	0.89
BATCH PICKLING AND SHEET DRYERS	45	12	6.1	2.22 *	19	2	1.9	--	64	14	8.0	1.93 *
COATING	269	14	19.2	0.70	0	0	0.0	--	269	14	19.2	0.70
COLD REDUCING MILLS	848	53	57.9	0.94	65	3	4.1	--	913	58	62.0	0.93
CONTINUOUS PICKLING AND ELEC CLEANING	147	10	7.6	1.36	0	0	0.0	--	147	10	7.6	1.36
FLYING SHEARS AND SLITTERS	5	0	0.4	--	0	0	0.0	--	5	0	0.4	--
HOT PACK MILLS	737	90	102.6	0.83	5	1	0.9	--	742	91	103.5	0.83
HOT STRIP ROLLING	864	65	65.7	0.99	1	0	0.0	--	865	65	65.7	0.99
SHEET FINISHING AND SHIPPING	1335	110	103.1	1.09	48	6	5.8	1.04	1383	116	109.0	1.08
STAINLESS ANNEAL PICKLG AND PROCESSING	148	20	15.7	1.33	0	0	0.0	--	148	20	15.7	1.33
TEMPER PASSING AND COLD ROLLING	335	20	18.6	1.08	0	0	0.0	--	335	20	18.6	1.08
TIN FINISHING AND SHIPPING	348	28	26.9	1.05	0	0	0.0	--	348	28	26.9	1.05
GENERAL LABOR	565	78	64.2	1.24	375	23	25.9	0.87	940	101	90.1	1.14
JANITORS	112	29	22.1	1.38	190	9	17.8	0.47 *	302	38	39.9	0.95
MASON DEPARTMENT	758	59	55.9	1.06	242	14	13.6	1.03	1000	73	69.5	1.06
BLACKSMITH SHOP	231	29	27.7	1.05	5	1	0.5	--	236	30	28.2	1.07
CARPENTER SHOP	277	28	34.7	0.79	0	0	0.0	--	277	28	34.7	0.79
ELECTRIC MAINTENANCE ASSIGNED	1581	165	167.3	0.98	2	0	0.1	--	1583	165	167.4	0.98
ELECTRIC SHOP	760	98	90.5	1.10	2	0	0.1	--	762	98	90.7	1.09
GARAGE	98	5	8.6	0.55	1	0	0.4	--	99	5	9.0	0.53
LOCOMOTIVE AND CAR REPAIR	104	8	11.5	0.68	7	0	0.5	--	111	8	12.1	0.64
MACHINE SHOP	1270	129	122.8	1.06	2	0	0.3	--	1272	129	123.1	1.05
MAINTENANCE NOS	246	17	25.0	0.65	0	0	0.0	--	246	17	25.0	0.65
MECHNICAL MAINTENANCE ASSIGNED	2290	290	245.9	1.23 **	73	8	7.7	1.05	2363	298	253.6	1.22 **
PAINT SHOP	197	17	19.0	0.89	2	0	0.1	--	199	17	19.0	0.89
PATTERN SHOP	64	8	6.4	1.28	0	0	0.0	--	64	8	6.4	1.28
PIPE SHOP	657	55	61.8	0.88	6	1	0.7	--	663	56	62.5	0.89
RIGGERS AND STRUCTURAL	1034	91	110.8	0.80	6	0	0.6	--	1040	91	111.4	0.80 *
ROLL SHOP	314	34	28.8	1.20	0	0	0.0	--	314	34	28.8	1.20
WELD SHOP	460	36	31.1	1.17	2	0	0.1	--	462	36	31.2	1.17
ALL OTHER	302	45	46.0	0.98	9	0	0.9	--	311	45	46.9	0.95
GENERAL RECEIVING AND STORES	168	17	19.9	0.84	2	0	0.6	--	170	17	20.4	0.81
PLANT PROTECTION	469	73	55.2	1.36 *	1	0	0.1	--	470	73	55.3	1.36 *
POWER AND FUEL	976	104	107.4	0.96	89	12	9.4	1.32	1065	116	116.9	0.99
TRANSPORTATION AND YARD	871	100	94.6	1.07	194	15	12.6	1.22	1065	115	107.2	1.08
TUBE MILLS INCLUDES TUBE FINISHING	281	26	25.2	1.03	2	0	0.1	--	283	26	25.4	1.03
RIVER OR MARINE WAYS	177	21	17.0	1.27	1	1	0.0	--	178	22	17.0	1.34
TOTAL	36364	3108	3108.0	1.00	4913	325	325.0	1.00	41277	3433	3433.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00128

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Arteriosclerotic Heart Disease

ICD CODE: 420-422

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Foundry	0.68*	0.73*	0.99	0.99	0.78	0.80
Hot Pack Mills	0.67*	0.72	0.89	0.91	0.79	0.83
Mechanical Maintenance Assigned	1.25**	1.22**	1.15*	1.15**	1.21**	1.23**
Plant Protection	1.51**	1.55**	1.34**	1.41**	1.32*	1.36*
Janitors	1.37	1.45*	1.26	1.29	1.41	1.38
General Finishing and Shipping	1.33	1.38	1.24*	1.24*	1.19	1.13
Batch Pickling and Sheet Dryers	2.63	2.37	1.82*	1.58	2.55**	2.22*
Coating	0.65	0.70	0.57*	0.62*	0.66	0.70
Stainless Anneal.Picklg. & Processing	--	1.02	1.45*	1.46*	1.16	1.33
General Labor	0.79	0.87	1.23**	1.17*	1.24	1.24
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Janitors	0.88	0.94	0.81	0.86	0.46	0.47*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

C.O.D. (UNDERLYING) = 400-419,423-443
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	25	20.2	1.26	18	0	0.2	--	3291	25	20.4	1.25
GEN TECHNICAL	2368	11	10.5	1.05	14	0	0.1	--	2382	11	10.6	1.04
COKE PLANT	1635	11	9.7	1.15	908	10	11.3	0.83	2543	21	21.0	1.00
BLAST FURNACE	2355	20	16.0	1.28	1101	11	10.4	1.08	3456	31	26.3	1.20
OPEN HEARTH	5797	31	38.1	0.79	1836	10	20.8	0.37 **	7633	41	58.9	0.65 *
BESSEMER CONVERTER	24	0	0.3	--	0	0	0.0	--	24	0	0.3	--
ELECTRIC FURNACE	734	6	3.2	2.03	7	0	0.1	--	741	6	3.2	1.99
FOUNDRY	890	8	7.2	1.12	253	2	2.3	--	1143	10	9.5	1.06
HEAT TREAT AND FORGING	1003	8	7.7	1.05	16	0	0.3	--	1019	8	7.9	1.01
BILLET BLOOM AND SLAB MILLS	2912	26	18.8	1.46	223	4	2.9	--	3135	30	21.6	1.46
SOAKING PITS	94	0	0.5	--	14	0	0.1	--	108	0	0.6	--
MERCHANT MILLS	2130	12	14.4	0.82	395	4	5.3	0.73	2525	16	19.7	0.79
PLATE MILL	1547	15	12.2	1.28	239	9	3.8	3.43 **	1786	24	16.0	1.66 *
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	3	2.5	--	82	1	1.5	--	481	4	3.9	--
HOT STRIP MILL	164	2	1.4	--	1	0	0.0	--	165	2	1.4	--
RAIL MILL ROLLING	339	3	3.0	--	46	0	0.4	--	385	3	3.4	--
RAIL MILL FINISHING	347	2	2.4	--	98	2	0.9	--	445	4	3.3	--
STEEL YARDS	88	1	0.5	--	32	0	0.2	--	120	1	0.7	--
STRUCTURAL MILL	1196	5	8.7	0.54	164	2	1.9	--	1360	7	10.6	0.63
ANNEALING NORMALIZING	1353	7	7.9	0.88	17	1	0.2	--	1370	8	8.1	0.99
BATCH PICKLING AND SHEET DRYERS	55	0	0.2	--	21	0	0.1	--	76	0	0.3	--
COATING	328	4	1.8	--	0	0	0.0	--	328	4	1.8	--
COLD REDUCING MILLS	1395	9	6.4	1.44	97	3	1.2	--	1492	12	7.6	1.62
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.7	--	0	0	0.0	--	205	0	0.7	--
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	2	3.1	--	5	0	0.1	--	571	2	3.1	--
HOT STRIP ROLLING	1008	7	6.1	1.17	0	0	0.0	--	1008	7	6.1	1.17
SHEET FINISHING AND SHIPPING	1733	4	7.9	0.46	36	0	0.4	--	1769	4	8.3	0.44
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.3	--	1	0	0.0	--	47	0	0.3	--
TEMPER PASSING AND COLD ROLLING	369	0	1.6	--	0	0	0.0	--	369	0	1.6	--
TIN FINISHING AND SHIPPING	396	2	2.4	--	1	0	0.0	--	397	2	2.4	--
GENERAL LABOR	546	4	3.6	--	449	6	4.9	1.26	995	10	8.4	1.20
JANITORS	205	4	2.8	--	321	8	4.3	1.98	526	12	7.1	1.75
MASON DEPARTMENT	1305	5	5.3	0.93	438	5	3.8	1.33	1743	10	9.2	1.09
BLACKSMITH SHOP	266	1	2.4	--	4	0	0.1	--	270	1	2.5	--
CARPENTER SHOP	406	1	3.5	--	0	0	0.0	--	406	1	3.5	--
ELECTRIC MAINTENANCE ASSIGNED	1605	7	10.1	0.69	5	0	0.0	--	1610	7	10.1	0.68
ELECTRIC SHOP	551	2	4.6	--	1	0	0.0	--	552	2	4.6	--
GARAGE	147	0	0.9	--	0	0	0.0	--	147	0	0.9	--
LOCOMOTIVE AND CAR REPAIR	121	1	1.0	--	9	0	0.1	--	130	1	1.1	--
MACHINE SHOP	1442	9	10.3	0.87	3	0	0.0	--	1445	9	10.3	0.87
MAINTENANCE NOS	70	1	0.7	--	2	0	0.0	--	72	1	0.7	--
MECHNICAL MAINTENANCE ASSIGNED	2689	13	17.5	0.73	60	1	0.7	--	2749	14	18.2	0.76
PAINT SHOP	263	0	1.5	--	2	0	0.0	--	265	0	1.5	--
PATTERN SHOP	68	1	0.5	--	0	0	0.0	--	68	1	0.5	--
PIPE SHOP	738	7	4.9	1.44	5	0	0.0	--	743	7	5.0	1.44
RIGGERS AND STRUCTURAL	1189	13	9.0	1.48	8	0	0.1	--	1197	13	9.0	1.47
ROLL SHOP	374	1	2.8	--	0	0	0.0	--	374	1	2.8	--
WELD SHOP	644	2	3.4	--	2	0	0.0	--	646	2	3.4	--
ALL OTHER	138	1	0.8	--	5	0	0.1	--	143	1	0.9	--
GENERAL RECEIVING AND STORES	192	2	1.6	--	4	0	0.3	--	196	2	1.8	--
PLANT PROTECTION	674	10	5.8	1.76	1	0	0.0	--	675	10	5.8	1.76
POWER AND FUEL	1343	10	9.4	1.06	62	2	1.1	--	1405	12	10.5	1.15
TRANSPORTATION AND YARD	1293	7	8.1	0.86	341	2	3.2	--	1634	9	11.3	0.79
TUBE MILLS INCLUDES TUBE FINISHING	229	1	1.3	--	1	0	0.0	--	230	1	1.3	--
RIVER OR MARINE WAYS	218	2	1.7	--	1	0	0.0	--	219	2	1.7	--
TOTAL	51479	329	329.0	1.00	7349	83	83.0	1.00	58828	412	412.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

C.O.D. (PREVALENCE) = 400-419,423-443
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	69	61.2	1.14	16	0	0.5	--	3291	69	61.7	1.13
GEN TECHNICAL	2368	39	30.3	1.31	14	0	0.3	--	2382	39	30.6	1.30
COKE PLANT	1635	28	29.8	0.93	908	23	23.9	0.94	2543	51	53.7	0.93
BLAST FURNACE	2355	56	49.0	1.16	1101	25	23.7	1.07	3456	81	72.6	1.13
OPEN HEARTH	5797	105	112.5	0.92	1836	37	48.4	0.68	7633	142	161.0	0.88
BESSEMER CONVERTER	24	1	0.9	--	0	0	0.0	--	24	1	0.9	--
ELECTRIC FURNACE	734	14	9.7	1.50	7	0	0.2	--	741	14	9.9	1.46
FOUNDRY	890	21	21.8	0.96	253	7	6.3	1.14	1143	28	28.1	1.00
HEAT TREAT AND FORGING	1003	22	20.3	1.09	16	1	0.6	--	1019	23	20.9	1.12
BILLET BLOOM AND SLAB MILLS	2912	70	63.5	1.12	223	7	6.1	0.85	3135	77	71.6	1.09
SOAKING PITS	94	2	1.7	--	14	0	0.2	--	108	2	1.9	--
MERCHANT MILLS	2130	45	49.7	0.89	395	8	12.2	0.60	2525	53	61.9	0.84
PLATE MILL	1547	40	33.1	1.25	239	15	9.0	2.01 *	1786	55	42.1	1.38 *
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	7	7.5	0.93	82	2	3.1	--	481	9	10.7	0.84
HOT STRIP MILL	164	4	4.3	--	1	0	0.0	--	165	4	4.4	--
RAIL MILL ROLLING	339	12	9.1	1.37	46	0	1.3	--	385	12	10.4	1.16
RAIL MILL FINISHING	347	4	6.7	0.57	98	5	2.9	1.97	445	9	9.6	0.93
STEEL YARDS	88	2	1.3	--	32	0	0.5	--	120	2	1.8	--
STRUCTURAL MILL	1196	20	23.2	0.85	164	6	4.1	1.59	1360	26	27.2	0.95
ANNEALING NORMALIZING	1353	18	26.6	0.66	17	1	0.6	--	1370	19	27.2	0.68
BATCH PICKLING AND SHEET DRYERS	55	1	0.6	--	21	0	0.5	--	76	1	1.1	--
COATING	328	4	5.2	0.75	0	0	0.0	--	328	4	5.2	0.75
COLD REDUCING MILLS	1395	19	18.8	1.01	97	4	2.4	--	1492	23	21.2	1.09
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	2.0	--	0	0	0.0	--	205	1	2.0	--
FLYING SHEARS AND SLITTERS	8	0	0.2	--	0	0	0.0	--	8	0	0.2	--
HOT PACK MILLS	566	11	15.1	0.69	5	0	0.3	--	571	11	15.4	0.67
HOT STRIP ROLLING	1008	12	18.1	0.64	0	0	0.0	--	1008	12	18.1	0.64
SHEET FINISHING AND SHIPPING	1733	29	27.2	1.08	36	5	1.6	6.42 **	1769	34	28.7	1.23
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	1.2	--	1	0	0.0	--	47	0	1.2	--
TEMPER PASSING AND COLD ROLLING	369	3	4.3	--	0	0	0.0	--	369	3	4.3	--
TIN FINISHING AND SHIPPING	396	7	6.9	1.02	1	0	0.0	--	397	7	6.9	1.02
GENERAL LABOR	546	10	10.6	0.94	449	11	10.2	1.09	995	21	20.8	1.01
JANITORS	205	14	10.8	1.32	321	15	11.5	1.35	526	29	22.4	1.33
MASON DEPARTMENT	1305	18	16.6	1.09	438	10	8.9	1.13	1743	28	25.5	1.10
BLACKSMITH SHOP	266	3	7.6	0.38	4	0	0.2	--	270	3	7.8	0.37
CARPENTER SHOP	406	5	11.1	0.44	0	0	0.0	--	406	5	11.1	0.44
ELECTRIC MAINTENANCE ASSIGNED	1605	24	32.1	0.74	5	0	0.0	--	1610	24	32.1	0.74
ELECTRIC SHOP	551	11	13.3	0.82	1	0	0.0	--	552	11	13.4	0.81
GARAGE	147	1	2.4	--	0	0	0.0	--	147	1	2.4	--
LOCOMOTIVE AND CAR REPAIR	121	3	2.9	--	9	1	0.2	--	130	4	3.0	--
MACHINE SHOP	1442	30	32.2	0.93	3	0	0.2	--	1445	30	32.4	0.92
MAINTENANCE NOS	70	3	2.3	--	2	0	0.0	--	72	3	2.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	59	56.1	1.06	60	2	1.6	--	2749	61	57.7	1.06
PAINT SHOP	263	2	4.6	--	2	0	0.1	--	265	2	4.6	--
PATTERN SHOP	68	1	1.6	--	0	0	0.0	--	68	1	1.6	--
PIPE SHOP	738	20	15.5	1.31	5	0	0.1	--	743	20	15.6	1.30
RIGGERS AND STRUCTURAL	1189	34	27.9	1.23	8	0	0.1	--	1197	34	28.0	1.23
ROLL SHOP	374	9	9.0	1.00	0	0	0.0	--	374	9	9.0	1.00
WELD SHOP	644	13	10.1	1.31	2	0	0.1	--	646	13	10.1	1.32
ALL OTHER	138	2	2.6	--	5	0	0.1	--	143	2	2.7	--
GENERAL RECEIVING AND STORES	192	4	4.6	--	4	0	0.3	--	196	4	4.9	--
PLANT PROTECTION	674	28	18.6	1.54 *	1	0	0.0	--	675	28	18.7	1.54 *
POWER AND FUEL	1343	28	28.3	0.99	62	3	2.6	--	1405	31	30.9	1.00
TRANSPORTATION AND YARD	1293	24	25.5	0.94	341	7	6.1	0.85	1634	31	33.7	0.91
TUBE MILLS INCLUDES TUBE FINISHING	229	1	4.3	--	1	0	0.0	--	230	1	4.3	--
RIVER OR MARINE WAYS	218	5	5.5	0.91	1	0	0.0	--	219	5	5.5	0.91
TOTAL	51479	1018	1018.0	1.00	7349	195	195.0	1.00	58828	1213	1213.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00131

MULTIPLE CAUSE OF DEATH STUDY 23-MAY-74

C.O.D. (UNDERLYING) = 400-419,423-443
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	34	33.0	1.03	34	0	0.6	--	5146	34	33.7	1.01
GEN TECHNICAL	3684	20	20.0	1.00	16	0	0.1	--	3700	20	20.2	0.99
COKE PLANT	2381	20	15.1	1.41	1176	15	15.7	0.90	3557	35	30.8	1.22
BLAST FURNACE	4218	30	31.8	0.93	1415	14	14.2	0.98	5633	44	46.0	0.95
OPEN HEARTH	9655	60	68.0	0.85	2335	19	27.9	0.54 *	11990	79	95.9	0.77 *
BESSEMER CONVERTER	240	2	3.3	--	88	1	1.2	--	328	3	4.6	--
ELECTRIC FURNACE	1250	8	5.7	1.53	11	0	0.1	--	1261	8	5.8	1.49
FOUNDRY	1781	16	14.3	1.14	345	3	3.3	--	2126	19	17.6	1.09
HEAT TREAT AND FORGING	1683	18	14.9	1.27	46	0	0.8	--	1729	18	15.7	1.18
BILLET BLOOM AND SLAB MILLS	5783	45	38.4	1.24	419	9	5.7	1.89	6202	54	44.1	1.31
SOAKING PITS	148	1	0.7	--	28	0	0.2	--	176	1	0.9	--
MERCHANT MILLS	3885	25	29.8	0.80	630	9	10.2	0.85	4565	34	39.9	0.81
PLATE MILL	3005	36	29.3	1.39	436	14	7.3	3.33 **	3441	50	36.7	1.67 **
AXLE MILLS	293	7	4.9	1.47	6	0	0.1	--	299	7	5.0	1.44
GENERAL FINISHING AND SHIPPING	1309	20	11.2	1.92 **	213	4	4.3	--	1522	24	15.5	1.63 *
HOT STRIP MILL	567	3	4.5	--	1	0	0.0	--	568	3	4.5	--
RAIL MILL ROLLING	852	9	7.4	1.27	97	0	1.0	--	949	9	8.4	1.08
RAIL MILL FINISHING	726	8	6.5	1.29	145	2	1.4	--	871	10	7.9	1.35
STEEL YARDS	299	2	3.6	--	77	0	1.0	--	376	2	4.6	--
STRUCTURAL MILL	1972	12	15.4	0.74	252	2	2.9	--	2224	14	18.2	0.73
ANNEALING NORMALIZING	2605	11	15.4	0.68	54	1	0.6	--	2659	12	16.1	0.71
BATCH PICKLING AND SHEET DRYERS	137	1	0.6	--	50	0	0.4	--	187	1	1.0	--
COATING	545	6	3.0	2.27	0	0	0.0	--	545	6	3.0	2.27
COLD REDUCING MILLS	1933	11	9.4	1.19	113	5	1.5	4.09 *	2046	16	10.9	1.53
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	0.9	--	0	0	0.0	--	254	1	0.9	--
FLYING SHEARS AND SLITTERS	28	0	0.2	--	0	0	0.0	--	28	0	0.2	--
HOT PACK MILLS	1229	9	7.0	1.51	19	0	0.2	--	1248	9	7.2	1.42
HOT STRIP ROLLING	1623	12	10.2	1.19	2	0	0.0	--	1625	12	10.3	1.19
SHEET FINISHING AND SHIPPING	3306	11	15.6	0.61	108	2	1.1	--	3414	13	16.7	0.68
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	2.2	--	2	0	0.0	--	386	3	2.2	--
TEMPER PASSING AND COLD ROLLING	783	2	3.6	--	0	0	0.0	--	783	2	3.6	--
TIN FINISHING AND SHIPPING	668	3	3.7	--	1	0	0.0	--	669	3	3.7	--
GENERAL LABOR	3153	41	27.9	1.56 *	1215	15	17.5	0.80	4368	56	45.3	1.29
JANITORS	311	6	4.2	1.46	422	9	5.5	1.73	733	15	9.7	1.61
MASON DEPARTMENT	2511	6	13.0	0.45	696	12	6.5	2.12 *	3207	18	19.5	0.91
BLACKSMITH SHOP	555	4	5.7	0.69	6	1	0.1	--	561	5	5.8	0.86
CARPENTER SHOP	665	3	7.0	0.41	1	0	0.0	--	666	3	7.0	0.41
ELECTRIC MAINTENANCE ASSIGNED	3200	24	26.6	0.89	8	0	0.1	--	3208	24	26.7	0.89
ELECTRIC SHOP	1620	13	17.7	0.71	2	0	0.1	--	1622	13	17.7	0.71
GARAGE	242	1	1.6	--	2	0	0.1	--	244	1	1.7	--
LOCOMOTIVE AND CAR REPAIR	261	3	2.3	--	22	0	0.2	--	283	3	2.5	--
MACHINE SHOP	2405	19	20.2	0.93	12	0	0.2	--	2417	19	20.4	0.93
MAINTENANCE NOS	558	4	4.5	--	5	0	0.0	--	563	4	4.6	--
MECHNICAL MAINTENANCE ASSIGNED	6136	50	47.8	1.06	201	3	2.9	--	6337	53	50.6	1.06
PAINT SHOP	777	4	5.3	0.75	9	0	0.1	--	786	4	5.4	0.74
PATTERN SHOP	95	1	0.8	--	0	0	0.0	--	95	1	0.8	--
PIPE SHOP	1412	12	11.7	1.03	14	0	0.2	--	1426	12	11.9	1.01
RIGGERS AND STRUCTURAL	2525	34	25.4	1.40	21	0	0.3	--	2546	34	25.7	1.38
ROLL SHOP	502	4	3.9	--	3	0	0.1	--	505	4	4.0	--
WELD SHOP	758	3	4.0	--	2	0	0.0	--	760	3	4.0	--
ALL OTHER	1098	12	11.5	1.05	75	3	1.4	--	1173	15	12.8	1.18
GENERAL RECEIVING AND STORES	382	3	3.4	--	9	0	0.4	--	391	3	3.8	--
PLANT PROTECTION	856	12	8.0	1.53	4	0	0.0	--	860	12	8.0	1.53
POWER AND FUEL	2336	22	19.9	1.11	213	4	3.6	--	2549	26	23.5	1.12
TRANSPORTATION AND YARD	2842	23	22.2	1.04	633	3	7.5	0.38	3475	26	29.7	0.86
TUBE MILLS INCLUDES TUBE FINISHING	635	1	3.6	--	10	0	0.1	--	645	1	3.7	--
RIVER OR MARINE WAYS	293	4	2.4	--	1	0	0.0	--	294	4	2.4	--
TOTAL	51479	329	329.0	1.00	7349	83	83.0	1.00	58828	412	412.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00132

C.O.D. (PREVALENCE) = 400-419,423-443
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	108	98.4	1.11	34	0	1.2	--	5146	108	99.6	1.10
GEN TECHNICAL	3684	68	58.8	1.17	16	0	0.3	--	3700	68	59.1	1.17
COKE PLANT	2381	54	47.2	1.19	1176	30	33.2	0.79	3557	84	80.4	1.07
BLAST FURNACE	4218	99	102.4	0.96	1415	31	33.3	0.91	5633	130	135.6	0.95
OPEN HEARTH	9655	190	205.6	0.90	2335	57	66.6	0.76	11990	247	272.2	0.87
BESSEMER CONVERTER	240	11	10.7	1.03	88	5	3.8	1.35	328	16	14.5	1.11
ELECTRIC FURNACE	1250	25	19.4	1.36	11	0	0.3	--	1261	25	19.7	1.33
FOUNDRY	1781	46	44.4	1.04	345	9	9.0	0.99	2126	55	53.4	1.03
HEAT TREAT AND FORGING	1683	45	39.5	1.18	46	2	2.2	--	1729	47	41.7	1.16
BILLET BLOOM AND SLAB MILLS	5783	137	131.4	1.06	419	17	15.7	1.11	6202	154	147.1	1.06
SOAKING PITS	148	3	2.3	--	28	0	0.4	--	176	3	2.7	--
MERCHANT MILLS	3885	93	103.6	0.87	680	21	24.0	0.83	4565	114	127.7	0.86
PLATE MILL	3005	93	79.4	1.28	436	27	17.2	2.21 **	3441	120	96.5	1.41 **
AXLE MILLS	293	12	13.1	0.91	6	0	0.2	--	299	12	13.3	0.90
GENERAL FINISHING AND SHIPPING	1309	48	36.7	1.35	213	6	9.6	0.58	1522	54	46.2	1.19
HOT STRIP MILL	567	10	13.9	0.70	1	0	0.0	--	568	10	13.9	0.70
RAIL MILL ROLLING	852	24	21.5	1.15	97	0	3.5	--	949	24	25.0	0.95
RAIL MILL FINISHING	726	18	18.7	0.95	145	5	4.8	1.05	871	23	23.6	0.97
STEEL YARDS	299	8	9.5	0.83	77	2	2.3	--	376	10	11.7	0.84
STRUCTURAL MILL	1972	39	40.9	0.94	252	8	6.2	1.37	2224	47	47.1	1.00
ANNEALING NORMALIZING	2605	48	54.5	0.85	54	5	2.2	5.21	2659	53	56.8	0.92
BATCH PICKLING AND SHEET DRYERS	137	7	2.9	2.60 *	50	3	1.6	--	187	10	4.4	2.55 *
COATING	545	8	8.4	0.95	0	0	0.0	--	545	8	8.4	0.95
COLD REDUCING MILLS	1933	27	27.7	0.97	113	7	2.9	2.73 *	2046	34	30.6	1.12
CONTINUOUS PICKLING AND ELEC CLEANING	254	2	2.5	--	0	0	0.0	--	254	2	2.5	--
FLYING SHEARS AND SLITTERS	28	0	0.4	--	0	0	0.0	--	28	0	0.4	--
HOT PACK MILLS	1229	38	33.5	1.22	19	0	0.9	--	1248	38	34.5	1.17
HOT STRIP ROLLING	1623	24	30.5	0.77	2	0	0.0	--	1625	24	30.5	0.77
SHEET FINISHING AND SHIPPING	3306	49	52.6	0.90	108	8	4.9	25.78	3414	57	57.5	0.99
STAINLESS ANNEAL PICKLG AND PROCESSING	384	9	8.6	1.05	2	0	0.0	--	386	9	8.7	1.04
TEMPER PASSING AND COLD ROLLING	783	8	9.9	0.78	0	0	0.0	--	783	8	9.9	0.78
TIN FINISHING AND SHIPPING	668	11	10.6	1.04	1	0	0.0	--	669	11	10.6	1.04
GENERAL LABOR	3153	108	83.4	1.34 **	1215	44	39.7	1.16	4368	152	123.2	1.30 **
JANITORS	311	21	16.0	1.35	422	17	15.0	1.16	733	38	30.9	1.26
MASON DEPARTMENT	2511	37	40.9	0.90	696	24	17.8	1.45	3207	61	58.7	1.04
BLACKSMITH SHOP	555	14	18.1	0.76	6	1	0.3	--	561	15	18.4	0.81
CARPENTER SHOP	665	12	22.2	0.53 *	1	0	0.0	--	666	12	22.2	0.53 *
ELECTRIC MAINTENANCE ASSIGNED	3200	85	84.1	1.01	8	0	0.2	--	3208	85	84.3	1.01
ELECTRIC SHOP	1620	51	53.4	0.95	2	0	0.1	--	1622	51	53.5	0.95
GARAGE	242	4	4.8	--	2	0	0.2	--	244	4	5.0	0.79
LOCOMOTIVE AND CAR REPAIR	261	9	6.9	1.31	22	2	0.5	--	283	11	7.5	1.49
MACHINE SHOP	2405	68	63.5	1.08	12	0	0.5	--	2417	68	64.0	1.07
MAINTENANCE NOS	558	12	13.4	0.88	5	0	0.1	--	563	12	13.5	0.87
MECHNICAL MAINTENANCE ASSIGNED	6136	160	148.7	1.10	201	8	7.4	1.09	6337	168	156.1	1.10
PAINT SHOP	777	10	16.7	0.59	9	0	0.3	--	786	10	17.1	0.58
PATTERN SHOP	95	1	2.5	--	0	0	0.0	--	95	1	2.5	--
PIPE SHOP	1412	46	37.5	1.25	14	0	0.5	--	1426	46	38.0	1.23
RIGGERS AND STRUCTURAL	2525	84	80.4	1.05	21	0	0.7	--	2546	84	81.1	1.04
ROLL SHOP	502	14	12.1	1.16	3	0	0.2	--	505	14	12.3	1.14
WELD SHOP	758	14	12.0	1.17	2	0	0.1	--	760	14	12.1	1.17
ALL OTHER	1098	35	38.1	0.91	75	5	3.2	1.66	1173	40	41.3	0.97
GENERAL RECEIVING AND STORES	382	8	10.4	0.76	9	0	0.6	--	391	8	11.0	0.71
PLANT PROTECTION	856	34	25.1	1.38	4	0	0.1	--	860	34	25.2	1.38
POWER AND FUEL	2336	60	61.7	0.97	213	7	9.7	0.70	2549	67	71.5	0.93
TRANSPORTATION AND YARD	2842	64	69.5	0.91	633	16	18.3	0.86	3475	80	87.8	0.90
TUBE MILLS INCLUDES TUBE FINISHING	635	8	13.0	0.58	10	0	0.3	--	645	8	13.4	0.56
RIVER OR MARINE WAYS	293	8	7.4	1.08	1	0	0.0	--	294	8	7.4	1.08
TOTAL	51479	1018	1018.0	1.00	7349	195	195.0	1.00	58828	1213	1213.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 21-MAY-74

C.O.D. (UNDERLYING) = 400-419,423-443
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	25	20.8	1.22	11	0	0.2	--	2374	25	21.0	1.21
GEN TECHNICAL	1575	13	12.2	1.07	6	0	0.1	--	1581	13	12.3	1.06
COKE PLANT	1180	11	10.3	1.08	664	11	11.9	0.87	1844	22	22.2	0.99
BLAST FURNACE	1730	17	18.2	0.93	591	8	8.8	0.90	2321	25	27.0	0.92
OPEN HEARTH	4075	34	40.1	0.82	1347	13	20.5	0.52	5422	47	60.6	0.73
BESSEMER CONVERTER	118	1	2.0	--	35	0	0.6	--	153	1	2.6	--
ELECTRIC FURNACE	509	6	2.4	2.83 *	4	0	0.0	--	513	6	2.4	2.78 *
FOUNDRY	764	10	8.6	1.17	169	1	2.2	--	933	11	10.8	1.02
HEAT TREAT AND FORGING	708	8	9.4	0.83	20	0	0.4	--	728	8	9.8	0.79
BILLET BLOOM AND SLAB MILLS	2614	25	21.7	1.18	201	7	3.3	2.93 *	2815	32	25.0	1.35
SOAKING PITS	19	1	0.2	--	0	0	0.0	--	19	1	0.2	--
MERCHANT MILLS	1986	14	19.2	0.69	301	6	6.5	0.90	2287	20	25.8	0.74
PLATE MILL	1442	23	17.6	1.43	246	10	4.7	3.07 *	1688	33	22.2	1.70 *
AXLE MILLS	45	2	1.0	--	0	0	0.0	--	45	2	1.0	--
GENERAL FINISHING AND SHIPPING	511	8	5.1	1.61	113	1	2.5	--	624	9	7.6	1.20
HOT STRIP MILL	174	2	1.5	--	0	0	0.0	--	174	2	1.5	--
RAIL MILL ROLLING	288	3	4.1	--	32	0	0.5	--	320	3	4.5	--
RAIL MILL FINISHING	245	3	3.3	--	82	2	1.0	--	327	5	4.3	1.18
STEEL YARDS	68	1	1.3	--	11	0	0.2	--	79	1	1.4	--
STRUCTURAL MILL	980	8	9.4	0.83	128	2	2.0	--	1108	10	11.4	0.86
ANNEALING NORMALIZING	1214	5	8.2	0.59	25	1	0.4	--	1239	6	8.6	0.68
BATCH PICKLING AND SHEET DRYERS	45	0	0.2	--	19	0	0.2	--	64	0	0.5	--
COATING	269	5	1.9	2.99 *	0	0	0.0	--	269	5	1.9	2.99 *
COLD REDUCING MILLS	848	7	5.6	1.27	65	3	1.1	--	913	10	6.7	1.54
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.6	--	0	0	0.0	--	147	0	0.6	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	6	4.5	1.51	5	0	0.1	--	742	6	4.6	1.45
HOT STRIP ROLLING	864	10	6.4	1.62	1	0	0.0	--	865	10	6.5	1.62
SHEET FINISHING AND SHIPPING	1335	2	7.2	0.25	48	0	0.5	--	1383	2	7.7	0.23 *
STAINLESS ANNEAL PICKLG AND PROCESSING	148	3	0.9	--	0	0	0.0	--	148	3	0.9	--
TEMPER PASSING AND COLD ROLLING	335	0	1.7	--	0	0	0.0	--	335	0	1.7	--
TIN FINISHING AND SHIPPING	348	2	2.6	--	0	0	0.0	--	348	2	2.6	--
GENERAL LABOR	565	12	6.6	1.89	375	7	6.6	1.06	940	19	13.2	1.49
JANITORS	112	1	1.8	--	190	4	3.4	--	302	5	5.2	0.96
MASON DEPARTMENT	758	5	5.4	0.92	242	5	3.3	1.57	1000	10	8.7	1.15
BLACKSMITH SHOP	231	1	2.9	--	5	1	0.1	--	236	2	3.0	--
CARPENTER SHOP	277	1	3.4	--	0	0	0.0	--	277	1	3.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	12	16.2	0.73	2	0	0.0	--	1583	12	16.2	0.73
ELECTRIC SHOP	760	6	10.0	0.58	2	0	0.1	--	762	6	10.1	0.58
GARAGE	98	0	0.9	--	1	0	0.0	--	99	0	0.9	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.2	--	7	0	0.1	--	111	2	1.3	--
MACHINE SHOP	1270	12	12.6	0.95	2	0	0.0	--	1272	12	12.7	0.94
MAINTENANCE NOS	246	2	2.4	--	0	0	0.0	--	246	2	2.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	22	24.6	0.88	73	1	1.5	--	2363	23	26.1	0.87
PAINT SHOP	197	0	1.9	--	2	0	0.0	--	199	0	1.9	--
PATTERN SHOP	64	1	0.7	--	0	0	0.0	--	64	1	0.7	--
PIPE SHOP	657	7	6.0	1.18	6	0	0.1	--	663	7	6.0	1.17
RIGGERS AND STRUCTURAL	1034	17	11.4	1.53	6	0	0.1	--	1040	17	11.6	1.51
ROLL SHOP	314	2	2.9	--	0	0	0.0	--	314	2	2.9	--
WELD SHOP	460	2	3.1	--	2	0	0.0	--	462	2	3.1	--
ALL OTHER	302	5	4.2	1.20	9	0	0.2	--	311	5	4.4	1.14
GENERAL RECEIVING AND STORES	168	3	2.2	--	2	0	0.2	--	170	3	2.4	--
PLANT PROTECTION	469	10	5.4	1.91	1	0	0.0	--	470	10	5.4	1.90
POWER AND FUEL	976	16	11.5	1.42	89	1	1.8	--	1065	17	13.3	1.30
TRANSPORTATION AND YARD	871	7	9.4	0.73	194	2	2.7	--	1065	9	12.1	0.73
TUBE MILLS INCLUDES TUBE FINISHING	281	1	1.7	--	2	0	0.0	--	283	1	1.7	--
RIVER OR MARINE WAYS	177	3	1.8	--	1	0	0.0	--	178	3	1.8	--
TOTAL	36364	306	306.0	1.00	4913	77	77.0	1.00	41277	383	383.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 400-419,423-443
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	71	63.3	1.13	11	0	0.5	--	2374	71	63.8	1.13
GEN TECHNICAL	1575	49	35.7	1.41 *	6	0	0.3	--	1581	49	36.0	1.40 *
COKE PLANT	1180	31	32.1	0.96	664	20	23.4	0.78	1844	51	55.5	0.90
BLAST FURNACE	1730	62	58.1	1.08	591	20	20.0	1.00	2321	82	78.1	1.06
OPEN HEARTH	4075	111	120.4	0.91	1347	42	48.7	0.80	5422	153	169.1	0.88
BESSEMER CONVERTER	118	7	6.3	1.12	35	1	1.6	--	153	8	7.9	1.01
ELECTRIC FURNACE	509	13	8.5	1.61	4	0	0.2	--	513	13	8.7	1.56
FOUNDRY	764	26	27.7	0.93	169	5	6.6	0.71	933	31	34.3	0.89
HEAT TREAT AND FORGING	708	22	24.1	0.90	20	1	1.0	--	728	23	25.0	0.91
BILLET BLOOM AND SLAB MILLS	2614	86	77.2	1.14	201	12	9.9	1.28	2815	98	87.1	1.16
SOAKING PITS	19	2	0.8	--	0	0	0.0	--	19	2	0.8	--
MERCHANT MILLS	1986	57	67.0	0.82	301	12	14.2	0.81	2287	69	81.2	0.82
PLATE MILL	1442	53	46.3	1.19	246	17	11.4	1.75	1688	70	57.7	1.29
AXLE MILLS	45	2	2.6	--	0	0	0.0	--	45	2	2.6	--
GENERAL FINISHING AND SHIPPING	511	21	16.4	1.30	113	2	5.2	0.36	624	23	21.6	1.07
HOT STRIP MILL	174	5	4.9	1.03	0	0	0.0	--	174	5	4.9	1.03
RAIL MILL ROLLING	288	13	12.2	1.08	32	0	1.6	--	320	13	13.8	0.93
RAIL MILL FINISHING	245	7	9.4	0.73	82	5	3.3	1.72	327	12	12.6	0.94
STEEL YARDS	68	1	3.1	--	11	0	0.4	--	79	1	3.5	--
STRUCTURAL MILL	980	26	24.1	1.09	128	6	4.2	1.54	1108	32	28.3	1.16
ANNEALING NORMALIZING	1214	27	31.0	0.85	25	4	1.3	--	1239	31	32.3	0.95
BATCH PICKLING AND SHEET DRYERS	45	4	1.4	--	19	1	0.8	--	64	5	2.2	2.42
COATING	269	5	5.4	0.92	0	0	0.0	--	269	5	5.4	0.92
COLD REDUCING MILLS	843	16	17.1	0.93	65	4	2.3	--	913	20	19.4	1.03
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	1.9	--	0	0	0.0	--	147	1	1.9	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	23	24.5	0.92	5	0	0.5	--	742	23	25.0	0.89
HOT STRIP ROLLING	864	17	19.6	0.86	1	0	0.0	--	865	17	19.7	0.85
SHEET FINISHING AND SHIPPING	1335	25	26.0	0.96	48	5	2.5	3.93	1383	30	28.5	1.07
STAINLESS ANNEAL PICKLG AND PROCESSING	148	7	3.8	1.94	0	0	0.0	--	148	7	3.8	1.94
TEMPER PASSING AND COLD ROLLING	335	3	4.7	--	0	0	0.0	--	335	3	4.7	--
TIN FINISHING AND SHIPPING	348	8	7.6	1.07	0	0	0.0	--	348	8	7.6	1.07
GENERAL LABOR	565	32	20.9	1.58 *	375	17	14.4	1.22	940	49	35.3	1.44 *
JANITORS	112	6	6.6	0.90	190	8	9.2	0.86	302	14	15.8	0.88
MASON DEPARTMENT	758	22	17.2	1.29	242	11	8.1	1.42	1000	33	25.3	1.33
BLACKSMITH SHOP	231	4	9.1	0.43	5	1	0.3	--	236	5	9.4	0.52
CARPENTER SHOP	277	6	11.0	0.54	0	0	0.0	--	277	6	11.0	0.54
ELECTRIC MAINTENANCE ASSIGNED	1581	46	52.3	0.87	2	0	0.1	--	1583	46	52.3	0.87
ELECTRIC SHOP	760	29	29.1	1.00	2	0	0.1	--	762	29	29.2	0.99
GARAGE	98	2	2.6	--	1	0	0.2	--	99	2	2.8	--
LOCOMOTIVE AND CAR REPAIR	104	4	3.7	--	7	1	0.3	--	111	5	4.0	1.25
MACHINE SHOP	1270	42	38.9	1.09	2	0	0.2	--	1272	42	39.1	1.08
MAINTENANCE NOS	246	6	7.3	0.80	0	0	0.0	--	246	6	7.3	0.80
MECHNICAL MAINTENANCE ASSIGNED	2290	80	78.1	1.03	73	4	3.5	--	2363	84	81.6	1.03
PAINT SHOP	197	2	5.9	0.33	2	0	0.1	--	199	2	5.9	0.33
PATTERN SHOP	64	1	2.1	--	0	0	0.0	--	64	1	2.1	--
PIPE SHOP	657	25	19.3	1.32	6	0	0.2	--	663	25	19.5	1.30
RIGGERS AND STRUCTURAL	1034	39	35.8	1.10	6	0	0.3	--	1040	39	36.1	1.09
ROLL SHOP	314	11	9.2	1.21	0	0	0.0	--	314	11	9.2	1.21
WELD SHOP	460	12	9.3	1.30	2	0	0.0	--	462	12	9.4	1.29
ALL OTHER	302	10	14.4	0.69	9	0	0.4	--	311	10	14.8	0.66
GENERAL RECEIVING AND STORES	168	7	6.6	1.06	2	0	0.3	--	170	7	6.9	1.02
PLANT PROTECTION	469	26	17.0	1.57 *	1	0	0.0	--	470	26	17.0	1.57 *
POWER AND FUEL	976	38	35.4	1.08	89	3	4.7	--	1065	41	40.1	1.02
TRANSPORTATION AND YARD	871	24	29.6	0.80	194	5	6.7	0.73	1065	29	36.3	0.79
TUBE MILLS INCLUDES TUBE FINISHING	281	3	6.4	0.45	2	0	0.1	--	283	3	6.5	0.44
RIVER OR MARINE WAYS	177	5	5.6	0.88	1	0	0.0	--	178	5	5.6	0.88
TOTAL	36364	954	954.0	1.00	4913	179	179.0	1.00	41277	1133	1133.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Other Heart Disease

ICD CODE: 400-419, 423-443

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Plant Protection	1.76	1.54*	1.53	1.38	1.91	1.57*
General Finishing and Shipping	--	0.93	1.92**	1.35	1.61	1.30
General Labor	--	0.94	1.56*	1.34**	1.89	1.58*
Batch Pickling and Sheet Dryers	--	--	--	2.60*	--	--
Carpenter Shop	--	0.45	0.41	0.53*	--	0.54
Electric Furnace	2.03	1.50	1.53	1.36	2.83*	1.61
Coating	--	0.75	2.27	0.95	2.99*	0.92
General Technical	1.06	1.31	1.00	1.17	1.07	1.41*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Open Hearth	0.37**	0.68	0.54*	0.76	0.52	0.80
Plate Mill	3.43**	2.01*	3.33**	2.21**	3.07*	1.75
Sheet Finishing and Shipping	--	6.42**	--	25.78	--	3.93
Cold Reducing Mills	--	--	4.09*	2.73*	--	--
Mason Dept.	1.33	1.13	2.12*	1.45	1.57	1.42
Billet, Bloom, and Slab Mills	--	0.85	1.89	1.11	2.93*	1.28

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

C.O.D. (UNDERLYING) = 444-448,592-594
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	15	15.9	1.09	18	0	0.1	--	3291	15	14.0	1.08
GEN TECHNICAL	2368	7	6.9	1.01	14	0	0.1	--	2382	7	7.0	1.00
COKE PLANT	1635	1	5.5	0.17	908	5	5.9	0.75	2543	6	11.4	0.41
BLAST FURNACE	2355	9	10.5	0.85	1101	6	7.5	0.76	3456	15	18.0	0.82
OPEN HEARTH	5797	25	24.3	1.03	1836	13	15.1	0.81	7633	38	39.3	0.96
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	2	2.7	--	7	0	0.0	--	741	2	2.7	--
FOUNDRY	890	3	4.9	--	253	1	2.1	--	1143	4	7.0	0.55
HEAT TREAT AND FORGING	1003	3	4.2	--	16	1	0.3	--	1019	4	4.5	--
BILLET BLOOM AND SLAB MILLS	2912	17	15.2	1.14	223	1	1.4	--	3135	18	16.6	1.10
SOAKING PITS	94	0	0.4	--	14	0	0.1	--	108	0	0.4	--
MERCHANT MILLS	2130	6	11.1	0.52	395	6	2.8	2.46	2525	12	13.8	0.86
PLATE MILL	1547	6	7.2	0.82	239	3	3.9	--	1786	9	11.1	0.79
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	1.4	--	82	0	0.9	--	481	2	2.2	--
HOT STRIP MILL	164	2	0.9	--	1	0	0.0	--	165	2	0.9	--
RAIL MILL ROLLING	339	2	1.7	--	46	0	0.4	--	385	2	2.1	--
RAIL MILL FINISHING	347	2	1.3	--	98	2	1.0	--	445	4	2.3	--
STEEL YARDS	88	0	0.3	--	32	0	0.3	--	120	0	0.5	--
STRUCTURAL MILL	1196	7	4.8	1.55	164	2	2.0	--	1360	9	6.7	1.39
ANNEALING NORMALIZING	1353	4	6.7	0.58	17	0	0.1	--	1370	4	6.8	0.57
BATCH PICKLING AND SHEET DRYERS	55	1	0.2	--	21	0	0.1	--	76	1	0.3	--
COATING	328	4	1.5	--	0	0	0.0	--	328	4	1.5	--
COLD REDUCING MILLS	1395	3	4.9	--	97	0	0.4	--	1492	3	5.3	0.55
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.4	--	0	0	0.0	--	205	0	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	4.4	--	5	0	0.0	--	571	3	4.4	--
HOT STRIP ROLLING	1008	3	4.1	--	0	0	0.0	--	1008	3	4.1	--
SHEET FINISHING AND SHIPPING	1733	14	7.2	2.35 *	36	0	0.2	--	1769	14	7.3	2.27 *
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.4	--	1	0	0.0	--	47	0	0.4	--
TEMPER PASSING AND COLD ROLLING	369	2	0.8	--	0	0	0.0	--	369	2	0.8	--
TIN FINISHING AND SHIPPING	396	3	1.7	--	1	0	0.0	--	397	3	1.7	--
GENERAL LABOR	546	4	2.2	--	449	6	3.4	1.95	995	10	5.6	1.91
JANITORS	205	0	2.6	--	321	2	3.0	--	526	2	5.6	0.34
MASON DEPARTMENT	1305	5	3.5	1.43	438	3	2.5	--	1743	8	6.1	1.33
BLACKSMITH SHOP	266	0	1.6	--	4	1	0.1	--	270	1	1.6	--
CARPENTER SHOP	406	2	2.4	--	0	0	0.0	--	406	2	2.4	--
ELECTRIC MAINTENANCE ASSIGNED	1605	8	7.3	1.10	5	0	0.0	--	1610	8	7.3	1.10
ELECTRIC SHOP	551	1	2.8	--	1	0	0.0	--	552	1	2.8	--
GARAGE	147	0	0.5	--	0	0	0.0	--	147	0	0.5	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.6	--	9	0	0.1	--	130	0	0.7	--
MACHINE SHOP	1442	11	7.2	1.58	3	0	0.0	--	1445	11	7.2	1.57
MAINTENANCE NOS	70	0	0.4	--	2	0	0.0	--	72	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2689	17	11.7	1.52	60	2	0.6	--	2749	19	12.2	1.63
PAINT SHOP	263	2	1.0	--	2	0	0.0	--	265	2	1.0	--
PATTERN SHOP	68	0	0.3	--	0	0	0.0	--	68	0	0.3	--
PIPE SHOP	738	5	3.1	1.64	5	0	0.0	--	743	5	3.1	1.62
RIGGERS AND STRUCTURAL	1189	3	6.0	0.49	8	0	0.0	--	1197	3	6.0	0.49
ROLL SHOP	374	0	1.8	--	0	0	0.0	--	374	0	1.8	--
WELD SHOP	644	2	2.2	--	2	0	0.0	--	646	2	2.3	--
ALL OTHER	138	0	0.6	--	5	0	0.0	--	143	0	0.6	--
GENERAL RECEIVING AND STORES	192	1	1.1	--	4	0	0.0	--	196	1	1.1	--
PLANT PROTECTION	674	8	4.1	2.01	1	0	0.0	--	675	8	4.1	2.00
POWER AND FUEL	1343	4	5.7	0.69	62	0	0.8	--	1405	4	6.5	0.60
TRANSPORTATION AND YARD	1293	4	5.8	0.68	341	4	2.8	--	1634	8	8.6	0.93
TUBE MILLS INCLUDES TUBE FINISHING	229	1	1.2	--	1	0	0.0	--	230	1	1.2	--
RIVER OR MARINE WAYS	218	2	0.9	--	1	0	0.0	--	219	2	0.9	--
TOTAL	51479	226	226.0	1.00	7349	58	58.0	1.00	58828	284	284.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 444-468,592-594
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	64	75.6	0.83	18	0	0.5	--	3291	64	76.1	0.83
GEN TECHNICAL	2368	55	37.3	1.53 **	14	0	0.2	--	2382	55	37.5	1.52 **
COKE PLANT	1635	33	35.5	0.92	908	20	23.5	0.77	2543	53	59.0	0.87
BLAST FURNACE	2355	45	58.7	0.75	1101	21	25.0	0.81	3456	66	83.7	0.76 *
OPEN HEARTH	5797	124	135.5	0.90	1836	47	50.6	0.89	7633	171	186.1	0.90
BESSEMER CONVERTER	24	0	1.2	--	0	0	0.0	--	24	0	1.2	--
ELECTRIC FURNACE	734	8	13.9	0.54	7	0	0.3	--	741	8	14.1	0.53
FOUNDRY	890	21	26.2	0.79	253	5	6.4	0.74	1143	26	32.6	0.78
HEAT TREAT AND FORGING	1003	15	25.4	0.56 *	16	2	0.6	--	1019	17	26.0	0.62
BILLET BLOOM AND SLAB MILLS	2912	87	82.1	1.07	223	9	9.0	0.99	3135	96	91.1	1.06
SOAKING PITS	94	1	2.1	--	14	0	0.2	--	108	1	2.3	--
MERCHANT MILLS	2130	52	62.4	0.81	395	10	11.1	0.89	2525	62	73.5	0.82
PLATE MILL	1547	51	43.0	1.23	239	14	10.8	1.42	1786	65	53.7	1.27
AXLE MILLS	6	0	0.2	--	0	0	0.0	--	6	0	0.2	--
GENERAL FINISHING AND SHIPPING	399	15	9.2	1.68	82	5	3.3	1.61	481	20	12.5	1.67 *
HOT STRIP MILL	164	5	5.2	0.95	1	0	0.0	--	165	5	5.3	0.95
RAIL MILL ROLLING	339	8	8.9	0.89	46	0	1.3	--	385	8	10.1	0.77
RAIL MILL FINISHING	347	8	6.6	1.23	98	3	2.8	--	445	11	9.4	1.19
STEEL YARDS	88	2	1.6	--	32	0	0.6	--	120	2	2.3	--
STRUCTURAL MILL	1196	30	28.4	1.07	164	3	4.7	--	1360	33	33.1	1.00
ANNEALING NORMALIZING	1353	38	36.0	1.06	17	0	0.8	--	1370	38	36.8	1.04
BATCH PICKLING AND SHEET DRYERS	55	1	1.2	--	21	1	0.9	--	76	2	2.2	--
COATING	328	8	7.2	1.13	0	0	0.0	--	328	8	7.2	1.13
COLD REDUCING MILLS	1395	27	22.4	1.23	97	1	2.3	--	1492	28	24.7	1.15
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	2.1	--	0	0	0.0	--	205	1	2.1	--
FLYING SHEARS AND SLITTERS	8	0	0.3	--	0	0	0.0	--	8	0	0.3	--
HOT PACK MILLS	566	22	26.9	0.78	5	0	0.3	--	571	22	27.2	0.77
HOT STRIP ROLLING	1008	20	20.9	0.96	0	0	0.0	--	1008	20	20.9	0.96
SHEET FINISHING AND SHIPPING	1733	52	41.6	1.32	36	2	1.8	--	1769	54	43.4	1.31
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	2.3	--	1	0	0.0	--	47	2	2.3	--
TEMPER PASSING AND COLD ROLLING	369	7	4.7	1.57	0	0	0.0	--	369	7	4.7	1.57
TIN FINISHING AND SHIPPING	396	11	9.6	1.18	1	0	0.0	--	397	11	9.6	1.18
GENERAL LABOR	546	15	13.3	1.14	449	16	11.5	1.46	995	31	24.8	1.28
JANITORS	205	20	17.1	1.19	321	12	12.7	0.94	526	32	29.8	1.08
MASON DEPARTMENT	1305	25	19.8	1.28	438	12	8.6	1.44	1743	37	28.4	1.33
BLACKSMITH SHOP	266	11	9.4	1.17	4	2	0.2	--	270	13	9.6	1.37
CARPENTER SHOP	406	10	14.1	0.69	0	0	0.0	--	406	10	14.1	0.69
ELECTRIC MAINTENANCE ASSIGNED	1605	39	41.0	0.95	5	0	0.1	--	1610	39	41.0	0.95
ELECTRIC SHOP	551	11	16.4	0.66	1	0	0.0	--	552	11	16.4	0.66
GARAGE	147	1	2.8	--	0	0	0.0	--	147	1	2.8	--
LOCOMOTIVE AND CAR REPAIR	121	3	3.2	--	9	0	0.3	--	130	3	3.5	--
MACHINE SHOP	1442	51	40.9	1.28	3	0	0.1	--	1445	51	41.0	1.27
MAINTENANCE NOS	70	3	2.9	--	2	0	0.0	--	72	3	2.9	--
MECHNICAL MAINTENANCE ASSIGNED	2689	70	70.3	1.00	60	3	2.1	--	2749	73	72.4	1.01
PAINT SHOP	263	6	5.7	1.06	2	0	0.1	--	265	6	5.7	1.05
PATTERN SHOP	68	2	1.8	--	0	0	0.0	--	68	2	1.8	--
PIPE SHOP	738	28	19.1	1.50 *	5	0	0.3	--	743	28	19.3	1.48
RIGGERS AND STRUCTURAL	1189	27	34.4	0.77	8	0	0.1	--	1197	27	34.5	0.77
ROLL SHOP	374	10	11.1	0.90	0	0	0.0	--	374	10	11.1	0.90
WELD SHOP	644	17	11.6	1.50	2	0	0.0	--	646	17	11.6	1.49
ALL OTHER	138	2	3.3	--	5	0	0.2	--	143	2	3.4	--
GENERAL RECEIVING AND STORES	192	3	6.2	0.47	4	0	0.3	--	196	3	6.5	0.45
PLANT PROTECTION	674	35	24.7	1.46 *	1	0	0.0	--	675	35	24.8	1.46 *
POWER AND FUEL	1343	24	33.6	0.70	62	5	2.7	1.98	1405	29	36.2	0.79
TRANSPORTATION AND YARD	1293	41	33.2	1.26	341	12	8.8	1.41	1634	53	42.0	1.29
TUBE MILLS INCLUDES TUBE FINISHING	229	5	6.6	0.75	1	0	0.0	--	230	5	6.6	0.75
RIVER OR MARINE WAYS	218	11	6.5	1.81	1	0	0.0	--	219	11	6.5	1.80
TOTAL	51479	1283	1283.0	1.00	7349	205	205.0	1.00	58828	1488	1488.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00133

C.O.D. (UNDERLYING) = 444-468,592-594
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	25	21.6	1.18	34	0	0.3	--	5146	25	22.0	1.16
GEN TECHNICAL	3684	17	12.8	1.37	16	0	0.1	--	3700	17	12.9	1.36
COKE PLANT	2381	6	8.4	0.66	1176	6	8.4	0.46	3557	12	16.9	0.58
BLAST FURNACE	4218	18	21.9	0.79	1415	9	10.2	0.85	5633	27	32.1	0.81
OPEN HEARTH	9655	34	44.2	0.72	2335	19	20.7	0.86	11990	53	64.9	0.76
BESSEMER CONVERTER	240	1	2.0	--	88	3	1.0	--	328	4	3.0	--
ELECTRIC FURNACE	1250	6	5.5	1.12	11	0	0.0	--	1261	6	5.5	1.11
FOUNDRY	1781	4	10.2	0.38	345	1	2.9	--	2126	5	13.1	0.35 *
HEAT TREAT AND FORGING	1683	8	8.4	0.94	46	1	0.9	--	1729	9	9.3	0.95
BILLET BLOOM AND SLAB MILLS	5783	31	30.9	1.00	419	2	3.0	--	6202	33	34.0	0.96
SOAKING PITS	148	0	0.5	--	28	0	0.1	--	176	0	0.6	--
MERCHANT MILLS	3885	15	22.7	0.60	680	10	5.4	2.40 *	4565	25	28.2	0.86
PLATE MILL	3005	24	17.3	1.72	436	8	7.4	1.13	3441	32	24.7	1.53
AXLE MILLS	293	3	2.9	--	6	0	0.0	--	299	3	3.0	--
GENERAL FINISHING AND SHIPPING	1309	6	7.4	0.80	213	0	2.6	--	1522	6	10.0	0.58
HOT STRIP MILL	567	4	3.1	--	1	0	0.0	--	568	4	3.1	--
RAIL MILL ROLLING	852	3	4.1	--	97	0	1.0	--	949	3	5.1	0.55
RAIL MILL FINISHING	726	4	3.6	--	145	2	1.6	--	871	6	5.2	1.19
STEEL YARDS	299	3	2.0	--	77	0	1.1	--	376	3	3.1	--
STRUCTURAL MILL	1972	9	8.5	1.07	252	4	3.0	--	2224	13	11.5	1.16
ANNEALING NORMALIZING	2605	18	14.3	1.34	54	0	0.3	--	2659	18	14.5	1.31
BATCH PICKLING AND SHEET DRYERS	137	2	0.8	--	50	1	0.2	--	187	3	1.0	--
COATING	545	5	2.6	2.79	0	0	0.0	--	545	5	2.6	2.79
COLD REDUCING MILLS	1933	4	7.0	0.55	113	1	0.5	--	2046	5	7.5	0.65
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.5	--	0	0	0.0	--	254	0	0.5	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	6	9.9	0.50	19	0	0.1	--	1248	6	10.0	0.49
HOT STRIP ROLLING	1623	3	6.9	0.41	2	0	0.0	--	1625	3	6.9	0.41
SHEET FINISHING AND SHIPPING	3306	15	14.0	1.11	108	1	0.6	--	3414	16	14.6	1.15
STAINLESS ANNEAL PICKLG AND PROCESSING	384	5	2.5	2.20	2	0	0.0	--	386	5	2.5	2.20
TEMPER PASSING AND COLD ROLLING	783	6	2.1	3.92 *	0	0	0.0	--	783	6	2.1	3.92 *
TIN FINISHING AND SHIPPING	668	4	2.5	--	1	0	0.0	--	669	4	2.5	--
GENERAL LABOR	3153	13	17.9	0.70	1215	13	13.5	0.95	4368	26	31.4	0.80
JANITORS	311	0	3.8	--	422	2	4.1	--	733	2	7.9	0.24 *
MASON DEPARTMENT	2511	12	8.7	1.42	696	10	5.1	2.23 *	3207	22	13.8	1.69 *
BLACKSMITH SHOP	555	2	3.8	--	6	1	0.1	--	561	3	3.8	--
CARPENTER SHOP	665	2	4.6	--	1	0	0.0	--	666	2	4.6	--
ELECTRIC MAINTENANCE ASSIGNED	3200	18	18.5	0.97	8	0	0.0	--	3208	18	18.5	0.97
ELECTRIC SHOP	1620	8	11.7	0.66	2	0	0.0	--	1622	8	11.7	0.66
GARAGE	242	2	1.0	--	2	0	0.0	--	244	2	1.0	--
LOCOMOTIVE AND CAR REPAIR	261	1	1.5	--	22	1	0.2	--	283	2	1.7	--
MACHINE SHOP	2405	18	13.5	1.38	12	0	0.1	--	2417	18	13.6	1.37
MAINTENANCE NOS	558	1	2.7	--	5	0	0.0	--	563	1	2.8	--
MECHNICAL MAINTENANCE ASSIGNED	6136	30	31.4	0.95	201	6	2.5	2.75 *	6337	36	33.9	1.08
PAINT SHOP	777	5	3.6	1.42	9	0	0.1	--	786	5	3.7	1.37
PATTERN SHOP	95	0	0.5	--	0	0	0.0	--	95	0	0.5	--
PIPE SHOP	1412	12	7.5	1.65	14	1	0.1	--	1426	13	7.7	1.76
RIGGERS AND STRUCTURAL	2525	13	16.9	0.75	21	0	0.2	--	2546	13	17.1	0.74
ROLL SHOP	502	0	2.5	--	3	0	0.1	--	505	0	2.5	--
WELD SHOP	758	2	2.7	--	2	0	0.0	--	760	2	2.7	--
ALL OTHER	1098	6	8.5	0.70	75	1	1.0	--	1173	7	9.4	0.73
GENERAL RECEIVING AND STORES	382	4	2.4	--	9	0	0.1	--	391	4	2.5	--
PLANT PROTECTION	856	9	5.4	1.70	4	0	0.0	--	860	9	5.5	1.69
POWER AND FUEL	2336	8	12.7	0.61	213	1	2.5	--	2549	9	15.2	0.57
TRANSPORTATION AND YARD	2842	13	15.1	0.85	633	6	5.9	1.02	3475	19	20.9	0.90
TUBE MILLS INCLUDES TUBE FINISHING	635	6	3.8	1.71	10	0	0.0	--	645	6	3.8	1.69
RIVER OR MARINE WAYS	293	2	1.2	--	1	0	0.0	--	294	2	1.2	--
TOTAL	51479	226	226.0	1.00	7349	58	58.0	1.00	58828	284	284.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00139

MULTIPLE CAUSE OF DEATH STUDY 4-JUN-74

C.O.D. (PREVALENCE) = 444-468,592-594
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	114	119.6	0.95	34	0	1.3	--	5146	114	120.9	0.93
GEN TECHNICAL	3684	97	70.4	1.44 **	16	1	0.3	--	3700	98	70.7	1.45 **
COKE PLANT	2381	52	56.5	0.90	1176	28	33.1	0.67	3557	80	89.5	0.85
BLAST FURNACE	4218	109	123.6	0.86	1415	31	34.4	0.87	5633	140	158.1	0.86
OPEN HEARTH	9655	231	252.7	0.89	2335	66	69.5	0.91	11990	297	322.2	0.89
BESSEMER CONVERTER	240	6	11.3	0.51	88	7	3.4	2.26	328	13	14.7	0.87
ELECTRIC FURNACE	1250	29	30.3	0.95	11	0	0.4	--	1261	29	30.7	0.93
FOUNDRY	1781	59	56.3	1.06	345	10	9.5	1.07	2126	69	65.7	1.06
HEAT TREAT AND FORGING	1683	42	50.9	0.79	46	5	2.6	2.15	1729	47	53.5	0.85
BILLET BLOOM AND SLAB MILLS	5783	165	170.6	0.96	419	15	16.5	0.87	6202	180	187.1	0.95
SOAKING PITS	148	1	2.8	--	28	0	0.4	--	176	1	3.1	--
MERCHANT MILLS	3885	127	131.6	0.95	680	28	23.0	1.32	4565	155	154.6	1.00
PLATE MILL	3005	121	104.5	1.26	436	27	20.6	1.57	3441	148	125.2	1.31 *
AXLE MILLS	293	12	18.1	0.64	6	0	0.2	--	299	12	18.3	0.63
GENERAL FINISHING AND SHIPPING	1309	58	47.5	1.26	213	7	9.9	0.65	1522	65	57.4	1.15
HOT STRIP MILL	567	15	16.2	0.92	1	0	0.0	--	568	15	16.2	0.92
RAIL MILL ROLLING	852	23	20.9	1.13	97	2	3.0	--	949	25	23.9	1.06
RAIL MILL FINISHING	726	24	18.7	1.36	145	3	4.5	--	871	27	23.2	1.21
STEEL YARDS	299	13	12.2	1.07	77	2	2.8	--	376	15	15.0	1.00
STRUCTURAL MILL	1972	59	50.3	1.23	252	5	7.3	0.65	2224	64	57.6	1.14
ANNEALING NORMALIZING	2605	79	78.8	1.00	54	2	3.1	--	2659	81	81.9	0.99
BATCH PICKLING AND SHEET DRYERS	137	3	5.1	0.57	50	4	2.2	--	187	7	7.3	0.96
COATING	545	12	11.4	1.07	0	0	0.0	--	545	12	11.4	1.07
COLD REDUCING MILLS	1933	37	33.3	1.13	113	2	2.8	--	2046	39	36.2	1.09
CONTINUOUS PICKLING AND ELEC CLEANING	254	2	2.8	--	0	0	0.0	--	254	2	2.8	--
FLYING SHEARS AND SLITTERS	28	0	0.5	--	0	0	0.0	--	28	0	0.5	--
HOT PACK MILLS	1229	57	60.9	0.90	19	1	1.3	--	1248	58	62.1	0.90
HOT STRIP ROLLING	1623	32	35.3	0.89	2	0	0.0	--	1625	32	35.3	0.89
SHEET FINISHING AND SHIPPING	3306	79	79.3	0.99	108	6	5.7	1.13	3414	85	85.0	1.00
STAINLESS ANNEAL PICKLG AND PROCESSING	384	20	15.2	1.39	2	0	0.1	--	386	20	15.2	1.38
TEMPER PASSING AND COLD ROLLING	783	17	11.9	1.56	0	0	0.0	--	783	17	11.9	1.56
TIN FINISHING AND SHIPPING	668	18	14.3	1.35	1	0	0.0	--	669	18	14.3	1.35
GENERAL LABOR	3153	127	103.0	1.28 *	1215	38	44.0	0.82	4368	165	147.0	1.15
JANITORS	311	25	24.8	1.01	422	16	16.5	0.96	733	41	41.3	0.99
MASON DEPARTMENT	2511	58	49.1	1.20	696	27	17.6	1.68 *	3207	85	66.7	1.31 *
BLACKSMITH SHOP	555	24	22.8	1.06	6	2	0.3	--	561	26	23.1	1.13
CARPENTER SHOP	665	21	28.5	0.72	1	0	0.0	--	666	21	28.6	0.72
ELECTRIC MAINTENANCE ASSIGNED	3200	90	104.9	0.84	8	1	0.2	--	3208	91	105.1	0.85
ELECTRIC SHOP	1620	61	68.5	0.87	2	0	0.1	--	1622	61	68.6	0.87
GARAGE	242	5	5.7	0.88	2	0	0.2	--	244	5	5.9	0.85
LOCOMOTIVE AND CAR REPAIR	261	11	8.3	1.35	22	1	0.7	--	283	12	9.0	1.36
MACHINE SHOP	2405	88	79.7	1.12	12	0	0.4	--	2417	88	80.0	1.11
MAINTENANCE NOS	558	14	16.5	0.83	5	0	0.1	--	563	14	16.5	0.82
MECHNICAL MAINTENANCE ASSIGNED	6136	182	187.8	0.96	201	14	8.5	1.78	6337	196	196.3	1.00
PAINT SHOP	777	18	20.9	0.85	9	0	0.3	--	786	18	21.2	0.84
PATTERN SHOP	95	3	3.0	--	0	0	0.0	--	95	3	3.0	--
PIPE SHOP	1412	55	45.9	1.22	14	1	0.7	--	1426	56	46.6	1.22
RIGGERS AND STRUCTURAL	2525	93	99.0	0.93	21	0	0.8	--	2546	93	99.8	0.92
ROLL SHOP	502	14	14.8	0.94	3	1	0.2	--	505	15	15.0	1.00
WELD SHOP	758	22	14.2	1.58 *	2	0	0.0	--	760	22	14.3	1.58
ALL OTHER	1098	47	51.2	0.91	75	2	3.7	--	1173	49	54.9	0.88
GENERAL RECEIVING AND STORES	382	9	13.3	0.66	9	1	0.6	--	391	10	13.9	0.71
PLANT PROTECTION	856	46	33.0	1.44 *	4	1	0.1	--	860	47	33.1	1.42 *
POWER AND FUEL	2336	69	75.4	0.91	213	10	9.2	1.10	2549	79	84.5	0.93
TRANSPORTATION AND YARD	2842	94	90.3	1.05	633	27	20.1	1.42	3475	121	110.4	1.11
TUBE MILLS INCLUDES TUBE FINISHING	635	24	21.5	1.14	10	0	0.4	--	645	24	21.9	1.11
RIVER OR MARINE WAYS	293	12	8.6	1.46	1	0	0.0	--	294	12	8.6	1.46
TOTAL	51479	1283	1283.0	1.00	7349	205	205.0	1.00	58828	1488	1488.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 4-JUN-74

C.O.D. (UNDERLYING) = 444-468,592-594
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	16	14.1	1.15	11	0	0.1	--	2374	16	14.2	1.14
GEN TECHNICAL	1575	11	7.8	1.45	6	0	0.1	--	1581	11	7.8	1.44
COKE PLANT	1180	4	5.6	0.68	664	4	6.0	0.51	1844	8	11.6	0.61
BLAST FURNACE	1730	14	12.6	1.13	591	3	6.3	0.41	2321	17	18.9	0.89
OPEN HEARTH	4075	22	26.1	0.82	1347	12	15.7	0.68	5422	34	41.8	0.77
BESSEMER CONVERTER	118	0	1.2	--	35	1	0.4	--	153	1	1.6	--
ELECTRIC FURNACE	509	4	2.3	--	4	0	0.0	--	513	4	2.3	--
FOUNDRY	764	3	6.2	0.47	169	1	2.3	--	933	4	8.5	0.45
HEAT TREAT AND FORGING	708	5	5.2	0.95	20	1	0.4	--	728	6	5.7	1.07
BILLET BLOOM AND SLAB MILLS	2614	20	18.4	1.10	201	1	1.8	--	2815	21	20.2	1.05
SOAKING PITS	19	0	0.2	--	0	0	0.0	--	19	0	0.2	--
MERCHANT MILLS	1986	10	14.8	0.64	301	8	3.2	3.36 **	2287	18	17.9	1.00
PLATE MILL	1442	14	10.4	1.48	246	6	4.8	1.35	1688	20	15.2	1.44
AXLE MILLS	45	1	0.6	--	0	0	0.0	--	45	1	0.6	--
GENERAL FINISHING AND SHIPPING	511	4	3.1	--	113	0	1.6	--	624	4	4.7	--
HOT STRIP MILL	174	2	1.1	--	0	0	0.0	--	174	2	1.1	--
RAIL MILL ROLLING	288	3	2.3	--	32	0	0.4	--	320	3	2.8	--
RAIL MILL FINISHING	245	2	1.8	--	82	2	1.2	--	327	4	2.9	--
STEEL YARDS	68	0	0.7	--	11	0	0.2	--	79	0	0.9	--
STRUCTURAL MILL	980	6	5.1	1.20	128	3	1.9	--	1108	9	7.0	1.33
ANNEALING NORMALIZING	1214	7	8.0	0.86	25	0	0.2	--	1239	7	8.2	0.84
BATCH PICKLING AND SHEET DRYERS	45	0	0.4	--	19	1	0.1	--	64	1	0.5	--
COATING	269	4	1.6	--	0	0	0.0	--	269	4	1.6	--
COLD REDUCING MILLS	848	3	4.3	--	65	0	0.4	--	913	3	4.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	5	7.1	0.63	5	0	0.1	--	742	5	7.2	0.62
HOT STRIP ROLLING	864	1	4.5	--	1	0	0.0	--	865	1	4.5	--
SHEET FINISHING AND SHIPPING	1335	11	6.6	1.91	48	0	0.4	--	1383	11	7.0	1.77
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	1.1	--	0	0	0.0	--	148	1	1.1	--
TEMPER PASSING AND COLD ROLLING	335	2	0.8	--	0	0	0.0	--	335	2	0.8	--
TIN FINISHING AND SHIPPING	348	3	1.7	--	0	0	0.0	--	348	3	1.7	--
GENERAL LABOR	565	4	4.1	--	375	8	4.3	2.13	940	12	8.4	1.49
JANITORS	112	0	1.6	--	190	2	2.5	--	302	2	4.1	--
MASON DEPARTMENT	758	5	3.7	1.37	242	3	2.2	--	1000	8	5.9	1.38
BLACKSMITH SHOP	231	0	1.9	--	5	1	0.1	--	236	1	2.0	--
CARPENTER SHOP	277	2	2.3	--	0	0	0.0	--	277	2	2.3	--
ELECTRIC MAINTENANCE ASSIGNED	1581	12	11.7	1.03	2	0	0.0	--	1583	12	11.7	1.03
ELECTRIC SHOP	760	3	6.3	0.45	2	0	0.0	--	762	3	6.3	0.45
GARAGE	98	0	0.5	--	1	0	0.0	--	99	0	0.5	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.8	--	7	1	0.1	--	111	1	0.9	--
MACHINE SHOP	1270	14	8.5	1.72	2	0	0.0	--	1272	14	8.5	1.71
MAINTENANCE NOS	246	1	1.4	--	0	0	0.0	--	246	1	1.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	17	16.0	1.07	73	4	1.3	--	2363	21	17.3	1.24
PAINT SHOP	197	2	1.2	--	2	0	0.0	--	199	2	1.2	--
PATTERN SHOP	64	0	0.5	--	0	0	0.0	--	64	0	0.5	--
PIPE SHOP	657	7	3.9	1.85	6	1	0.1	--	663	8	3.9	2.10
RIGGERS AND STRUCTURAL	1034	3	7.4	0.39	6	0	0.1	--	1040	3	7.5	0.39
ROLL SHOP	314	0	1.8	--	0	0	0.0	--	314	0	1.8	--
WELD SHOP	460	1	2.0	--	2	0	0.0	--	462	1	2.0	--
ALL OTHER	302	2	3.3	--	9	0	0.1	--	311	2	3.5	--
GENERAL RECEIVING AND STORES	168	0	1.6	--	2	0	0.0	--	170	0	1.6	--
PLANT PROTECTION	469	7	3.7	1.94	1	0	0.0	--	470	7	3.7	1.93
POWER AND FUEL	976	5	7.3	0.68	89	0	1.3	--	1065	5	8.6	0.57
TRANSPORTATION AND YARD	871	8	6.5	1.25	194	3	2.3	--	1065	11	8.7	1.28
TUBE MILLS INCLUDES TUBE FINISHING	281	3	1.8	--	2	0	0.0	--	283	3	1.8	--
RIVER OR MARINE WAYS	177	1	0.8	--	1	0	0.0	--	178	1	0.8	--
TOTAL	36364	210	210.0	1.00	4913	54	54.0	1.00	41277	264	264.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.D.D. (PREVALENCE) = 444-468,592-594
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	66	79.0	0.82	11	0	0.5	--	2374	66	79.5	0.81
GEN TECHNICAL	1575	62	43.5	1.48 **	6	0	0.2	--	1581	62	43.7	1.47 **
COKE PLANT	1180	38	38.0	1.00	664	20	22.9	0.79	1844	58	60.9	0.94
BLAST FURNACE	1730	62	71.0	0.86	591	19	20.7	0.90	2321	81	91.7	0.87
OPEN HEARTH	4075	143	149.9	0.94	1347	48	50.1	0.93	5422	191	200.0	0.94
BESSEMER CONVERTER	118	4	6.8	0.57	35	2	1.6	--	153	6	8.4	0.70
ELECTRIC FURNACE	509	12	13.0	0.91	4	0	0.2	--	513	12	13.2	0.89
FOUNDRY	764	37	35.8	1.04	169	7	6.4	1.13	933	44	42.1	1.05
HEAT TREAT AND FORGING	708	22	32.0	0.65	20	2	1.1	--	728	24	33.1	0.69
BILLET BLOOM AND SLAB MILLS	2614	104	102.1	1.02	201	8	9.9	0.73	2815	112	112.0	1.00
SOAKING PITS	19	0	0.9	--	0	0	0.0	--	19	0	0.9	--
MERCHANT MILLS	1986	72	85.5	0.81	301	16	13.2	1.27	2287	88	98.6	0.87
PLATE MILL	1442	68	63.1	1.10	246	19	13.6	1.62	1688	87	76.6	1.19
AXLE MILLS	45	2	3.7	--	0	0	0.0	--	45	2	3.7	--
GENERAL FINISHING AND SHIPPING	511	24	21.0	1.16	113	5	5.6	0.88	624	29	26.6	1.10
HOT STRIP MILL	174	6	6.0	1.01	0	0	0.0	--	174	6	6.0	1.01
RAIL MILL ROLLING	288	13	11.9	1.10	32	1	1.3	--	320	14	13.3	1.06
RAIL MILL FINISHING	245	9	9.3	0.96	82	3	2.9	--	327	12	12.2	0.98
STEEL YARDS	68	4	4.3	--	11	0	0.4	--	79	4	4.7	--
STRUCTURAL MILL	980	27	30.7	0.86	128	4	4.6	--	1108	31	35.3	0.86
ANNEALING NORMALIZING	1214	43	45.7	0.93	25	2	1.6	--	1239	45	47.3	0.94
BATCH PICKLING AND SHEET DRYERS	45	0	2.8	--	19	2	1.0	--	64	2	3.9	--
COATING	269	8	7.7	1.04	0	0	0.0	--	269	8	7.7	1.04
COLD REDUCING MILLS	848	23	20.7	1.12	65	1	2.1	--	913	24	22.8	1.06
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	2.0	--	0	0	0.0	--	147	1	2.0	--
FLYING SHEARS AND SLITTERS	5	0	0.2	--	0	0	0.0	--	5	0	0.2	--
HOT PACK MILLS	737	50	46.9	1.10	5	0	0.5	--	742	50	47.4	1.08
HOT STRIP ROLLING	864	16	22.7	0.69	1	0	0.0	--	865	16	22.7	0.68
SHEET FINISHING AND SHIPPING	1335	52	41.2	1.35	48	4	2.7	--	1383	56	44.0	1.37
STAINLESS ANNEAL PICKLG AND PROCESSING	148	7	7.1	0.99	0	0	0.0	--	148	7	7.1	0.99
TEMPER PASSING AND COLD ROLLING	335	7	5.2	1.40	0	0	0.0	--	335	7	5.2	1.40
TIN FINISHING AND SHIPPING	348	13	10.5	1.30	0	0	0.0	--	348	13	10.5	1.30
GENERAL LABOR	565	42	25.8	1.69 **	375	16	15.5	1.04	940	58	41.3	1.46 **
JANITORS	112	12	10.8	1.13	190	9	9.9	0.90	302	21	20.6	1.02
MASON DEPARTMENT	758	25	21.2	1.19	242	12	7.4	1.72	1000	37	28.6	1.32
BLACKSMITH SHOP	231	14	11.6	1.22	5	2	0.3	--	236	16	11.9	1.36
CARPENTER SHOP	277	11	14.4	0.75	0	0	0.0	--	277	11	14.4	0.75
ELECTRIC MAINTENANCE ASSIGNED	1581	58	67.1	0.85	2	1	0.1	--	1583	59	67.2	0.87
ELECTRIC SHOP	760	36	37.5	0.96	2	0	0.1	--	762	36	37.5	0.95
GARAGE	98	1	3.1	--	1	0	0.2	--	99	1	3.3	--
LOCOMOTIVE AND CAR REPAIR	104	3	4.5	--	7	1	0.3	--	111	4	4.9	--
MACHINE SHOP	1270	60	50.0	1.23	2	0	0.1	--	1272	60	50.0	1.22
MAINTENANCE NOS	246	8	9.0	0.87	0	0	0.0	--	246	8	9.0	0.87
MECHANICAL MAINTENANCE ASSIGNED	2290	96	100.5	0.95	73	9	4.2	2.33 *	2363	105	104.8	1.00
PAINT SHOP	197	5	7.6	0.65	2	0	0.0	--	199	5	7.6	0.65
PATTERN SHOP	64	3	2.5	--	0	0	0.0	--	64	3	2.5	--
PIPE SHOP	657	31	24.1	1.31	6	1	0.3	--	663	32	24.5	1.33
RIGGERS AND STRUCTURAL	1034	34	44.5	0.75	6	0	0.3	--	1040	34	44.8	0.74
ROLL SHOP	314	10	11.1	0.89	0	0	0.0	--	314	10	11.1	0.89
WELD SHOP	460	15	10.8	1.41	2	0	0.0	--	462	15	10.8	1.41
ALL OTHER	302	16	19.7	0.80	9	0	0.5	--	311	16	20.2	0.78
GENERAL RECEIVING AND STORES	168	2	8.3	0.23 *	2	0	0.2	--	170	2	8.6	0.22 *
PLANT PROTECTION	469	33	22.7	1.50 *	1	0	0.0	--	470	33	22.8	1.50 *
POWER AND FUEL	976	43	43.8	0.98	89	5	4.6	1.08	1065	48	48.4	0.99
TRANSPORTATION AND YARD	871	46	39.3	1.19	194	10	7.3	1.41	1065	56	46.6	1.22
TUBE MILLS INCLUDES TUBE FINISHING	281	10	10.3	0.97	2	0	0.1	--	283	10	10.4	0.96
RIVER OR MARINE WAYS	177	10	6.4	1.65	1	0	0.0	--	178	10	6.4	1.65
TOTAL	36364	1216	1216.0	1.00	4913	184	184.0	1.00	41277	1400	1400.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C0142

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Pelative Risks
by Employment Cohort and Race

CAUSE OF DEATH: All Other Cardiovasculer-Renal Disease

ICD CODE: 444-468, 592-594

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Sheet Finishing and Shipping	2.35*	1.32	1.11	0.99	1.91	1.35
General Technical	1.01	1.53**	1.37	1.44**	1.45	1.48**
Heat Treat. and Forging	--	0.56*	0.94	0.79	0.95	0.65
Pipe Shop	1.64	1.50*	1.65	1.22	1.85	1.31
Plant Protection	2.01	1.46*	1.70	1.44*	1.94	1.50*
Temper Passing and Cold Rolling	--	1.57	3.92*	1.56	--	1.40
General Labor	--	1.14	0.70	1.28*	--	1.69**
Weld Shop	--	1.50	--	1.58*	--	1.41
General Receiving and Stores	--	0.47	--	0.66	--	0.23*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Merchant Mills	2.46	0.89	2.40*	1.32	3.36 *	1.27
Mason Dept.	--	1.44	2.23*	1.68*	--	1.72
Mechanical Maintenance Assigned	--	--	2.75*	1.78	--	2.33*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00145

C.O.D. (UNDERLYING) = 470-527
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	14	15.3	0.91	18	0	0.2	--	3291	14	15.4	0.90
GEN TECHNICAL	2368	9	7.7	1.18	14	0	0.1	--	2382	9	7.8	1.16
COKE PLANT	1635	12	6.9	1.89	908	9	6.1	1.98	2543	21	13.0	1.92 *
BLAST FURNACE	2355	17	12.4	1.41	1101	7	8.6	0.78	3456	24	21.0	1.16
OPEN HEARTH	5797	21	27.5	0.74	1836	11	16.2	0.59	7633	32	43.7	0.69
BESSEMER CONVERTER	24	1	0.3	--	0	0	0.0	--	24	1	0.3	--
ELECTRIC FURNACE	734	1	2.4	--	7	1	0.1	--	741	2	2.5	--
FOUNDRY	890	4	5.9	0.67	253	3	2.9	--	1143	7	8.8	0.77
HEAT TREAT AND FORGING	1003	3	3.9	--	16	1	0.1	--	1019	4	4.0	--
BILLET BLOOM AND SLAB MILLS	2912	17	16.9	1.01	223	4	2.9	--	3135	21	19.7	1.07
SOAKING PITS	94	0	0.5	--	14	0	0.0	--	108	0	0.5	--
MERCHANT MILLS	2130	14	13.0	1.09	395	2	3.3	--	2525	16	16.3	0.98
PLATE MILL	1547	8	6.5	1.27	239	2	1.6	--	1786	10	8.1	1.27
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	1.5	--	82	0	0.6	--	481	2	2.1	--
HOT STRIP MILL	164	1	1.2	--	1	0	0.0	--	165	1	1.2	--
RAIL MILL ROLLING	339	2	2.6	--	46	0	0.7	--	385	2	3.3	--
RAIL MILL FINISHING	347	4	1.9	--	98	4	1.6	--	445	8	3.5	2.69 *
STEEL YARDS	88	1	0.3	--	32	0	0.1	--	120	1	0.4	--
STRUCTURAL MILL	1196	3	4.5	--	164	1	0.8	--	1360	4	5.2	0.75
ANNEALING NORMALIZING	1353	14	7.4	2.05 *	17	0	0.3	--	1370	14	7.7	1.97 *
BATCH PICKLING AND SHEET DRYERS	55	0	0.2	--	21	0	0.2	--	76	0	0.4	--
COATING	328	0	1.4	--	0	0	0.0	--	328	0	1.4	--
COLD REDUCING MILLS	1395	3	5.3	0.55	97	1	1.0	--	1492	4	6.3	0.62
CONTINUOUS PICKLING AND ELEC CLEANING	205	2	0.5	--	0	0	0.0	--	205	2	0.5	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	4.1	--	5	0	0.1	--	571	2	4.2	--
HOT STRIP ROLLING	1008	4	5.0	0.78	0	0	0.0	--	1008	4	5.0	0.78
SHEET FINISHING AND SHIPPING	1733	5	7.0	0.69	36	2	1.6	--	1769	7	8.5	0.77
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.3	--	1	0	0.0	--	47	0	0.3	--
TEMPER PASSING AND COLD ROLLING	369	1	0.9	--	0	0	0.0	--	369	1	0.9	--
TIN FINISHING AND SHIPPING	396	1	1.8	--	1	0	0.0	--	397	1	1.8	--
GENERAL LABOR	546	2	2.7	--	449	4	3.0	--	995	6	5.7	1.06
JANITORS	205	4	2.8	--	321	5	3.5	1.48	526	9	6.4	1.46
MASON DEPARTMENT	1305	12	4.3	2.94 **	438	4	2.8	--	1743	16	7.1	2.36 **
BLACKSMITH SHOP	266	2	1.8	--	4	0	0.0	--	270	2	1.8	--
CARPENTER SHOP	406	4	2.6	--	0	0	0.0	--	406	4	2.6	--
ELECTRIC MAINTENANCE ASSIGNED	1605	5	7.8	0.64	5	0	0.0	--	1610	5	7.8	0.63
ELECTRIC SHOP	551	0	3.1	--	1	0	0.0	--	552	0	3.1	--
GARAGE	147	1	0.6	--	0	0	0.0	--	147	1	0.6	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.7	--	9	0	0.0	--	130	0	0.7	--
MACHINE SHOP	1442	6	8.1	0.73	3	0	0.1	--	1445	6	8.2	0.72
MAINTENANCE NOS	70	1	0.5	--	2	0	0.0	--	72	1	0.6	--
MECHNICAL MAINTENANCE ASSIGNED	2689	15	13.6	1.12	60	0	0.4	--	2749	15	13.9	1.09
PAINT SHOP	263	1	1.2	--	2	0	0.0	--	265	1	1.2	--
PATTERN SHOP	68	0	0.4	--	0	0	0.0	--	68	0	0.4	--
PIPE SHOP	738	1	3.7	--	5	0	0.0	--	743	1	3.8	--
RIGGERS AND STRUCTURAL	1189	5	7.0	0.71	8	0	0.0	--	1197	5	7.0	0.70
ROLL SHOP	374	1	2.2	--	0	0	0.0	--	374	1	2.2	--
WELD SHOP	644	3	2.5	--	2	0	0.0	--	646	3	2.5	--
ALL OTHER	138	1	0.7	--	5	0	0.1	--	143	1	0.7	--
GENERAL RECEIVING AND STORES	192	0	1.2	--	4	0	0.0	--	196	0	1.2	--
PLANT PROTECTION	674	8	4.5	1.80	1	0	0.0	--	675	8	4.6	1.78
POWER AND FUEL	1343	6	6.7	0.89	62	0	0.8	--	1405	6	7.6	0.79
TRANSPORTATION AND YARD	1293	4	6.0	0.65	341	1	2.2	--	1634	5	8.2	0.60
TUBE MILLS INCLUDES TUBE FINISHING	229	2	1.1	--	1	0	0.0	--	230	2	1.1	--
RIVER OR MARINE WAYS	218	2	1.2	--	1	0	0.0	--	219	2	1.2	--
TOTAL	51479	252	252.0	1.00	7349	62	62.0	1.00	58828	314	314.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 470-527
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	50	53.6	0.93	18	0	0.5	--	3291	50	54.1	0.92
GEN TECHNICAL	2368	27	27.0	1.00	14	0	0.3	--	2382	27	27.3	0.99
COKE PLANT	1635	25	24.8	1.01	908	26	22.6	1.27	2543	51	47.4	1.11
BLAST FURNACE	2355	38	44.5	0.84	1101	19	24.2	0.74	3456	57	68.7	0.81
OPEN HEARTH	5797	90	100.1	0.88	1836	41	46.6	0.83	7633	131	146.7	0.87
BESSEMER CONVERTER	24	2	1.0	--	0	0	0.0	--	24	2	1.0	--
ELECTRIC FURNACE	734	8	8.7	0.92	7	1	0.1	--	741	9	8.8	1.02
FOUNDRY	890	22	20.8	1.06	253	4	6.3	0.58	1143	26	27.1	0.96
HEAT TREAT AND FORGING	1003	14	16.3	0.85	16	2	0.4	--	1019	16	16.7	0.95
BILLET BLOOM AND SLAB MILLS	2912	63	60.3	1.05	223	4	6.5	0.54	3135	67	66.8	1.00
SOAKING PITS	94	1	1.5	--	14	0	0.1	--	108	1	1.7	--
MERCHANT MILLS	2130	50	44.9	1.13	395	7	10.3	0.65	2525	57	55.2	1.04
PLATE MILL	1547	33	26.7	1.28	239	9	7.1	1.34	1786	42	33.6	1.29
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	8	5.7	1.41	82	1	2.3	--	481	9	8.0	1.13
HOT STRIP MILL	164	5	4.3	1.16	1	0	0.0	--	165	5	4.4	1.15
RAIL MILL ROLLING	339	7	8.3	0.83	46	0	1.2	--	385	7	9.5	0.72
RAIL MILL FINISHING	347	7	6.1	1.15	98	7	2.8	3.34 *	445	14	9.0	1.68
STEEL YARDS	88	1	1.1	--	32	0	0.4	--	120	1	1.5	--
STRUCTURAL MILL	1196	18	18.7	0.96	164	3	3.4	--	1360	21	22.0	0.95
ANNEALING NORMALIZING	1353	34	27.0	1.30	17	0	0.4	--	1370	34	27.4	1.27
BATCH PICKLING AND SHEET DRYERS	55	0	0.7	--	21	0	0.3	--	76	0	1.0	--
COATING	328	2	4.7	--	0	0	0.0	--	328	2	4.7	--
COLD REDUCING MILLS	1395	17	18.1	0.94	97	5	3.4	1.53	1492	22	21.5	1.03
CONTINUOUS PICKLING AND ELEC CLEANING	205	4	1.5	--	0	0	0.0	--	205	4	1.5	--
FLYING SHEARS AND SLITTERS	8	0	0.2	--	0	0	0.0	--	8	0	0.2	--
HOT PACK MILLS	566	14	15.7	0.87	5	0	0.2	--	571	14	15.9	0.86
HOT STRIP ROLLING	1008	18	17.2	1.05	0	0	0.0	--	1008	18	17.2	1.05
SHEET FINISHING AND SHIPPING	1733	28	25.9	1.10	36	3	2.0	--	1769	31	27.9	1.14
STAINLESS ANNEAL PICKLG AND PROCESSING	46	3	1.3	--	1	0	0.0	--	47	3	1.3	--
TEMPER PASSING AND COLD ROLLING	369	2	3.1	--	0	0	0.0	--	369	2	3.1	--
TIN FINISHING AND SHIPPING	396	4	6.3	0.61	1	0	0.0	--	397	4	6.3	0.61
GENERAL LABOR	546	6	8.9	0.66	449	12	10.8	1.13	995	18	19.7	0.91
JANITORS	205	12	11.3	1.07	321	13	9.0	1.52	526	25	20.3	1.26
MASON DEPARTMENT	1305	28	15.4	1.88 **	438	12	8.1	1.54	1743	40	23.5	1.77 **
BLACKSMITH SHOP	266	5	6.9	0.72	4	0	0.1	--	270	5	7.0	0.71
CARPENTER SHOP	406	8	9.8	0.81	0	0	0.0	--	406	8	9.8	0.81
ELECTRIC MAINTENANCE ASSIGNED	1605	22	27.8	0.78	5	0	0.1	--	1610	22	27.8	0.78
ELECTRIC SHOP	551	8	11.6	0.68	1	0	0.0	--	552	8	11.6	0.68
GARAGE	147	2	2.1	--	0	0	0.0	--	147	2	2.1	--
LOCOMOTIVE AND CAR REPAIR	121	0	2.4	--	9	1	0.2	--	130	1	2.5	--
MACHINE SHOP	1442	34	29.7	1.16	3	0	0.1	--	1445	34	29.8	1.15
MAINTENANCE NOS	70	2	2.0	--	2	0	0.0	--	72	2	2.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	50	46.0	1.10	60	1	1.5	--	2749	51	47.5	1.08
PAINT SHOP	263	3	4.0	--	2	1	0.0	--	265	4	4.1	--
PATTERN SHOP	68	0	1.4	--	0	0	0.0	--	68	0	1.4	--
PIPE SHOP	738	14	13.4	1.05	5	0	0.1	--	743	14	13.5	1.04
RIGGERS AND STRUCTURAL	1189	22	24.7	0.88	8	1	0.1	--	1197	23	24.8	0.92
ROLL SHOP	374	9	7.7	1.18	0	0	0.0	--	374	9	7.7	1.18
WELD SHOP	644	12	9.0	1.35	2	0	0.1	--	646	12	9.1	1.34
ALL OTHER	138	2	2.2	--	5	1	0.2	--	143	3	2.4	--
GENERAL RECEIVING AND STORES	192	4	4.3	--	4	0	0.3	--	196	4	4.6	--
PLANT PROTECTION	674	20	17.1	1.18	1	0	0.1	--	675	20	17.1	1.18
POWER AND FUEL	1343	22	23.8	0.92	62	4	2.4	--	1405	26	26.2	0.99
TRANSPORTATION AND YARD	1293	21	22.9	0.91	341	4	7.1	0.51	1634	25	30.0	0.82
TUBE MILLS INCLUDES TUBE FINISHING	229	4	4.0	--	1	0	0.0	--	230	4	4.0	--
RIVER OR MARINE WAYS	218	3	3.6	--	1	0	0.0	--	219	3	3.6	--
TOTAL	51479	908	908.0	1.00	7349	182	182.0	1.00	58828	1090	1090.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 470-527
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	17	24.0	0.69	34	0	0.3	--	5146	17	24.2	0.68
GEN TECHNICAL	3684	15	14.5	1.04	16	0	0.1	--	3700	15	14.6	1.03
COKE PLANT	2381	15	11.1	1.45	1176	9	8.3	1.19	3557	24	19.4	1.37
BLAST FURNACE	4218	29	26.2	1.13	1415	8	11.6	0.61	5633	37	37.8	0.97
OPEN HEARTH	9655	45	48.7	0.91	2335	21	21.7	0.94	11990	66	70.4	0.91
BESSEMER CONVERTER	240	1	2.9	--	88	2	1.9	--	328	3	4.8	--
ELECTRIC FURNACE	1250	6	4.9	1.26	11	1	0.1	--	1261	7	5.0	1.47
FOUNDRY	1781	10	11.7	0.85	345	5	4.1	1.31	2126	15	15.7	0.95
HEAT TREAT AND FORGING	1683	8	7.4	1.09	46	3	0.4	--	1729	11	7.9	1.50
BILLET BLOOM AND SLAB MILLS	5783	29	34.6	0.80	419	6	5.5	1.16	6202	35	40.1	0.84
SOAKING PITS	148	0	0.7	--	28	0	0.1	--	176	0	0.8	--
MERCHANT MILLS	3885	30	27.0	1.15	680	9	6.8	1.46	4565	39	33.8	1.21
PLATE MILL	3005	14	15.1	0.90	436	2	3.2	--	3441	16	18.3	0.83
AXLE MILLS	293	1	2.4	--	6	0	0.1	--	299	1	2.4	--
GENERAL FINISHING AND SHIPPING	1309	7	8.6	0.80	213	2	2.0	--	1522	9	10.7	0.83
HOT STRIP MILL	567	4	3.9	--	1	0	0.0	--	568	4	3.9	--
RAIL MILL ROLLING	852	8	6.1	1.40	97	0	1.8	--	949	8	7.9	1.01
RAIL MILL FINISHING	726	9	5.3	1.95	145	6	2.8	3.34	871	15	8.2	2.31 *
STEEL YARDS	299	2	1.8	--	77	0	0.3	--	376	2	2.1	--
STRUCTURAL MILL	1972	4	7.9	0.46	252	1	1.3	--	2224	5	9.1	0.50
ANNEALING NORMALIZING	2605	20	14.9	1.44	54	2	1.0	--	2659	22	15.9	1.52
BATCH PICKLING AND SHEET DRYERS	137	0	0.8	--	50	0	0.5	--	187	0	1.3	--
COATING	545	1	2.3	--	0	0	0.0	--	545	1	2.3	--
COLD REDUCING MILLS	1933	5	7.7	0.63	113	3	1.2	--	2046	8	8.9	0.89
CONTINUOUS PICKLING AND ELEC CLEANING	254	2	0.6	--	0	0	0.0	--	254	2	0.6	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	6	8.9	0.57	19	0	0.4	--	1248	6	9.3	0.54
HOT STRIP ROLLING	1623	6	8.4	0.69	2	0	0.0	--	1625	6	8.4	0.69
SHEET FINISHING AND SHIPPING	3306	10	13.6	0.66	108	3	2.9	--	3414	13	16.5	0.69
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	2.2	--	2	0	0.0	--	386	2	2.2	--
TEMPER PASSING AND COLD ROLLING	783	1	2.2	--	0	0	0.0	--	783	1	2.2	--
TIN FINISHING AND SHIPPING	668	3	2.7	--	1	0	0.0	--	669	3	2.7	--
GENERAL LABOR	3153	19	19.8	0.95	1215	10	11.0	0.88	4368	29	30.8	0.93
JANITORS	311	6	4.1	1.50	422	6	4.6	1.35	733	12	8.7	1.43
MASON DEPARTMENT	2511	20	10.3	2.04 **	696	8	6.3	1.33	3207	28	16.6	1.79 **
BLACKSMITH SHOP	555	5	4.4	1.15	6	0	0.0	--	561	5	4.4	1.15
CARPENTER SHOP	665	5	5.3	0.94	1	0	0.0	--	666	5	5.3	0.94
ELECTRIC MAINTENANCE ASSIGNED	3200	15	20.8	0.70	8	0	0.1	--	3208	15	20.9	0.70
ELECTRIC SHOP	1620	4	11.7	0.32 *	2	0	0.0	--	1622	4	11.7	0.32 *
GARAGE	242	2	1.2	--	2	0	0.0	--	244	2	1.2	--
LOCOMOTIVE AND CAR REPAIR	261	0	1.6	--	22	0	0.1	--	283	0	1.7	--
MACHINE SHOP	2405	12	15.4	0.77	12	0	0.1	--	2417	12	15.5	0.76
MAINTENANCE NOS	558	4	3.1	--	5	0	0.0	--	563	4	3.2	--
MECHNICAL MAINTENANCE ASSIGNED	6136	36	34.9	1.04	201	0	1.7	--	6337	36	36.6	0.98
PAINT SHOP	777	6	4.1	1.47	9	0	0.2	--	786	6	4.4	1.39
PATTERN SHOP	95	0	0.6	--	0	0	0.0	--	95	0	0.6	--
PIPE SHOP	1412	7	9.0	0.77	14	0	0.2	--	1426	7	9.1	0.76
RIGGERS AND STRUCTURAL	2525	12	19.7	0.59	21	0	0.3	--	2546	12	19.9	0.58
ROLL SHOP	502	1	2.9	--	3	0	0.0	--	505	1	3.0	--
WELD SHOP	758	3	3.0	--	2	0	0.0	--	760	3	3.0	--
ALL OTHER	1098	8	9.8	0.81	75	2	1.2	--	1173	10	11.0	0.90
GENERAL RECEIVING AND STORES	382	1	2.7	--	9	0	0.1	--	391	1	2.8	--
PLANT PROTECTION	856	10	6.0	1.71	4	0	0.0	--	860	10	6.0	1.70
POWER AND FUEL	2336	16	15.1	1.06	213	4	3.5	--	2549	20	18.6	1.08
TRANSPORTATION AND YARD	2842	11	16.1	0.66	633	6	5.0	1.25	3475	17	21.1	0.79
TUBE MILLS INCLUDES TUBE FINISHING	635	5	3.3	1.86	10	0	0.1	--	645	5	3.4	1.57
RIVER OR MARINE WAYS	293	4	1.6	--	1	0	0.0	--	294	4	1.6	--
TOTAL	51479	252	252.0	1.00	7349	62	62.0	1.00	58828	314	314.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 470-527
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	5112	77	87.5	0.86	34	0	1.1	--	5146	77	88.6	0.85
GEN TECHNICAL	3684	45	51.9	0.85	16	0	0.3	--	3700	45	52.3	0.85
COKE PLANT	2381	39	37.8	1.04	1176	30	30.6	0.96	3557	69	68.4	1.01
BLAST FURNACE	4218	73	91.6	0.77 *	1415	26	32.4	0.75	5633	99	124.0	0.76 *
OPEN HEARTH	9655	172	179.9	0.94	2335	63	62.4	1.02	11990	235	242.2	0.96
BESSEMER CONVERTER	240	10	10.1	0.99	88	3	4.0	--	328	13	14.1	0.92
ELECTRIC FURNACE	1250	27	18.4	1.57 *	11	1	0.1	--	1261	28	18.6	1.63 *
FOUNDRY	1781	52	42.0	1.27	345	6	8.7	0.64	2126	58	50.7	1.17
HEAT TREAT AND FORGING	1683	32	31.1	1.04	46	4	1.7	--	1729	36	32.7	1.12
BILLET BLOOM AND SLAB MILLS	5783	115	122.5	0.92	419	14	13.2	1.08	6202	129	135.7	0.94
SOAKING PITS	148	2	2.1	--	28	0	0.3	--	176	2	2.3	--
MERCHANT MILLS	3885	95	94.8	1.00	680	26	21.0	1.33	4565	121	115.8	1.06
PLATE MILL	3005	73	63.4	1.24	436	15	13.6	1.16	3441	88	77.0	1.23
AXLE MILLS	293	9	9.8	0.91	6	1	0.2	--	299	10	10.0	1.00
GENERAL FINISHING AND SHIPPING	1309	36	29.7	1.24	213	4	7.0	0.55	1522	40	36.6	1.10
HOT STRIP MILL	567	11	14.1	0.76	1	0	0.0	--	568	11	14.2	0.76
RAIL MILL ROLLING	852	21	19.8	1.08	97	1	3.2	--	949	22	23.0	0.95
RAIL MILL FINISHING	726	19	17.3	1.13	145	9	4.9	2.54	871	28	23.2	1.35
STEEL YARDS	299	3	7.4	0.39	77	0	1.7	--	376	3	9.2	0.31
STRUCTURAL MILL	1972	36	32.6	1.13	252	5	5.3	0.94	2224	41	37.9	1.10
ANNEALING NORMALIZING	2605	67	55.3	1.28	54	4	1.7	--	2659	71	57.0	1.33 *
BATCH PICKLING AND SHEET DRYERS	137	4	3.1	--	50	1	0.9	--	187	5	4.0	1.29
COATING	545	4	7.7	0.49	0	0	0.0	--	545	4	7.7	0.49
COLD REDUCING MILLS	1933	23	26.3	0.86	113	7	4.2	1.79	2046	30	30.5	0.98
CONTINUOUS PICKLING AND ELEC CLEANING	254	5	2.0	2.73	0	0	0.0	--	254	5	2.0	2.73
FLYING SHEARS AND SLITTERS	28	0	0.3	--	0	0	0.0	--	28	0	0.3	--
HOT PACK MILLS	1229	33	35.4	0.90	19	0	0.6	--	1248	33	36.0	0.87
HOT STRIP ROLLING	1623	28	29.2	0.95	2	0	0.0	--	1625	28	29.3	0.95
SHEET FINISHING AND SHIPPING	3306	50	49.6	1.01	108	4	4.6	--	3414	54	54.2	0.99
STAINLESS ANNEAL PICKLG AND PROCESSING	384	16	8.9	1.99 *	2	0	0.0	--	386	16	8.9	1.98 *
TEMPER PASSING AND COLD ROLLING	783	3	7.8	0.35	0	0	0.0	--	783	3	7.8	0.35
TIN FINISHING AND SHIPPING	668	7	9.4	0.70	1	0	0.0	--	669	7	9.4	0.70
GENERAL LABOR	3153	84	70.1	1.23	1215	34	37.1	0.89	4368	118	107.2	1.12
JANITORS	311	17	16.2	1.05	422	14	11.9	1.20	733	31	28.1	1.11
MASON DEPARTMENT	2511	59	36.6	1.69 **	696	23	15.9	1.57	3207	82	52.5	1.66 **
BLACKSMITH SHOP	555	15	16.0	0.94	6	0	0.1	--	561	15	16.1	0.93
CARPENTER SHOP	665	11	19.1	0.56	1	0	0.0	--	666	11	19.1	0.56
ELECTRIC MAINTENANCE ASSIGNED	3200	66	73.7	0.89	8	0	0.2	--	3208	66	73.9	0.88
ELECTRIC SHOP	1620	38	45.1	0.83	2	0	0.1	--	1622	38	45.2	0.82
GARAGE	242	5	4.3	1.18	2	0	0.1	--	244	5	4.3	1.16
LOCOMOTIVE AND CAR REPAIR	261	5	5.9	0.85	22	1	0.5	--	283	6	6.4	0.94
MACHINE SHOP	2405	54	55.7	0.97	12	0	0.4	--	2417	54	56.0	0.96
MAINTENANCE NOS	558	13	11.2	1.20	5	0	0.1	--	563	13	11.3	1.19
MECHNICAL MAINTENANCE ASSIGNED	6136	140	124.7	1.16	201	4	5.9	0.66	6337	144	130.7	1.13
PAINT SHOP	777	16	14.7	1.09	9	1	0.4	--	786	17	15.1	1.13
PATTERN SHOP	95	0	2.2	--	0	0	0.0	--	95	0	2.2	--
PIPE SHOP	1412	34	32.3	1.06	14	0	0.5	--	1426	34	32.8	1.04
RIGGERS AND STRUCTURAL	2525	63	69.6	0.89	21	1	0.9	--	2546	64	70.6	0.90
ROLL SHOP	502	10	10.3	0.97	3	0	0.1	--	505	10	10.4	0.96
WELD SHOP	758	12	10.8	1.11	2	0	0.1	--	760	12	10.9	1.11
ALL OTHER	1098	33	34.8	0.94	75	5	3.3	1.57	1173	38	38.1	1.00
GENERAL RECEIVING AND STORES	382	11	9.5	1.16	9	0	0.5	--	391	11	10.0	1.10
PLANT PROTECTION	856	27	22.3	1.23	4	0	0.1	--	860	27	22.4	1.22
POWER AND FUEL	2336	53	53.5	0.99	213	9	9.2	0.97	2549	62	62.7	0.99
TRANSPORTATION AND YARD	2842	61	60.2	1.02	633	18	15.9	1.16	3475	79	76.1	1.04
TUBE MILLS INCLUDES TUBE FINISHING	635	17	12.7	1.41	10	0	0.2	--	645	17	12.9	1.39
RIVER OR MARINE WAYS	293	7	5.0	1.43	1	0	0.0	--	294	7	5.0	1.43
TOTAL	51479	908	908.0	1.00	7349	182	182.0	1.00	58828	1090	1090.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 21-MAY-74

C.O.D. (UNDERLYING) = 470-527
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	2363	13	14.7	0.87	11	0	0.1	--	2374	13	14.9	0.87
GEN TECHNICAL	1575	10	8.2	1.23	6	0	0.1	--	1581	10	8.3	1.22
COKE PLANT	1180	12	7.5	1.74	664	7	6.2	1.25	1844	19	13.8	1.57
BLAST FURNACE	1730	17	14.0	1.25	591	6	7.2	0.80	2321	23	21.1	1.10
OPEN HEARTH	4075	28	27.4	1.03	1347	13	16.3	0.71	5422	41	43.7	0.92
BESSEMER CONVERTER	118	1	1.7	--	35	1	0.7	--	153	2	2.4	--
ELECTRIC FURNACE	509	1	2.0	--	4	1	0.1	--	513	2	2.1	--
FOUNDRY	764	4	7.1	0.54	169	3	3.1	--	933	7	10.2	0.65
HEAT TREAT AND FORGING	708	4	4.0	--	20	1	0.1	--	728	5	4.2	1.23
BILLET BLOOM. AND SLAB MILLS	2614	15	18.9	0.77	201	4	3.6	--	2815	19	22.5	0.82
SOAKING PITS	19	0	0.2	--	0	0	0.0	--	19	0	0.2	--
MERCHANT MILLS	1986	17	16.6	1.03	301	2	4.1	--	2287	19	20.6	0.91
PLATE MILL	1442	6	8.3	0.69	246	2	2.1	--	1688	8	10.4	0.73
AXLE MILLS	45	0	0.5	--	0	0	0.0	--	45	0	0.5	--
GENERAL FINISHING AND SHIPPING	511	2	3.6	--	113	0	1.2	--	624	2	4.7	--
HOT STRIP MILL	174	1	1.3	--	0	0	0.0	--	174	1	1.3	--
RAIL MILL ROLLING	288	2	3.4	--	32	0	0.7	--	320	2	4.1	--
RAIL MILL FINISHING	245	4	2.6	--	82	4	1.7	--	327	8	4.3	2.14
STEEL YARDS	68	1	0.5	--	11	0	0.1	--	79	1	0.6	--
STRUCTURAL MILL	980	3	4.2	--	128	0	0.8	--	1108	3	5.0	0.57
ANNEALING NORMALIZING	1214	15	8.4	2.02 *	25	0	0.5	--	1239	15	8.9	1.86 *
BATCH PICKLING AND SHEET DRYERS	45	0	0.4	--	19	0	0.3	--	64	0	0.7	--
COATING	269	0	1.4	--	0	0	0.0	--	269	0	1.4	--
COLD REDUCING MILLS	848	2	4.7	--	65	1	0.9	--	913	3	5.6	0.52
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	0.4	--	0	0	0.0	--	147	1	0.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	4	6.4	0.55	5	0	0.2	--	742	4	6.6	0.53
HOT STRIP ROLLING	864	5	5.4	0.92	1	0	0.0	--	865	5	5.4	0.91
SHEET FINISHING AND SHIPPING	1335	6	6.4	0.93	48	2	2.0	--	1383	8	8.4	0.94
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.9	--	0	0	0.0	--	148	0	0.9	--
TEMPER PASSING AND COLD ROLLING	335	1	0.9	--	0	0	0.0	--	335	1	0.9	--
TIN FINISHING AND SHIPPING	348	1	1.9	--	0	0	0.0	--	348	1	1.9	--
GENERAL LABOR	565	4	5.0	0.79	375	4	4.2	--	940	8	9.3	0.85
JANITORS	112	3	1.6	--	190	4	2.7	--	302	7	4.3	1.68
MASON DEPARTMENT	758	12	4.2	3.07 **	242	6	2.7	2.43	1000	18	6.9	2.82 **
BLACKSMITH SHOP	231	3	2.1	--	5	0	0.0	--	236	3	2.1	--
CARPENTER SHOP	277	4	2.4	--	0	0	0.0	--	277	4	2.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	11	12.4	0.88	2	0	0.0	--	1583	11	12.5	0.88
ELECTRIC SHOP	760	2	5.8	0.33	2	0	0.0	--	762	2	5.8	0.33
GARAGE	98	1	0.7	--	1	0	0.0	--	99	1	0.7	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.8	--	7	0	0.0	--	111	0	0.9	--
MACHINE SHOP	1270	8	9.1	0.87	2	0	0.1	--	1272	8	9.2	0.87
MAINTENANCE NOS	246	2	1.7	--	0	0	0.0	--	246	2	1.7	--
MECHNICAL MAINTENANCE ASSIGNED	2290	19	17.6	1.09	73	0	0.9	--	2363	19	18.4	1.03
PAINT SHOP	197	1	1.4	--	2	0	0.0	--	199	1	1.4	--
PATTERN SHOP	64	0	0.5	--	0	0	0.0	--	64	0	0.5	--
PIPE SHOP	657	1	4.6	--	6	0	0.0	--	663	1	4.6	--
RIGGERS AND STRUCTURAL	1034	4	8.4	0.47	6	0	0.1	--	1040	4	8.5	0.46
ROLL SHOP	314	1	2.1	--	0	0	0.0	--	314	1	2.1	--
WELD SHOP	460	3	2.2	--	2	0	0.0	--	462	3	2.3	--
ALL OTHER	302	1	3.7	--	9	0	0.2	--	311	1	3.9	--
GENERAL RECEIVING AND STORES	168	0	1.6	--	2	0	0.0	--	170	0	1.7	--
PLANT PROTECTION	469	4	3.9	--	1	0	0.0	--	470	4	3.9	--
POWER AND FUEL	976	4	8.1	0.48	89	1	1.7	--	1065	5	9.8	0.50
TRANSPORTATION AND YARD	871	2	6.4	0.30	194	2	2.0	--	1065	4	8.4	0.46
TUBE MILLS INCLUDES TUBE FINISHING	281	3	1.6	--	2	0	0.1	--	283	3	1.7	--
RIVER OR MARINE WAYS	177	2	1.3	--	1	0	0.0	--	178	2	1.3	--
TOTAL	36364	224	224.0	1.00	4913	58	58.0	1.00	41277	282	282.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 470-527
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	51	55.3	0.92	11	0	0.4	--	2374	51	55.7	0.91
GEN TECHNICAL	1575	29	31.3	0.92	6	0	0.2	--	1581	29	31.5	0.91
COKE PLANT	1180	25	27.1	0.91	664	26	22.7	1.29	1844	51	49.8	1.03
BLAST FURNACE	1730	42	51.9	0.79	591	17	19.7	0.83	2321	59	71.6	0.80
OPEN HEARTH	4075	99	105.9	0.92	1347	45	45.4	0.99	5422	144	151.2	0.94
BESSEMER CONVERTER	118	6	6.0	1.00	35	1	1.9	--	153	7	7.9	0.88
ELECTRIC FURNACE	509	9	7.7	1.18	4	1	0.1	--	513	10	7.8	1.30
FOUNDRY	764	32	26.9	1.21	169	4	6.3	0.57	933	36	33.2	1.09
HEAT TREAT AND FORGING	708	17	18.5	0.91	20	2	0.7	--	728	19	19.2	0.99
BILLET BLOOM AND SLAB MILLS	2614	70	71.4	0.98	201	4	7.9	0.40	2815	74	79.3	0.92
SOAKING PITS	19	0	0.7	--	0	0	0.0	--	19	0	0.7	--
MERCHANT MILLS	1986	65	61.3	1.07	301	9	12.9	0.65	2287	74	74.2	1.00
PLATE MILL	1442	39	36.0	1.11	246	10	9.3	1.10	1688	49	45.3	1.11
AXLE MILLS	45	0	1.9	--	0	0	0.0	--	45	0	1.9	--
GENERAL FINISHING AND SHIPPING	511	15	12.9	1.17	113	1	4.2	--	624	16	17.1	0.93
HOT STRIP MILL	174	5	5.1	0.97	0	0	0.0	--	174	5	5.1	0.97
RAIL MILL ROLLING	288	8	11.2	0.68	32	0	1.3	--	320	8	12.5	0.60
RAIL MILL FINISHING	245	11	8.7	1.30	82	7	3.1	3.12 *	327	18	11.8	1.66
STEEL YARDS	68	1	2.4	--	11	0	0.3	--	79	1	2.7	--
STRUCTURAL MILL	980	19	18.7	1.02	128	2	3.6	--	1108	21	22.3	0.93
ANNEALING NORMALIZING	1214	41	32.5	1.32	25	1	0.9	--	1239	42	33.4	1.31
BATCH PICKLING AND SHEET DRYERS	45	3	1.7	--	19	0	0.6	--	64	3	2.3	--
COATING	269	3	5.1	0.57	0	0	0.0	--	269	3	5.1	0.57
COLD REDUCING MILLS	848	16	17.0	0.94	65	3	3.0	--	913	19	20.0	0.95
CONTINUOUS PICKLING AND ELEC CLEANING	147	3	1.4	--	0	0	0.0	--	147	3	1.4	--
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	23	26.5	0.82	5	0	0.4	--	742	23	26.8	0.81
HOT STRIP ROLLING	864	19	19.4	0.98	1	0	0.0	--	865	19	19.4	0.98
SHEET FINISHING AND SHIPPING	1335	25	24.7	1.01	48	3	2.5	--	1383	28	27.3	1.03
STAINLESS ANNEAL PICKLG AND PROCESSING	148	8	4.0	2.16	0	0	0.0	--	148	8	4.0	2.16
TEMPER PASSING AND COLD ROLLING	335	2	3.4	--	0	0	0.0	--	335	2	3.4	--
TIN FINISHING AND SHIPPING	348	5	6.9	0.69	0	0	0.0	--	348	5	6.9	0.69
GENERAL LABOR	565	20	17.7	1.14	375	13	13.9	0.92	940	33	31.6	1.05
JANITORS	112	8	6.8	1.18	190	10	7.1	1.48	302	18	13.9	1.33
MASON DEPARTMENT	758	31	15.8	2.05 **	242	13	7.6	1.83	1000	44	23.4	1.98 **
BLACKSMITH SHOP	231	9	8.1	1.12	5	0	0.1	--	236	9	8.2	1.11
CARPENTER SHOP	277	7	9.6	0.72	0	0	0.0	--	277	7	9.6	0.72
ELECTRIC MAINTENANCE ASSIGNED	1581	35	45.7	0.75	2	0	0.1	--	1583	35	45.7	0.75
ELECTRIC SHOP	760	24	24.2	0.99	2	0	0.1	--	762	24	24.3	0.99
GARAGE	98	2	2.4	--	1	0	0.0	--	99	2	2.5	--
LOCOMOTIVE AND CAR REPAIR	104	1	3.1	--	7	0	0.2	--	111	1	3.4	--
MACHINE SHOP	1270	39	34.7	1.14	2	0	0.1	--	1272	39	34.8	1.13
MAINTENANCE NOS	246	8	6.2	1.36	0	0	0.0	--	246	8	6.2	1.36
MECHNICAL MAINTENANCE ASSIGNED	2290	67	63.6	1.06	73	3	3.4	--	2363	70	67.0	1.05
PAINT SHOP	197	3	5.1	0.59	2	1	0.1	--	199	4	5.1	0.78
PATTERN SHOP	64	0	1.8	--	0	0	0.0	--	64	0	1.8	--
PIPE SHOP	657	13	16.8	0.76	6	0	0.2	--	663	13	17.0	0.75
RIGGERS AND STRUCTURAL	1034	25	31.4	0.79	6	1	0.4	--	1040	26	31.8	0.81
ROLL SHOP	314	9	7.8	1.17	0	0	0.0	--	314	9	7.8	1.17
WELD SHOP	460	11	8.4	1.32	2	0	0.1	--	462	11	8.5	1.31
ALL OTHER	302	11	13.9	0.78	9	0	0.7	--	311	11	14.5	0.74
GENERAL RECEIVING AND STORES	168	7	6.1	1.16	2	0	0.3	--	170	7	6.4	1.10
PLANT PROTECTION	469	15	15.3	0.98	1	0	0.0	--	470	15	15.3	0.98
POWER AND FUEL	976	25	30.4	0.81	89	4	4.7	--	1065	29	35.2	0.81
TRANSPORTATION AND YARD	871	20	25.9	0.76	194	7	6.4	1.12	1065	27	32.3	0.82
TUBE MILLS INCLUDES TUBE FINISHING	281	9	6.1	1.55	2	0	0.1	--	283	9	6.2	1.52
RIVER OR MARINE WAYS	177	3	3.7	--	1	0	0.0	--	178	3	3.7	--
TOTAL	36364	847	847.0	1.00	4913	168	168.0	1.00	41277	1015	1015.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Non-Malignant Respiratory Disease

ICD CODE: 470-527

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Annealing Normalizing	2.05*	1.30	1.44	1.28	2.02*	1.32
Mason Dept.	2.94**	1.88**	2.04**	1.69**	3.07**	2.05**
Electric Shop	--	0.68	0.32*	0.83	0.33	0.99
Blast Furnace	1.41	0.84	1.13	0.77*	1.25	0.79
Electric Furnace	--	0.92	1.26	1.57*	--	1.18
Stainless Anneal.Picklg. & Processing	--	--	--	1.99*	--	2.16
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Rail Mill Finishing	--	3.34*	3.34	2.54	--	3.12*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00150

C.O.D. (UNDERLYING) = 001-008
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	1	2.3	--	18	0	0.0	--	3291	1	2.4	--
GEN TECHNICAL	2368	3	1.3	--	14	0	0.0	--	2382	3	1.3	--
COKE PLANT	1635	0	1.0	--	908	4	3.3	--	2543	4	4.3	--
BLAST FURNACE	2355	1	2.0	--	1101	1	2.7	--	3456	2	4.7	--
OPEN HEARTH	5797	3	4.8	--	1836	3	4.2	--	7633	6	9.0	0.61
BESSEMER CONVERTER	24	0	0.0	--	0	0	0.0	--	24	0	0.0	--
ELECTRIC FURNACE	734	0	0.3	--	7	0	0.1	--	741	0	0.4	--
FOUNDRY	890	1	0.9	--	253	2	1.1	--	1143	3	2.0	--
HEAT TREAT AND FORGING	1003	0	0.8	--	16	0	0.0	--	1019	0	0.9	--
BILLET BLOOM AND SLAB MILLS	2912	9	3.0	3.99 **	223	0	0.5	--	3135	9	3.5	3.22 **
SOAKING PITS	94	1	0.1	--	14	0	0.0	--	108	1	0.1	--
MERCHANT MILLS	2130	0	2.1	--	395	1	1.2	--	2525	1	3.3	--
PLATE MILL	1547	2	1.3	--	239	0	0.3	--	1786	2	1.6	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.2	--	82	0	0.2	--	481	0	0.5	--
HOT STRIP MILL	164	0	0.2	--	1	0	0.0	--	165	0	0.2	--
RAIL MILL ROLLING	339	0	0.3	--	46	0	0.3	--	385	0	0.5	--
RAIL MILL FINISHING	347	0	0.2	--	98	2	0.5	--	445	2	0.8	--
STEEL YARDS	88	0	0.1	--	32	0	0.0	--	120	0	0.1	--
STRUCTURAL MILL	1196	3	1.0	--	164	0	0.2	--	1360	3	1.3	--
ANNEALING NORMALIZING	1353	4	1.4	--	17	0	0.0	--	1370	4	1.4	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	1	1.0	--	97	0	0.3	--	1492	1	1.3	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	1	0.0	--	0	0	0.0	--	8	1	0.0	--
HOT PACK MILLS	566	0	0.7	--	5	0	0.0	--	571	0	0.7	--
HOT STRIP ROLLING	1008	0	0.9	--	0	0	0.0	--	1008	0	0.9	--
SHEET FINISHING AND SHIPPING	1733	0	1.0	--	36	0	0.0	--	1769	0	1.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.0	--	1	0	0.0	--	47	0	0.0	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.4	--	449	1	0.9	--	995	1	1.3	--
JANITORS	205	0	0.3	--	321	4	1.5	--	526	4	1.8	--
MASON DEPARTMENT	1305	0	0.8	--	438	2	1.1	--	1743	2	1.9	--
BLACKSMITH SHOP	266	0	0.3	--	4	0	0.0	--	270	0	0.3	--
CARPENTER SHOP	406	0	0.4	--	0	0	0.0	--	406	0	0.4	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	1.3	--	5	0	0.0	--	1610	2	1.3	--
ELECTRIC SHOP	551	0	0.5	--	1	0	0.0	--	552	0	0.5	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.1	--	9	0	0.0	--	130	1	0.1	--
MACHINE SHOP	1442	1	1.2	--	3	0	0.0	--	1445	1	1.3	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	3	2.0	--	60	0	0.1	--	2749	3	2.1	--
PAINT SHOP	263	0	0.2	--	2	0	0.0	--	265	0	0.2	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	1	0.6	--	5	0	0.0	--	743	1	0.6	--
RIGGERS AND STRUCTURAL	1189	0	1.1	--	8	0	0.0	--	1197	0	1.1	--
ROLL SHOP	374	0	0.3	--	0	0	0.0	--	374	0	0.3	--
WELD SHOP	644	0	0.5	--	2	0	0.0	--	646	0	0.5	--
ALL OTHER	138	0	0.1	--	5	0	0.0	--	143	0	0.1	--
GENERAL RECEIVING AND STORES	192	1	0.1	--	4	0	0.0	--	196	1	0.2	--
PLANT PROTECTION	674	0	0.7	--	1	0	0.0	--	675	0	0.7	--
POWER AND FUEL	1343	1	1.1	--	62	0	0.2	--	1405	1	1.3	--
TRANSPORTATION AND YARD	1293	1	0.9	--	341	0	0.8	--	1634	1	1.7	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.1	--	1	0	0.0	--	230	0	0.1	--
RIVER OR MARINE WAYS	218	0	0.1	--	1	0	0.0	--	219	0	0.1	--
TOTAL	51479	41	41.0	1.00	7349	20	20.0	1.00	58828	61	61.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 001-008
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	3	3.5	--	18	0	0.1	--	3291	3	3.5	--
GEN TECHNICAL	2368	3	1.9	--	14	0	0.0	--	2382	3	2.0	--
COKE PLANT	1635	0	1.7	--	908	5	4.2	1.35	2543	5	5.9	0.76
BLAST FURNACE	2355	1	2.9	--	1101	1	3.8	--	3456	2	6.8	0.26
OPEN HEARTH	5797	3	7.1	0.39	1836	6	6.4	0.92	7633	9	13.4	0.60
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	0	0.5	--	7	0	0.1	--	741	0	0.6	--
FOUNDRY	890	1	1.4	--	253	2	1.2	--	1143	3	2.6	--
HEAT TREAT AND FORGING	1003	0	1.0	--	16	1	0.1	--	1019	1	1.1	--
BILLET BLOOM AND SLAB MILLS	2912	11	4.3	3.09 **	223	0	0.7	--	3135	11	5.0	2.55 **
SOAKING PITS	94	1	0.1	--	14	0	0.0	--	108	1	0.1	--
MERCHANT MILLS	2130	4	3.5	--	395	2	1.6	--	2525	6	5.1	1.21
PLATE MILL	1547	2	1.6	--	239	0	0.7	--	1786	2	2.4	--
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.4	--	82	0	0.4	--	481	0	0.8	--
HOT STRIP MILL	164	0	0.3	--	1	0	0.0	--	165	0	0.3	--
RAIL MILL ROLLING	339	0	0.4	--	46	0	0.3	--	385	0	0.7	--
RAIL MILL FINISHING	347	0	0.3	--	98	2	0.5	--	445	2	0.9	--
STEEL YARDS	88	0	0.1	--	32	0	0.1	--	120	0	0.2	--
STRUCTURAL MILL	1196	3	1.3	--	164	0	0.6	--	1360	3	1.6	--
ANNEALING NORMALIZING	1353	6	2.0	3.62 *	17	0	0.0	--	1370	6	2.0	3.60 *
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.1	--	0	0	0.0	--	328	0	0.1	--
COLD REDUCING MILLS	1395	1	1.5	--	97	0	0.5	--	1492	1	1.9	--
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	1	0.0	--	0	0	0.0	--	8	1	0.0	--
HOT PACK MILLS	566	0	0.8	--	5	0	0.0	--	571	0	0.8	--
HOT STRIP ROLLING	1008	1	1.4	--	0	0	0.0	--	1008	1	1.4	--
SHEET FINISHING AND SHIPPING	1733	2	1.2	--	36	0	0.0	--	1769	2	1.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.2	--	0	0	0.0	--	369	0	0.2	--
TIN FINISHING AND SHIPPING	396	0	0.2	--	1	0	0.0	--	397	0	0.2	--
GENERAL LABOR	546	0	0.6	--	449	1	1.5	--	995	1	2.1	--
JANITORS	205	0	0.4	--	321	4	1.9	--	526	4	2.3	--
MASON DEPARTMENT	1305	0	1.2	--	438	3	1.6	--	1743	3	2.8	--
BLACKSMITH SHOP	266	0	0.4	--	4	0	0.0	--	270	0	0.4	--
CARPENTER SHOP	406	0	0.6	--	0	0	0.0	--	406	0	0.6	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	1.8	--	5	0	0.0	--	1610	2	1.8	--
ELECTRIC SHOP	551	0	0.7	--	1	0	0.0	--	552	0	0.7	--
GARAGE	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.2	--	9	0	0.0	--	130	1	0.2	--
MACHINE SHOP	1442	1	1.8	--	3	0	0.0	--	1445	1	1.8	--
MAINTENANCE NOS	70	0	0.1	--	2	0	0.0	--	72	0	0.1	--
MECHNICAL MAINTENANCE ASSIGNED	2689	4	3.0	--	60	0	0.2	--	2749	4	3.2	--
PAINT SHOP	263	0	0.3	--	2	0	0.0	--	265	0	0.3	--
PATTERN SHOP	68	0	0.1	--	0	0	0.0	--	68	0	0.1	--
PIPE SHOP	738	2	1.0	--	5	0	0.0	--	743	2	1.0	--
RIGGERS AND STRUCTURAL	1189	0	1.7	--	8	0	0.0	--	1197	0	1.8	--
ROLL SHOP	374	0	0.5	--	0	0	0.0	--	374	0	0.5	--
WELD SHOP	644	0	0.7	--	2	0	0.0	--	646	0	0.7	--
ALL OTHER	138	0	0.2	--	5	0	0.0	--	143	0	0.2	--
GENERAL RECEIVING AND STORES	192	1	0.2	--	4	0	0.0	--	196	1	0.2	--
PLANT PROTECTION	674	2	1.0	--	1	0	0.0	--	675	2	1.0	--
POWER AND FUEL	1343	3	1.6	--	62	0	0.3	--	1405	3	1.9	--
TRANSPORTATION AND YARD	1293	1	1.3	--	341	1	1.2	--	1634	2	2.5	--
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.2	--	1	0	0.0	--	230	0	0.2	--
RIVER OR MARINE WAYS	218	0	0.3	--	1	0	0.0	--	219	0	0.3	--
TOTAL	51479	60	60.0	1.00	7349	28	28.0	1.00	58828	88	88.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 15-MAY-74

C.O.D. (UNDERLYING) = 001-008
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	4	3.9	--	34	0	0.1	--	5146	4	4.0	--
GEN TECHNICAL	3684	3	2.5	--	16	0	0.0	--	3700	3	2.5	--
COKE PLANT	2381	1	1.6	--	1176	4	4.2	--	3557	5	5.8	0.79
BLAST FURNACE	4218	2	4.0	--	1415	1	3.6	--	5633	3	7.6	0.35
OPEN HEARTH	9655	11	8.6	1.41	2335	4	5.7	0.60	11990	15	14.4	1.06
BESSEMER CONVERTER	240	1	0.3	--	88	0	0.7	--	328	1	1.0	--
ELECTRIC FURNACE	1250	0	0.7	--	11	0	0.1	--	1261	0	0.8	--
FOUNDRY	1781	2	1.7	--	345	2	1.4	--	2126	4	3.1	--
HEAT TREAT AND FORGING	1683	1	1.5	--	46	0	0.1	--	1729	1	1.6	--
BILLET BLOOM AND SLAB MILLS	5783	10	5.8	2.10	419	0	0.9	--	6202	10	6.7	1.71
SOAKING PITS	148	2	0.1	--	28	0	0.0	--	176	2	0.1	--
MERCHANT MILLS	3885	4	4.3	--	680	3	2.5	--	4565	7	6.8	1.04
PLATE MILL	3005	3	2.9	--	436	0	0.5	--	3441	3	3.5	--
AXLE MILLS	293	1	0.4	--	6	0	0.0	--	299	1	0.4	--
GENERAL FINISHING AND SHIPPING	1309	0	1.3	--	213	0	0.6	--	1522	0	1.9	--
HOT STRIP MILL	567	1	0.7	--	1	0	0.0	--	568	1	0.7	--
RAIL MILL ROLLING	852	0	0.7	--	97	1	0.6	--	949	1	1.3	--
RAIL MILL FINISHING	726	0	0.6	--	145	2	0.9	--	871	2	1.5	--
STEEL YARDS	299	0	0.3	--	77	1	0.1	--	376	1	0.4	--
STRUCTURAL MILL	1972	4	1.8	--	252	0	0.4	--	2224	4	2.2	--
ANNEALING NORMALIZING	2605	5	2.5	2.44	54	0	0.0	--	2659	5	2.6	2.44
BATCH PICKLING AND SHEET DRYERS	137	1	0.2	--	50	0	0.0	--	187	1	0.2	--
COATING	545	1	0.2	--	0	0	0.0	--	545	1	0.2	--
COLD REDUCING MILLS	1933	2	1.3	--	113	0	0.4	--	2046	2	1.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	1	0.0	--	0	0	0.0	--	28	1	0.0	--
HOT PACK MILLS	1229	1	1.4	--	19	0	0.0	--	1248	1	1.4	--
HOT STRIP ROLLING	1623	1	1.5	--	2	0	0.0	--	1625	1	1.5	--
SHEET FINISHING AND SHIPPING	3306	1	1.9	--	108	0	0.0	--	3414	1	1.9	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	0.3	--	2	0	0.0	--	386	2	0.3	--
TEMPER PASSING AND COLD ROLLING	783	0	0.3	--	0	0	0.0	--	783	0	0.3	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	3	2.9	--	1215	1	3.3	--	4368	4	6.2	0.61
JANITORS	311	0	0.5	--	422	4	1.9	--	733	4	2.4	--
MASON DEPARTMENT	2511	1	1.7	--	696	2	2.0	--	3207	3	3.7	--
BLACKSMITH SHOP	555	1	0.6	--	6	0	0.0	--	561	1	0.6	--
CARPENTER SHOP	665	0	0.8	--	1	0	0.0	--	666	0	0.8	--
ELECTRIC MAINTENANCE ASSIGNED	3200	4	3.1	--	8	0	0.0	--	3208	4	3.1	--
ELECTRIC SHOP	1620	0	1.8	--	2	0	0.0	--	1622	0	1.8	--
GARAGE	242	0	0.2	--	2	0	0.1	--	244	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.2	--	22	0	0.0	--	283	1	0.3	--
MACHINE SHOP	2405	2	2.3	--	12	0	0.0	--	2417	2	2.3	--
MAINTENANCE NOS	558	0	0.5	--	5	0	0.0	--	563	0	0.5	--
MECHNICAL MAINTENANCE ASSIGNED	6136	9	5.0	2.18	201	0	0.4	--	6337	9	5.5	1.93
PAINT SHOP	777	0	0.7	--	9	0	0.1	--	786	0	0.8	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	1	1.4	--	14	0	0.0	--	1426	1	1.4	--
RIGGERS AND STRUCTURAL	2525	2	2.8	--	21	0	0.1	--	2546	2	2.9	--
ROLL SHOP	502	1	0.4	--	3	0	0.0	--	505	1	0.5	--
WELD SHOP	758	0	0.6	--	2	0	0.0	--	760	0	0.6	--
ALL OTHER	1098	0	1.5	--	75	0	0.3	--	1173	0	1.8	--
GENERAL RECEIVING AND STORES	382	1	0.3	--	9	0	0.0	--	391	1	0.4	--
PLANT PROTECTION	856	0	0.9	--	4	0	0.0	--	860	0	0.9	--
POWER AND FUEL	2336	3	2.3	--	213	0	1.1	--	2549	3	3.3	--
TRANSPORTATION AND YARD	2842	1	2.4	--	633	1	1.7	--	3475	2	4.1	--
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.4	--	10	0	0.0	--	645	0	0.4	--
RIVER OR MARINE WAYS	293	0	0.2	--	1	0	0.0	--	294	0	0.2	--
TOTAL	51479	41	41.0	1.00	7349	20	20.0	1.00	58828	61	61.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00153

C.O.D. (PREVALENCE) = 001-008
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	7	5.7	1.27	34	0	0.1	--	5146	7	5.8	1.24
GEN TECHNICAL	3684	3	3.6	--	16	0	0.0	--	3700	3	3.7	--
COKE PLANT	2381	2	2.9	--	1176	5	5.4	0.86	3557	7	8.3	0.76
BLAST FURNACE	4218	4	5.9	0.64	1415	2	5.1	0.33	5633	6	11.0	0.50
OPEN HEARTH	9655	16	12.3	1.44	2335	8	8.6	0.89	11990	24	20.9	1.23
BESSEMER CONVERTER	240	1	0.5	--	88	0	0.7	--	328	1	1.2	--
ELECTRIC FURNACE	1250	0	1.0	--	11	0	0.1	--	1261	0	1.1	--
FOUNDRY	1781	4	2.5	--	345	2	1.5	--	2126	6	4.0	1.59
HEAT TREAT AND FORGING	1683	1	1.9	--	46	1	0.1	--	1729	2	2.0	--
BILLET BLOOM AND SLAB MILLS	5783	13	8.4	1.80	419	0	1.3	--	6202	13	9.7	1.46
SOAKING PITS	148	2	0.2	--	28	0	0.0	--	176	2	0.2	--
MERCHANT MILLS	3885	8	7.0	1.20	680	4	3.4	--	4565	12	10.4	1.21
PLATE MILL	3005	3	3.6	--	436	1	1.3	--	3441	4	4.9	--
AXLE MILLS	293	2	0.5	--	6	0	0.0	--	299	2	0.5	--
GENERAL FINISHING AND SHIPPING	1309	1	2.0	--	213	0	1.0	--	1522	1	3.0	--
HOT STRIP MILL	567	1	1.2	--	1	0	0.0	--	568	1	1.2	--
RAIL MILL ROLLING	852	0	1.1	--	97	1	0.6	--	949	1	1.7	--
RAIL MILL FINISHING	726	0	0.9	--	145	2	0.9	--	871	2	1.8	--
STEEL YARDS	299	0	0.4	--	77	1	0.3	--	376	1	0.6	--
STRUCTURAL MILL	1972	4	2.2	--	252	0	0.9	--	2224	4	3.1	--
ANNEALING NORMALIZING	2605	7	3.7	2.25	54	0	0.0	--	2659	7	3.7	2.24
BATCH PICKLING AND SHEET DRYERS	137	1	0.2	--	50	0	0.0	--	187	1	0.2	--
COATING	545	1	0.3	--	0	0	0.0	--	545	1	0.3	--
COLD REDUCING MILLS	1933	2	2.0	--	113	0	0.6	--	2046	2	2.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	1	0.0	--	0	0	0.0	--	28	1	0.0	--
HOT PACK MILLS	1229	1	1.7	--	19	0	0.0	--	1248	1	1.7	--
HOT STRIP ROLLING	1623	2	2.3	--	2	0	0.0	--	1625	2	2.3	--
SHEET FINISHING AND SHIPPING	3306	3	2.3	--	108	0	0.0	--	3414	3	2.3	--
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	0.4	--	2	0	0.0	--	386	2	0.4	--
TEMPER PASSING AND COLD ROLLING	783	0	0.4	--	0	0	0.0	--	783	0	0.4	--
TIN FINISHING AND SHIPPING	668	0	0.3	--	1	0	0.0	--	669	0	0.3	--
GENERAL LABOR	3153	4	4.2	--	1215	5	5.3	0.93	4368	9	9.5	0.94
JANITORS	311	0	0.6	--	422	4	2.3	--	733	4	3.0	--
MASON DEPARTMENT	2511	1	2.6	--	696	3	2.8	--	3207	4	5.4	0.73
BLACKSMITH SHOP	555	1	0.9	--	6	0	0.0	--	561	1	0.9	--
CARPENTER SHOP	665	0	1.1	--	1	0	0.0	--	666	0	1.1	--
ELECTRIC MAINTENANCE ASSIGNED	3200	4	4.7	--	8	0	0.0	--	3208	4	4.7	--
ELECTRIC SHOP	1620	0	2.5	--	2	0	0.0	--	1622	0	2.5	--
GARAGE	242	0	0.3	--	2	0	0.1	--	244	0	0.4	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.4	--	22	0	0.1	--	283	1	0.4	--
MACHINE SHOP	2405	2	3.4	--	12	0	0.1	--	2417	2	3.4	--
MAINTENANCE NOS	558	0	0.6	--	5	0	0.0	--	563	0	0.6	--
MECHNICAL MAINTENANCE ASSIGNED	6136	10	7.4	1.46	201	0	0.6	--	6337	10	8.1	1.31
PAINT SHOP	777	0	1.2	--	9	0	0.1	--	786	0	1.2	--
PATTERN SHOP	95	0	0.1	--	0	0	0.0	--	95	0	0.1	--
PIPE SHOP	1412	2	2.1	--	14	0	0.1	--	1426	2	2.1	--
RIGGERS AND STRUCTURAL	2525	2	4.2	--	21	0	0.2	--	2546	2	4.3	--
ROLL SHOP	502	1	0.7	--	3	0	0.0	--	505	1	0.7	--
WELD SHOP	758	0	0.8	--	2	0	0.0	--	760	0	0.8	--
ALL OTHER	1098	1	2.3	--	75	1	0.4	--	1173	2	2.7	--
GENERAL RECEIVING AND STORES	382	1	0.5	--	9	0	0.0	--	391	1	0.5	--
PLANT PROTECTION	856	2	1.3	--	4	0	0.0	--	860	2	1.3	--
POWER AND FUEL	2336	5	3.4	1.53	213	1	1.4	--	2549	6	4.8	1.28
TRANSPORTATION AND YARD	2842	1	3.4	--	633	2	2.5	--	3475	3	5.9	0.49
TUBE MILLS INCLUDES TUBE FINISHING	635	0	0.6	--	10	0	0.0	--	645	0	0.6	--
RIVER OR MARINE WAYS	293	0	0.4	--	1	0	0.0	--	294	0	0.4	--
TOTAL	51479	60	60.0	1.00	7349	28	28.0	1.00	58828	88	88.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = 001-008
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	2363	1	2.3	--	11	0	0.0	--	2374	1	2.4	--
GEN TECHNICAL	1575	3	1.4	--	6	0	0.0	--	1581	3	1.4	--
COKE PLANT	1180	0	1.1	--	664	2	2.8	--	1844	2	3.9	--
BLAST FURNACE	1730	0	2.0	--	591	1	1.5	--	2321	1	3.6	--
OPEN HEARTH	4075	5	4.9	1.03	1347	1	3.2	--	5422	6	8.0	0.71
BESSEMER CONVERTER	118	1	0.2	--	35	0	0.2	--	153	1	0.4	--
ELECTRIC FURNACE	509	0	0.3	--	4	0	0.1	--	513	0	0.4	--
FOUNDRY	764	1	1.0	--	169	1	0.8	--	933	2	1.8	--
HEAT TREAT AND FORGING	708	0	0.9	--	20	0	0.0	--	728	0	1.0	--
BILLET BLOOM AND SLAB MILLS	2614	7	3.1	2.93 *	201	0	0.4	--	2815	7	3.6	2.41
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	1	2.5	--	301	1	1.4	--	2287	2	3.9	--
PLATE MILL	1442	3	1.8	--	246	0	0.3	--	1688	3	2.2	--
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	0	0.5	--	113	0	0.4	--	624	0	0.9	--
HOT STRIP MILL	174	0	0.2	--	0	0	0.0	--	174	0	0.2	--
RAIL MILL ROLLING	288	0	0.3	--	32	0	0.2	--	320	0	0.5	--
RAIL MILL FINISHING	245	0	0.3	--	82	2	0.5	--	327	2	0.7	--
STEEL YARDS	68	0	0.1	--	11	0	0.0	--	79	0	0.1	--
STRUCTURAL MILL	980	4	1.2	--	128	0	0.2	--	1108	4	1.4	--
ANNEALING NORMALIZING	1214	4	1.6	--	25	0	0.0	--	1239	4	1.6	--
BATCH PICKLING AND SHEET DRYERS	45	1	0.1	--	19	0	0.0	--	64	1	0.1	--
COATING	269	0	0.1	--	0	0	0.0	--	269	0	0.1	--
COLD REDUCING MILLS	848	2	0.9	--	65	0	0.3	--	913	2	1.1	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	1.1	--	5	0	0.0	--	742	0	1.1	--
HOT STRIP ROLLING	864	0	1.0	--	1	0	0.0	--	865	0	1.0	--
SHEET FINISHING AND SHIPPING	1335	1	1.0	--	48	0	0.0	--	1383	1	1.0	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.1	--	0	0	0.0	--	148	1	0.1	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	0.7	--	375	1	1.3	--	940	1	1.9	--
JANITORS	112	0	0.2	--	190	3	0.9	--	302	3	1.0	--
MASON DEPARTMENT	758	0	0.8	--	242	2	0.6	--	1000	2	1.4	--
BLACKSMITH SHOP	231	0	0.3	--	5	0	0.0	--	236	0	0.3	--
CARPENTER SHOP	277	0	0.4	--	0	0	0.0	--	277	0	0.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	1.9	--	2	0	0.0	--	1583	2	1.9	--
ELECTRIC SHOP	760	0	1.0	--	2	0	0.0	--	762	0	1.0	--
GARAGE	98	0	0.1	--	1	0	0.1	--	99	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.1	--	7	0	0.0	--	111	1	0.1	--
MACHINE SHOP	1270	1	1.4	--	2	0	0.0	--	1272	1	1.4	--
MAINTENANCE NOS	246	0	0.3	--	0	0	0.0	--	246	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	2.5	2.39	73	0	0.3	--	2363	5	2.7	2.09
PAINT SHOP	197	0	0.2	--	2	0	0.0	--	199	0	0.2	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	1	0.7	--	6	0	0.0	--	663	1	0.7	--
RIGGERS AND STRUCTURAL	1034	1	1.3	--	6	0	0.0	--	1040	1	1.3	--
ROLL SHOP	314	0	0.3	--	0	0	0.0	--	314	0	0.3	--
WELD SHOP	460	0	0.4	--	2	0	0.0	--	462	0	0.5	--
ALL OTHER	302	0	0.6	--	9	0	0.1	--	311	0	0.7	--
GENERAL RECEIVING AND STORES	168	1	0.2	--	2	0	0.0	--	170	1	0.2	--
PLANT PROTECTION	469	0	0.6	--	1	0	0.0	--	470	0	0.6	--
POWER AND FUEL	976	1	1.2	--	89	0	0.6	--	1065	1	1.8	--
TRANSPORTATION AND YARD	871	1	0.9	--	194	0	0.6	--	1065	1	1.5	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.2	--	2	0	0.0	--	283	0	0.2	--
RIVER OR MARINE WAYS	177	0	0.2	--	1	0	0.0	--	178	0	0.2	--
TOTAL	36364	37	37.0	1.00	4913	14	14.0	1.00	41277	51	51.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00155

C.O.D. (PREVALENCE) = 001-008
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	3	3.4	--	11	0	0.0	--	2374	3	3.4	--
GEN TECHNICAL	1575	3	2.0	--	6	0	0.0	--	1581	3	2.0	--
COKE PLANT	1180	0	1.9	--	664	3	3.7	--	1844	3	5.6	0.40
BLAST FURNACE	1730	1	2.9	--	591	1	2.3	--	2321	2	5.2	0.35
OPEN HEARTH	4075	6	6.8	0.86	1347	4	5.2	0.67	5422	10	12.1	0.79
BESSEMER CONVERTER	118	1	0.2	--	35	0	0.3	--	153	1	0.5	--
ELECTRIC FURNACE	509	0	0.4	--	4	0	0.1	--	513	0	0.4	--
FOUNDRY	764	2	1.5	--	169	1	0.8	--	933	3	2.3	--
HEAT TREAT AND FORGING	708	0	1.1	--	20	1	0.1	--	728	1	1.2	--
BILLET BLOOM AND SLAB MILLS	2614	9	4.3	2.67 *	201	0	0.7	--	2815	9	5.0	2.13
SOAKING PITS	19	0	0.0	--	0	0	0.0	--	19	0	0.0	--
MERCHANT MILLS	1986	5	3.9	1.35	301	2	1.9	--	2287	7	5.8	1.24
PLATE MILL	1442	3	2.3	--	246	1	0.8	--	1688	4	3.1	--
AXLE MILLS	45	1	0.1	--	0	0	0.0	--	45	1	0.1	--
GENERAL FINISHING AND SHIPPING	511	1	0.9	--	113	0	0.6	--	624	1	1.5	--
HOT STRIP MILL	174	0	0.4	--	0	0	0.0	--	174	0	0.4	--
RAIL MILL ROLLING	288	0	0.5	--	32	0	0.2	--	320	0	0.7	--
RAIL MILL FINISHING	245	0	0.4	--	82	2	0.5	--	327	2	0.9	--
STEEL YARDS	68	0	0.1	--	11	0	0.1	--	79	0	0.2	--
STRUCTURAL MILL	980	4	1.4	--	128	0	0.5	--	1108	4	2.0	--
ANNEALING NORMALIZING	1214	6	2.1	3.68 *	25	0	0.0	--	1239	6	2.1	3.66 *
BATCH PICKLING AND SHEET DRYERS	45	1	0.1	--	19	0	0.0	--	64	1	0.1	--
COATING	269	0	0.2	--	0	0	0.0	--	269	0	0.2	--
COLD REDUCING MILLS	848	2	1.2	--	65	0	0.4	--	913	2	1.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	0	1.3	--	5	0	0.0	--	742	0	1.3	--
HOT STRIP ROLLING	864	1	1.4	--	1	0	0.0	--	865	1	1.4	--
SHEET FINISHING AND SHIPPING	1335	2	1.1	--	48	0	0.0	--	1383	2	1.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.2	--	0	0	0.0	--	148	1	0.2	--
TEMPER PASSING AND COLD ROLLING	335	0	0.2	--	0	0	0.0	--	335	0	0.2	--
TIN FINISHING AND SHIPPING	348	0	0.2	--	0	0	0.0	--	348	0	0.2	--
GENERAL LABOR	565	0	1.1	--	375	2	1.9	--	940	2	3.0	--
JANITORS	112	0	0.2	--	190	3	1.2	--	302	3	1.4	--
MASON DEPARTMENT	758	0	1.1	--	242	3	0.9	--	1000	3	2.0	--
BLACKSMITH SHOP	231	0	0.4	--	5	0	0.0	--	236	0	0.4	--
CARPENTER SHOP	277	0	0.5	--	0	0	0.0	--	277	0	0.5	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	2.7	--	2	0	0.0	--	1583	2	2.7	--
ELECTRIC SHOP	760	0	1.3	--	2	0	0.0	--	762	0	1.3	--
GARAGE	98	0	0.2	--	1	0	0.1	--	99	0	0.2	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.2	--	7	0	0.0	--	111	1	0.2	--
MACHINE SHOP	1270	1	2.0	--	2	0	0.0	--	1272	1	2.0	--
MAINTENANCE NOS	246	0	0.3	--	0	0	0.0	--	246	0	0.3	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	3.7	1.44	73	0	0.4	--	2363	5	4.0	1.29
PAINT SHOP	197	0	0.3	--	2	0	0.0	--	199	0	0.4	--
PATTERN SHOP	64	0	0.1	--	0	0	0.0	--	64	0	0.1	--
PIPE SHOP	657	2	1.1	--	6	0	0.0	--	663	2	1.1	--
RIGGERS AND STRUCTURAL	1034	1	1.9	--	6	0	0.1	--	1040	1	2.0	--
ROLL SHOP	314	0	0.5	--	0	0	0.0	--	314	0	0.5	--
WELD SHOP	460	0	0.6	--	2	0	0.0	--	462	0	0.6	--
ALL OTHER	302	1	0.9	--	9	0	0.1	--	311	1	1.0	--
GENERAL RECEIVING AND STORES	166	1	0.3	--	2	0	0.0	--	170	1	0.3	--
PLANT PROTECTION	469	2	0.8	--	1	0	0.0	--	470	2	0.8	--
POWER AND FUEL	976	2	1.6	--	89	0	0.6	--	1065	2	2.5	--
TRANSPORTATION AND YARD	971	1	1.3	--	194	0	0.8	--	1165	1	2.1	--
TUBE MILLS INCLUDES TUBE FINISHING	461	0	0.3	--	2	0	0.0	--	463	0	0.3	--
RIVER OR MARINE WAYS	177	0	0.3	--	1	0	0.0	--	178	0	0.3	--
TOTAL	36364	52	52.0	1.00	4913	21	21.0	1.00	41277	73	73.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Tuberculosis of Respiratory System

ICD CODE: 1-8

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Billet,Bloom, and Slab Mills	3.99**	3.09**	2.10	1.80	2.93*	2.67*
Annealing Normalizing	--	3.62*	2.44	2.25	--	3.68*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00157

C.O.D. (UNDERLYING) = 581
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	6	11.5	0.50	18	0	0.0	--	3291	6	11.6	0.50
GEN TECHNICAL	2368	7	6.7	1.04	14	0	0.0	--	2382	7	6.8	1.04
COKE PLANT	1635	6	5.8	1.04	908	0	1.9	--	2543	6	7.7	0.76
BLAST FURNACE	2355	8	8.8	0.90	1101	5	1.6	5.65 **	3456	13	10.4	1.29
OPEN HEARTH	5797	24	22.6	1.08	1836	2	2.5	--	7633	26	25.1	1.04
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	0	1.1	--	7	0	0.0	--	741	0	1.1	--
FOUNDRY	890	4	3.6	--	253	0	0.5	--	1143	4	4.1	--
HEAT TREAT AND FORGING	1003	5	4.3	1.17	16	0	0.0	--	1019	5	4.3	1.17
BILLET BLOOM AND SLAB MILLS	2912	16	12.0	1.40	223	0	0.3	--	3135	16	12.3	1.36
SOAKING PITS	94	0	0.3	--	14	0	0.0	--	108	0	0.4	--
MERCHANT MILLS	2130	8	9.3	0.85	395	0	0.8	--	2525	8	10.1	0.78
PLATE MILL	1547	2	6.7	0.27	239	0	0.2	--	1786	2	6.8	0.26
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	1	1.5	--	82	0	0.1	--	481	1	1.6	--
HOT STRIP MILL	164	0	0.8	--	1	0	0.0	--	165	0	0.8	--
RAIL MILL ROLLING	339	1	1.2	--	46	0	0.1	--	385	1	1.2	--
RAIL MILL FINISHING	347	0	1.0	--	98	1	0.2	--	445	1	1.2	--
STEEL YARDS	88	1	0.3	--	32	0	0.0	--	120	1	0.3	--
STRUCTURAL MILL	1196	9	5.3	1.90	164	0	0.1	--	1360	9	5.4	1.85
ANNEALING NORMALIZING	1353	6	5.5	1.10	17	0	0.0	--	1370	6	5.5	1.10
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.0	--	76	0	0.1	--
COATING	328	1	0.9	--	0	0	0.0	--	328	1	0.9	--
COLD REDUCING MILLS	1395	6	4.8	1.27	97	1	0.3	--	1492	7	5.1	1.40
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.4	--	0	0	0.0	--	205	0	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	2	1.3	--	5	0	0.0	--	571	2	1.3	--
HOT STRIP ROLLING	1008	5	4.1	1.23	0	0	0.0	--	1008	5	4.1	1.23
SHEET FINISHING AND SHIPPING	1733	4	3.6	--	36	0	0.0	--	1769	4	3.6	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.9	--	0	0	0.0	--	369	0	0.9	--
TIN FINISHING AND SHIPPING	396	2	1.2	--	1	0	0.0	--	397	2	1.2	--
GENERAL LABOR	546	2	2.0	--	449	1	0.7	--	995	3	2.7	--
JANITORS	205	3	1.4	--	321	0	0.4	--	526	3	1.8	--
MASON DEPARTMENT	1305	0	3.6	--	438	0	0.6	--	1743	0	4.2	--
BLACKSMITH SHOP	266	0	1.2	--	4	0	0.0	--	270	0	1.2	--
CARPENTER SHOP	406	1	1.6	--	0	0	0.0	--	406	1	1.6	--
ELECTRIC MAINTENANCE ASSIGNED	1605	1	5.3	0.18	5	0	0.0	--	1610	1	5.3	0.18
ELECTRIC SHOP	551	2	2.4	--	1	0	0.0	--	552	2	2.4	--
GARAGE	147	0	0.5	--	0	0	0.0	--	147	0	0.5	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.5	--	9	0	0.0	--	130	0	0.5	--
MACHINE SHOP	1442	7	5.7	1.25	3	0	0.0	--	1445	7	5.7	1.25
MAINTENANCE NOS	70	0	0.4	--	2	0	0.0	--	72	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2689	10	9.1	1.11	60	0	0.1	--	2749	10	9.1	1.10
PAINT SHOP	263	1	1.0	--	2	0	0.0	--	265	1	1.0	--
PATTERN SHOP	68	0	0.3	--	0	0	0.0	--	68	0	0.3	--
PIPE SHOP	738	5	2.8	1.80	5	0	0.0	--	743	5	2.8	1.80
RIGGERS AND STRUCTURAL	1189	8	5.0	1.61	8	0	0.0	--	1197	8	5.1	1.61
ROLL SHOP	374	1	1.5	--	0	0	0.0	--	374	1	1.5	--
WELD SHOP	644	2	2.4	--	2	0	0.0	--	646	2	2.4	--
ALL OTHER	138	1	0.5	--	5	0	0.0	--	143	1	0.5	--
GENERAL RECEIVING AND STORES	192	0	0.8	--	4	0	0.0	--	196	0	0.8	--
PLANT PROTECTION	674	6	3.3	1.89	1	0	0.0	--	675	6	3.3	1.89
POWER AND FUEL	1343	6	4.9	1.25	62	1	0.2	--	1405	7	5.0	1.42
TRANSPORTATION AND YARD	1293	6	3.9	1.58	341	0	0.3	--	1634	6	4.2	1.44
TUBE MILLS-INCLUDES TURE FINISHING	229	0	0.3	--	1	0	0.0	--	230	0	0.3	--
RIVER OR MARINE WAYS	218	1	0.9	--	1	0	0.0	--	219	1	0.9	--
TOTAL	51479	187	187.0	1.00	7349	11	11.0	1.00	58828	198	198.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 581
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	9	16.2	0.54	18	0	0.1	--	3291	9	16.3	0.53
GEN TECHNICAL	2368	10	9.1	1.11	14	0	0.0	--	2382	10	9.1	1.10
COKE PLANT	1635	9	6.8	1.38	908	3	3.6	--	2543	12	10.4	1.20
BLAST FURNACE	2355	13	12.3	1.06	1101	8	2.8	4.75 **	3456	21	15.1	1.47
OPEN HEARTH	5797	30	31.3	0.95	1836	2	4.9	--	7633	32	36.1	0.87
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	1	1.8	--	7	0	0.0	--	741	1	1.8	--
FOUNDRY	890	6	5.1	1.19	253	0	1.0	--	1143	6	6.1	0.98
HEAT TREAT AND FORGING	1003	6	6.6	0.90	16	0	0.0	--	1019	6	6.7	0.89
BILLET BLOOM AND SLAB MILLS	2912	22	16.6	1.39	223	1	0.8	--	3135	23	17.4	1.39
SOAKING PITS	94	0	0.5	--	14	0	0.0	--	108	0	0.5	--
MERCHANT MILLS	2130	9	11.9	0.74	395	0	1.3	--	2525	9	13.2	0.66
PLATE MILL	1547	7	10.4	0.64	239	0	0.6	--	1786	7	11.0	0.60
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	2	1.9	--	82	0	0.2	--	481	2	2.1	--
HOT STRIP MILL	164	0	1.1	--	1	0	0.0	--	165	0	1.1	--
RAIL MILL ROLLING	339	1	1.7	--	46	0	0.2	--	385	1	1.9	--
RAIL MILL FINISHING	347	0	1.5	--	98	2	0.4	--	445	2	1.9	--
STEEL YARDS	88	1	0.4	--	32	0	0.0	--	120	1	0.5	--
STRUCTURAL MILL	1196	11	7.8	1.49	164	0	0.3	--	1360	11	8.1	1.43
ANNEALING NORMALIZING	1353	8	7.4	1.09	17	0	0.1	--	1370	8	7.5	1.08
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.1	--	76	0	0.3	--
COATING	328	2	1.3	--	0	0	0.0	--	328	2	1.3	--
COLD REDUCING MILLS	1395	7	6.3	1.12	97	1	0.5	--	1492	8	6.8	1.20
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.6	--	0	0	0.0	--	205	0	0.6	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	2.5	--	5	0	0.0	--	571	3	2.5	--
HOT STRIP ROLLING	1008	5	5.3	0.93	0	0	0.0	--	1008	5	5.3	0.93
SHEET FINISHING AND SHIPPING	1733	6	5.8	1.04	36	0	0.1	--	1769	6	5.9	1.01
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.3	--	1	0	0.0	--	47	0	0.3	--
TEMPER PASSING AND COLD ROLLING	369	0	1.2	--	0	0	0.0	--	369	0	1.2	--
TIN FINISHING AND SHIPPING	396	2	1.7	--	1	0	0.0	--	397	2	1.7	--
GENERAL LABOR	546	2	2.6	--	449	1	1.3	--	995	3	4.0	--
JANITORS	205	3	2.1	--	321	0	1.1	--	526	3	3.2	--
MASON DEPARTMENT	1305	4	4.6	--	438	1	1.1	--	1743	5	5.7	0.88
BLACKSMITH SHOP	266	1	1.7	--	4	0	0.0	--	270	1	1.7	--
CARPENTER SHOP	406	2	2.3	--	0	0	0.0	--	406	2	2.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	2	7.6	0.26	5	0	0.0	--	1610	2	7.6	0.26
ELECTRIC SHOP	551	3	3.6	--	1	0	0.0	--	552	3	3.6	--
GARAGE	147	0	0.6	--	0	0	0.0	--	147	0	0.6	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.7	--	9	0	0.0	--	130	0	0.7	--
MACHINE SHOP	1442	9	7.9	1.15	3	0	0.0	--	1445	9	7.9	1.14
MAINTENANCE NOS	70	0	0.5	--	2	0	0.0	--	72	0	0.5	--
MECHNICAL MAINTENANCE ASSIGNED	2689	15	12.5	1.22	60	1	0.2	--	2749	16	12.7	1.28
PAINT SHOP	263	1	1.3	--	2	0	0.0	--	265	1	1.3	--
PATTERN SHOP	68	0	0.4	--	0	0	0.0	--	68	0	0.4	--
PIPE SHOP	738	5	3.8	1.33	5	0	0.0	--	743	5	3.8	1.32
RIGGERS AND STRUCTURAL	1189	12	6.9	1.78	8	0	0.0	--	1197	12	6.9	1.77
ROLL SHOP	374	1	2.1	--	0	0	0.0	--	374	1	2.1	--
WELD SHOP	644	4	3.1	--	2	0	0.0	--	646	4	3.1	--
ALL OTHER	138	2	0.7	--	5	0	0.0	--	143	2	0.7	--
GENERAL RECEIVING AND STORES	192	1	1.1	--	4	0	0.0	--	196	1	1.1	--
PLANT PROTECTION	674	9	4.6	2.02	1	0	0.0	--	675	9	4.6	2.02
POWER AND FUEL	1343	6	7.0	0.86	62	1	0.3	--	1405	7	7.2	0.97
TRANSPORTATION AND YARD	1293	8	5.8	1.39	341	1	0.8	--	1634	9	6.6	1.39
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.6	--	1	0	0.0	--	230	0	0.6	--
RIVER OR MARINE WAYS	218	1	1.0	--	1	0	0.0	--	219	1	1.0	--
TOTAL	51479	261	261.0	1.00	7349	22	22.0	1.00	58828	283	283.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 581
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	16	19.5	0.79	34	0	0.0	--	5146	16	19.6	0.79
GEN TECHNICAL	3684	12	12.3	0.98	16	0	0.0	--	3700	12	12.3	0.97
COKE PLANT	2381	7	8.9	0.75	1176	1	2.5	--	3557	8	11.4	0.64
BLAST FURNACE	4218	19	17.5	1.10	1415	6	1.9	6.39 **	5633	25	19.4	1.36
OPEN HEARTH	9655	44	39.5	1.16	2335	2	3.2	--	11990	46	42.7	1.11
BESSEMER CONVERTER	240	2	1.2	--	88	0	0.2	--	328	2	1.4	--
ELECTRIC FURNACE	1250	0	2.2	--	11	0	0.0	--	1261	0	2.2	--
FOUNDRY	1781	8	6.6	1.24	345	0	0.6	--	2126	8	7.2	1.13
HEAT TREAT AND FORGING	1683	5	7.7	0.61	46	0	0.0	--	1729	5	7.7	0.61
BILLET BLOOM AND SLAB MILLS	5783	29	22.6	1.39	419	0	0.6	--	6202	29	23.3	1.34
SOAKING PITS	148	0	0.5	--	28	0	0.0	--	176	0	0.5	--
MERCHANT MILLS	3885	19	18.6	1.03	680	1	1.4	--	4565	20	19.9	1.00
PLATE MILL	3005	11	13.9	0.71	436	0	0.4	--	3441	11	14.2	0.69
AXLE MILLS	293	1	1.7	--	6	0	0.0	--	299	1	1.8	--
GENERAL FINISHING AND SHIPPING	1309	9	6.3	1.48	213	0	0.3	--	1522	9	6.6	1.41
HOT STRIP MILL	567	2	3.1	--	1	0	0.0	--	568	2	3.1	--
RAIL MILL ROLLING	852	4	2.9	--	97	0	0.1	--	949	4	3.1	--
RAIL MILL FINISHING	726	5	2.5	2.54	145	1	0.2	--	871	6	2.7	2.92
STEEL YARDS	299	3	1.5	--	77	0	0.0	--	376	3	1.6	--
STRUCTURAL MILL	1972	14	9.0	1.79	252	0	0.2	--	2224	14	9.2	1.74
ANNEALING NORMALIZING	2605	10	9.7	1.03	54	0	0.0	--	2659	10	9.7	1.03
BATCH PICKLING AND SHEET DRYERS	137	0	0.3	--	50	0	0.0	--	187	0	0.3	--
COATING	545	1	1.5	--	0	0	0.0	--	545	1	1.5	--
COLD REDUCING MILLS	1933	8	6.6	1.25	113	1	0.4	--	2046	9	7.0	1.34
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.6	--	0	0	0.0	--	254	0	0.6	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	4	3.1	--	19	0	0.0	--	1248	4	3.1	--
HOT STRIP ROLLING	1623	7	6.9	1.02	2	0	0.0	--	1625	7	6.9	1.02
SHEET FINISHING AND SHIPPING	3306	6	6.6	0.88	108	0	0.0	--	3414	6	6.6	0.88
STAINLESS ANNEAL PICKLG AND PROCESSING	384	1	0.9	--	2	0	0.0	--	386	1	0.9	--
TEMPER PASSING AND COLD ROLLING	783	2	1.9	--	0	0	0.0	--	783	2	1.9	--
TIN FINISHING AND SHIPPING	668	2	1.9	--	1	0	0.0	--	669	2	1.9	--
GENERAL LABOR	3153	9	13.9	0.63	1215	2	1.7	--	4368	11	15.6	0.68
JANITORS	311	5	2.1	2.46	422	0	0.5	--	733	5	2.6	1.99
MASON DEPARTMENT	2511	5	8.2	0.60	696	0	0.8	--	3207	5	9.0	0.54
BLACKSMITH SHOP	555	1	2.8	--	6	0	0.0	--	561	1	2.8	--
CARPENTER SHOP	665	5	3.2	1.60	1	0	0.0	--	666	5	3.2	1.60
ELECTRIC MAINTENANCE ASSIGNED	3200	10	13.1	0.75	8	0	0.0	--	3208	10	13.1	0.74
ELECTRIC SHOP	1620	12	8.6	1.45	2	0	0.0	--	1622	12	8.6	1.45
GARAGE	242	1	0.9	--	2	0	0.0	--	244	1	0.9	--
LOCOMOTIVE AND CAR REPAIR	261	2	1.1	--	22	0	0.0	--	283	2	1.1	--
MACHINE SHOP	2405	10	10.6	0.94	12	0	0.0	--	2417	10	10.6	0.94
MAINTENANCE NOS	558	2	2.2	--	5	0	0.0	--	563	2	2.2	--
MECHNICAL MAINTENANCE ASSIGNED	6136	24	22.6	1.07	201	1	0.3	--	6337	25	22.9	1.11
PAINT SHOP	777	2	3.2	--	9	0	0.0	--	786	2	3.2	--
PATTERN SHOP	95	0	0.5	--	0	0	0.0	--	95	0	0.5	--
PIPE SHOP	1412	9	6.5	1.43	14	0	0.0	--	1426	9	6.5	1.42
RIGGERS AND STRUCTURAL	2525	16	12.7	1.29	21	0	0.0	--	2546	16	12.8	1.29
ROLL SHOP	502	3	2.0	--	3	0	0.0	--	505	3	2.0	--
WELD SHOP	758	3	2.8	--	2	0	0.0	--	760	3	2.8	--
ALL OTHER	1098	5	5.7	0.88	75	0	0.2	--	1173	5	5.9	0.85
GENERAL RECEIVING AND STORES	382	0	1.7	--	9	0	0.0	--	391	0	1.7	--
PLANT PROTECTION	856	8	4.3	1.94	4	0	0.0	--	860	8	4.3	1.94
POWER AND FUEL	2336	11	9.9	1.12	213	1	0.5	--	2549	12	10.4	1.17
TRANSPORTATION AND YARD	2842	16	10.3	1.63	633	0	0.7	--	3475	16	11.0	1.51
TUBE MILLS INCLUDES TUBE FINISHING	635	1	1.2	--	10	0	0.0	--	645	1	1.2	--
RIVER OR MARINE WAYS	293	1	1.3	--	1	0	0.0	--	294	1	1.3	--
TOTAL	51479	187	187.0	1.00	7349	11	11.0	1.00	58828	198	198.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 581
EVER EMPLOYED IN WORK AREA THROUGH 1955

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	21	27.2	0.74	34	0	0.1	--	5146	21	27.3	0.74
GEN TECHNICAL	3684	16	16.7	0.95	16	0	0.1	--	3700	16	16.8	0.95
COKE PLANT	2381	10	10.4	0.96	1176	4	4.8	--	3557	14	15.2	0.89
BLAST FURNACE	4218	29	24.7	1.22	1415	9	3.4	4.34 **	5633	38	28.1	1.45
OPEN HEARTH	9655	62	55.5	1.17	2335	4	6.3	0.51	11990	66	61.7	1.10
BESSEMER CONVERTER	240	3	1.9	--	88	0	0.5	--	328	3	2.3	--
ELECTRIC FURNACE	1250	1	3.7	--	11	0	0.0	--	1261	1	3.7	--
FOUNDRY	1781	12	9.9	1.24	345	0	1.3	--	2126	12	11.2	1.08
HEAT TREAT AND FORGING	1683	8	12.1	0.62	46	0	0.1	--	1729	8	12.2	0.61
BILLET BLOOM AND SLAB MILLS	5783	39	31.9	1.31	419	1	1.3	--	6202	40	33.2	1.29
SOAKING PITS	148	0	0.6	--	28	0	0.0	--	176	0	0.7	--
MERCHANT MILLS	3885	21	23.9	0.86	680	1	2.3	--	4565	22	26.2	0.81
PLATE MILL	3005	23	23.0	1.00	436	1	1.2	--	3441	24	24.3	0.98
AXLE MILLS	293	3	3.2	--	6	0	0.0	--	299	3	3.3	--
GENERAL FINISHING AND SHIPPING	1309	13	8.8	1.52	213	0	0.7	--	1522	13	9.5	1.40
HOT STRIP MILL	567	2	3.9	--	1	0	0.0	--	568	2	3.9	--
RAIL MILL ROLLING	852	6	4.4	1.46	97	0	0.4	--	949	6	4.8	1.30
RAIL MILL FINISHING	726	7	3.8	2.21	145	2	0.6	--	871	9	4.4	2.63 *
STEEL YARDS	299	4	2.7	--	77	0	0.1	--	376	4	2.8	--
STRUCTURAL MILL	1972	19	13.6	1.55	252	0	0.5	--	2224	19	14.0	1.48
ANNEALING NORMALIZING	2605	13	13.7	0.94	54	0	0.3	--	2659	13	14.0	0.92
BATCH PICKLING AND SHEET DRYERS	137	0	0.5	--	50	0	0.3	--	187	0	0.8	--
COATING	545	2	2.0	--	0	0	0.0	--	545	2	2.0	--
COLD REDUCING MILLS	1933	9	8.7	1.04	113	1	0.6	--	2046	10	9.3	1.09
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.8	--	0	0	0.0	--	254	0	0.8	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	6	5.8	1.06	19	0	0.1	--	1248	6	5.9	1.03
HOT STRIP ROLLING	1623	7	8.9	0.76	2	0	0.0	--	1625	7	8.9	0.76
SHEET FINISHING AND SHIPPING	3306	9	10.8	0.79	108	0	0.4	--	3414	9	11.2	0.75
STAINLESS ANNEAL PICKLG AND PROCESSING	384	3	1.6	--	2	0	0.0	--	386	3	1.6	--
TEMPER PASSING AND COLD ROLLING	783	3	2.7	--	0	0	0.0	--	783	3	2.7	--
TIN FINISHING AND SHIPPING	668	2	2.7	--	1	0	0.0	--	669	2	2.7	--
GENERAL LABOR	3153	16	20.1	0.78	1215	3	3.8	--	4368	19	23.9	0.77
JANITORS	311	5	3.1	1.64	422	0	1.3	--	733	5	4.4	1.13
MASON DEPARTMENT	2511	11	11.0	1.00	696	4	1.6	--	3207	15	12.6	1.21
BLACKSMITH SHOP	555	2	4.1	--	6	0	0.0	--	561	2	4.1	--
CARPENTER SHOP	665	7	4.7	1.52	1	0	0.0	--	666	7	4.7	1.51
ELECTRIC MAINTENANCE ASSIGNED	3200	14	19.1	0.71	8	0	0.0	--	3208	14	19.2	0.71
ELECTRIC SHOP	1620	17	13.6	1.28	2	0	0.0	--	1622	17	13.6	1.28
GARAGE	242	1	1.2	--	2	0	0.0	--	244	1	1.2	--
LOCOMOTIVE AND CAR REPAIR	261	2	1.7	--	22	0	0.0	--	283	2	1.7	--
MACHINE SHOP	2405	14	15.1	0.92	12	0	0.0	--	2417	14	15.1	0.92
MAINTENANCE NOS	558	3	3.1	--	5	0	0.0	--	563	3	3.1	--
MECHNICAL MAINTENANCE ASSIGNED	6136	36	33.2	1.10	201	3	0.8	--	6337	39	34.0	1.18
PAINT SHOP	777	2	4.4	--	9	0	0.0	--	786	2	4.4	--
PATTERN SHOP	95	0	0.6	--	0	0	0.0	--	95	0	0.6	--
PIPE SHOP	1412	10	8.8	1.14	14	1	0.1	--	1426	11	8.9	1.26
RIGGERS AND STRUCTURAL	2525	26	18.7	1.46	21	0	0.1	--	2546	26	18.8	1.45
ROLL SHOP	502	4	2.9	--	3	0	0.0	--	505	4	2.9	--
WELD SHOP	758	5	3.7	1.36	2	0	0.0	--	760	5	3.7	1.36
ALL OTHER	1098	7	7.8	0.89	75	0	0.4	--	1173	7	8.2	0.85
GENERAL RECEIVING AND STORES	382	1	2.3	--	9	0	0.0	--	391	1	2.3	--
PLANT PROTECTION	856	11	6.2	1.85	4	0	0.0	--	860	11	6.2	1.85
POWER AND FUEL	2336	13	14.2	0.91	213	1	0.9	--	2549	14	15.0	0.93
TRANSPORTATION AND YARD	2842	23	15.7	1.54	633	1	1.6	--	3475	24	17.3	1.44
TUBE MILLS INCLUDES TUBE FINISHING	635	1	2.2	--	10	0	0.0	--	645	1	2.2	--
RIVER OR MARINE WAYS	293	1	1.5	--	1	0	0.0	--	294	1	1.5	--
TOTAL	51479	261	261.0	1.00	7349	22	22.0	1.00	58828	283	283.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = 581
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	2363	9	10.6	0.84	11	0	0.0	--	2374	9	10.6	0.83
GEN TECHNICAL	1575	5	6.5	0.76	6	0	0.0	--	1581	5	6.5	0.76
COKE PLANT	1180	6	5.5	1.11	664	0	1.7	--	1844	6	7.1	0.82
BLAST FURNACE	1730	10	8.4	1.20	591	4	0.7	**	2321	14	9.1	1.62
OPEN HEARTH	4075	24	20.0	1.26	1347	2	1.4	**	5422	26	21.3	1.29
BESSEMER CONVERTER	118	1	0.7	--	35	0	0.1	--	153	1	0.7	--
ELECTRIC FURNACE	509	0	1.0	--	4	0	0.0	--	513	0	1.0	--
FOUNDRY	764	4	3.5	--	169	0	0.2	--	933	4	3.8	--
HEAT TREAT AND FORGING	708	3	4.0	--	20	0	0.0	--	728	3	4.0	--
BILLET BLOOM AND SLAB MILLS	2614	14	12.4	1.16	201	0	0.2	--	2815	14	12.6	1.14
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	11	10.6	1.04	301	0	0.6	--	2287	11	11.2	0.98
PLATE MILL	1442	2	7.6	0.21 *	246	0	0.2	--	1688	2	7.8	0.21 *
AXLE MILLS	45	0	0.3	--	0	0	0.0	--	45	0	0.3	--
GENERAL FINISHING AND SHIPPING	511	1	2.6	--	113	0	0.2	--	624	1	2.8	--
HOT STRIP MILL	174	1	0.9	--	0	0	0.0	--	174	1	0.9	--
RAIL MILL ROLLING	288	1	1.3	--	32	0	0.0	--	320	1	1.4	--
RAIL MILL FINISHING	245	1	1.1	--	82	0	0.1	--	327	1	1.2	--
STEEL YARDS	68	1	0.4	--	11	0	0.0	--	79	1	0.4	--
STRUCTURAL MILL	980	4	4.9	--	128	0	0.1	--	1108	4	5.1	0.77
ANNEALING NORMALIZING	1214	4	5.2	0.74	25	0	0.0	--	1239	4	5.2	0.74
BATCH PICKLING AND SHEET DRYERS	45	0	0.2	--	19	0	0.0	--	64	0	0.2	--
COATING	269	1	0.8	--	0	0	0.0	--	269	1	0.8	--
COLD REDUCING MILLS	848	3	3.4	--	65	0	0.2	--	913	3	3.6	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	4	2.5	--	5	0	0.0	--	742	4	2.5	--
HOT STRIP ROLLING	864	4	4.0	--	1	0	0.0	--	865	4	4.0	--
SHEET FINISHING AND SHIPPING	1335	4	3.2	--	48	0	0.0	--	1383	4	3.2	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.4	--	0	0	0.0	--	148	0	0.4	--
TEMPER PASSING AND COLD ROLLING	335	0	0.9	--	0	0	0.0	--	335	0	0.9	--
TIN FINISHING AND SHIPPING	348	2	1.3	--	0	0	0.0	--	348	2	1.3	--
GENERAL LABOR	565	5	3.0	1.71	375	1	0.6	--	940	6	3.6	1.71
JANITORS	112	2	0.9	--	190	0	0.1	--	302	2	1.0	--
MASON DEPARTMENT	758	2	3.0	--	242	0	0.4	--	1000	2	3.4	--
BLACKSMITH SHOP	231	1	1.2	--	5	0	0.0	--	236	1	1.2	--
CARPENTER SHOP	277	3	1.4	--	0	0	0.0	--	277	3	1.4	--
ELECTRIC MAINTENANCE ASSIGNED	1581	5	7.1	0.69	2	0	0.0	--	1583	5	7.1	0.69
ELECTRIC SHOP	760	4	4.3	--	2	0	0.0	--	762	4	4.3	--
GARAGE	98	1	0.4	--	1	0	0.0	--	99	1	0.4	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.5	--	7	0	0.0	--	111	0	0.5	--
MACHINE SHOP	1270	6	5.9	1.01	2	0	0.0	--	1272	6	5.9	1.01
MAINTENANCE NOS	246	1	1.1	--	0	0	0.0	--	246	1	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	2290	11	10.9	1.01	73	1	0.2	--	2363	12	11.1	1.09
PAINT SHOP	197	0	0.9	--	2	0	0.0	--	199	0	1.0	--
PATTERN SHOP	64	0	0.3	--	0	0	0.0	--	64	0	0.3	--
PIPE SHOP	657	5	3.1	1.64	6	0	0.0	--	663	5	3.1	1.64
RIGGERS AND STRUCTURAL	1034	8	5.4	1.52	6	0	0.0	--	1040	8	5.4	1.51
ROLL SHOP	314	0	1.4	--	0	0	0.0	--	314	0	1.4	--
WELD SHOP	460	1	1.9	--	2	0	0.0	--	462	1	1.9	--
ALL OTHER	302	0	1.9	--	9	0	0.0	--	311	0	1.9	--
GENERAL RECEIVING AND STORES	168	0	0.9	--	2	0	0.0	--	170	0	0.9	--
PLANT PROTECTION	469	5	2.7	1.93	1	0	0.0	--	470	5	2.7	1.93
POWER AND FUEL	976	8	4.9	1.70	89	0	0.2	--	1065	8	5.1	1.62
TRANSPORTATION AND YARD	871	7	3.9	1.85	194	0	0.2	--	1065	7	4.1	1.76
TUBE MILLS INCLUDES TUBE FINISHING	281	0	0.6	--	2	0	0.0	--	283	0	0.6	--
RIVER OR MARINE WAYS	177	1	0.9	--	1	0	0.0	--	178	1	0.9	--
TOTAL	36364	154	154.0	1.00	4913	7	7.0	1.00	41277	161	161.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00162

C.O.D. (PREVALENCE) = 581
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	13	15.4	0.84	11	0	0.0	--	2374	13	15.4	0.83
GEN TECHNICAL	1575	8	9.2	0.87	6	0	0.0	--	1581	8	9.2	0.86
COKE PLANT	1180	9	6.4	1.49	664	1	2.1	--	1844	10	8.5	1.21
BLAST FURNACE	1730	15	12.4	1.23	591	5	1.7	4.26 *	2321	20	14.1	1.49
OPEN HEARTH	4075	33	29.3	1.16	1347	3	3.7	--	5422	36	33.0	1.12
BESSEMER CONVERTER	118	1	1.0	--	35	0	0.2	--	153	1	1.2	--
ELECTRIC FURNACE	509	1	1.7	--	4	0	0.0	--	513	1	1.7	--
FOUNDRY	764	5	5.4	0.92	169	0	0.7	--	933	5	6.1	0.81
HEAT TREAT AND FORGING	708	4	6.8	0.56	20	0	0.1	--	728	4	6.9	0.56
BILLET BLOOM AND SLAB MILLS	2614	21	17.8	1.23	201	0	0.3	--	2815	21	18.1	1.20
SOAKING PITS	19	0	0.2	--	0	0	0.0	--	19	0	0.2	--
MERCHANT MILLS	1986	12	13.6	0.86	301	0	0.9	--	2287	12	14.7	0.80
PLATE MILL	1442	10	13.2	0.71	246	0	0.8	--	1688	10	14.0	0.66
AXLE MILLS	45	0	0.6	--	0	0	0.0	--	45	0	0.6	--
GENERAL FINISHING AND SHIPPING	511	2	3.7	--	113	0	0.3	--	624	2	4.0	--
HOT STRIP MILL	174	1	1.2	--	0	0	0.0	--	174	1	1.2	--
RAIL MILL ROLLING	288	1	2.1	--	32	0	0.2	--	320	1	2.3	--
RAIL MILL FINISHING	245	1	1.7	--	82	1	0.4	--	327	2	2.1	--
STEEL YARDS	68	1	0.8	--	11	0	0.0	--	79	1	0.8	--
STRUCTURAL MILL	980	6	7.8	0.74	128	0	0.3	--	1108	6	8.1	0.71
ANNEALING NORMALIZING	1214	6	7.5	0.78	25	0	0.0	--	1239	6	7.5	0.78
BATCH PICKLING AND SHEET DRYERS	45	0	0.3	--	19	0	0.0	--	64	0	0.3	--
COATING	269	2	1.2	--	0	0	0.0	--	269	2	1.2	--
COLD REDUCING MILLS	848	4	4.5	--	65	0	0.3	--	913	4	4.8	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.6	--	0	0	0.0	--	147	0	0.6	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	6	4.6	1.51	5	0	0.0	--	742	6	4.6	1.51
HOT STRIP ROLLING	864	4	5.2	0.75	1	0	0.0	--	865	4	5.2	0.75
SHEET FINISHING AND SHIPPING	1335	4	5.4	0.70	48	0	0.0	--	1383	4	5.4	0.70
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.8	--	0	0	0.0	--	148	1	0.8	--
TEMPER PASSING AND COLD ROLLING	335	0	1.3	--	0	0	0.0	--	335	0	1.3	--
TIN FINISHING AND SHIPPING	348	2	1.6	--	0	0	0.0	--	348	2	1.8	--
GENERAL LABOR	565	5	4.1	1.21	375	1	1.3	--	940	6	5.4	1.11
JANITORS	112	2	1.3	--	190	0	0.5	--	302	2	1.8	--
MASON DEPARTMENT	758	6	4.1	1.47	242	1	0.7	--	1000	7	4.8	1.48
BLACKSMITH SHOP	231	2	1.9	--	5	0	0.0	--	236	2	1.9	--
CARPENTER SHOP	277	4	2.1	--	0	0	0.0	--	277	4	2.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	5	10.7	0.45	2	0	0.0	--	1583	5	10.7	0.45
ELECTRIC SHOP	760	7	7.1	0.99	2	0	0.0	--	762	7	7.1	0.99
GARAGE	98	1	0.6	--	1	0	0.0	--	99	1	0.6	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.8	--	7	0	0.0	--	111	0	0.8	--
MACHINE SHOP	1270	9	8.8	1.03	2	0	0.0	--	1272	9	8.8	1.03
MAINTENANCE NOS	246	1	1.6	--	0	0	0.0	--	246	1	1.6	--
MECHNICAL MAINTENANCE ASSIGNED	2290	19	16.2	1.19	73	2	0.3	--	2363	21	16.5	1.30
PAINT SHOP	197	0	1.3	--	2	0	0.0	--	199	0	1.4	--
PATTERN SHOP	64	0	0.5	--	0	0	0.0	--	64	0	0.5	--
PIPE SHOP	657	5	4.3	1.17	6	1	0.0	--	663	6	4.3	1.40
RIGGERS AND STRUCTURAL	1034	12	7.8	1.58	6	0	0.0	--	1040	12	7.8	1.57
ROLL SHOP	314	0	2.0	--	0	0	0.0	--	314	0	2.0	--
WELD SHOP	460	3	2.6	--	2	0	0.0	--	462	3	2.6	--
ALL OTHER	302	2	2.5	--	9	0	0.1	--	311	2	2.6	--
GENERAL RECEIVING AND STORES	168	1	1.3	--	2	0	0.0	--	170	1	1.3	--
PLANT PROTECTION	469	8	4.0	2.12	1	0	0.0	--	470	8	4.0	2.12
POWER AND FUEL	976	8	7.2	1.11	89	0	0.4	--	1065	8	7.7	1.05
TRANSPORTATION AND YARD	871	9	6.2	1.48	194	1	0.5	--	1065	10	6.7	1.52
TUBE MILLS INCLUDES TUBE FINISHING	281	0	1.6	--	2	0	0.0	--	283	0	1.6	--
RIVER OR MARINE WAYS	177	1	1.0	--	1	0	0.0	--	178	1	1.0	--
TOTAL	36364	223	223.0	1.00	4913	14	14.0	1.00	41277	237	237.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Cirrhosis of the Liver

ICD CODE: 581

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Plate Mill	--	0.64	0.71	1.00	0.21*	0.71
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Blast Furnace	5.65**	4.75**	6.39**	4.34**	--	4.26*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00164

C.O.D. (UNDERLYING) = 800-962
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	17	26.0	0.64	18	0	0.2	--	3291	17	26.2	0.63
GEN TECHNICAL	2368	7	18.2	0.37 **	14	0	0.2	--	2382	7	18.4	0.37 **
COKE PLANT	1635	15	12.1	1.30	908	10	11.4	0.79	2543	25	23.5	1.09
BLAST FURNACE	2355	24	20.1	1.21	1101	12	13.4	0.87	3456	36	33.5	1.09
OPEN HEARTH	5797	51	48.3	1.07	1836	23	22.0	1.07	7633	74	70.3	1.07
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	10	7.6	1.36	7	0	0.1	--	741	10	7.6	1.35
FOUNDRY	890	6	8.2	0.73	253	3	3.2	--	1143	9	11.4	0.78
HEAT TREAT AND FORGING	1003	8	8.3	0.95	16	0	0.2	--	1019	8	8.5	0.93
BILLET BLOOM AND SLAB MILLS	2912	25	25.2	0.99	223	2	2.1	--	3135	27	27.4	0.99
SOAKING PITS	94	1	0.9	--	14	0	0.1	--	108	1	1.0	--
MERCHANT MILLS	2130	22	17.5	1.30	395	5	5.3	0.93	2525	27	22.8	1.21
PLATE MILL	1547	18	13.6	1.39	239	2	2.7	--	1786	20	16.2	1.27
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	2	3.2	--	82	2	1.2	--	481	4	4.4	--
HOT STRIP MILL	164	3	1.2	--	1	0	0.0	--	165	3	1.2	--
RAIL MILL ROLLING	339	4	3.3	--	46	1	0.6	--	385	5	3.8	1.33
RAIL MILL FINISHING	347	4	3.2	--	98	1	1.3	--	445	5	4.5	1.11
STEEL YARDS	88	0	0.7	--	32	0	0.3	--	120	0	1.0	--
STRUCTURAL MILL	1196	19	9.9	2.18 **	164	1	1.6	--	1360	20	11.5	1.92 *
ANNEALING NORMALIZING	1353	17	11.1	1.59	17	0	0.1	--	1370	17	11.2	1.57
BATCH PICKLING AND SHEET DRYERS	55	1	0.6	--	21	0	0.1	--	76	1	0.7	--
COATING	328	2	2.0	--	0	0	0.0	--	328	2	2.0	--
COLD REDUCING MILLS	1395	11	9.0	1.26	97	2	1.1	--	1492	13	10.1	1.32
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	1.1	--	0	0	0.0	--	205	1	1.1	--
FLYING SHEARS AND SLITTERS	8	1	0.1	--	0	0	0.0	--	8	1	0.1	--
HOT PACK MILLS	566	6	7.5	0.78	5	0	0.0	--	571	6	7.5	0.78
HOT STRIP ROLLING	1008	6	6.5	0.92	0	0	0.0	--	1008	6	6.5	0.92
SHEET FINISHING AND SHIPPING	1733	23	15.9	1.57	36	0	0.2	--	1769	23	16.1	1.55
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	2	1.9	--	0	0	0.0	--	369	2	1.9	--
TIN FINISHING AND SHIPPING	396	3	2.6	--	1	0	0.0	--	397	3	2.6	--
GENERAL LABOR	546	6	4.1	1.49	449	5	5.4	0.91	995	11	9.5	1.17
JANITORS	205	3	2.7	--	321	4	3.8	--	526	7	6.5	1.08
MASON DEPARTMENT	1305	6	10.6	0.56	438	7	5.1	1.43	1743	13	15.7	0.82
BLACKSMITH SHOP	266	0	2.5	--	4	0	0.0	--	270	0	2.5	--
CARPENTER SHOP	406	3	3.7	--	0	0	0.0	--	406	3	3.7	--
ELECTRIC MAINTENANCE ASSIGNED	1605	9	14.1	0.63	5	0	0.0	--	1610	9	14.1	0.63
ELECTRIC SHOP	551	5	4.7	1.06	1	1	0.0	--	552	6	4.7	1.27
GARAGE	147	0	1.1	--	0	0	0.0	--	147	0	1.1	--
LOCOMOTIVE AND CAR REPAIR	121	3	1.0	--	9	1	0.1	--	130	4	1.2	--
MACHINE SHOP	1442	6	12.3	0.48	3	0	0.0	--	1445	6	12.3	0.47
MAINTENANCE NOS	70	1	0.6	--	2	0	0.0	--	72	1	0.6	--
MECHNICAL MAINTENANCE ASSIGNED	2689	25	23.2	1.09	60	0	0.7	--	2749	25	23.9	1.05
PAINT SHOP	263	0	2.0	--	2	0	0.0	--	265	0	2.1	--
PATTERN SHOP	68	0	0.6	--	0	0	0.0	--	68	0	0.6	--
PIPE SHOP	738	8	6.0	1.34	5	0	0.0	--	743	8	6.0	1.34
RIGGERS AND STRUCTURAL	1189	11	9.9	1.12	8	0	0.1	--	1197	11	9.9	1.11
ROLL SHOP	374	1	3.0	--	0	0	0.0	--	374	1	3.0	--
WELD SHOP	644	2	4.9	--	2	0	0.0	--	646	2	5.0	--
ALL OTHER	138	1	1.1	--	5	0	0.0	--	143	1	1.2	--
GENERAL RECEIVING AND STORES	192	1	1.7	--	4	0	0.1	--	196	1	1.8	--
PLANT PROTECTION	674	2	6.0	0.33	1	0	0.0	--	675	2	6.1	0.33
POWER AND FUEL	1343	8	11.3	0.70	62	0	1.2	--	1405	8	12.5	0.63
TRANSPORTATION AND YARD	1293	13	12.0	1.09	341	6	3.8	1.67	1634	19	15.8	1.22
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.6	--	1	0	0.0	--	230	1	2.6	--
RIVER OR MARINE WAYS	218	4	1.7	--	1	0	0.0	--	219	4	1.7	--
TOTAL	51479	430	430.0	1.00	7349	88	88.0	1.00	58828	518	518.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 800-962
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	3273	22	28.2	0.76	18	0	0.2	--	3291	22	28.5	0.76
GEN TECHNICAL	2368	7	19.4	0.35 **	14	0	0.2	--	2382	7	19.6	0.34 **
COKE PLANT	1635	17	13.3	1.35	908	10	12.1	0.72	2543	27	25.3	1.09
BLAST FURNACE	2355	26	22.1	1.19	1101	12	14.0	0.83	3456	38	36.1	1.06
OPEN HEARTH	5797	54	52.4	1.04	1836	24	23.7	1.02	7633	78	76.0	1.[illegible]
BESSEMER CONVERTER	24	0	0.2	--	0	0	0.0	--	24	0	0.2	--
ELECTRIC FURNACE	734	10	7.7	1.33	7	0	0.1	--	741	10	7.8	1.32
FOUNDRY	890	6	8.9	0.67	253	4	3.5	--	1143	10	12.3	[illegible]
HEAT TREAT AND FORGING	1003	8	9.1	0.87	16	0	0.2	--	1019	8	9.3	0.85
BILLET BLOOM AND SLAB MILLS	2912	27	27.6	0.98	223	2	2.2	--	3135	29	29.6	0.97
SOAKING PITS	94	1	0.9	--	14	0	0.1	--	108	1	1.1	--
MERCHANT MILLS	2130	23	19.6	1.20	395	6	5.6	1.10	2525	29	25.1	1.[illegible]
PLATE MILL	1547	21	14.8	1.51	239	2	3.4	--	1786	23	18.2	1.32
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	2	3.5	--	82	2	1.3	--	481	4	4.8	--
HOT STRIP MILL	164	4	1.3	--	1	0	0.0	--	165	4	1.3	--
RAIL MILL ROLLING	339	5	3.5	1.48	46	1	0.7	--	385	6	4.2	1.49
RAIL MILL FINISHING	347	4	3.5	--	98	2	1.5	--	445	6	4.9	1.65
STEEL YARDS	88	0	0.7	--	32	0	0.4	--	120	0	1.1	--
STRUCTURAL MILL	1196	19	10.7	1.97 *	164	1	2.0	--	1360	20	12.7	1.70 *
ANNEALING NORMALIZING	1353	18	11.7	1.61	17	0	0.1	--	1370	18	11.7	1.56
BATCH PICKLING AND SHEET DRYERS	55	1	0.6	--	21	0	0.1	--	76	1	0.7	--
COATING	328	2	2.4	--	0	0	0.0	--	328	2	2.4	--
COLD REDUCING MILLS	1395	12	9.5	1.30	97	2	1.2	--	1492	14	10.7	1.35
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	1.1	--	0	0	0.0	--	205	1	1.1	--
FLYING SHEARS AND SLITTERS	8	1	0.1	--	0	0	0.0	--	8	1	0.1	--
HOT PACK MILLS	566	6	7.7	0.76	5	0	0.0	--	571	6	7.7	0.76
HOT STRIP ROLLING	1008	8	6.9	1.16	0	0	0.0	--	1008	8	6.9	1.16
SHEET FINISHING AND SHIPPING	1733	23	16.4	1.51	36	0	0.2	--	1769	23	16.6	1.[illegible]
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.6	--	1	0	0.0	--	47	2	0.6	--
TEMPER PASSING AND COLD ROLLING	369	3	2.1	--	0	0	0.0	--	369	3	2.1	--
TIN FINISHING AND SHIPPING	396	3	2.9	--	1	0	0.0	--	397	3	2.9	--
GENERAL LABOR	546	6	4.5	1.33	449	5	5.9	0.83	995	11	10.4	1.06
JANITORS	205	3	3.1	--	321	5	4.3	1.18	526	8	7.4	1.08
MASON DEPARTMENT	1305	7	11.3	0.61	438	7	5.3	1.35	1743	14	16.6	0.84
BLACKSMITH SHOP	266	0	2.8	--	4	0	0.1	--	270	0	2.9	--
CARPENTER SHOP	406	3	4.1	--	0	0	0.0	--	406	3	4.1	--
ELECTRIC MAINTENANCE ASSIGNED	1605	10	15.1	0.65	5	0	0.0	--	1610	10	15.1	0.65
ELECTRIC SHOP	551	6	5.2	1.16	1	1	0.0	--	552	7	5.2	1.35
GARAGE	147	0	1.2	--	0	0	0.0	--	147	0	1.2	--
LOCOMOTIVE AND CAR REPAIR	121	3	1.1	--	9	1	0.1	--	130	4	1.3	--
MACHINE SHOP	1442	7	13.6	0.50	3	0	0.1	--	1445	7	13.5	0.51
MAINTENANCE NOS	70	1	0.7	--	2	0	0.0	--	72	1	0.7	--
MECHNICAL MAINTENANCE ASSIGNED	2689	27	25.4	1.07	60	0	0.8	--	2749	27	26.2	1.03
PAINT SHOP	263	0	2.2	--	2	0	0.0	--	265	0	2.2	--
PATTERN SHOP	68	0	0.6	--	0	0	0.0	--	68	0	0.6	--
PIPE SHOP	738	10	6.6	1.53	5	0	0.0	--	743	10	6.7	1.52
RIGGERS AND STRUCTURAL	1189	11	11.0	1.00	8	0	0.1	--	1197	11	11.0	1.00
ROLL SHOP	374	1	3.4	--	0	0	0.0	--	374	1	3.4	--
WELD SHOP	644	2	5.2	0.38	2	0	0.0	--	646	2	5.2	0.38
ALL OTHER	138	2	1.2	--	5	0	0.0	--	143	2	1.3	--
GENERAL RECEIVING AND STORES	192	1	1.9	--	4	0	0.1	--	196	1	2.0	--
PLANT PROTECTION	674	3	6.6	0.45	1	0	0.0	--	675	3	6.6	0.45
POWER AND FUEL	1343	8	12.4	0.63	62	0	1.3	--	1405	8	13.8	0.57
TRANSPORTATION AND YARD	1293	14	12.9	1.09	341	8	4.2	2.08	1634	22	17.0	1.31
TUBE MILLS INCLUDES TUBE FINISHING	229	1	2.7	--	1	0	0.0	--	230	1	2.7	--
RIVER OR MARINE WAYS	218	4	1.9	--	1	0	0.0	--	219	4	1.9	--
TOTAL	51479	466	466.0	1.00	7349	95	95.0	1.00	58828	561	561.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 800-962
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	25	41.7	0.56 **	34	0	0.4	--	5146	25	42.1	0.56 **
GEN TECHNICAL	3684	11	29.0	0.36 **	16	0	0.2	--	3700	11	29.2	0.36 **
COKE PLANT	2381	24	17.6	1.51	1176	15	16.0	0.83	3557	39	33.6	1.30
BLAST FURNACE	4218	38	36.3	1.06	1415	16	17.4	0.90	5633	54	53.6	1.01
OPEN HEARTH	9655	87	83.0	1.06	2335	29	28.1	1.06	11990	116	111.1	1.06
BESSEMER CONVERTER	240	1	2.5	--	88	0	1.2	--	328	1	3.7	--
ELECTRIC FURNACE	1250	12	13.5	0.87	11	1	0.1	--	1261	13	13.6	0.95
FOUNDRY	1781	16	17.4	0.91	345	4	4.2	--	2126	20	21.5	0.92
HEAT TREAT AND FORGING	1683	12	14.3	0.81	46	0	0.6	--	1729	12	15.0	0.77
BILLET BLOOM AND SLAB MILLS	5783	54	52.5	1.04	419	4	4.6	--	6202	58	57.1	1.02
SOAKING PITS	148	1	1.3	--	28	0	0.3	--	176	1	1.6	--
MERCHANT MILLS	3885	30	32.9	0.89	680	9	9.4	0.94	4565	39	42.4	0.90
PLATE MILL	3005	35	27.6	1.40	436	5	4.9	1.02	3441	40	32.5	1.34
AXLE MILLS	293	2	3.0	--	6	0	0.1	--	299	2	3.1	--
GENERAL FINISHING AND SHIPPING	1309	12	11.1	1.09	213	3	3.3	--	1522	15	14.4	1.04
HOT STRIP MILL	567	8	3.8	2.22	1	0	0.0	--	568	8	3.8	2.21
RAIL MILL ROLLING	852	7	7.9	0.86	97	1	1.3	--	949	8	9.2	0.85
RAIL MILL FINISHING	726	8	6.9	1.19	145	2	2.0	--	871	10	8.9	1.15
STEEL YARDS	299	2	2.8	--	77	1	0.9	--	376	3	3.7	--
STRUCTURAL MILL	1972	27	16.5	1.92 **	252	3	2.5	--	2224	30	19.0	1.80 **
ANNEALING NORMALIZING	2605	33	23.8	1.49 *	54	0	0.3	--	2659	33	24.1	1.47
BATCH PICKLING AND SHEET DRYERS	137	2	1.7	--	50	1	0.2	--	187	3	1.9	--
COATING	545	3	3.3	--	0	0	0.0	--	545	3	3.3	--
COLD REDUCING MILLS	1933	12	12.7	0.94	113	2	1.3	--	2046	14	14.1	0.99
CONTINUOUS PICKLING AND ELEC CLEANING	254	2	1.3	--	0	0	0.0	--	254	2	1.3	--
FLYING SHEARS AND SLITTERS	28	1	0.2	--	0	0	0.0	--	28	1	0.2	--
HOT PACK MILLS	1229	22	16.4	1.54	19	0	0.1	--	1248	22	16.5	1.52
HOT STRIP ROLLING	1623	11	10.5	1.05	2	0	0.0	--	1625	11	10.5	1.05
SHEET FINISHING AND SHIPPING	3306	36	30.8	1.26	108	0	0.5	--	3414	36	31.3	1.23
STAINLESS ANNEAL PICKLG AND PROCESSING	384	10	4.8	2.31 *	2	0	0.0	--	386	10	4.8	2.30 *
TEMPER PASSING AND COLD ROLLING	783	7	4.4	1.81	0	0	0.0	--	783	7	4.4	1.81
TIN FINISHING AND SHIPPING	668	5	4.2	1.25	1	0	0.0	--	669	5	4.2	1.25
GENERAL LABOR	3153	32	26.9	1.22	1215	15	15.7	0.94	4368	47	42.5	1.13
JANITORS	311	4	3.9	--	422	5	5.1	0.98	733	9	9.0	1.00
MASON DEPARTMENT	2511	10	21.3	0.45 *	696	13	8.5	1.67	3207	23	29.8	0.75
BLACKSMITH SHOP	555	2	5.3	0.37	6	0	0.1	--	561	2	5.3	0.37
CARPENTER SHOP	665	5	6.4	0.78	1	0	0.0	--	666	5	6.4	0.78
ELECTRIC MAINTENANCE ASSIGNED	3200	17	28.7	0.57 *	8	0	0.1	--	3208	17	28.8	0.57 *
ELECTRIC SHOP	1620	18	14.8	1.25	2	1	0.0	--	1622	19	14.8	1.32
GARAGE	242	0	1.8	--	2	0	0.0	--	244	0	1.8	--
LOCOMOTIVE AND CAR REPAIR	261	3	2.3	--	22	1	0.2	--	283	4	2.5	--
MACHINE SHOP	2405	10	21.0	0.46 *	12	0	0.1	--	2417	10	21.2	0.46 *
MAINTENANCE NOS	558	1	4.0	--	5	0	0.1	--	563	1	4.1	--
MECHNICAL MAINTENANCE ASSIGNED	6136	62	56.0	1.13	201	3	2.6	--	6337	65	58.6	1.14
PAINT SHOP	777	5	6.5	0.77	9	0	0.1	--	786	5	6.6	0.75
PATTERN SHOP	95	0	0.8	--	0	0	0.0	--	95	0	0.8	--
PIPE SHOP	1412	10	12.0	0.83	14	0	0.2	--	1426	10	12.2	0.81
RIGGERS AND STRUCTURAL	2525	25	22.6	1.12	21	0	0.2	--	2546	25	22.8	1.10
ROLL SHOP	502	5	4.0	1.25	3	0	0.0	--	505	5	4.1	1.24
WELD SHOP	758	4	5.8	0.68	2	0	0.0	--	760	4	5.9	0.68
ALL OTHER	1098	8	10.7	0.73	75	0	1.3	--	1173	8	12.1	0.65
GENERAL RECEIVING AND STORES	382	2	3.4	--	9	0	0.2	--	391	2	3.7	--
PLANT PROTECTION	856	2	7.7	0.25	4	0	0.0	--	860	2	7.8	0.25
POWER AND FUEL	2336	16	20.6	0.76	213	0	3.3	--	2549	16	23.9	0.65
TRANSPORTATION AND YARD	2842	31	26.9	1.17	633	9	7.5	1.23	3475	40	34.5	1.18
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.6	1.21	10	0	0.0	--	645	9	7.7	1.21
RIVER OR MARINE WAYS	293	4	2.3	--	1	0	0.0	--	294	4	2.3	--
TOTAL	51479	430	430.0	1.00	7349	88	88.0	1.00	58828	518	518.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 800-962
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	31	45.1	0.66 *	34	1	0.4	--	5146	32	45.5	0.67 *
GEN TECHNICAL	3684	12	31.2	0.37 **	16	0	0.2	--	3700	12	31.4	0.38 **
COKE PLANT	2381	27	19.6	1.54	1176	16	17.0	0.83	3557	43	36.5	1.33
BLAST FURNACE	4218	41	40.6	1.01	1415	16	18.4	0.83	5633	57	59.0	0.96
OPEN HEARTH	9655	94	90.5	1.05	2335	32	30.6	1.08	11990	126	121.1	1.06
BESSEMER CONVERTER	240	2	2.8	--	88	0	1.4	--	328	2	4.2	--
ELECTRIC FURNACE	1250	13	13.8	0.93	11	1	0.1	--	1261	14	13.9	1.01
FOUNDRY	1781	16	18.7	0.85	345	5	4.5	1.12	2126	21	23.2	0.90
HEAT TREAT AND FORGING	1683	12	15.8	0.72	46	0	0.8	--	1729	12	16.6	0.69
BILLET BLOOM AND SLAB MILLS	5783	57	57.2	0.99	419	4	4.8	--	6202	61	62.0	0.98
SOAKING PITS	148	1	1.4	--	28	0	0.3	--	176	1	1.7	--
MERCHANT MILLS	3885	35	37.4	0.92	680	10	9.9	1.01	4565	45	47.3	0.94
PLATE MILL	3005	39	30.5	1.43	436	7	6.3	1.16	3441	46	36.8	1.38
AXLE MILLS	293	2	3.6	--	6	0	0.1	--	299	2	3.7	--
GENERAL FINISHING AND SHIPPING	1309	14	12.7	1.11	213	3	3.7	--	1522	17	16.4	1.04
HOT STRIP MILL	567	9	4.1	2.33 *	1	0	0.0	--	568	9	4.1	2.32 *
RAIL MILL ROLLING	852	9	8.6	1.06	97	1	1.5	--	949	10	10.1	0.99
RAIL MILL FINISHING	726	10	7.5	1.41	145	3	2.2	--	871	13	9.7	1.44
STEEL YARDS	299	2	3.2	--	77	1	1.1	--	376	3	4.3	--
STRUCTURAL MILL	1972	27	18.0	1.70 *	252	4	3.1	--	2224	31	21.1	1.64 *
ANNEALING NORMALIZING	2605	35	24.8	1.53 *	54	0	0.3	--	2659	35	25.1	1.51 *
BATCH PICKLING AND SHEET DRYERS	137	2	1.7	--	50	1	0.2	--	187	3	1.9	--
COATING	545	3	4.0	--	0	0	0.0	--	545	3	4.0	--
COLD REDUCING MILLS	1933	14	13.6	1.03	113	2	1.4	--	2046	16	15.0	1.08
CONTINUOUS PICKLING AND ELEC CLEANING	254	2	1.4	--	0	0	0.0	--	254	2	1.4	--
FLYING SHEARS AND SLITTERS	28	1	0.2	--	0	0	0.0	--	28	1	0.2	--
HOT PACK MILLS	1229	23	16.8	1.60	19	0	0.1	--	1248	23	16.9	1.58
HOT STRIP ROLLING	1623	13	11.3	1.17	2	0	0.0	--	1625	13	11.3	1.17
SHEET FINISHING AND SHIPPING	3306	36	31.7	1.21	108	0	0.5	--	3414	36	32.2	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	384	10	4.8	2.27 *	2	0	0.0	--	386	10	4.9	2.26 *
TEMPER PASSING AND COLD ROLLING	783	8	4.8	1.92	0	0	0.0	--	783	8	4.8	1.92
TIN FINISHING AND SHIPPING	668	5	4.6	1.10	1	0	0.0	--	669	5	4.6	1.10
GENERAL LABOR	3153	35	30.0	1.19	1215	16	17.8	0.87	4368	51	47.9	1.08
JANITORS	311	4	4.6	--	422	6	5.7	1.06	733	10	10.3	0.97
MASON DEPARTMENT	2511	14	22.8	0.60	696	14	9.0	1.70	3207	28	31.8	0.87
BLACKSMITH SHOP	555	2	5.9	0.33	6	0	0.1	--	561	2	6.0	0.33
CARPENTER SHOP	665	5	7.3	0.68	1	0	0.0	--	666	5	7.3	0.68
ELECTRIC MAINTENANCE ASSIGNED	3200	21	31.4	0.65	8	0	0.1	--	3208	21	31.5	0.65
ELECTRIC SHOP	1620	20	17.1	1.20	2	1	0.0	--	1622	21	17.1	1.26
GARAGE	242	0	2.0	--	2	0	0.0	--	244	0	2.0	--
LOCOMOTIVE AND CAR REPAIR	261	4	2.5	--	22	1	0.3	--	283	5	2.8	1.81
MACHINE SHOP	2405	11	23.5	0.45 *	12	0	0.2	--	2417	11	23.6	0.45 **
MAINTENANCE NOS	558	1	4.8	--	5	0	0.1	--	563	1	4.8	--
MECHNICAL MAINTENANCE ASSIGNED	6136	67	61.3	1.12	201	5	3.0	1.76	6337	72	64.3	1.15
PAINT SHOP	777	5	7.1	0.70	9	0	0.1	--	786	5	7.2	0.69
PATTERN SHOP	95	0	0.9	--	0	0	0.0	--	95	0	0.9	--
PIPE SHOP	1412	13	13.4	0.97	14	0	0.2	--	1426	13	13.6	0.95
RIGGERS AND STRUCTURAL	2525	26	25.7	1.01	21	0	0.3	--	2546	26	26.0	1.00
ROLL SHOP	502	5	4.5	1.12	3	0	0.1	--	505	5	4.5	1.11
WELD SHOP	758	4	6.2	0.64	2	0	0.0	--	760	4	6.2	0.64
ALL OTHER	1098	9	12.2	0.73	75	1	1.5	--	1173	10	13.6	0.72
GENERAL RECEIVING AND STORES	382	3	3.9	--	9	0	0.3	--	391	3	4.2	--
PLANT PROTECTION	856	3	8.6	0.34	4	0	0.0	--	860	3	8.6	0.34
POWER AND FUEL	2336	17	23.1	0.72	213	1	3.7	--	2549	18	26.7	0.65
TRANSPORTATION AND YARD	2842	32	29.6	1.09	633	11	8.3	1.38	3475	43	38.0	1.15
TUBE MILLS INCLUDES TUBE FINISHING	635	9	7.8	1.19	10	0	0.0	--	645	9	7.8	1.18
RIVER OR MARINE WAYS	293	4	2.5	--	1	0	0.0	--	294	4	2.5	--
TOTAL	51479	466	466.0	1.00	7349	95	95.0	1.00	58828	561	561.0	1.00

1, SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00168

C.O.D. (UNDERLYING) = 800-962
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	12	17.9	0.65	11	0	0.1	--	2374	12	18.0	0.65
GEN TECHNICAL	1575	6	11.4	0.51	6	0	0.1	--	1581	6	11.5	0.51
COKE PLANT	1180	10	8.8	1.15	664	10	10.3	0.94	1844	20	19.1	1.07
BLAST FURNACE	1730	18	14.1	1.30	591	8	7.2	1.13	2321	26	21.4	1.25
OPEN HEARTH	4075	27	32.8	0.80	1347	16	14.9	1.12	5422	43	47.8	0.88
BESSEMER CONVERTER	118	1	1.2	--	35	0	0.4	--	153	1	1.6	--
ELECTRIC FURNACE	509	4	5.0	--	4	0	0.0	--	513	4	5.0	--
FOUNDRY	764	10	7.4	1.39	169	1	1.8	--	933	11	9.1	1.22
HEAT TREAT AND FORGING	708	4	6.1	0.63	20	0	0.2	--	728	4	6.3	0.60
BILLET BLOOM AND SLAB MILLS	2614	15	21.9	0.65	201	3	2.1	--	2815	18	24.1	0.72
SOAKING PITS	19	0	0.2	--	0	0	0.0	--	19	0	0.2	--
MERCHANT MILLS	1986	19	16.1	1.22	301	4	4.8	--	2287	23	20.9	1.12
PLATE MILL	1442	17	12.8	1.42	246	2	2.7	--	1688	19	15.5	1.28
AXLE MILLS	45	0	0.5	--	0	0	0.0	--	45	0	0.5	--
GENERAL FINISHING AND SHIPPING	511	5	4.1	1.22	113	3	2.0	--	624	8	6.1	1.35
HOT STRIP MILL	174	3	1.1	--	0	0	0.0	--	174	3	1.1	--
RAIL MILL ROLLING	288	5	2.4	2.35	32	1	0.4	--	320	6	2.8	2.40
RAIL MILL FINISHING	245	3	2.0	--	82	1	0.9	--	327	4	2.9	--
STEEL YARDS	68	2	0.7	--	11	0	0.1	--	79	2	0.8	--
STRUCTURAL MILL	980	17	7.7	2.66 **	128	1	1.1	--	1108	18	8.8	2.39 **
ANNEALING NORMALIZING	1214	14	10.5	1.38	25	0	0.2	--	1239	14	10.7	1.36
BATCH PICKLING AND SHEET DRYERS	45	2	0.6	--	19	0	0.1	--	64	2	0.7	--
COATING	269	1	1.8	--	0	0	0.0	--	269	1	1.8	--
COLD REDUCING MILLS	848	3	5.1	0.57	65	2	0.7	--	913	5	5.8	0.86
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.8	--	0	0	0.0	--	147	0	0.8	--
FLYING SHEARS AND SLITTERS	5	1	0.0	--	0	0	0.0	--	5	1	0.0	--
HOT PACK MILLS	737	12	10.4	1.20	5	0	0.0	--	742	12	10.5	1.20
HOT STRIP ROLLING	864	5	5.0	0.99	1	0	0.0	--	865	5	5.1	0.99
SHEET FINISHING AND SHIPPING	1335	15	12.5	1.26	48	0	0.2	--	1383	15	12.7	1.23
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	1.9	--	0	0	0.0	--	148	2	1.9	--
TEMPER PASSING AND COLD ROLLING	335	1	1.8	--	0	0	0.0	--	335	1	1.8	--
TIN FINISHING AND SHIPPING	348	3	2.4	--	0	0	0.0	--	348	3	2.4	--
GENERAL LABOR	565	8	4.7	1.73	375	5	4.6	1.09	940	13	9.4	1.43
JANITORS	112	3	1.5	--	190	1	2.3	--	302	4	3.8	--
MASON DEPARTMENT	758	5	5.8	0.86	242	3	2.9	--	1000	8	8.7	0.91
BLACKSMITH SHOP	231	1	2.2	--	5	0	0.0	--	236	1	2.2	--
CARPENTER SHOP	277	2	2.5	--	0	0	0.0	--	277	2	2.5	--
ELECTRIC MAINTENANCE ASSIGNED	1581	7	14.2	0.48	2	0	0.0	--	1583	7	14.2	0.48
ELECTRIC SHOP	760	9	6.7	1.38	2	1	0.0	--	762	10	6.7	1.54
GARAGE	98	0	0.7	--	1	0	0.0	--	99	0	0.7	--
LOCOMOTIVE AND CAR REPAIR	104	2	0.8	--	7	0	0.1	--	111	2	0.9	--
MACHINE SHOP	1270	7	10.4	0.66	2	0	0.0	--	1272	7	10.5	0.66
MAINTENANCE NOS	246	1	2.0	--	0	0	0.0	--	246	1	2.0	--
MECHNICAL MAINTENANCE ASSIGNED	2290	23	20.0	1.17	73	1	1.4	--	2363	24	21.4	1.13
PAINT SHOP	197	1	1.6	--	2	0	0.0	--	199	1	1.6	--
PATTERN SHOP	64	0	0.5	--	0	0	0.0	--	64	0	0.5	--
PIPE SHOP	657	6	5.2	1.16	6	0	0.0	--	663	6	5.2	1.15
RIGGERS AND STRUCTURAL	1034	10	8.5	1.18	6	0	0.1	--	1040	10	8.6	1.17
ROLL SHOP	314	1	2.4	--	0	0	0.0	--	314	1	2.4	--
WELD SHOP	460	2	3.1	--	2	0	0.0	--	462	2	3.1	--
ALL OTHER	302	4	3.2	--	9	0	0.1	--	311	4	3.3	--
GENERAL RECEIVING AND STORES	168	1	1.6	--	2	0	0.1	--	170	1	1.6	--
PLANT PROTECTION	469	1	4.2	--	1	0	0.0	--	470	1	4.2	--
POWER AND FUEL	976	12	8.4	1.46	89	0	1.5	--	1065	12	9.9	1.22
TRANSPORTATION AND YARD	871	9	8.3	1.10	194	4	2.2	--	1065	13	10.4	1.27
TUBE MILLS INCLUDES TUBE FINISHING	281	4	3.4	--	2	0	0.0	--	283	4	3.4	--
RIVER OR MARINE WAYS	177	2	1.4	--	1	0	0.0	--	178	2	1.4	--
TOTAL	36364	288	288.0	1.00	4913	59	59.0	1.00	41277	347	347.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00163

C.O.D. (PREVALENCE) = 800-962
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	18	20.1	0.89	11	0	0.2	--	2374	18	20.3	0.88
GEN TECHNICAL	1575	6	12.7	0.46	6	0	0.1	--	1581	6	12.8	0.46
COKE PLANT	1180	13	10.1	1.34	664	10	11.1	0.82	1844	23	21.2	1.13
BLAST FURNACE	1730	21	16.4	1.31	591	8	7.8	1.03	2321	29	24.3	1.22
OPEN HEARTH	4075	30	37.2	0.78	1347	19	16.9	1.21	5422	49	54.0	0.88
BESSEMER CONVERTER	118	1	1.4	--	35	0	0.5	--	153	1	1.9	--
ELECTRIC FURNACE	509	4	5.1	0.76	4	0	0.0	--	513	4	5.1	0.76
FOUNDRY	764	10	8.2	1.24	169	2	2.1	--	933	12	10.2	1.18
HEAT TREAT AND FORGING	708	4	7.1	0.54	20	0	0.3	--	728	4	7.4	0.51
BILLET BLOOM AND SLAB MILLS	2614	16	24.7	0.61	201	3	2.2	--	2815	19	27.0	0.67
SOAKING PITS.	19	0	0.2	--	0	0	0.0	--	19	0	0.2	--
MERCHANT MILLS	1986	20	18.9	1.07	301	5	5.2	0.96	2287	25	24.0	1.05
PLATE MILL	1442	20	14.7	1.48	246	2	3.7	--	1688	22	18.4	1.25
AXLE MILLS	45	0	0.6	--	0	0	0.0	--	45	0	0.6	--
GENERAL FINISHING AND SHIPPING	511	7	4.8	1.48	113	3	2.2	--	624	10	7.0	1.48
HOT STRIP MILL	174	4	1.2	--	0	0	0.0	--	174	4	1.2	--
RAIL MILL ROLLING	288	6	2.7	2.55	32	1	0.5	--	320	7	3.2	2.47
RAIL MILL FINISHING	245	4	2.2	--	82	2	1.1	--	327	6	3.3	1.99
STEEL YARDS	68	2	0.8	--	11	0	0.1	--	79	2	0.9	--
STRUCTURAL MILL	980	17	8.6	2.28 **	128	1	1.6	--	1108	18	10.2	1.98 *
ANNEALING NORMALIZING	1214	14	11.0	1.32	25	0	0.2	--	1239	14	11.1	1.30
BATCH PICKLING AND SHEET DRYERS	45	2	0.6	--	19	0	0.1	--	64	2	0.7	--
COATING	269	1	2.2	--	0	0	0.0	--	269	1	2.2	--
COLD REDUCING MILLS	848	5	5.6	0.88	65	2	0.7	--	913	7	6.3	1.11
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.9	--	0	0	0.0	--	147	0	0.9	--
FLYING SHEARS AND SLITTERS	5	1	0.0	--	0	0	0.0	--	5	1	0.0	--
HOT PACK MILLS	737	12	10.7	1.17	5	0	0.0	--	742	12	10.7	1.16
HOT STRIP ROLLING	864	7	5.5	1.30	1	0	0.0	--	865	7	5.5	1.30
SHEET FINISHING AND SHIPPING	1335	15	12.9	1.20	48	0	0.2	--	1383	15	13.1	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	1.9	--	0	0	0.0	--	148	2	1.9	--
TEMPER PASSING AND COLD ROLLING	335	2	2.0	--	0	0	0.0	--	335	2	2.0	--
TIN FINISHING AND SHIPPING	348	3	2.8	--	0	0	0.0	--	348	3	2.8	--
GENERAL LABOR	565	9	5.6	1.63	375	5	5.3	0.94	940	14	10.9	1.31
JANITORS	112	3	1.8	--	190	2	2.7	--	302	5	4.5	1.11
MASON DEPARTMENT	758	6	6.5	0.93	242	3	3.1	--	1000	9	9.6	0.94
BLACKSMITH SHOP	231	1	2.5	--	5	0	0.0	--	236	1	2.6	--
CARPENTER SHOP	277	2	3.0	--	0	0	0.0	--	277	2	3.0	--
ELECTRIC MAINTENANCE ASSIGNED	1581	8	15.9	0.49	2	0	0.0	--	1583	8	15.9	0.49
ELECTRIC SHOP	760	10	7.8	1.30	2	1	0.0	--	762	11	7.9	1.44
GARAGE	98	0	0.6	--	1	0	0.0	--	99	0	0.8	--
LOCOMOTIVE AND CAR REPAIR	104	2	1.0	--	7	0	0.1	--	111	2	1.1	--
MACHINE SHOP	1270	8	11.9	0.66	2	0	0.0	--	1272	8	12.0	0.66
MAINTENANCE NOS	246	1	2.4	--	0	0	0.0	--	246	1	2.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	27	23.1	1.20	73	1	1.7	--	2363	28	24.8	1.15
PAINT SHOP	197	1	1.8	--	2	0	0.0	--	199	1	1.8	--
PATTERN SHOP	64	0	0.6	--	0	0	0.0	--	64	0	0.6	--
PIPE SHOP	657	8	5.9	1.37	6	0	0.0	--	663	8	5.9	1.36
RIGGERS AND STRUCTURAL	1034	10	9.9	1.01	6	0	0.1	--	1040	10	10.0	1.00
ROLL SHOP	314	1	2.8	--	0	0	0.0	--	314	1	2.8	--
WELD SHOP	460	2	3.4	--	2	0	0.0	--	462	2	3.4	--
ALL OTHER	302	5	3.7	1.35	9	0	0.1	--	311	5	3.9	1.30
GENERAL RECEIVING AND STORES	168	1	1.9	--	2	0	0.1	--	170	1	2.0	--
PLANT PROTECTION	469	2	4.7	--	1	0	0.0	--	470	2	4.7	--
POWER AND FUEL	976	13	9.7	1.36	89	0	1.8	--	1065	13	11.5	1.14
TRANSPORTATION AND YARD	871	9	9.3	0.96	194	6	2.5	2.68 *	1065	15	11.8	1.30
TUBE MILLS INCLUDES TUBE FINISHING	281	4	3.4	--	2	0	0.0	--	283	4	3.5	--
RIVER OR MARINE WAYS	177	2	1.8	--	1	0	0.0	--	178	2	1.6	--
TOTAL	36364	321	321.0	1.00	4913	66	66.0	1.00	41277	387	387.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00170

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Accidents

ICD CODE: 800-962

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	0.37**	0.35**	0.36**	0.37**	0.51	0.46
Structural Mill	2.18**	1.97*	1.92**	1.70*	2.66**	2.28**
General Administrative and Clerical	0.64	0.76	0.56**	0.66*	0.65	0.89
Annealing Normalizing	1.59	1.61	1.49*	1.53*	1.38	1.32
Stainless Anneal.Picklg. & Processing	--	--	2.31*	2.27*	--	--
Mason Dept.	0.56	0.61	0.45*	0.60	0.86	0.93
Electric Maintenance Assigned	0.63	0.65	0.57*	0.65	0.48	0.49
Machine Shop	0.48	0.50	0.46*	0.45*	0.66	0.66
Hot Strip Mill	--	--	2.22	2.33*	--	--
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Transportation and Yard	1.67	2.08	1.23	1.38	--	2.68*

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

001171

C.O.D. (UNDERLYING) = 963-964,970-985
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	15	9.0	1.74	18	0	0.1	--	3291	15	9.1	1.72
GEN TECHNICAL	2368	6	6.4	0.93	14	0	0.1	--	2382	6	6.5	0.92
COKE PLANT	1635	8	4.8	2.00	908	4	3.6	--	2543	12	8.4	1.72
BLAST FURNACE	2355	8	7.0	1.17	1101	2	6.1	0.28	3456	10	13.0	0.75
OPEN HEARTH	5797	21	18.0	1.20	1836	9	8.8	1.04	7633	30	26.7	1.16
BESSEMER CONVERTER	24	1	0.1	--	0	0	0.0	--	24	1	0.1	--
ELECTRIC FURNACE	734	2	1.8	--	7	0	0.0	--	741	2	1.8	--
FOUNDRY	890	3	2.8	--	253	1	1.5	--	1143	4	4.3	--
HEAT TREAT AND FORGING	1003	2	3.4	--	16	0	0.0	--	1019	2	3.5	--
BILLET BLOOM AND SLAB MILLS	2912	6	9.1	0.63	223	1	0.6	--	3135	7	9.7	0.70
SOAKING PITS	94	0	0.2	--	14	0	0.1	--	108	0	0.3	--
MERCHANT MILLS	2130	3	6.3	0.45	395	1	1.5	--	2525	4	7.8	0.48
PLATE MILL	1547	4	5.2	0.75	239	0	0.8	--	1786	4	6.0	0.64
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	4	1.2	--	82	0	0.3	--	481	4	1.5	--
HOT STRIP MILL	164	1	0.5	--	1	0	0.0	--	165	1	0.5	--
RAIL MILL ROLLING	339	2	1.0	--	46	0	0.2	--	385	2	1.3	--
RAIL MILL FINISHING	347	1	1.0	--	98	0	0.5	--	445	1	1.5	--
STEEL YARDS	88	0	0.3	--	32	0	0.2	--	120	0	0.5	--
STRUCTURAL MILL	1196	8	4.1	2.23	164	0	0.6	--	1360	8	4.7	1.85
ANNEALING NORMALIZING	1353	2	4.1	--	17	0	0.0	--	1370	2	4.1	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.0	--	76	0	0.1	--
COATING	328	1	0.5	--	0	0	0.0	--	328	1	0.5	--
COLD REDUCING MILLS	1395	7	3.6	2.10	97	2	0.6	--	1492	9	4.2	2.36 *
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	0.4	--	0	0	0.0	--	205	1	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	2.3	--	5	0	0.0	--	571	3	2.3	--
HOT STRIP ROLLING	1008	2	2.8	--	0	0	0.0	--	1008	2	2.8	--
SHEET FINISHING AND SHIPPING	1733	5	4.3	1.18	36	0	0.0	--	1769	5	4.3	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.8	--	0	0	0.0	--	369	0	0.8	--
TIN FINISHING AND SHIPPING	396	0	0.6	--	1	0	0.0	--	397	0	0.6	--
GENERAL LABOR	546	1	1.4	--	449	2	2.3	--	995	3	3.7	--
JANITORS	205	2	0.6	--	321	4	1.3	--	526	6	1.9	3.31 **
MASON DEPARTMENT	1305	2	3.9	--	438	7	2.6	3.33 *	1743	9	6.6	1.42
BLACKSMITH SHOP	266	0	0.8	--	4	0	0.0	--	270	0	0.9	--
CARPENTER SHOP	406	1	1.2	--	0	0	0.0	--	406	1	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1605	5	4.9	1.02	5	0	0.0	--	1610	5	4.9	1.02
ELECTRIC SHOP	551	2	1.6	--	1	0	0.0	--	552	2	1.6	--
GARAGE	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.4	--	9	0	0.1	--	130	0	0.4	--
MACHINE SHOP	1442	2	4.3	--	3	0	0.0	--	1445	2	4.3	--
MAINTENANCE NOS	70	0	0.2	--	2	0	0.0	--	72	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	4	7.5	0.51	60	0	0.2	--	2749	4	7.7	0.50
PAINT SHOP	263	1	0.8	--	2	0	0.0	--	265	1	0.8	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	0	2.2	--	5	0	0.0	--	743	0	2.2	--
RIGGERS AND STRUCTURAL	1189	3	3.7	--	8	0	0.0	--	1197	3	3.7	--
ROLL SHOP	374	3	1.1	--	0	0	0.0	--	374	3	1.1	--
WELD SHOP	644	3	1.9	--	2	0	0.0	--	646	3	1.9	--
ALL OTHER	138	0	0.4	--	5	0	0.0	--	143	0	0.4	--
GENERAL RECEIVING AND STORES	192	0	0.5	--	4	0	0.0	--	196	0	0.5	--
PLANT PROTECTION	674	1	2.1	--	1	0	0.0	--	675	1	2.1	--
POWER AND FUEL	1343	2	4.1	--	62	0	0.3	--	1405	2	4.4	--
TRANSPORTATION AND YARD	1293	3	3.7	--	341	1	1.5	--	1634	4	5.2	0.76
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.7	--	1	0	0.0	--	230	0	0.7	--
RIVER OR MARINE WAYS	218	0	0.6	--	1	0	0.0	--	219	0	0.6	--
TOTAL	51479	151	151.0	1.00	7349	34	34.0	1.00	58828	185	185.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 11-JUN-74

C.O.D. (PREVALENCE) = 963-964,970-985
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	15	9.0	1.74	18	0	0.1	--	3291	15	9.1	1.72
GEN TECHNICAL	2368	6	6.4	0.93	14	0	0.1	--	2382	6	6.5	0.92
COKE PLANT	1635	8	4.8	2.00	908	4	3.6	--	2543	12	8.4	1.72
BLAST FURNACE	2355	8	7.0	1.17	1101	2	6.1	0.28	3456	10	13.0	0.75
OPEN HEARTH	5797	21	18.0	1.20	1836	9	8.8	1.04	7633	30	26.7	1.16
BESSEMER CONVERTER	24	1	0.1	--	0	0	0.0	--	24	1	0.1	--
ELECTRIC FURNACE	734	2	1.8	--	7	0	0.0	--	741	2	1.8	--
FOUNDRY	890	3	2.8	--	253	1	1.5	--	1143	4	4.3	--
HEAT TREAT AND FORGING	1003	2	3.4	--	16	0	0.0	--	1019	2	3.5	--
BILLET BLOOM AND SLAB MILLS	2912	6	9.1	0.63	223	1	0.6	--	3135	7	9.7	0.70
SOAKING PITS	94	0	0.2	--	14	0	0.1	--	108	0	0.3	--
MERCHANT MILLS	2130	3	6.3	0.45	395	1	1.5	--	2525	4	7.6	0.48
PLATE MILL	1547	4	5.2	0.75	239	0	0.8	--	1786	4	6.0	0.64
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	4	1.2	--	82	0	0.3	--	481	4	1.5	--
HOT STRIP MILL	164	1	0.5	--	1	0	0.0	--	165	1	0.5	--
RAIL MILL ROLLING	339	2	1.0	--	46	0	0.2	--	385	2	1.3	--
RAIL MILL FINISHING	347	1	1.0	--	98	0	0.5	--	445	1	1.5	--
STEEL YARDS	88	0	0.3	--	32	0	0.2	--	120	0	0.5	--
STRUCTURAL MILL	1196	8	4.1	2.23	164	0	0.6	--	1360	8	4.7	1.85
ANNEALING NORMALIZING	1353	2	4.1	--	17	0	0.0	--	1370	2	4.1	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.1	--	21	0	0.0	--	76	0	0.1	--
COATING	328	1	0.5	--	0	0	0.0	--	328	1	0.5	--
COLD REDUCING MILLS	1395	7	3.6	2.10	97	2	0.6	--	1492	9	4.2	2.36 *
CONTINUOUS PICKLING AND ELEC CLEANING	205	1	0.4	--	0	0	0.0	--	205	1	0.4	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	3	2.3	--	5	0	0.0	--	571	3	2.3	--
HOT STRIP ROLLING	1008	2	2.8	--	0	0	0.0	--	1008	2	2.8	--
SHEET FINISHING AND SHIPPING	1733	5	4.3	1.18	36	0	0.0	--	1769	5	4.3	1.18
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	0	0.8	--	0	0	0.0	--	369	0	0.8	--
TIN FINISHING AND SHIPPING	396	0	0.6	--	1	0	0.0	--	397	0	0.6	--
GENERAL LABOR	546	1	1.4	--	449	2	2.3	--	995	3	3.7	--
JANITORS	205	2	0.6	--	321	4	1.3	--	526	6	1.9	3.31 **
MASON DEPARTMENT	1305	2	3.9	--	438	7	2.6	3.33 *	1743	9	6.6	1.42
BLACKSMITH SHOP	266	0	0.8	--	4	0	0.0	--	270	0	0.9	--
CARPENTER SHOP	406	1	1.2	--	0	0	0.0	--	406	1	1.2	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	4.9	1.02	5	0	0.0	--	1610	5	4.9	1.02
ELECTRIC SHOP	551	2	1.6	--	1	0	0.0	--	552	2	1.6	--
GARAGE	147	0	0.4	--	0	0	0.0	--	147	0	0.4	--
LOCOMOTIVE AND CAR REPAIR	121	0	0.4	--	9	0	0.1	--	130	0	0.4	--
MACHINE SHOP	1442	2	4.3	--	3	0	0.0	--	1445	2	4.3	--
MAINTENANCE NOS	70	0	0.2	--	2	0	0.0	--	72	0	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	4	7.5	0.51	60	0	0.2	--	2749	4	7.7	0.50
PAINT SHOP	263	1	0.8	--	2	0	0.0	--	265	1	0.8	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	0	2.2	--	5	0	0.0	--	743	0	2.2	--
RIGGERS AND STRUCTURAL	1189	3	3.7	--	8	0	0.0	--	1197	3	3.7	--
ROLL SHOP	374	3	1.1	--	0	0	0.0	--	374	3	1.1	--
WELD SHOP	644	3	1.9	--	2	0	0.0	--	646	3	1.9	--
ALL OTHER	138	0	0.4	--	5	0	0.0	--	143	0	0.4	--
GENERAL RECEIVING AND STORES	192	0	0.5	--	4	0	0.0	--	196	0	0.5	--
PLANT PROTECTION	674	1	2.1	--	1	0	0.0	--	675	1	2.1	--
POWER AND FUEL	1343	2	4.1	--	62	0	0.3	--	1405	2	4.4	--
TRANSPORTATION AND YARD	1293	3	3.7	--	341	1	1.5	--	1634	4	5.2	0.76
TUBE MILLS INCLUDES TUBE FINISHING	229	0	0.7	--	1	0	0.0	--	230	0	0.7	--
RIVER OR MARINE WAYS	218	0	0.6	--	1	0	0.0	--	219	0	0.6	--
TOTAL	51479	151	151.0	1.00	7349	34	34.0	1.00	58828	185	185.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 15-MAY-74

C.O.D. (UNDERLYING) = 963-964,970-985
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	19	14.6	1.35	34	0	0.1	--	5146	19	14.8	1.34
GEN TECHNICAL	3684	13	10.5	1.28	16	0	0.1	--	3700	13	10.5	1.27
COKE PLANT	2381	11	7.1	1.90	1176	5	4.6	1.28	3557	16	11.7	1.74
BLAST FURNACE	4218	12	12.8	0.93	1415	2	7.4	0.21 *	5633	14	20.2	0.65
OPEN HEARTH	9655	30	30.3	0.99	2335	14	10.6	1.60	11990	44	41.0	1.11
BESSEMER CONVERTER	240	1	0.7	--	88	0	0.3	--	328	1	1.0	--
ELECTRIC FURNACE	1250	4	3.4	--	11	0	0.0	--	1261	4	3.4	--
FOUNDRY	1781	4	5.7	0.69	345	3	1.8	--	2126	7	7.4	0.93
HEAT TREAT AND FORGING	1683	3	5.7	0.49	46	1	0.2	--	1729	4	5.8	0.66
BILLET BLOOM AND SLAB MILLS	5783	15	18.2	0.79	419	2	1.2	--	6202	17	19.4	0.85
SOAKING PITS	148	1	0.4	--	28	0	0.1	--	176	1	0.5	--
MERCHANT MILLS	3885	6	12.0	0.44	680	3	2.6	--	4565	9	14.6	0.56
PLATE MILL	3005	13	9.7	1.51	436	0	1.3	--	3441	13	11.0	1.25
AXLE MILLS	293	0	0.9	--	6	0	0.0	--	299	0	0.9	--
GENERAL FINISHING AND SHIPPING	1309	6	4.1	1.49	213	0	0.8	--	1522	6	4.9	1.24
HOT STRIP MILL	567	1	1.9	--	1	0	0.0	--	568	1	1.9	--
RAIL MILL ROLLING	852	5	2.6	2.32	97	1	0.4	--	949	6	3.0	2.44
RAIL MILL FINISHING	726	1	2.2	--	145	0	0.5	--	871	1	2.8	--
STEEL YARDS	299	0	0.9	--	77	1	0.4	--	376	1	1.3	--
STRUCTURAL MILL	1972	11	6.7	1.92	252	1	1.0	--	2224	12	7.7	1.77
ANNEALING NORMALIZING	2605	7	8.5	0.79	54	0	0.0	--	2659	7	8.5	0.79
BATCH PICKLING AND SHEET DRYERS	137	0	0.4	--	50	0	0.0	--	187	0	0.5	--
COATING	545	1	1.0	--	0	0	0.0	--	545	1	1.0	--
COLD REDUCING MILLS	1933	8	4.9	1.78	113	2	0.7	--	2046	10	5.5	1.98
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	0.4	--	0	0	0.0	--	254	1	0.4	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	5	5.2	0.94	19	0	0.0	--	1248	5	5.2	0.94
HOT STRIP ROLLING	1623	5	4.5	1.11	2	0	0.0	--	1625	5	4.6	1.11
SHEET FINISHING AND SHIPPING	3306	10	8.4	1.26	108	0	0.0	--	3414	10	8.5	1.26
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	1.3	--	2	0	0.0	--	386	2	1.3	--
TEMPER PASSING AND COLD ROLLING	783	0	1.5	--	0	0	0.0	--	783	0	1.5	--
TIN FINISHING AND SHIPPING	668	0	1.0	--	1	0	0.0	--	669	0	1.0	--
GENERAL LABOR	3153	4	9.2	0.41	1215	3	5.1	0.54	4368	7	14.3	0.45
JANITORS	311	2	0.9	--	422	5	1.7	3.38 *	733	7	2.6	2.90 *
MASON DEPARTMENT	2511	7	7.6	0.92	696	8	3.6	2.79 *	3207	15	11.1	1.40
BLACKSMITH SHOP	555	1	1.8	--	6	0	0.0	--	561	1	1.8	--
CARPENTER SHOP	665	1	2.1	--	1	0	0.0	--	666	1	2.1	--
ELECTRIC MAINTENANCE ASSIGNED	3200	6	10.1	0.58	8	0	0.0	--	3208	6	10.1	0.58
ELECTRIC SHOP	1620	4	5.1	0.76	2	0	0.0	--	1622	4	5.1	0.76
GARAGE	242	1	0.7	--	2	0	0.0	--	244	1	0.7	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.8	--	22	0	0.1	--	283	1	0.9	--
MACHINE SHOP	2405	4	7.4	0.52	12	0	0.1	--	2417	4	7.4	0.52
MAINTENANCE NOS	558	0	1.0	--	5	0	0.0	--	563	0	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	6136	13	17.4	0.71	201	0	0.6	--	6337	13	18.0	0.69
PAINT SHOP	777	2	2.4	--	9	0	0.0	--	786	2	2.4	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	0	4.4	--	14	0	0.0	--	1426	0	4.4	--
RIGGERS AND STRUCTURAL	2525	6	8.0	0.74	21	0	0.1	--	2546	6	8.1	0.73
ROLL SHOP	502	4	1.5	--	3	0	0.0	--	505	4	1.5	--
WELD SHOP	758	4	2.2	--	2	0	0.0	--	760	4	2.2	--
ALL OTHER	1098	6	3.8	1.63	75	0	0.3	--	1173	6	4.1	1.50
GENERAL RECEIVING AND STORES	382	0	1.1	--	9	0	0.0	--	391	0	1.1	--
PLANT PROTECTION	856	1	2.6	--	4	0	0.0	--	860	1	2.7	--
POWER AND FUEL	2336	7	7.3	0.96	213	0	0.8	--	2549	7	8.1	0.86
TRANSPORTATION AND YARD	2842	5	8.2	0.58	633	3	2.6	--	3475	8	10.8	0.72
TUBE MILLS INCLUDES TUBE FINISHING	635	3	2.1	--	10	0	0.0	--	645	3	2.1	--
RIVER OR MARINE WAYS	293	0	0.9	--	1	0	0.0	--	294	0	0.9	--
TOTAL	51479	151	151.0	1.00	7349	34	34.0	1.00	58828	185	185.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 963-964,970-985
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	19	14.6	1.35	34	0	0.1	--	5146	19	14.8	1.34
GEN TECHNICAL	3684	13	10.5	1.28	16	0	0.1	--	3700	13	10.5	1.27
COKE PLANT	2381	11	7.1	1.90	1176	5	4.6	1.28	3557	16	11.7	1.74
BLAST FURNACE	4218	12	12.8	0.93	1415	2	7.4	0.21 *	5633	14	20.2	0.65
OPEN HEARTH	9655	30	30.3	0.99	2335	14	10.6	1.60	11990	44	41.0	1.11
BESSEMER CONVERTER	240	1	0.7	--	88	0	0.3	--	328	1	1.0	--
ELECTRIC FURNACE	1250	4	3.4	--	11	0	0.0	--	1261	4	3.4	--
FOUNDRY	1781	4	5.7	0.69	345	3	1.8	--	2126	7	7.4	0.93
HEAT TREAT AND FORGING	1683	3	5.7	0.49	46	1	0.2	--	1729	4	5.8	0.66
BILLET BLOOM AND SLAB MILLS	5783	15	18.2	0.79	419	2	1.2	--	6202	17	19.4	0.85
SOAKING PITS	148	1	0.4	--	28	0	0.1	--	176	1	0.5	--
MERCHANT MILLS	3885	6	12.0	0.44	680	3	2.6	--	4565	9	14.6	0.56
PLATE MILL	3005	13	9.7	1.51	436	0	1.3	--	3441	13	11.0	1.25
AXLE MILLS	293	0	0.9	--	6	0	0.0	--	299	0	0.9	--
GENERAL FINISHING AND SHIPPING	1309	6	4.1	1.49	213	0	0.8	--	1522	6	4.9	1.24
HOT STRIP MILL	567	1	1.9	--	1	0	0.0	--	568	1	1.9	--
RAIL MILL ROLLING	852	5	2.6	2.32	97	1	0.4	--	949	6	3.0	2.44
RAIL MILL FINISHING	726	1	2.2	--	145	0	0.5	--	871	1	2.8	--
STEEL YARDS	299	0	0.9	--	77	1	0.4	--	376	1	1.3	--
STRUCTURAL MILL	1972	11	6.7	1.92	252	1	1.0	--	2224	12	7.7	1.77
ANNEALING NORMALIZING	2605	7	8.5	0.79	54	0	0.0	--	2659	7	8.5	0.79
BATCH PICKLING AND SHEET DRYERS	137	0	0.4	--	50	0	0.0	--	187	0	0.5	--
COATING	545	1	1.0	--	0	0	0.0	--	545	1	1.0	--
COLD REDUCING MILLS	1933	8	4.9	1.78	113	2	0.7	--	2046	10	5.5	1.98
CONTINUOUS PICKLING AND ELEC CLEANING	254	1	0.4	--	0	0	0.0	--	254	1	0.4	--
FLYING SHEARS AND SLITTERS	28	0	0.1	--	0	0	0.0	--	28	0	0.1	--
HOT PACK MILLS	1229	5	5.2	0.94	19	0	0.0	--	1248	5	5.2	0.94
HOT STRIP ROLLING	1623	5	4.5	1.11	2	0	0.0	--	1625	5	4.6	1.11
SHEET FINISHING AND SHIPPING	3306	10	8.4	1.26	108	0	0.0	--	3414	10	8.5	1.26
STAINLESS ANNEAL PICKLG AND PROCESSING	384	2	1.3	--	2	0	0.0	--	386	2	1.3	--
TEMPER PASSING AND COLD ROLLING	783	0	1.5	--	0	0	0.0	--	783	0	1.5	--
TIN FINISHING AND SHIPPING	668	0	1.0	--	1	0	0.0	--	669	0	1.0	--
GENERAL LABOR	3153	4	9.2	0.41	1215	3	5.1	0.54	4368	7	14.3	0.45
JANITORS	311	2	0.9	--	422	5	1.7	3.38 *	733	7	2.6	2.90 *
MASON DEPARTMENT	2511	7	7.6	0.92	696	8	3.6	2.79 *	3207	15	11.1	1.40
BLACKSMITH SHOP	555	1	1.8	--	6	0	0.0	--	561	1	1.8	--
CARPENTER SHOP	665	1	2.1	--	1	0	0.0	--	666	1	2.1	--
ELECTRIC MAINTENANCE ASSIGNED	3200	6	10.1	0.58	8	0	0.0	--	3208	6	10.1	0.58
ELECTRIC SHOP	1620	4	5.1	0.76	2	0	0.0	--	1622	4	5.1	0.76
GARAGE	242	1	0.7	--	2	0	0.0	--	244	1	0.7	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.8	--	22	0	0.1	--	283	1	0.9	--
MACHINE SHOP	2405	4	7.4	0.52	12	0	0.1	--	2417	4	7.4	0.52
MAINTENANCE NOS	558	0	1.0	--	5	0	0.0	--	563	0	1.1	--
MECHNICAL MAINTENANCE ASSIGNED	6136	13	17.4	0.71	201	0	0.6	--	6337	13	18.0	0.69
PAINT SHOP	777	2	2.4	--	9	0	0.0	--	786	2	2.4	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	0	4.4	--	14	0	0.0	--	1426	0	4.4	--
RIGGERS AND STRUCTURAL	2525	6	8.0	0.74	21	0	0.1	--	2546	6	8.1	0.73
ROLL SHOP	502	4	1.5	--	3	0	0.0	--	505	4	1.5	--
WELD SHOP	758	4	2.2	--	2	0	0.0	--	760	4	2.2	--
ALL OTHER	1098	6	3.8	1.63	75	0	0.3	--	1173	6	4.1	1.50
GENERAL RECEIVING AND STORES	382	0	1.1	--	9	0	0.0	--	391	0	1.1	--
PLANT PROTECTION	856	1	2.6	--	4	0	0.0	--	860	1	2.7	--
POWER AND FUEL	2336	7	7.3	0.96	213	0	0.8	--	2549	7	8.1	0.86
TRANSPORTATION AND YARD	2842	5	8.2	0.58	633	3	2.6	--	3475	8	10.8	0.72
TUBE MILLS INCLUDES TUBE FINISHING	635	3	2.1	--	10	0	0.0	--	645	3	2.1	--
RIVER OR MARINE WAYS	293	0	0.9	--	1	0	0.0	--	294	0	0.9	--
TOTAL	51479	151	151.0	1.00	7349	34	34.0	1.00	58828	185	185.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 963-964,970-985
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	8	6.4	1.28	11	0	0.0	--	2374	8	6.4	1.27
GEN TECHNICAL	1575	9	4.4	2.19 *	6	0	0.0	--	1581	9	4.4	2.18 *
COKE PLANT	1180	3	3.2	--	664	2	1.7	--	1844	5	4.9	1.02
BLAST FURNACE	1730	5	4.9	1.03	591	0	1.6	--	2321	5	6.5	0.76
OPEN HEARTH	4075	16	12.5	1.35	1347	3	3.3	--	5422	19	15.8	1.26
BESSEMER CONVERTER	118	1	0.3	--	35	0	0.1	--	153	1	0.4	--
ELECTRIC FURNACE	509	2	1.4	--	4	0	0.0	--	513	2	1.4	--
FOUNDRY	764	2	2.6	--	169	0	0.6	--	933	2	3.3	--
HEAT TREAT AND FORGING	708	2	2.1	--	20	0	0.0	--	728	2	2.1	--
BILLET BLOOM AND SLAB MILLS	2614	6	8.5	0.68	201	1	0.2	--	2815	7	8.7	0.79
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	3	6.0	0.46	301	0	0.7	--	2287	3	6.7	0.41
PLATE MILL	1442	5	4.3	1.19	246	0	0.6	--	1688	5	5.0	1.01
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	4	1.5	--	113	0	0.3	--	624	4	1.9	--
HOT STRIP MILL	174	1	0.5	--	0	0	0.0	--	174	1	0.5	--
RAIL MILL ROLLING	288	2	0.9	--	32	0	0.1	--	320	2	1.0	--
RAIL MILL FINISHING	245	0	0.8	--	82	0	0.3	--	327	0	1.1	--
STEEL YARDS	68	0	0.2	--	11	0	0.0	--	79	0	0.2	--
STRUCTURAL MILL	980	3	3.0	--	128	0	0.3	--	1108	3	3.3	--
ANNEALING NORMALIZING	1214	3	3.8	--	25	0	0.0	--	1239	3	3.8	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.2	--	19	0	0.0	--	64	0	0.2	--
COATING	269	1	0.5	--	0	0	0.0	--	269	1	0.5	--
COLD REDUCING MILLS	848	5	2.0	2.85	65	0	0.2	--	913	5	2.1	2.57
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	0.3	--	0	0	0.0	--	147	1	0.3	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	4	3.7	--	5	0	0.0	--	742	4	3.7	--
HOT STRIP ROLLING	864	2	2.3	--	1	0	0.0	--	865	2	2.3	--
SHEET FINISHING AND SHIPPING	1335	5	3.8	1.42	48	0	0.0	--	1383	5	3.8	1.42
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.6	--	0	0	0.0	--	148	1	0.6	--
TEMPER PASSING AND COLD ROLLING	335	0	0.7	--	0	0	0.0	--	335	0	0.7	--
TIN FINISHING AND SHIPPING	348	0	0.5	--	0	0	0.0	--	348	0	0.5	--
GENERAL LABOR	565	1	1.6	--	375	1	1.0	--	940	2	2.5	--
JANITORS	112	0	0.3	--	190	2	0.4	--	302	2	0.7	--
MASON DEPARTMENT	758	2	2.3	--	242	6	0.9	18.85 **	1000	8	3.3	2.84 *
BLACKSMITH SHOP	231	0	0.7	--	5	0	0.0	--	236	0	0.7	--
CARPENTER SHOP	277	1	0.8	--	0	0	0.0	--	277	1	0.8	--
ELECTRIC MAINTENANCE ASSIGNED	1581	3	5.1	0.57	2	0	0.0	--	1583	3	5.1	0.57
ELECTRIC SHOP	760	3	2.2	--	2	0	0.0	--	762	3	2.2	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.3	--	7	0	0.0	--	111	0	0.3	--
MACHINE SHOP	1270	4	3.7	--	2	0	0.0	--	1272	4	3.7	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	6.7	0.73	73	0	0.3	--	2363	5	6.9	0.70
PAINT SHOP	197	1	0.6	--	2	0	0.0	--	199	1	0.6	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	0	1.9	--	6	0	0.0	--	663	0	1.9	--
RIGGERS AND STRUCTURAL	1034	0	3.0	--	6	0	0.0	--	1040	0	3.0	--
ROLL SHOP	314	3	0.9	--	0	0	0.0	--	314	3	0.9	--
WELD SHOP	460	3	1.2	--	2	0	0.0	--	462	3	1.2	--
ALL OTHER	302	2	1.2	--	9	0	0.0	--	311	2	1.2	--
GENERAL RECEIVING AND STORES	168	0	0.5	--	2	0	0.0	--	170	0	0.5	--
PLANT PROTECTION	469	0	1.4	--	1	0	0.0	--	470	0	1.4	--
POWER AND FUEL	976	2	2.9	--	89	0	0.3	--	1065	2	3.2	--
TRANSPORTATION AND YARD	871	2	2.6	--	194	0	0.6	--	1065	2	3.2	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	1.0	--	2	0	0.0	--	283	0	1.0	--
RIVER OR MARINE WAYS	177	0	0.5	--	1	0	0.0	--	178	0	0.5	--
TOTAL	36364	104	104.0	1.00	4913	13	13.0	1.00	41277	117	117.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00176

MULTIPLE CAUSE OF DEATH STUDY 22-MAY-74

C.O.D. (PREVALENCE) = 963-964,970-985
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	8	6.4	1.28	11	0	0.0	--	2374	8	6.4	1.27
GEN TECHNICAL	1575	9	4.4	2.19 *	6	0	0.0	--	1581	9	4.4	2.18 *
COKE PLANT	1180	3	3.2	--	664	2	1.7	--	1844	5	4.9	1.02
BLAST FURNACE	1730	5	4.9	1.03	591	0	1.6	--	2321	5	6.5	0.76
OPEN HEARTH	4075	16	12.5	1.35	1347	3	3.3	--	5422	19	15.8	1.26
BESSEMER CONVERTER	118	1	0.3	--	35	0	0.1	--	153	1	0.4	--
ELECTRIC FURNACE	509	2	1.4	--	4	0	0.0	--	513	2	1.4	--
FOUNDRY	764	2	2.6	--	169	0	0.6	--	933	2	3.3	--
HEAT TREAT AND FORGING	708	2	2.1	--	20	0	0.0	--	728	2	2.1	--
BILLET BLOOM AND SLAB MILLS	2614	6	8.5	0.68	201	1	0.2	--	2815	7	8.7	0.79
SOAKING PITS	19	0	0.1	--	0	0	0.0	--	19	0	0.1	--
MERCHANT MILLS	1986	3	6.0	0.46	301	0	0.7	--	2287	3	6.7	0.41
PLATE MILL	1442	5	4.3	1.19	246	0	0.6	--	1686	5	5.0	1.01
AXLE MILLS	45	0	0.1	--	0	0	0.0	--	45	0	0.1	--
GENERAL FINISHING AND SHIPPING	511	4	1.5	--	113	0	0.3	--	624	4	1.9	--
HOT STRIP MILL	174	1	0.5	--	0	0	0.0	--	174	1	0.5	--
RAIL MILL ROLLING	288	2	0.9	--	32	0	0.1	--	320	2	1.0	--
RAIL MILL FINISHING	245	0	0.8	--	82	0	0.3	--	327	0	1.1	--
STEEL YARDS	68	0	0.2	--	11	0	0.0	--	79	0	0.2	--
STRUCTURAL MILL	980	3	3.0	--	128	0	0.3	--	1108	3	3.3	--
ANNEALING NORMALIZING	1214	3	3.8	--	25	0	0.0	--	1239	3	3.8	--
BATCH PICKLING AND SHEET DRYERS	45	0	0.2	--	19	0	0.0	--	64	0	0.2	--
COATING	269	1	0.5	--	0	0	0.0	--	269	1	0.5	--
COLD REDUCING MILLS	848	5	2.0	2.85	65	0	0.2	--	913	5	2.1	2.57
CONTINUOUS PICKLING AND ELEC CLEANING	147	1	0.3	--	0	0	0.0	--	147	1	0.3	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	4	3.7	--	5	0	0.0	--	742	4	3.7	--
HOT STRIP ROLLING	864	2	2.3	--	1	0	0.0	--	865	2	2.3	--
SHEET FINISHING AND SHIPPING	1335	5	3.8	1.42	48	0	0.0	--	1383	5	3.8	1.42
STAINLESS ANNEAL PICKLG AND PROCESSING	148	1	0.6	--	0	0	0.0	--	148	1	0.6	--
TEMPER PASSING AND COLD ROLLING	335	0	0.7	--	0	0	0.0	--	335	0	0.7	--
TIN FINISHING AND SHIPPING	348	0	0.5	--	0	0	0.0	--	348	0	0.5	--
GENERAL LABOR	565	1	1.6	--	375	1	1.0	--	940	2	2.5	--
JANITORS	112	0	0.3	--	190	2	0.4	--	302	2	0.7	--
MASON DEPARTMENT	758	2	2.3	--	242	6	0.9	18.85 **	1000	8	3.3	2.84 *
BLACKSMITH SHOP	231	0	0.7	--	5	0	0.0	--	236	0	0.7	--
CARPENTER SHOP	277	1	0.8	--	0	0	0.0	--	277	1	0.8	--
ELECTRIC MAINTENANCE ASSIGNED	1581	3	5.1	0.57	2	0	0.0	--	1583	3	5.1	0.57
ELECTRIC SHOP	760	3	2.2	--	2	0	0.0	--	762	3	2.2	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	0	0.3	--	7	0	0.0	--	111	0	0.3	--
MACHINE SHOP	1270	4	3.7	--	2	0	0.0	--	1272	4	3.7	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	5	6.7	0.73	73	0	0.3	--	2363	5	6.9	0.70
PAINT SHOP	197	1	0.6	--	2	0	0.0	--	199	1	0.6	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	0	1.9	--	6	0	0.0	--	663	0	1.9	--
RIGGERS AND STRUCTURAL	1034	0	3.0	--	6	0	0.0	--	1040	0	3.0	--
ROLL SHOP	314	3	0.9	--	0	0	0.0	--	314	3	0.9	--
WELD SHOP	460	3	1.2	--	2	0	0.0	--	462	3	1.2	--
ALL OTHER	302	2	1.2	--	9	0	0.0	--	311	2	1.2	--
GENERAL RECEIVING AND STORES	168	0	0.5	--	2	0	0.0	--	170	0	0.5	--
PLANT PROTECTION	469	0	1.4	--	1	0	0.0	--	470	0	1.4	--
POWER AND FUEL	976	2	2.9	--	89	0	0.3	--	1065	2	3.2	--
TRANSPORTATION AND YARD	871	2	2.6	--	194	0	0.6	--	1065	2	3.2	--
TUBE MILLS INCLUDES TUBE FINISHING	281	0	1.0	--	2	0	0.0	--	283	0	1.0	--
RIVER OR MARINE WAYS	177	0	0.5	--	1	0	0.0	--	178	0	0.5	--
TOTAL	36364	104	104.0	1.00	4913	13	13.0	1.00	41277	117	117.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00177

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Homicides and Suicides

ICD CODE: 963-964, 970-985

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Technical	0.94	0.94	1.28	1.28	2.19*	2.19*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Mason Dept.	3.33*	3.33*	2.79*	2.79*	18.85**	18.85**
Blast Furnace	0.28	0.28	0.21*	0.21*	--	--
Janitors	--	--	3.38*	3.38*	--	--

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00173

C.O.D. (UNDERLYING) = 780-795
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE 1 REL.RISK	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE 1 REL.RISK	TOTAL N	TOTAL O	TOTAL E	TOTAL 1 REL.RISK
GEN ADMINISTRATIVE AND CLERICAL	3273	4	7.4	0.52	18	0	0.2	--	3291	4	7.6	0.51
GEN TECHNICAL	2368	1	3.8	--	14	0	0.1	--	2382	1	3.9	--
COKE PLANT	1635	4	2.8	--	908	4	7.1	0.45	2543	8	10.0	0.76
BLAST FURNACE	2355	4	6.7	0.58	1101	5	6.4	0.74	3456	9	13.1	0.65
OPEN HEARTH	5797	16	15.5	1.04	1836	16	13.0	1.37	7633	32	28.5	1.16
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	2	0.8	--	7	0	0.0	--	741	2	0.8	--
FOUNDRY	890	4	3.2	--	253	0	1.6	--	1143	4	4.9	--
HEAT TREAT AND FORGING	1003	5	2.7	2.03	16	0	0.2	--	1019	5	2.9	1.90
BILLET BLOOM AND SLAB MILLS	2912	18	8.7	2.49 **	223	1	1.5	--	3135	19	10.2	2.14 **
SOAKING PITS	94	1	0.2	--	14	0	0.0	--	108	1	0.2	--
MERCHANT MILLS	2130	3	6.2	0.45	395	2	2.8	--	2525	5	9.0	0.52
PLATE MILL	1547	3	4.2	--	239	3	2.7	--	1786	6	6.9	0.85
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.8	--	82	1	0.9	--	481	1	1.7	--
HOT STRIP MILL	164	1	0.6	--	1	0	0.0	--	165	1	0.6	--
RAIL MILL ROLLING	339	1	1.3	--	46	0	0.4	--	385	1	1.7	--
RAIL MILL FINISHING	347	1	1.1	--	98	2	0.7	--	445	3	1.8	--
STEEL YARDS	88	1	0.2	--	32	0	0.1	--	120	1	0.3	--
STRUCTURAL MILL	1196	6	3.2	2.11	164	2	1.2	--	1360	8	4.4	1.99
ANNEALING NORMALIZING	1353	2	3.3	--	17	0	0.0	--	1370	2	3.3	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.2	--	0	0	0.0	--	328	0	0.2	--
COLD REDUCING MILLS	1395	4	2.5	--	97	1	0.9	--	1492	5	3.3	1.56
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	1.2	--	5	0	0.0	--	571	0	1.2	--
HOT STRIP ROLLING	1008	3	2.2	--	0	0	0.0	--	1008	3	2.2	--
SHEET FINISHING AND SHIPPING	1733	3	1.9	--	36	1	0.4	--	1769	4	2.4	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	1	0.2	--	0	0	0.0	--	369	1	0.2	--
TIN FINISHING AND SHIPPING	396	1	0.4	--	1	0	0.0	--	397	1	0.4	--
GENERAL LABOR	546	1	1.1	--	449	9	3.2	3.49 **	995	10	4.3	2.71 **
JANITORS	205	2	1.1	--	321	2	2.5	--	526	4	3.6	--
MASON DEPARTMENT	1305	0	2.2	--	438	2	2.4	--	1743	2	4.6	--
BLACKSMITH SHOP	266	0	0.8	--	4	0	0.0	--	270	0	0.9	--
CARPENTER SHOP	406	1	1.3	--	0	0	0.0	--	406	1	1.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	3.6	--	5	0	0.0	--	1610	3	3.7	--
ELECTRIC SHOP	551	1	1.6	--	1	0	0.0	--	552	1	1.6	--
GARAGE	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.4	--	9	0	0.0	--	130	1	0.4	--
MACHINE SHOP	1442	4	3.9	--	3	0	0.0	--	1445	4	3.9	--
MAINTENANCE NOS	70	1	0.2	--	2	0	0.0	--	72	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	6	5.6	1.09	60	0	0.5	--	2749	6	6.0	0.99
PAINT SHOP	263	0	0.6	--	2	0	0.0	--	265	0	0.6	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	0	1.8	--	5	0	0.1	--	743	0	1.9	--
RIGGERS AND STRUCTURAL	1189	2	3.5	--	8	0	0.0	--	1197	2	3.5	--
ROLL SHOP	374	0	1.0	--	0	0	0.0	--	374	0	1.0	--
WELD SHOP	644	2	1.4	--	2	0	0.0	--	646	2	1.4	--
ALL OTHER	138	0	0.3	--	5	0	0.0	--	143	0	0.3	--
GENERAL RECEIVING AND STORES	192	0	0.5	--	4	0	0.1	--	196	0	0.6	--
PLANT PROTECTION	674	0	2.1	--	1	0	0.0	--	675	0	2.1	--
POWER AND FUEL	1343	3	3.5	--	62	0	0.5	--	1405	3	4.0	--
TRANSPORTATION AND YARD	1293	4	2.9	--	341	1	2.1	--	1634	5	5.0	1.00
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.3	--	1	0	0.0	--	230	1	0.3	--
RIVER OR MARINE WAYS	218	1	0.3	--	1	0	0.0	--	219	1	0.3	--
TOTAL	51479	122	122.0	1.00	7349	52	52.0	1.00	58828	174	174.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 780-795
FIRST JOB IN 1959

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	4	7.4	0.52	18	0	0.2	--	3291	4	7.6	0.51
GEN TECHNICAL	2368	1	3.8	--	14	0	0.1	--	2382	1	3.9	--
COKE PLANT	1635	4	2.8	--	908	4	7.1	0.45	2543	8	10.0	0.76
BLAST FURNACE	2355	4	6.7	0.58	1101	5	6.4	0.74	3456	9	13.1	0.65
OPEN HEARTH	5797	16	15.5	1.04	1836	16	13.0	1.37	7633	32	28.5	1.16
BESSEMER CONVERTER	24	0	0.1	--	0	0	0.0	--	24	0	0.1	--
ELECTRIC FURNACE	734	2	0.8	--	7	0	0.0	--	741	2	0.8	--
FOUNDRY	890	4	3.2	--	253	0	1.6	--	1143	4	4.9	--
HEAT TREAT AND FORGING	1003	5	2.7	2.03	16	0	0.2	--	1019	5	2.9	1.90
BILLET BLOOM AND SLAB MILLS	2912	18	8.7	2.49 **	223	1	1.5	--	3135	19	10.2	2.14 **
SOAKING PITS	94	1	0.2	--	14	0	0.0	--	108	1	0.2	--
MERCHANT MILLS	2130	3	6.2	0.45	395	2	2.8	--	2525	5	9.0	0.52
PLATE MILL	1547	3	4.2	--	239	3	2.7	--	1786	6	6.9	0.85
AXLE MILLS	6	0	0.0	--	0	0	0.0	--	6	0	0.0	--
GENERAL FINISHING AND SHIPPING	399	0	0.8	--	82	1	0.9	--	481	1	1.7	--
HOT STRIP MILL	164	1	0.6	--	1	0	0.0	--	165	1	0.6	--
RAIL MILL ROLLING	339	1	1.3	--	46	0	0.4	--	385	1	1.7	--
RAIL MILL FINISHING	347	1	1.1	--	98	2	0.7	--	445	3	1.8	--
STEEL YARDS	88	1	0.2	--	32	0	0.1	--	120	1	0.3	--
STRUCTURAL MILL	1196	6	3.2	2.11	164	2	1.2	--	1360	8	4.4	1.99
ANNEALING NORMALIZING	1353	2	3.3	--	17	0	0.0	--	1370	2	3.3	--
BATCH PICKLING AND SHEET DRYERS	55	0	0.0	--	21	0	0.0	--	76	0	0.0	--
COATING	328	0	0.2	--	0	0	0.0	--	328	0	0.2	--
COLD REDUCING MILLS	1395	4	2.5	--	97	1	0.9	--	1492	5	3.3	1.56
CONTINUOUS PICKLING AND ELEC CLEANING	205	0	0.1	--	0	0	0.0	--	205	0	0.1	--
FLYING SHEARS AND SLITTERS	8	0	0.0	--	0	0	0.0	--	8	0	0.0	--
HOT PACK MILLS	566	0	1.2	--	5	0	0.0	--	571	0	1.2	--
HOT STRIP ROLLING	1008	3	2.2	--	0	0	0.0	--	1008	3	2.2	--
SHEET FINISHING AND SHIPPING	1733	3	1.9	--	36	1	0.4	--	1769	4	2.4	--
STAINLESS ANNEAL PICKLG AND PROCESSING	46	0	0.1	--	1	0	0.0	--	47	0	0.1	--
TEMPER PASSING AND COLD ROLLING	369	1	0.2	--	0	0	0.0	--	369	1	0.2	--
TIN FINISHING AND SHIPPING	396	1	0.4	--	1	0	0.0	--	397	1	0.4	--
GENERAL LABOR	546	1	1.1	--	449	9	3.2	3.49 **	995	10	4.3	2.71 **
JANITORS	205	2	1.1	--	321	2	2.5	--	526	4	3.6	--
MASON DEPARTMENT	1305	0	2.2	--	438	2	2.4	--	1743	2	4.6	--
BLACKSMITH SHOP	266	0	0.8	--	4	0	0.0	--	270	0	0.9	--
CARPENTER SHOP	406	1	1.3	--	0	0	0.0	--	406	1	1.3	--
ELECTRIC MAINTENANCE ASSIGNED	1605	3	3.6	--	5	0	0.0	--	1610	3	3.7	--
ELECTRIC SHOP	551	1	1.6	--	1	0	0.0	--	552	1	1.6	--
GARAGE	147	0	0.3	--	0	0	0.0	--	147	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	121	1	0.4	--	9	0	0.0	--	130	1	0.4	--
MACHINE SHOP	1442	4	3.9	--	3	0	0.0	--	1445	4	3.9	--
MAINTENANCE NOS	70	1	0.2	--	2	0	0.0	--	72	1	0.2	--
MECHNICAL MAINTENANCE ASSIGNED	2689	6	5.6	1.09	60	0	0.5	--	2749	6	6.0	0.99
PAINT SHOP	263	0	0.6	--	2	0	0.0	--	265	0	0.6	--
PATTERN SHOP	68	0	0.2	--	0	0	0.0	--	68	0	0.2	--
PIPE SHOP	738	0	1.8	--	5	0	0.1	--	743	0	1.9	--
RIGGERS AND STRUCTURAL	1189	2	3.5	--	8	0	0.0	--	1197	2	3.5	--
ROLL SHOP	374	0	1.0	--	0	0	0.0	--	374	0	1.0	--
WELD SHOP	644	2	1.4	--	2	0	0.0	--	646	2	1.4	--
ALL OTHER	138	0	0.3	--	5	0	0.0	--	143	0	0.3	--
GENERAL RECEIVING AND STORES	192	0	0.5	--	4	0	0.1	--	196	0	0.6	--
PLANT PROTECTION	674	0	2.1	--	1	0	0.0	--	675	0	2.1	--
POWER AND FUEL	1343	3	3.5	--	62	0	0.5	--	1405	3	4.0	--
TRANSPORTATION AND YARD	1293	4	2.9	--	341	1	2.1	--	1634	5	5.0	1.00
TUBE MILLS INCLUDES TUBE FINISHING	229	1	0.3	--	1	0	0.0	--	230	1	0.3	--
RIVER OR MARINE WAYS	218	1	0.3	--	1	0	0.0	--	219	1	0.3	--
TOTAL	51479	122	122.0	1.00	7349	52	52.0	1.00	58828	174	174.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (UNDERLYING) = 780-795
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	5112	8	12.6	0.61	34	0	0.4	--	5146	8	12.9	0.59
GEN TECHNICAL	3684	9	7.6	1.21	16	0	0.1	--	3700	9	7.7	1.19
COKE PLANT	2381	7	4.3	1.89	1176	9	9.6	0.88	3557	16	13.9	1.27
BLAST FURNACE	4218	12	13.5	0.87	1415	7	8.7	0.76	5633	19	22.2	0.83
OPEN HEARTH	9655	28	27.2	1.04	2335	23	17.5	1.68	11990	51	44.7	1.23
BESSEMER CONVERTER	240	0	1.3	--	88	1	0.9	--	328	1	2.2	--
ELECTRIC FURNACE	1250	3	1.6	--	11	0	0.0	--	1261	3	1.6	--
FOUNDRY	1781	8	5.8	1.44	345	1	2.2	--	2126	9	8.0	1.14
HEAT TREAT AND FORGING	1683	5	5.0	1.01	46	0	0.6	--	1729	5	5.6	0.88
BILLET BLOOM AND SLAB MILLS	5783	26	16.9	1.87 *	419	2	3.3	--	6202	28	20.2	1.57
SOAKING PITS	148	1	0.3	--	28	0	0.1	--	176	1	0.3	--
MERCHANT MILLS	3885	16	12.9	1.32	680	5	6.1	0.78	4565	21	19.0	1.14
PLATE MILL	3005	9	9.7	0.90	436	5	4.9	1.02	3441	14	14.6	0.94
AXLE MILLS	293	0	1.4	--	6	0	0.1	--	299	0	1.4	--
GENERAL FINISHING AND SHIPPING	1309	3	4.1	--	213	1	2.6	--	1522	4	6.7	0.57
HOT STRIP MILL	567	3	1.9	--	1	0	0.0	--	568	3	1.9	--
RAIL MILL ROLLING	852	2	3.3	--	97	0	0.7	--	949	2	4.1	--
RAIL MILL FINISHING	726	3	2.7	--	145	3	1.2	--	871	6	3.9	1.79
STEEL YARDS	299	2	1.2	--	77	1	0.6	--	376	3	1.8	--
STRUCTURAL MILL	1972	9	5.5	1.89	252	2	1.9	--	2224	11	7.5	1.63
ANNEALING NORMALIZING	2605	6	6.0	1.00	54	0	0.0	--	2659	6	6.0	0.99
BATCH PICKLING AND SHEET DRYERS	137	1	0.2	--	50	0	0.2	--	187	1	0.5	--
COATING	545	0	0.5	--	0	0	0.0	--	545	0	0.5	--
COLD REDUCING MILLS	1933	5	3.3	1.58	113	1	1.0	--	2046	6	4.3	1.44
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	2	2.6	--	19	0	0.0	--	1248	2	2.6	--
HOT STRIP ROLLING	1623	4	3.8	--	2	0	0.0	--	1625	4	3.8	--
SHEET FINISHING AND SHIPPING	3306	5	3.8	1.46	108	1	0.8	--	3414	6	4.7	1.52
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.6	--	2	0	0.0	--	386	0	0.6	--
TEMPER PASSING AND COLD ROLLING	783	1	0.5	--	0	0	0.0	--	783	1	0.5	--
TIN FINISHING AND SHIPPING	668	1	0.6	--	1	0	0.0	--	669	1	0.6	--
GENERAL LABOR	3153	11	9.2	1.22	1215	20	11.2	2.57 **	4368	31	20.4	1.77 *
JANITORS	311	3	1.6	--	422	4	3.3	--	733	7	5.0	1.45
MASON DEPARTMENT	2511	5	5.3	0.94	696	6	4.6	1.38	3207	11	9.9	1.12
BLACKSMITH SHOP	555	0	2.1	--	6	1	0.0	--	561	1	2.1	--
CARPENTER SHOP	665	2	2.4	--	1	0	0.0	--	666	2	2.4	--
ELECTRIC MAINTENANCE ASSIGNED	3200	9	9.9	0.90	8	0	0.1	--	3208	9	10.0	0.90
ELECTRIC SHOP	1620	7	6.6	1.07	2	0	0.0	--	1622	7	6.6	1.06
GARAGE	242	0	0.6	--	2	0	0.0	--	244	0	0.6	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.9	--	22	0	0.1	--	283	1	1.0	--
MACHINE SHOP	2405	5	7.4	0.66	12	0	0.1	--	2417	5	7.5	0.65
MAINTENANCE NOS	558	1	0.7	--	5	0	0.0	--	563	1	0.8	--
MECHNICAL MAINTENANCE ASSIGNED	6136	20	15.5	1.37	201	0	1.9	--	6337	20	17.4	1.19
PAINT SHOP	777	3	2.1	--	9	0	0.1	--	786	3	2.2	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	6	4.3	1.45	14	0	0.2	--	1426	6	4.5	1.38
RIGGERS AND STRUCTURAL	2525	10	9.5	1.06	21	0	0.2	--	2546	10	9.7	1.04
ROLL SHOP	502	0	1.3	--	3	0	0.0	--	505	0	1.3	--
WELD SHOP	758	2	1.6	--	2	0	0.0	--	760	2	1.6	--
ALL OTHER	1098	7	4.1	1.77	75	1	0.8	--	1173	8	4.9	1.69
GENERAL RECEIVING AND STORES	382	1	1.1	--	9	0	0.1	--	391	1	1.2	--
PLANT PROTECTION	856	0	2.8	--	4	0	0.0	--	860	0	2.8	--
POWER AND FUEL	2336	9	7.3	1.25	213	4	2.2	--	2549	13	9.6	1.40
TRANSPORTATION AND YARD	2842	9	7.8	1.17	633	6	4.8	1.30	3475	15	12.6	1.21
TUBE MILLS INCLUDES TUBE FINISHING	635	2	1.0	--	10	0	0.0	--	645	2	1.0	--
RIVER OR MARINE WAYS	293	1	0.5	--	1	0	0.0	--	294	1	0.5	--
TOTAL	51479	122	122.0	1.00	7349	52	52.0	1.00	58828	174	174.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
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-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = 780-795
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL. RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL. RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL. RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	8	12.6	0.61	34	0	0.4	--	5146	8	12.9	0.59
GEN TECHNICAL	3684	9	7.6	1.21	16	0	0.1	--	3700	9	7.7	1.19
COKE PLANT	2381	7	4.3	1.89	1176	9	9.6	0.88	3557	16	13.9	1.27
BLAST FURNACE	4218	12	13.5	0.87	1415	7	8.7	0.76	5633	19	22.2	0.83
OPEN HEARTH	9655	28	27.2	1.04	2335	23	17.5	1.68	11990	51	44.7	1.23
BESSEMER CONVERTER	240	0	1.3	--	88	1	0.9	--	328	1	2.2	--
ELECTRIC FURNACE	1250	3	1.6	--	11	0	0.0	--	1261	3	1.6	--
FOUNDRY	1781	8	5.8	1.44	345	1	2.2	--	2126	9	8.0	1.14
HEAT TREAT AND FORGING	1683	5	5.0	1.01	46	0	0.6	--	1729	5	5.6	0.88
BILLET BLOOM AND SLAB MILLS	5783	26	16.9	1.87 *	419	2	3.3	--	6202	28	20.2	1.57
SOAKING PITS	148	1	0.3	--	28	0	0.1	--	176	1	0.3	--
MERCHANT MILLS	3885	16	12.9	1.32	680	5	6.1	0.78	4565	21	19.0	1.14
PLATE MILL	3005	9	9.7	0.90	436	5	4.9	1.02	3441	14	14.6	0.94
AXLE MILLS	293	0	1.4	--	6	0	0.1	--	299	0	1.4	--
GENERAL FINISHING AND SHIPPING	1309	3	4.1	--	213	1	2.6	--	1522	4	6.7	0.57
HOT STRIP MILL	567	3	1.9	--	1	0	0.0	--	568	3	1.9	--
RAIL MILL ROLLING	852	2	3.3	--	97	0	0.7	--	949	2	4.1	--
RAIL MILL FINISHING	726	3	2.7	--	145	3	1.2	--	871	6	3.9	1.79
STEEL YARDS	299	2	1.2	--	77	1	0.6	--	376	3	1.8	--
STRUCTURAL MILL	1972	9	5.5	1.89	252	2	1.9	--	2224	11	7.5	1.63
ANNEALING NORMALIZING	2605	6	6.0	1.00	54	0	0.0	--	2659	6	6.0	0.99
BATCH PICKLING AND SHEET DRYERS	137	1	0.2	--	50	0	0.2	--	187	1	0.5	--
COATING	545	0	0.5	--	0	0	0.0	--	545	0	0.5	--
COLD REDUCING MILLS	1933	5	3.3	1.58	113	1	1.0	--	2046	6	4.3	1.44
CONTINUOUS PICKLING AND ELEC CLEANING	254	0	0.1	--	0	0	0.0	--	254	0	0.1	--
FLYING SHEARS AND SLITTERS	28	0	0.0	--	0	0	0.0	--	28	0	0.0	--
HOT PACK MILLS	1229	2	2.6	--	19	0	0.0	--	1248	2	2.6	--
HOT STRIP ROLLING	1623	4	3.8	--	2	0	0.0	--	1625	4	3.8	--
SHEET FINISHING AND SHIPPING	3306	5	3.8	1.46	108	1	0.8	--	3414	6	4.7	1.52
STAINLESS ANNEAL PICKLG AND PROCESSING	384	0	0.6	--	2	0	0.0	--	386	0	0.6	--
TEMPER PASSING AND COLD ROLLING	783	1	0.5	--	0	0	0.0	--	783	1	0.5	--
TIN FINISHING AND SHIPPING	668	1	0.6	--	1	0	0.0	--	669	1	0.6	--
GENERAL LABOR	3153	11	9.2	1.22	1215	20	11.2	2.57 **	4368	31	20.4	1.77 *
JANITORS	311	3	1.6	--	422	4	3.3	--	733	7	5.0	1.45
MASON DEPARTMENT	2511	5	5.3	0.94	696	6	4.6	1.38	3207	11	9.9	1.12
BLACKSMITH SHOP	555	0	2.1	--	6	1	0.0	--	561	1	2.1	--
CARPENTER SHOP	665	2	2.4	--	1	0	0.0	--	666	2	2.4	--
ELECTRIC MAINTENANCE ASSIGNED	3200	9	9.9	0.90	8	0	0.1	--	3208	9	10.0	0.90
ELECTRIC SHOP	1620	7	6.6	1.07	2	0	0.0	--	1622	7	6.6	1.06
GARAGE	242	0	0.6	--	2	0	0.0	--	244	0	0.6	--
LOCOMOTIVE AND CAR REPAIR	261	1	0.9	--	22	0	0.1	--	283	1	1.0	--
MACHINE SHOP	2405	5	7.4	0.66	12	0	0.1	--	2417	5	7.5	0.65
MAINTENANCE NOS	558	1	0.7	--	5	0	0.0	--	563	1	0.8	--
MECHNICAL MAINTENANCE ASSIGNED	6136	20	15.5	1.37	201	0	1.9	--	6337	20	17.4	1.19
PAINT SHOP	777	3	2.1	--	9	0	0.1	--	786	3	2.2	--
PATTERN SHOP	95	0	0.3	--	0	0	0.0	--	95	0	0.3	--
PIPE SHOP	1412	6	4.3	1.45	14	0	0.2	--	1426	6	4.5	1.38
RIGGERS AND STRUCTURAL	2525	10	9.5	1.06	21	0	0.2	--	2546	10	9.7	1.04
ROLL SHOP	502	0	1.3	--	3	0	0.0	--	505	0	1.3	--
WELD SHOP	758	2	1.6	--	2	0	0.0	--	760	2	1.6	--
ALL OTHER	1098	7	4.1	1.77	75	1	0.8	--	1173	8	4.9	1.69
GENERAL RECEIVING AND STORES	382	1	1.1	--	9	0	0.1	--	391	1	1.2	--
PLANT PROTECTION	856	0	2.8	--	4	0	0.0	--	860	0	2.8	--
POWER AND FUEL	2336	9	7.3	1.25	213	4	2.2	--	2549	13	9.6	1.40
TRANSPORTATION AND YARD	2842	9	7.8	1.17	633	6	4.8	1.30	3475	15	12.6	1.21
TUBE MILLS INCLUDES TUBE FINISHING	635	2	1.0	--	10	0	0.0	--	645	2	1.0	--
RIVER OR MARINE WAYS	293	1	0.5	--	1	0	0.0	--	294	1	0.5	--
TOTAL	51479	122	122.0	1.00	7349	52	52.0	1.00	58828	174	174.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = 780-795
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK[1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK[1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK[1]
GEN ADMINISTRATIVE AND CLERICAL	2363	6	7.6	0.77	11	0	0.1	--	2374	6	7.8	0.76
GEN TECHNICAL	1575	2	4.4	--	6	0	0.1	--	1581	2	4.4	--
COKE PLANT	1180	5	3.1	1.78	664	5	6.6	0.65	1844	10	9.7	1.05
BLAST FURNACE	1730	5	7.3	0.66	591	3	5.0	0.54	2321	8	12.3	0.62
OPEN HEARTH	4075	16	15.2	1.07	1347	15	12.7	1.31	5422	31	27.8	1.16
BESSEMER CONVERTER	118	0	0.7	--	35	1	0.4	--	153	1	1.1	--
ELECTRIC FURNACE	509	1	0.8	--	4	0	0.0	--	513	1	0.8	--
FOUNDRY	764	4	3.4	--	169	1	1.7	--	933	5	5.0	0.99
HEAT TREAT AND FORGING	708	2	2.7	--	20	0	0.3	--	728	2	3.0	--
BILLET BLOOM AND SLAB MILLS	2614	22	10.1	2.92 **	201	1	1.9	--	2815	23	12.0	2.37 **
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	8	8.3	0.95	301	2	3.1	--	2287	10	11.4	0.86
PLATE MILL	1442	3	5.1	0.54	246	4	3.5	--	1688	7	8.6	0.78
AXLE MILLS	45	0	0.3	--	0	0	0.0	--	45	0	0.3	--
GENERAL FINISHING AND SHIPPING	511	1	1.7	--	113	1	1.4	--	624	2	3.2	--
HOT STRIP MILL	174	1	0.6	--	0	0	0.0	--	174	1	0.6	--
RAIL MILL ROLLING	288	2	1.6	--	32	0	0.4	--	320	2	2.0	--
RAIL MILL FINISHING	245	1	1.2	--	82	2	0.8	--	327	3	2.0	--
STEEL YARDS	68	2	0.3	--	11	0	0.1	--	79	2	0.4	--
STRUCTURAL MILL	980	7	2.9	2.96 *	128	1	1.3	--	1108	8	4.2	2.13
ANNEALING NORMALIZING	1214	1	3.4	--	25	0	0.0	--	1239	1	3.4	--
BATCH PICKLING AND SHEET DRYERS	45	1	0.1	--	19	0	0.0	--	64	1	0.2	--
COATING	269	0	0.3	--	0	0	0.0	--	269	0	0.3	--
COLD REDUCING MILLS	848	3	2.0	--	65	1	0.8	--	913	4	2.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	2.0	--	5	0	0.0	--	742	1	2.0	--
HOT STRIP ROLLING	864	3	2.3	--	1	0	0.0	--	865	3	2.3	--
SHEET FINISHING AND SHIPPING	1335	2	1.8	--	48	1	0.6	--	1383	3	2.4	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.3	--	0	0	0.0	--	148	0	0.3	--
TEMPER PASSING AND COLD ROLLING	335	1	0.2	--	0	0	0.0	--	335	1	0.2	--
TIN FINISHING AND SHIPPING	348	1	0.4	--	0	0	0.0	--	348	1	0.4	--
GENERAL LABOR	565	1	2.1	--	375	7	4.0	1.96	940	8	6.1	1.37
JANITORS	112	1	0.7	--	190	1	2.0	--	302	2	2.6	--
MASON DEPARTMENT	758	0	2.2	--	242	3	2.2	--	1000	3	4.4	--
BLACKSMITH SHOP	231	0	1.0	--	5	1	0.0	--	236	1	1.0	--
CARPENTER SHOP	277	1	1.1	--	0	0	0.0	--	277	1	1.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	5.9	0.33	2	0	0.0	--	1583	2	5.9	0.33
ELECTRIC SHOP	760	3	3.4	--	2	0	0.0	--	762	3	3.4	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.4	--	7	0	0.1	--	111	1	0.5	--
MACHINE SHOP	1270	4	4.4	--	2	0	0.0	--	1272	4	4.4	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHNICAL MAINTENANCE ASSIGNED	2290	9	7.7	1.19	73	0	0.9	--	2363	9	8.6	1.05
PAINT SHOP	197	0	0.7	--	2	0	0.0	--	199	0	0.7	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	0	2.2	--	6	0	0.1	--	663	0	2.3	--
RIGGERS AND STRUCTURAL	1034	3	4.1	--	6	0	0.1	--	1040	3	4.2	--
ROLL SHOP	314	0	1.0	--	0	0	0.0	--	314	0	1.0	--
WELD SHOP	460	2	1.2	--	2	0	0.0	--	462	2	1.2	--
ALL OTHER	302	2	1.6	--	9	0	0.1	--	311	2	1.7	--
GENERAL RECEIVING AND STORES	168	0	0.7	--	2	0	0.1	--	170	0	0.7	--
PLANT PROTECTION	469	0	1.9	--	1	0	0.0	--	470	0	1.9	--
POWER AND FUEL	976	4	4.0	--	89	2	1.0	--	1065	6	5.0	1.20
TRANSPORTATION AND YARD	871	4	3.1	--	194	3	1.9	--	1065	7	5.1	1.41
TUBE MILLS INCLUDES TUBE FINISHING	281	1	0.5	--	2	0	0.0	--	283	1	0.5	--
RIVER OR MARINE WAYS	177	1	0.4	--	1	0	0.0	--	178	1	0.4	--
TOTAL	36364	109	109.0	1.00	4913	47	47.0	1.00	41277	156	156.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00193

C.O.D. (PREVALENCE) = 780-795
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	6	7.6	0.77	11	0	0.1	--	2374	6	7.8	0.76
GEN TECHNICAL	1575	2	4.4	--	6	0	0.1	--	1581	2	4.4	--
COKE PLANT	1180	5	3.1	1.78	664	5	6.6	0.65	1844	10	9.7	1.05
BLAST FURNACE	1730	5	7.3	0.66	591	3	5.0	0.54	2321	8	12.3	0.62
OPEN HEARTH	4075	16	15.2	1.07	1347	15	12.7	1.31	5422	31	27.8	1.16
BESSEMER CONVERTER	118	0	0.7	--	35	1	0.4	--	153	1	1.1	--
ELECTRIC FURNACE	509	1	0.8	--	4	0	0.0	--	513	1	0.8	--
FOUNDRY	764	4	3.4	--	169	1	1.7	--	933	5	5.0	0.99
HEAT TREAT AND FORGING	708	2	2.7	--	20	0	0.3	--	728	2	3.0	--
BILLET BLOOM AND SLAB MILLS	2614	22	10.1	2.92 **	201	1	1.9	--	2815	23	12.0	2.37 **
SOAKING PITS	19	1	0.1	--	0	0	0.0	--	19	1	0.1	--
MERCHANT MILLS	1986	8	8.3	0.95	301	2	3.1	--	2287	10	11.4	0.86
PLATE MILL	1442	3	5.1	0.54	246	4	3.5	--	1688	7	8.6	0.78
AXLE MILLS	45	0	0.3	--	0	0	0.0	--	45	0	0.3	--
GENERAL FINISHING AND SHIPPING	511	1	1.7	--	113	1	1.4	--	624	2	3.2	--
HOT STRIP MILL	174	1	0.6	--	0	0	0.0	--	174	1	0.6	--
RAIL MILL ROLLING	288	2	1.6	--	32	0	0.4	--	320	2	2.0	--
RAIL MILL FINISHING	245	1	1.2	--	82	2	0.8	--	327	3	2.0	--
STEEL YARDS	68	2	0.3	--	11	0	0.1	--	79	2	0.4	--
STRUCTURAL MILL	980	7	2.9	2.96 *	126	1	1.3	--	1106	8	4.2	2.13
ANNEALING NORMALIZING	1214	1	3.4	--	25	0	0.0	--	1239	1	3.4	--
BATCH PICKLING AND SHEET DRYERS	45	1	0.1	--	19	0	0.0	--	64	1	0.2	--
COATING	269	0	0.3	--	0	0	0.0	--	269	0	0.3	--
COLD REDUCING MILLS	848	3	2.0	--	65	1	0.8	--	913	4	2.7	--
CONTINUOUS PICKLING AND ELEC CLEANING	147	0	0.1	--	0	0	0.0	--	147	0	0.1	--
FLYING SHEARS AND SLITTERS	5	0	0.0	--	0	0	0.0	--	5	0	0.0	--
HOT PACK MILLS	737	1	2.0	--	5	0	0.0	--	742	1	2.0	--
HOT STRIP ROLLING	864	3	2.3	--	1	0	0.0	--	865	3	2.3	--
SHEET FINISHING AND SHIPPING	1335	2	1.8	--	48	1	0.6	--	1383	3	2.4	--
STAINLESS ANNEAL PICKLG AND PROCESSING	148	0	0.3	--	0	0	0.0	--	148	0	0.3	--
TEMPER PASSING AND COLD ROLLING	335	1	0.2	--	0	0	0.0	--	335	1	0.2	--
TIN FINISHING AND SHIPPING	348	1	0.4	--	0	0	0.0	--	348	1	0.4	--
GENERAL LABOR	565	1	2.1	--	375	7	4.0	1.96	940	8	6.1	1.37
JANITORS	112	1	0.7	--	190	1	2.0	--	302	2	2.6	--
MASON DEPARTMENT	758	0	2.2	--	242	3	2.2	--	1000	3	4.4	--
BLACKSMITH SHOP	231	0	1.0	--	5	1	0.0	--	236	1	1.0	--
CARPENTER SHOP	277	1	1.1	--	0	0	0.0	--	277	1	1.1	--
ELECTRIC MAINTENANCE ASSIGNED	1581	2	5.9	0.33	2	0	0.0	--	1583	2	5.9	0.33
ELECTRIC SHOP	760	3	3.4	--	2	0	0.0	--	762	3	3.4	--
GARAGE	98	0	0.3	--	1	0	0.0	--	99	0	0.3	--
LOCOMOTIVE AND CAR REPAIR	104	1	0.4	--	7	0	0.1	--	111	1	0.5	--
MACHINE SHOP	1270	4	4.4	--	2	0	0.0	--	1272	4	4.4	--
MAINTENANCE NOS	246	0	0.4	--	0	0	0.0	--	246	0	0.4	--
MECHANICAL MAINTENANCE ASSIGNED	2290	9	7.7	1.19	73	0	0.9	--	2363	9	8.6	1.05
PAINT SHOP	197	0	0.7	--	2	0	0.0	--	199	0	0.7	--
PATTERN SHOP	64	0	0.2	--	0	0	0.0	--	64	0	0.2	--
PIPE SHOP	657	0	2.2	--	6	0	0.1	--	663	0	2.3	--
RIGGERS AND STRUCTURAL	1034	3	4.1	--	6	0	0.1	--	1040	3	4.2	--
ROLL SHOP	314	0	1.0	--	0	0	0.0	--	314	0	1.0	--
WELD SHOP	460	2	1.2	--	2	0	0.0	--	462	2	1.2	--
ALL OTHER	302	2	1.6	--	9	0	0.1	--	311	2	1.7	--
GENERAL RECEIVING AND STORES	168	0	0.7	--	2	0	0.1	--	170	0	0.7	--
PLANT PROTECTION	469	0	1.9	--	1	0	0.0	--	470	0	1.9	--
POWER AND FUEL	976	4	4.0	--	89	2	1.0	--	1065	6	5.0	1.20
TRANSPORTATION AND YARD	871	4	3.1	--	194	3	1.9	--	1065	7	5.1	1.41
TUBE MILLS INCLUDES TUBE FINISHING	281	1	0.5	--	2	0	0.0	--	283	1	0.5	--
RIVER OR MARINE WAYS	177	1	0.4	--	1	0	0.0	--	178	1	0.4	--
TOTAL	36364	109	109.0	1.00	4913	47	47.0	1.00	41277	156	156.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: Ill-Defined Causes

ICD CODE: 780-795

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Billet,Bloom, and Slab Mills	2.49**	2.49**	1.87*	1.87*	2.92**	2.92**
Structural Mill	2.11	2.11	1.89	1.89	2.96*	2.96*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
General Labor	3.49**	3.49**	2.57**	2.57**	1.96	1.96

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00185

C.O.D. (UNDERLYING) = REMAINDER
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	32	35.3	0.90	18	0	0.3	--	3291	32	35.6	0.89
GEN TECHNICAL	2368	17	18.8	0.90	14	1	0.2	--	2382	18	19.0	0.94
COKE PLANT	1635	17	19.3	0.87	908	19	16.4	1.33	2543	36	35.7	1.01
BLAST FURNACE	2355	33	26.4	1.28	1101	17	16.6	1.03	3456	50	43.0	1.19
OPEN HEARTH	5797	63	62.9	1.00	1836	36	32.9	1.15	7633	99	95.8	1.04
BESSEMER CONVERTER	24	0	0.5	--	0	0	0.0	--	24	0	0.5	--
ELECTRIC FURNACE	734	11	7.3	1.59	7	0	0.2	--	741	11	7.5	1.55
FOUNDRY	890	9	11.5	0.77	253	2	5.0	--	1143	11	16.5	0.65
HEAT TREAT AND FORGING	1003	9	10.7	0.83	16	2	0.4	--	1019	11	11.2	0.99
BILLET BLOOM AND SLAB MILLS	2912	37	36.9	1.00	223	6	4.2	1.64	3135	43	41.2	1.05
SOAKING PITS	94	1	0.9	--	14	0	0.1	--	108	1	1.0	--
MERCHANT MILLS	2130	28	29.0	0.96	395	6	7.1	0.82	2525	34	36.1	0.93
PLATE MILL	1547	24	18.0	1.39	239	7	6.4	1.13	1786	31	24.4	1.33
AXLE MILLS	6	0	0.1	--	0	0	0.0	--	6	0	0.1	--
GENERAL FINISHING AND SHIPPING	399	5	4.6	1.08	82	2	2.1	--	481	7	6.7	1.04
HOT STRIP MILL	164	3	2.6	--	1	0	0.0	--	165	3	2.6	--
RAIL MILL ROLLING	339	5	4.1	1.25	46	1	1.3	--	385	6	5.4	1.13
RAIL MILL FINISHING	347	3	3.1	--	98	3	2.3	--	445	6	5.4	1.12
STEEL YARDS	88	0	0.7	--	32	0	0.5	--	120	0	1.1	--
STRUCTURAL MILL	1196	12	12.3	0.98	164	2	3.4	--	1360	14	15.7	0.88
ANNEALING NORMALIZING	1353	21	17.1	1.25	17	0	0.3	--	1370	21	17.4	1.23
BATCH PICKLING AND SHEET DRYERS	55	1	0.6	--	21	0	0.3	--	76	1	0.9	--
COATING	328	4	3.2	--	0	0	0.0	--	328	4	3.2	--
COLD REDUCING MILLS	1395	14	12.1	1.17	97	0	1.6	--	1492	14	13.7	1.02
CONTINUOUS PICKLING AND ELEC CLEANING	205	5	1.3	4.31 **	0	0	0.0	--	205	5	1.3	4.31 **
FLYING SHEARS AND SLITTERS	8	0	0.1	--	0	0	0.0	--	8	0	0.1	--
HOT PACK MILLS	566	13	10.4	1.30	5	0	0.1	--	571	13	10.5	1.29
HOT STRIP ROLLING	1008	4	11.0	0.35 *	0	0	0.0	--	1008	4	11.0	0.35 *
SHEET FINISHING AND SHIPPING	1733	14	19.3	0.69	36	0	0.6	--	1769	14	19.9	0.66
STAINLESS ANNEAL PICKLG AND PROCESSING	46	2	0.9	--	1	0	0.0	--	47	2	0.9	--
TEMPER PASSING AND COLD ROLLING	369	1	2.7	--	0	0	0.0	--	369	1	2.7	--
TIN FINISHING AND SHIPPING	396	4	4.2	--	1	0	0.0	--	397	4	4.2	--
GENERAL LABOR	546	11	6.3	1.81	449	7	8.1	0.85	995	18	14.4	1.28
JANITORS	205	10	6.2	1.66	321	6	7.5	0.79	526	16	13.6	1.19
MASON DEPARTMENT	1305	7	10.2	0.68	438	8	5.7	1.44	1743	15	15.9	0.94
BLACKSMITH SHOP	266	4	3.9	--	4	0	0.1	--	270	4	4.0	--
CARPENTER SHOP	406	4	5.9	0.67	0	0	0.0	--	406	4	5.9	0.67
ELECTRIC MAINTENANCE ASSIGNED	1605	12	19.1	0.62	5	0	0.0	--	1610	12	19.1	0.61
ELECTRIC SHOP	551	9	7.2	1.26	1	0	0.0	--	552	9	7.2	1.26
GARAGE	147	0	1.4	--	0	0	0.0	--	147	0	1.4	--
LOCOMOTIVE AND CAR REPAIR	121	2	1.5	--	9	0	0.1	--	130	2	1.6	--
MACHINE SHOP	1442	15	17.9	0.83	3	0	0.1	--	1445	15	17.9	0.83
MAINTENANCE NOS	70	0	1.3	--	2	0	0.0	--	72	0	1.3	--
MECHNICAL MAINTENANCE ASSIGNED	2689	39	33.4	1.19	60	1	1.3	--	2749	40	34.7	1.17
PAINT SHOP	263	3	2.8	--	2	1	0.0	--	265	4	2.9	--
PATTERN SHOP	68	2	0.8	--	0	0	0.0	--	68	2	0.8	--
PIPE SHOP	738	5	9.0	0.55	5	0	0.1	--	743	5	9.0	0.55
RIGGERS AND STRUCTURAL	1189	14	15.6	0.89	8	0	0.1	--	1197	14	15.7	0.89
ROLL SHOP	374	5	5.0	1.00	0	0	0.0	--	374	5	5.0	1.00
WELD SHOP	644	3	6.2	0.48	2	0	0.0	--	646	3	6.2	0.48
ALL OTHER	138	1	1.5	--	5	0	0.1	--	143	1	1.6	--
GENERAL RECEIVING AND STORES	192	4	2.6	--	4	0	0.1	--	196	4	2.7	--
PLANT PROTECTION	674	15	10.5	1.45	1	0	0.0	--	675	15	10.5	1.44
POWER AND FUEL	1343	11	15.1	0.72	62	1	1.7	--	1405	12	16.8	0.71
TRANSPORTATION AND YARD	1293	16	14.6	1.10	341	6	6.5	0.91	1634	22	21.1	1.05
TUBE MILLS INCLUDES TUBE FINISHING	229	2	3.1	--	1	0	0.0	--	230	2	3.1	--
RIVER OR MARINE WAYS	218	6	3.4	1.84	1	0	0.0	--	219	6	3.4	1.84
TOTAL	51479	592	592.0	1.00	7349	134	134.0	1.00	58828	726	726.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 11-JUN-74

C.O.D. (PREVALENCE) = REMAINDER
FIRST JOB IN 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	3273	77	79.1	0.97	18	0	0.6	--	3291	77	79.7	0.96
GEN TECHNICAL	2368	49	41.1	1.21	14	1	0.3	--	2382	50	41.5	1.22
COKE PLANT	1635	37	39.9	0.92	908	32	27.9	1.29	2543	69	67.8	1.02
BLAST FURNACE	2355	64	61.3	1.05	1101	29	28.9	1.00	3456	93	90.3	1.03
OPEN HEARTH	5797	137	145.6	0.93	1836	59	57.1	1.05	7633	196	202.7	0.96
BESSEMER CONVERTER	24	0	1.2	--	0	0	0.0	--	24	0	1.2	--
ELECTRIC FURNACE	734	19	16.0	1.21	7	0	0.2	--	741	19	16.2	1.19
FOUNDRY	890	32	27.6	1.17	253	5	8.4	0.55	1143	37	36.0	1.03
HEAT TREAT AND FORGING	1003	20	25.1	0.78	16	2	0.7	--	1019	22	25.8	0.84
BILLET BLOOM AND SLAB MILLS	2912	101	87.8	1.18	223	12	9.3	1.45	3135	113	97.1	1.20
SOAKING PITS	94	2	2.3	--	14	0	0.2	--	108	2	2.5	--
MERCHANT MILLS	2130	64	66.1	0.96	395	8	12.8	0.59	2525	72	78.9	0.90
PLATE MILL	1547	53	42.3	1.30	239	12	10.2	1.23	1786	65	52.5	1.29
AXLE MILLS	6	0	0.2	--	0	0	0.0	--	6	0	0.2	--
GENERAL FINISHING AND SHIPPING	399	15	9.8	1.57	82	3	3.5	--	481	18	13.2	1.39
HOT STRIP MILL	164	4	5.6	0.71	1	0	0.0	--	165	4	5.6	0.71
RAIL MILL ROLLING	339	12	10.0	1.23	46	1	1.9	--	385	13	11.9	1.10
RAIL MILL FINISHING	347	7	7.7	0.91	98	6	3.7	1.81	445	13	11.3	1.17
STEEL YARDS	88	2	1.5	--	32	0	0.7	--	120	2	2.2	--
STRUCTURAL MILL	1196	30	28.7	1.05	164	2	5.0	0.36	1360	32	33.8	0.94
ANNEALING NORMALIZING	1353	42	38.4	1.10	17	0	0.8	--	1370	42	39.2	1.08
BATCH PICKLING AND SHEET DRYERS	55	2	1.3	--	21	0	0.8	--	76	2	2.1	--
COATING	328	8	6.4	1.28	0	0	0.0	--	328	8	6.4	1.28
COLD REDUCING MILLS	1395	25	25.7	0.97	97	4	3.1	--	1492	29	28.8	1.01
CONTINUOUS PICKLING AND ELEC CLEANING	205	6	2.6	2.44	0	0	0.0	--	205	6	2.6	2.44
FLYING SHEARS AND SLITTERS	8	0	0.2	--	0	0	0.0	--	8	0	0.2	--
HOT PACK MILLS	566	26	26.4	0.98	5	1	0.4	--	571	27	26.8	1.01
HOT STRIP ROLLING	1008	20	23.4	0.84	0	0	0.0	--	1008	20	23.4	0.84
SHEET FINISHING AND SHIPPING	1733	36	43.1	0.81	36	0	1.7	--	1769	36	44.8	0.77
STAINLESS ANNEAL PICKLG AND PROCESSING	46	4	2.1	--	1	0	0.0	--	47	4	2.1	--
TEMPER PASSING AND COLD ROLLING	369	2	5.4	0.35	0	0	0.0	--	369	2	5.4	0.35
TIN FINISHING AND SHIPPING	396	8	8.3	0.96	1	0	0.0	--	397	8	8.3	0.96
GENERAL LABOR	546	17	13.5	1.27	449	13	13.2	0.98	995	30	26.7	1.13
JANITORS	205	18	14.5	1.26	321	12	13.5	0.87	526	30	28.0	1.08
MASON DEPARTMENT	1305	15	22.8	0.65	438	15	10.5	1.50	1743	30	33.3	0.89
BLACKSMITH SHOP	266	10	9.3	1.07	4	0	0.1	--	270	10	9.5	1.06
CARPENTER SHOP	406	11	13.6	0.80	0	0	0.0	--	406	11	13.6	0.80
ELECTRIC MAINTENANCE ASSIGNED	1605	36	44.1	0.80	5	0	0.1	--	1610	36	44.2	0.80
ELECTRIC SHOP	551	17	16.7	1.02	1	0	0.0	--	552	17	16.7	1.02
GARAGE	147	1	3.0	--	0	0	0.0	--	147	1	3.0	--
LOCOMOTIVE AND CAR REPAIR	121	4	3.4	--	9	0	0.2	--	130	4	3.6	--
MACHINE SHOP	1442	43	41.0	1.05	3	0	0.1	--	1445	43	41.1	1.05
MAINTENANCE NOS	70	0	2.7	--	2	0	0.0	--	72	0	2.7	--
MECHNICAL MAINTENANCE ASSIGNED	2689	82	74.4	1.12	60	2	2.1	--	2749	84	76.5	1.11
PAINT SHOP	263	6	6.4	0.94	2	1	0.1	--	265	7	6.5	1.09
PATTERN SHOP	68	2	1.8	--	0	0	0.0	--	68	2	1.8	--
PIPE SHOP	738	10	20.1	0.49 *	5	1	0.2	--	743	11	20.3	0.53 *
RIGGERS AND STRUCTURAL	1189	35	35.6	0.98	8	0	0.2	--	1197	35	35.7	0.98
ROLL SHOP	374	11	11.3	0.97	0	0	0.0	--	374	11	11.3	0.97
WELD SHOP	644	10	13.5	0.73	2	0	0.1	--	646	10	13.6	0.73
ALL OTHER	138	3	3.5	--	5	0	0.2	--	143	3	3.7	--
GENERAL RECEIVING AND STORES	192	6	5.9	1.03	4	0	0.3	--	196	6	6.2	0.97
PLANT PROTECTION	674	31	24.3	1.29	1	0	0.1	--	675	31	24.4	1.29
POWER AND FUEL	1343	22	34.6	0.62 *	62	2	2.8	--	1405	24	37.4	0.63 *
TRANSPORTATION AND YARD	1293	36	33.5	1.08	341	9	9.9	0.89	1634	45	43.5	1.04
TUBE MILLS INCLUDES TUBE FINISHING	229	6	7.3	0.81	1	0	0.0	--	230	6	7.3	0.81
RIVER OR MARINE WAYS	218	10	6.9	1.49	1	0	0.0	--	219	10	6.9	1.49
TOTAL	51479	1346	1346.0	1.00	7349	232	232.0	1.00	58828	1578	1578.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

00167

C.O.D. (UNDERLYING) = REMAINDER
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK [1]	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK [1]	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK [1]
GEN ADMINISTRATIVE AND CLERICAL	5112	48	56.6	0.83	34	0	0.7	--	5146	48	57.3	0.82
GEN TECHNICAL	3684	26	34.6	0.74	16	1	0.2	--	3700	27	34.8	0.76
COKE PLANT	2381	30	30.3	0.99	1176	22	22.8	0.91	3557	52	53.1	0.97
BLAST FURNACE	4218	55	54.8	1.00	1415	22	22.9	0.95	5633	77	77.7	0.99
OPEN HEARTH	9655	135	114.5	1.25 *	2335	53	44.5	1.39	11990	188	159.0	1.28 **
BESSEMER CONVERTER	240	8	5.1	1.65	88	3	2.6	--	328	11	7.7	1.48
ELECTRIC FURNACE	1250	20	14.2	1.51	11	0	0.2	--	1261	20	14.4	1.48
FOUNDRY	1781	28	24.6	1.15	345	8	6.9	1.19	2126	36	31.5	1.16
HEAT TREAT AND FORGING	1683	22	20.1	1.12	46	2	1.4	--	1729	24	21.5	1.15
BILLET BLOOM AND SLAB MILLS	5783	77	76.2	1.01	419	8	8.2	0.96	6202	85	84.4	1.01
SOAKING PITS	148	2	1.3	--	28	0	0.3	--	176	2	1.6	--
MERCHANT MILLS	3885	60	59.4	1.01	680	15	14.1	1.08	4565	75	73.5	1.03
PLATE MILL	3005	47	41.5	1.20	436	13	12.3	1.09	3441	60	53.8	1.18
AXLE MILLS	293	5	6.2	0.79	6	1	0.1	--	299	6	6.4	0.94
GENERAL FINISHING AND SHIPPING	1309	22	20.8	1.07	213	5	5.8	0.85	1522	27	26.5	1.02
HOT STRIP MILL	567	8	8.3	0.96	1	0	0.0	--	568	8	8.3	0.96
RAIL MILL ROLLING	852	12	9.7	1.31	97	3	2.6	--	949	15	12.3	1.29
RAIL MILL FINISHING	726	8	8.6	0.92	145	4	4.1	--	871	12	12.6	0.94
STEEL YARDS	299	2	4.8	--	77	1	1.7	--	376	3	6.5	0.44
STRUCTURAL MILL	1972	25	21.4	1.21	252	3	5.2	0.53	2224	28	26.6	1.06
ANNEALING NORMALIZING	2605	46	35.3	1.39	54	0	1.2	--	2659	46	36.5	1.34
BATCH PICKLING AND SHEET DRYERS	137	4	2.2	--	50	0	0.9	--	187	4	3.0	--
COATING	545	5	5.3	0.94	0	0	0.0	--	545	5	5.3	0.94
COLD REDUCING MILLS	1933	21	17.6	1.22	113	0	1.9	--	2046	21	19.5	1.08
CONTINUOUS PICKLING AND ELEC CLEANING	254	6	1.7	4.02 **	0	0	0.0	--	254	6	1.7	4.02 **
FLYING SHEARS AND SLITTERS	28	0	0.3	--	0	0	0.0	--	28	0	0.3	--
HOT PACK MILLS	1229	22	23.0	0.93	19	0	0.4	--	1248	22	23.5	0.91
HOT STRIP ROLLING	1623	11	18.5	0.57	2	0	0.0	--	1625	11	18.5	0.56
SHEET FINISHING AND SHIPPING	3306	30	37.3	0.74	108	1	2.5	--	3414	31	39.7	0.71
STAINLESS ANNEAL PICKLG AND PROCESSING	384	4	6.2	0.63	2	0	0.0	--	386	4	6.2	0.62
TEMPER PASSING AND COLD ROLLING	783	2	6.3	0.29	0	0	0.0	--	783	2	6.3	0.29
TIN FINISHING AND SHIPPING	668	6	6.5	0.90	1	0	0.0	--	669	6	6.5	0.90
GENERAL LABOR	3153	48	46.1	1.05	1215	31	28.8	1.12	4368	79	74.9	1.07
JANITORS	311	11	8.9	1.24	422	6	10.0	0.57	733	17	18.9	0.89
MASON DEPARTMENT	2511	22	24.5	0.89	696	16	11.3	1.51	3207	38	35.8	1.07
BLACKSMITH SHOP	555	7	9.5	0.73	6	0	0.2	--	561	7	9.7	0.72
CARPENTER SHOP	665	9	11.9	0.75	1	0	0.0	--	666	9	11.9	0.75
ELECTRIC MAINTENANCE ASSIGNED	3200	39	47.1	0.81	8	0	0.1	--	3208	39	47.3	0.81
ELECTRIC SHOP	1620	29	27.7	1.05	2	0	0.0	--	1622	29	27.8	1.05
GARAGE	242	1	2.7	--	2	0	0.1	--	244	1	2.9	--
LOCOMOTIVE AND CAR REPAIR	261	8	3.6	2.26 *	22	0	0.4	--	283	8	4.1	2.01
MACHINE SHOP	2405	35	34.6	1.01	12	0	0.3	--	2417	35	34.9	1.00
MAINTENANCE NOS	558	4	7.5	0.48	5	0	0.1	--	563	4	7.6	0.48
MECHNICAL MAINTENANCE ASSIGNED	6136	96	84.6	1.17	201	6	5.2	1.19	6337	102	89.8	1.17
PAINT SHOP	777	10	9.6	1.04	9	1	0.3	--	786	11	9.9	1.11
PATTERN SHOP	95	3	1.3	--	0	0	0.0	--	95	3	1.3	--
PIPE SHOP	1412	23	20.9	1.11	14	0	0.4	--	1426	23	21.3	1.09
RIGGERS AND STRUCTURAL	2525	50	42.8	1.20	21	1	0.4	--	2546	51	43.2	1.21
ROLL SHOP	502	5	6.7	0.74	3	1	0.1	--	505	6	6.8	0.88
WELD SHOP	758	4	7.3	0.54	2	0	0.0	--	760	4	7.4	0.54
ALL OTHER	1098	18	21.2	0.84	75	2	2.1	--	1173	20	23.3	0.85
GENERAL RECEIVING AND STORES	382	9	5.8	1.56	9	1	0.3	--	391	10	6.1	1.65
PLANT PROTECTION	856	17	13.9	1.23	4	0	0.1	--	860	17	14.0	1.22
POWER AND FUEL	2336	29	32.4	0.89	213	4	5.8	0.68	2549	33	38.1	0.86
TRANSPORTATION AND YARD	2842	49	38.7	1.30	633	13	13.0	1.00	3475	62	51.7	1.23
TUBE MILLS INCLUDES TUBE FINISHING	635	9	9.3	0.97	10	1	0.2	--	645	10	9.4	1.07
RIVER OR MARINE WAYS	293	7	4.6	1.60	1	0	0.0	--	294	7	4.6	1.60
TOTAL	51479	592	592.0	1.00	7349	134	134.0	1.00	58828	726	726.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

C.O.D. (PREVALENCE) = REMAINDER
EVER EMPLOYED IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	5112	117	127.7	0.90	34	0	1.4	--	5146	117	129.1	0.89
GEN TECHNICAL	3684	82	77.4	1.07	16	1	0.4	--	3700	83	77.7	1.08
COKE PLANT	2381	59	62.5	0.93	1176	37	38.1	0.92	3557	96	100.6	0.93
BLAST FURNACE	4218	117	128.7	0.89	1415	38	40.0	0.93	5633	155	168.8	0.90
OPEN HEARTH	9655	274	266.6	1.04	2335	83	77.8	1.12	11990	357	344.4	1.05
BESSEMER CONVERTER	240	12	11.9	1.01	88	3	4.7	--	328	15	16.6	0.90
ELECTRIC FURNACE	1250	41	32.5	1.33	11	0	0.3	--	1261	41	32.8	1.31
FOUNDRY	1781	70	58.6	1.22	345	11	11.8	0.92	2126	81	70.4	1.17
HEAT TREAT AND FORGING	1683	47	47.6	0.98	46	6	2.4	2.77 *	1729	53	50.1	1.07
BILLET BLOOM AND SLAB MILLS	5783	189	181.4	1.06	419	18	17.6	1.03	6202	207	199.0	1.06
SOAKING PITS	148	3	3.1	--	28	0	0.4	--	176	3	3.5	--
MERCHANT MILLS	3885	142	137.2	1.05	680	27	26.5	1.02	4565	169	163.8	1.04
PLATE MILL	3005	111	98.6	1.20	436	20	19.9	1.01	3441	131	118.5	1.16
AXLE MILLS	293	12	15.2	0.77	6	2	0.3	--	299	14	15.5	0.90
GENERAL FINISHING AND SHIPPING	1309	54	47.8	1.15	213	10	10.4	0.95	1522	64	58.2	1.11
HOT STRIP MILL	567	17	17.9	0.95	1	0	0.0	--	568	17	17.9	0.94
RAIL MILL ROLLING	852	30	23.9	1.34	97	5	4.2	1.24	949	35	28.1	1.32
RAIL MILL FINISHING	726	20	21.0	0.94	145	9	6.2	1.67	871	29	27.2	1.08
STEEL YARDS	299	7	11.5	0.59	77	2	2.7	--	376	9	14.1	0.62
STRUCTURAL MILL	1972	62	50.5	1.30	252	3	7.8	0.34	2224	65	58.3	1.15
ANNEALING NORMALIZING	2605	89	82.2	1.11	54	3	2.9	--	2659	92	85.1	1.10
BATCH PICKLING AND SHEET DRYERS	137	9	5.2	1.85	50	0	2.0	--	187	9	7.2	1.28
COATING	545	10	10.5	0.94	0	0	0.0	--	545	10	10.5	0.94
COLD REDUCING MILLS	1933	36	37.4	0.96	113	5	3.9	1.32	2046	41	41.3	0.99
CONTINUOUS PICKLING AND ELEC CLEANING	254	7	3.3	2.22	0	0	0.0	--	254	7	3.3	2.22
FLYING SHEARS AND SLITTERS	28	0	0.5	--	0	0	0.0	--	28	0	0.5	--
HOT PACK MILLS	1229	55	58.8	0.90	19	2	1.2	--	1248	57	60.0	0.93
HOT STRIP ROLLING	1623	36	39.4	0.90	2	0	0.0	--	1625	36	39.4	0.90
SHEET FINISHING AND SHIPPING	3306	69	83.5	0.77	108	4	5.9	0.44	3414	73	89.4	0.75 *
STAINLESS ANNEAL PICKLG AND PROCESSING	384	16	14.7	1.10	2	0	0.0	--	386	16	14.7	1.10
TEMPER PASSING AND COLD ROLLING	783	12	12.3	0.97	0	0	0.0	--	783	12	12.3	0.97
TIN FINISHING AND SHIPPING	668	11	12.9	0.83	1	0	0.0	--	669	11	12.9	0.83
GENERAL LABOR	3153	113	104.9	1.09	1215	53	48.2	1.15	4368	166	153.0	1.10
JANITORS	311	26	21.0	1.26	422	14	17.7	0.77	733	40	38.7	1.04
MASON DEPARTMENT	2511	45	55.6	0.80	696	30	20.4	1.60 *	3207	75	76.0	0.99
BLACKSMITH SHOP	555	23	22.6	1.02	6	1	0.3	--	561	24	22.9	1.05
CARPENTER SHOP	665	27	27.7	0.97	1	0	0.0	--	666	27	27.7	0.97
ELECTRIC MAINTENANCE ASSIGNED	3200	95	109.4	0.85	8	0	0.2	--	3208	95	109.6	0.85
ELECTRIC SHOP	1620	59	66.7	0.87	2	0	0.1	--	1622	59	66.8	0.87
GARAGE	242	3	6.0	0.49	2	0	0.2	--	244	3	6.2	0.48
LOCOMOTIVE AND CAR REPAIR	261	16	8.5	1.94 *	22	0	0.6	--	283	16	9.1	1.80 *
MACHINE SHOP	2405	88	79.7	1.12	12	0	0.4	--	2417	88	80.2	1.11
MAINTENANCE NOS	558	6	15.8	0.33 *	5	0	0.1	--	563	6	15.9	0.33 **
MECHNICAL MAINTENANCE ASSIGNED	6136	213	192.0	1.14	201	11	8.5	1.34	6337	224	200.6	1.15
PAINT SHOP	777	17	22.0	0.76	9	1	0.4	--	786	18	22.4	0.80
PATTERN SHOP	95	3	3.0	--	0	0	0.0	--	95	3	3.0	--
PIPE SHOP	1412	44	47.6	0.92	14	2	0.7	--	1426	46	48.2	0.95
RIGGERS AND STRUCTURAL	2525	100	100.1	1.00	21	1	1.0	--	2546	101	101.0	1.00
ROLL SHOP	502	13	15.1	0.85	3	1	0.2	--	505	14	15.3	0.91
WELD SHOP	758	13	16.3	0.79	2	0	0.1	--	760	13	16.4	0.79
ALL OTHER	1098	41	49.8	0.81	75	3	4.0	--	1173	44	53.8	0.81
GENERAL RECEIVING AND STORES	382	14	13.0	1.08	9	1	0.6	--	391	15	13.6	1.10
PLANT PROTECTION	856	38	32.3	1.19	4	0	0.2	--	860	38	32.5	1.18
POWER AND FUEL	2336	66	75.8	0.86	213	11	10.7	1.03	2549	77	86.5	0.88
TRANSPORTATION AND YARD	2842	95	89.3	1.07	633	25	22.1	1.16	3475	120	111.4	1.09
TUBE MILLS INCLUDES TUBE FINISHING	635	24	22.2	1.09	10	2	0.4	--	645	26	22.7	1.18
RIVER OR MARINE WAYS	293	13	9.3	1.45	1	0	0.0	--	294	13	9.3	1.45
TOTAL	51479	1346	1346.0	1.00	7349	232	232.0	1.00	58828	1578	1578.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY 9-MAY-74

C.O.D. (UNDERLYING) = REMAINDER
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	30	34.7	0.85	11	0	0.3	--	2374	30	35.0	0.85
GEN TECHNICAL	1575	17	20.0	0.84	6	1	0.1	--	1581	18	20.1	0.89
COKE PLANT	1180	15	18.6	0.78	664	17	16.1	1.12	1844	32	34.7	0.89
BLAST FURNACE	1730	38	29.7	1.32	591	12	12.4	0.96	2321	50	42.2	1.22
OPEN HEARTH	4075	64	63.6	1.01	1347	33	30.2	1.15	5422	97	93.8	1.04
BESSEMER CONVERTER	118	3	2.9	--	35	1	1.1	--	153	4	4.0	--
ELECTRIC FURNACE	509	8	6.1	1.36	4	0	0.1	--	513	8	6.2	1.32
FOUNDRY	764	15	14.5	1.03	169	4	4.6	--	933	19	19.1	0.99
HEAT TREAT AND FORGING	708	10	11.5	0.86	20	2	0.7	--	728	12	12.2	0.98
BILLET BLOOM AND SLAB MILLS	2614	40	43.1	0.91	201	4	4.5	--	2815	44	47.6	0.91
SOAKING PITS	19	1	0.4	--	0	0	0.0	--	19	1	0.4	--
MERCHANT MILLS	1986	35	36.8	0.94	301	6	8.1	0.70	2287	41	45.0	0.90
PLATE MILL	1442	27	23.7	1.18	246	7	7.6	0.90	1688	34	31.3	1.11
AXLE MILLS	45	0	1.2	--	0	0	0.0	--	45	0	1.2	--
GENERAL FINISHING AND SHIPPING	511	8	9.3	0.85	113	4	3.6	--	624	12	12.9	0.93
HOT STRIP MILL	174	3	2.9	--	0	0	0.0	--	174	3	2.9	--
RAIL MILL ROLLING	288	4	5.2	0.74	32	2	1.3	--	320	6	6.5	0.92
RAIL MILL FINISHING	245	3	4.1	--	82	3	2.3	--	327	6	6.4	0.93
STEEL YARDS	68	1	1.5	--	11	0	0.3	--	79	1	1.8	--
STRUCTURAL MILL	980	11	12.4	0.87	128	3	3.2	--	1108	14	15.7	0.88
ANNEALING NORMALIZING	1214	27	19.8	1.44	25	0	0.5	--	1239	27	20.3	1.40
BATCH PICKLING AND SHEET DRYERS	45	2	1.1	--	19	0	0.3	--	64	2	1.4	--
COATING	269	4	3.4	--	0	0	0.0	--	269	4	3.4	--
COLD REDUCING MILLS	848	11	10.4	1.06	65	0	1.4	--	913	11	11.8	0.93
CONTINUOUS PICKLING AND ELEC CLEANING	147	5	1.3	4.42 **	0	0	0.0	--	147	5	1.3	4.42 **
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	18	16.7	1.11	5	0	0.1	--	742	18	16.8	1.10
HOT STRIP ROLLING	864	6	11.7	0.49	1	0	0.0	--	865	6	11.7	0.49
SHEET FINISHING AND SHIPPING	1335	18	18.1	0.99	48	0	0.7	--	1383	18	18.8	0.95
STAINLESS ANNEAL PICKLG AND PROCESSING	148	2	2.7	--	0	0	0.0	--	148	2	2.7	--
TEMPER PASSING AND COLD ROLLING	335	1	3.0	--	0	0	0.0	--	335	1	3.0	--
TIN FINISHING AND SHIPPING	348	4	4.5	--	0	0	0.0	--	348	4	4.5	--
GENERAL LABOR	565	17	11.2	1.56	375	9	9.6	0.93	940	26	20.7	1.28
JANITORS	112	2	3.7	--	190	3	5.7	0.49	302	5	9.4	0.51
MASON DEPARTMENT	758	9	9.7	0.93	242	7	4.6	1.59	1000	16	14.3	1.13
BLACKSMITH SHOP	231	5	4.5	1.13	5	0	0.2	--	236	5	4.6	1.09
CARPENTER SHOP	277	3	5.7	0.52	0	0	0.0	--	277	3	5.7	0.52
ELECTRIC MAINTENANCE ASSIGNED	1581	21	28.5	0.72	2	0	0.0	--	1583	21	28.5	0.72
ELECTRIC SHOP	760	17	14.7	1.17	2	0	0.1	--	762	17	14.8	1.17
GARAGE	98	0	1.4	--	1	0	0.1	--	99	0	1.5	--
LOCOMOTIVE AND CAR REPAIR	104	1	1.8	--	7	0	0.2	--	111	1	2.0	--
MACHINE SHOP	1270	19	20.6	0.92	2	0	0.1	--	1272	19	20.6	0.92
MAINTENANCE NOS	246	2	3.9	--	0	0	0.0	--	246	2	3.9	--
MECHNICAL MAINTENANCE ASSIGNED	2290	49	41.4	1.21	73	4	2.7	--	2363	53	44.1	1.23
PAINT SHOP	197	3	3.2	--	2	1	0.0	--	199	4	3.3	--
PATTERN SHOP	64	3	1.0	--	0	0	0.0	--	64	3	1.0	--
PIPE SHOP	657	8	10.6	0.75	6	0	0.1	--	663	8	10.7	0.74
RIGGERS AND STRUCTURAL	1034	16	18.8	0.84	6	0	0.2	--	1040	16	19.0	0.83
ROLL SHOP	314	5	4.9	1.03	0	0	0.0	--	314	5	4.9	1.03
WELD SHOP	460	3	5.4	0.55	2	0	0.0	--	462	3	5.5	0.54
ALL OTHER	302	6	7.6	0.78	9	0	0.3	--	311	6	7.9	0.75
GENERAL RECEIVING AND STORES	168	6	3.4	1.80	2	0	0.1	--	170	6	3.4	1.76
PLANT PROTECTION	469	11	9.1	1.21	1	0	0.0	--	470	11	9.2	1.21
POWER AND FUEL	976	15	17.6	0.85	89	2	3.0	--	1065	17	20.5	0.82
TRANSPORTATION AND YARD	871	15	15.1	0.99	194	3	5.3	0.51	1065	18	20.4	0.87
TUBE MILLS INCLUDES TUBE FINISHING	281	2	4.4	--	2	1	0.1	--	283	3	4.5	--
RIVER OR MARINE WAYS	177	6	3.1	2.03	1	0	0.0	--	178	6	3.1	2.03
TOTAL	36364	531	531.0	1.00	4913	114	114.0	1.00	41277	645	645.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

001SC

C.O.D. (PREVALENCE) = REMAINDER
FIVE OR MORE YEARS EXPERIENCE IN WORK AREA THROUGH 1953

WORK AREA	WHITE N	WHITE O	WHITE E	WHITE REL.RISK 1	NON-WHITE N	NON-WHITE O	NON-WHITE E	NON-WHITE REL.RISK 1	TOTAL N	TOTAL O	TOTAL E	TOTAL REL.RISK 1
GEN ADMINISTRATIVE AND CLERICAL	2363	74	79.0	0.93	11	0	0.5	--	2374	74	79.5	0.92
GEN TECHNICAL	1575	56	45.3	1.26	6	1	0.2	--	1581	57	45.5	1.28
COKE PLANT	1180	35	40.1	0.85	664	29	27.2	1.14	1844	64	67.2	0.93
BLAST FURNACE	1730	75	70.2	1.08	591	22	22.3	0.99	2321	97	92.4	1.06
OPEN HEARTH	4075	144	150.7	0.95	1347	54	53.0	1.03	5422	198	203.6	0.96
BESSEMER CONVERTER	118	4	6.9	0.56	35	1	2.2	--	153	5	9.1	0.53
ELECTRIC FURNACE	509	18	13.9	1.33	4	0	0.2	--	513	18	14.1	1.31
FOUNDRY	764	45	35.6	1.29	169	7	7.8	0.88	933	52	43.4	1.22
HEAT TREAT AND FORGING	708	25	27.6	0.89	20	3	1.1	--	728	28	28.7	0.97
BILLET BLOOM AND SLAB MILLS	2614	112	105.0	1.08	201	10	10.4	0.94	2815	122	115.4	1.07
SOAKING PITS	19	1	0.9	--	0	0	0.0	--	19	1	0.9	--
MERCHANT MILLS	1986	79	86.1	0.90	301	10	15.4	0.60	2287	89	101.5	0.85
PLATE MILL	1442	68	56.8	1.26	246	12	12.6	0.94	1688	80	69.4	1.20
AXLE MILLS	45	0	3.0	--	0	0	0.0	--	45	0	3.0	--
GENERAL FINISHING AND SHIPPING	511	24	20.8	1.17	113	5	5.9	0.84	624	29	26.7	1.10
HOT STRIP MILL	174	5	6.4	0.78	0	0	0.0	--	174	5	6.4	0.78
RAIL MILL ROLLING	286	12	13.1	0.91	32	3	1.9	--	320	15	15.0	1.00
RAIL MILL FINISHING	245	8	10.2	0.76	82	5	3.7	1.44	327	13	14.0	0.92
STEEL YARDS	68	4	3.6	--	11	0	0.4	--	79	4	4.0	--
STRUCTURAL MILL	980	29	29.4	0.98	128	3	4.9	--	1108	32	34.3	0.92
ANNEALING NORMALIZING	1214	48	46.4	1.04	25	1	1.5	--	1239	49	47.9	1.03
HATCH PICKLING AND SHEET DRYERS	45	5	2.6	2.02	19	0	1.0	--	64	5	3.6	1.42
COATING	269	8	6.7	1.23	0	0	0.0	--	269	8	6.7	1.23
COLD REDUCING MILLS	848	23	22.5	1.03	65	3	2.6	--	913	26	25.1	1.04
CONTINUOUS PICKLING AND ELEC CLEANING	147	6	2.5	2.58 *	0	0	0.0	--	147	6	2.5	2.58 *
FLYING SHEARS AND SLITTERS	5	0	0.1	--	0	0	0.0	--	5	0	0.1	--
HOT PACK MILLS	737	38	43.1	0.84	5	0	0.5	--	742	38	43.7	0.83
HOT STRIP ROLLING	864	23	25.1	0.91	1	0	0.0	--	865	23	25.1	0.91
SHEET FINISHING AND SHIPPING	1335	35	41.3	0.82	48	0	2.7	--	1383	35	44.0	0.76
STAINLESS ANNEAL PICKLG AND PROCESSING	146	6	6.6	1.24	0	0	0.0	--	146	6	6.6	1.24
TEMPER PASSING AND COLD ROLLING	335	3	5.9	0.48	0	0	0.0	--	335	3	5.9	0.48
TIN FINISHING AND SHIPPING	348	8	9.0	0.86	0	0	0.0	--	348	8	9.0	0.88
GENERAL LABOR	565	29	25.2	1.16	375	19	16.3	1.19	940	48	41.5	1.17
JANITORS	112	10	8.5	1.19	190	7	10.2	0.66	302	17	18.7	0.90
MASON DEPARTMENT	758	20	22.5	0.88	242	13	8.7	1.59	1000	33	31.2	1.06
BLACKSMITH SHOP	231	14	10.8	1.31	5	1	0.3	--	236	15	11.1	1.37
CARPENTER SHOP	277	11	13.2	0.83	0	0	0.0	--	277	11	13.2	0.83
ELECTRIC MAINTENANCE ASSIGNED	1581	59	67.3	0.87	2	0	0.1	--	1583	59	67.4	0.87
ELECTRIC SHOP	760	32	34.7	0.92	2	0	0.1	--	762	32	34.8	0.91
GARAGE	98	1	3.2	--	1	0	0.1	--	99	1	3.4	--
LOCOMOTIVE AND CAR REPAIR	104	2	4.4	--	7	0	0.3	--	111	2	4.7	--
MACHINE SHOP	1270	53	48.0	1.11	2	0	0.1	--	1272	53	48.1	1.11
MAINTENANCE NOS	246	2	8.4	0.21 *	0	0	0.0	--	246	2	8.4	0.21 *
MECHNICAL MAINTENANCE ASSIGNED	2290	106	96.1	1.12	73	7	4.3	1.71	2363	113	100.5	1.15
PAINT SHOP	197	5	7.6	0.65	2	1	0.1	--	199	6	7.6	0.78
PATTERN SHOP	64	3	2.4	--	0	0	0.0	--	64	3	2.4	--
PIPE SHOP	657	17	24.4	0.68	6	1	0.3	--	663	18	24.7	0.72
RIGGERS AND STRUCTURAL	1034	40	43.9	0.90	6	0	0.4	--	1040	40	44.3	0.90
ROLL SHOP	314	11	11.2	0.98	0	0	0.0	--	314	11	11.2	0.98
WELD SHOP	460	9	12.1	0.74	2	0	0.1	--	462	9	12.2	0.73
ALL OTHER	302	14	18.5	0.74	9	0	0.6	--	311	14	19.1	0.72
GENERAL RECEIVING AND STORES	168	10	7.8	1.29	2	0	0.3	--	170	10	8.1	1.25
PLANT PROTECTION	469	25	21.2	1.19	1	0	0.1	--	470	25	21.2	1.19
POWER AND FUEL	976	36	41.6	0.86	89	4	5.4	0.72	1065	40	47.0	0.84
TRANSPORTATION AND YARD	871	33	36.3	0.90	194	7	8.2	0.83	1065	40	44.5	0.89
TUBE MILLS INCLUDES TUBE FINISHING	281	10	11.0	0.91	2	2	0.1	--	283	12	11.1	1.09
RIVER OR MARINE WAYS	177	11	6.6	1.77	1	0	0.0	--	178	11	6.6	1.76
TOTAL	36364	1227	1227.0	1.00	4913	200	200.0	1.00	41277	1427	1427.0	1.00

1. SIGNIFICANCE OF RELATIVE RISK (REL.RISK) BASED ON SUMMARY CHI-SQUARE WITH ONE DEGREE OF FREEDOM
* SIGNIFICANT AT 5% LEVEL
** SIGNIFICANT AT 1% LEVEL
-- LESS THAN 5 DEATHS

MULTIPLE CAUSE OF DEATH STUDY

Summary by Cause of Death of Work Areas with Significant Relative Risks
by Employment Cohort and Race

CAUSE OF DEATH: All Other Causes

ICD CODE: Remainder

WORK AREA	First Job in 1953		Ever Worked Through 1953		Worked 5+ Years Through 1953	
WHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Continuous Picklg. and Elec. Cleaning	4.31**	2.44	4.02**	2.22	4.42**	2.58*
Hot Strip Rolling	0.35*	0.85	0.57	0.90	0.49	0.91
Pipe Shop	0.55	0.49*	1.11	0.92	0.75	0.68
Power and Fuel	0.72	0.62*	0.89	0.86	0.85	0.86
Open Hearth	1.00	0.93	1.25*	1.04	1.01	0.95
Locomotive and Car Repair	--	--	2.26*	1.94*	--	--
Maintenance NOS	--	--	0.48	0.33*	--	0.21*
NONWHITE	Underlying	Prevalence	Underlying	Prevalence	Underlying	Prevalence
Heat Treat. and Forging	--	--	--	2.77*	--	--
Mason Dept.	1.45	1.50	1.51	1.60*	1.59	1.59

* Significant at 5% level ** Significant at 1% level -- Less than 5 deaths

00152

Appendix I

Rules for Coding Multiple Cause for Steelworkers

1. Use 7th revision ICD - 4 digit codes (001 - E999) excluding Symptoms, Senility, and Ill-defined conditions (780-795), Female Disorder Codes (620-626,630-637), Deliveries and Complications of Pregnancy,Childbirth, and Puerperium (640-689), Diseases of Early Infancy (760-776).

2. Code the underlying cause on line A.

3. On lines B through F code the other conditions found on the certificate giving priority to those conditions more closely related to the underlying cause.

4. Do not code any repetition of a 3 digit category, i.e.:

   a. Chronic myocarditis - (4222)
      Fatty degeneration of heart - (4220)

   b. Diverticulitis - (5721)
      Chronic Colitis - (5723)

5. Under the category 260X (Diabetes) some resulting conditions may be coded back to 260X. Be sure to code the associated cause as indexed as if it were without diabetes. i.e.:

   Diabetic retinitis is coded to 260X. For this study code 260X (Diabetes) and code 377X (Retinitis) also.

   Diabetic nephrosis is coded to 260X. Code 260X (Diabetes) and 591X (Nephrosis).

6. Do not use <u>Psychosis with cerebral arteriosclerosis</u> (306X) as an underlying cause, but do use it if given an associated cause. i.e.:

   a. Ca. of lung (163X)
   b. Psychosis due to (309X)
   c. Cerebral arteriosclerosis (334X)

      Code underlying cause 163X and the associated cause 306X.

   The same rule would apply to <u>Psychosis of Other Demonstrable Etiology</u> (308X). In other words, where psychosis is stated as

Appendix I - continued

due to a condition that can be coded to the combined code, use it rather than 2 separate codes.

7. In combining a heart condition 422X, 431X, 433X, or a 434X with Hypertension to show an underlying cause of a 442X or a 443X, show, separately, as an associated cause the heart condition used. If it was not used to designate the underlying cause, then code as separate causes both the Hypertension and Heart conditions. i.e.:

   a. Ca. of Lung (163X)
   b. Congestive heart failure (4341)
   c. Hypertension (444X)

   Code each individually

   a. Congestive heart disease (4341)
   b. Hypertension (444X)
   c. ------

   Code the underlying Hypertensive heart disease (443X) and code Congestive heart disease (4341).

8. In the case of a vague term modified or later clarified by a more specific term, do not code the vague term. i.e.:

   a. Retroperitoneal tumor (230X)
   b. Malignant Schwannoma (158X)
   c. -------

   Code only 158X

   a. Lymphosarcoma (2001)
   b.
   c.

Major findings of operation.
Reticulum - sarcoma caecum (2000)

Code 2000

Appendix I - continued

9. Assume the terms carcinomatosis, generalized carcinoma, etc. with a primary cancer to be the same as metastasis, and code it to 1999, as an associated cause.

10. Do not repeat the code for Generalized Arteriosclerosis (4500) when used in conjunction with a 422X heart as the 4221 shows the arteriosclerosis in the 4th digit .1. (This can be gang-punched if needed).

    The same rule applies to Alcoholism (322X) and Cirrhosis of liver (581X).

11. Do not code hemorrhage or obstruction of a site or system when a cancer or its metastasis is involved in this particular site or system. i.e.:

    a. Intestinal hemorrhage
    b. Metastasis from
    c. Carcinoma upper left lobe of lung
       Code - 163X (underlying)
       1999 (metastasis)

12. Do not code hemorrhages from leukemia no matter what sites are hemorrhaging.

    Do not code malnutrition or secondary anemia with a cancer.

13. Do not code an operation or the findings of an operation performed for a disease condition already coded.

    Do not code any condition due to a treatment for an already existing and coded disease unless the resulting condition actually caused the death. i.e.:

a. Bronchopneumonia	4 wks.
b. Adenocarcinoma bronchogenic	1 yr.
c. Dermatitis due to radiation	6 mo.

    Do not code the Radiation dermatitis.

14. Where a more specific term is used in conjunction with a term coded to a residual category of the same system use

Appendix I - continued

only the more specific term's code. i.e.:

a. Coronary Thrombosis (4201)
b. Arteriosclerotic Heart Disease (4200)
c. Cholelithiasis, Cholecystitis and Hepatitis (584X), (585X), (583X).

Code 4201 as underlying, 4200, 584X and 583X as the associated causes.

15. In the event the certificate states the underlying cause to be a cancer of 2 sites which according to rules must be coded to 1992, then show individual code numbers for each cancer as an associated cause. i.e.:

a. Peritonitis (576X)
b. Carcinoma colon and bladder (1538, 1810)

Code 1992 as the underlying cause, 576X, 1538, and 1810 as associated causes.

16. Do not code an accident cause if it is the direct result of a disease condition. i.e.:

a. Strangulation 5 min.
b. Pulmonary congestion 1 wk.
c. Disseminated miliary tuberculosis

Code underlying 0192 and associated cause 522X.

17. Do not code atelectasis with a lung condition. i.e.:

a. Malignancy of left lung 6 mos.
b. Atelectasis massive
c.

Code only 163X

18. If Tuberculosis of more than one site, other than lung, is given as an associated cause, code 008. If only one site, other than lung, is mentioned, code it. i.e.:

Appendix I - continued

18. continued

a. Cancer of lung

b.

c.

I. T.B. of lung, adrenal, kidney and bladder.

Code underlying 163X, 0021, and 0081.

a. Cancer of lung

b.

c.

II. T.B. of lung and bladder

Code underlying 163X, 0021, and 016X.

19. Pleural effusion (003) with a cancer will be coded to non-tubercular pleural effusion (5192), unless tuberculosis is present on the certificate.

20. For the combined terms Arteriosclerotic hypertensive heart disease and Hypertensive arteriosclerotic heart disease, code both 4200 and 443X.

Appendix I - continued

Special Codes for Multiple Cause
Mortality Study of Steelworkers

199

1991 - Malignant neoplasms of other specified sites not specified as secondary. i.e. hip, leg, chest wall.

1992 - Malignant neoplasm of other and unspecified sites. i.e. intra-abdominal, pelvis, viscera.

1993 - Metastasis to respiratory organs whose primary code would be 162X - 164X.

1999 - Metastasis to all other organs.

204

2040 - Lymphatic leukemia

2041 - Myeloid leukemia

2042 - Monocytic leukemia

2043 - Acute lymphatic leukemia

2044 - Other and unspecified leukemia

2045 - Acute myeloid leukemia

2046 - Acute leukemia NOS

002 & 008

0021 - Pulmonary tuberculosis (active)

0081 - Tuberculosis, unspecified site (active)

0022 - Pulmonary tuberculosis, inactive

0082 - Tuberculosis, unspecified site, inactive

434

4345 - Cor Pulmonale and its synonyms

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