
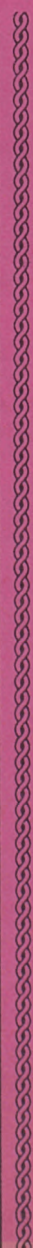


COMMISSION OF THE
EUROPEAN COMMUNITIES




EIGHTH REPORT OF THE
STEEL INDUSTRY SAFETY AND
HEALTH COMMISSION




(1976)

The 8th report of the Steel Industry Safety and Health Commission details the activities of the Commission and of its working parties during 1976 and contains analyses of the work carried out during this period.

This report contains tables giving the principal statistics for accidents at work in the steel industries in Member States.




COMMISSION OF THE
EUROPEAN COMMUNITIES



EIGHTH REPORT OF THE
STEEL INDUSTRY SAFETY AND
HEALTH COMMISSION

(1976)

Manuscript finished in January 1977.



© Copyright ECSC – EEC – EAEC, Brussels and Luxembourg, 1977
Printed in Belgium

Reproduction authorized, in whole or in part, provided the source is acknowledged.

Contents

	<u>Page</u>
1. Introduction	5
2. Accident Statistics	6
2.1. Accident Statistics	6
2.2. Study of the Statistics and their significance	7
2.3. Study of very serious accidents	8
3. Dissemination of information	9
3.1. Distribution of documents	9
3.2. Film on the "Principles of Accident Prevention "	10
4. Studies	10
4.1. Hydrogen	10
4.2. The causes of very serious accidents in the iron and steel industry in Lorraine	10
5. Statistical Tables	11
6. List of the members of the Steel Industry Safety and Health Commission and its Workings Parties	27

1. INTRODUCTION

1976 was a year of very little activity for the Steel Industry Safety and Health Commission due to serious administrative difficulties.

Owing to the multilingual nature of the exchange of experiences which is, it will be recalled, the object of the Steel Industry Commission, it cannot work particularly quickly.

The lack of any structure which can provide regular administrative assistance, particularly for the typing of working documents (reports, minutes and opinions) of the Steel Industry Commission and its Working Parties, which must be sent to experts in their mother tongues because of their very specialised technical nature, is a further complication and the cause of delays in the delivery of these documents and the preparation of meetings.

The Secretariat of the Steel Industry Safety and Health Commission has always suffered from a shortage of staff. It is not surprising therefore that due to the departure of the only secretary assigned to it, and to the abnormally long time taken to replace her, more than nine months, the department ceased to function almost entirely as regards meetings, the Secretariat finding it impossible to organise a single meeting of the Steel Industry Commission or its Working Parties during 1976.

Hence, the brevity of this report.

Although this situation is to be deplored and calls for suitable corrective measures, which the Steel Industry Commission has been demanding for years, it takes note of the Statements made by the representative of the Commission of the European Communities to the effect that all the facilities required for it to function properly would henceforth be obtained. The Steel Industry Commission unanimously reaffirms its confidence in the Commission of the European Communities, taking account both of the terms of the ECSC Treaty and of the financial resources which are provided under the system of levies by the steel industry and from which the steel industry should reap some benefit.

2. ACCIDENT STATISTICS

2.1. Accident statistics

The Steel Industry Safety and Health Commission regrets that at the time of writing the statistics on industrial accidents in 1975 are not available, despite the efforts made by the Statistical Office of the European Communities which is responsible for their compilation and publication.

This regret is made all the greater by the fact that the delay in publishing these statistics seems to be getting longer from year to year, although the changes in one country's system of remuneration for steel workers (in the Netherlands, workers are now paid on a monthly basis and systematic records are no longer kept of their daily hours at work, which makes it difficult to calculate the number of hours worked), and the difficulties involved in the application by undertakings in the new Member States of the Community of the system of recording numbers of accidents and workers side by side with their own system, account for this delay to a certain extent.

The Steel Industry Commission earnestly hopes the undertakings, the national employers' organisations responsible for collecting the data issued by the undertakings and the Statistical Office will co-ordinate their activities better in the future, so that the statistics may be made available as early as possible.

At the end of the Report there is a set of tables giving national and Community statistics similar to those contained in previous reports and comprising the latest figures to hand, namely those for 1974.

In order to preserve the significance of the series of results for the period 1960-1974 for the Community of the Six, the figures for the new Member States have not been incorporated in the tables of Community statistics. However, the figures for these countries are given in national tables similar to those used for the six original Community countries.

Tables relating to the Community of the Nine will not be significant for a few years until there are sufficient data on the new Member States.

Despite certain variations in the results in the various countries, Community accident trend statistics for 1974 are largely similar to those for 1973, even though 1974 was a record year for steel production.

2.2. Study of the Statistics and their Significance

The Steel Industry Commission having drawn attention on a number of previous occasions to the difficulties in interpreting current statistics, particularly as regards their significance and comparability, in 1974 instructed its Secretariat to carry out a study on the significance of these statistics. This study is now complete, full co-operation having been received from 16 steel mills in three different countries.

The Secretariat devoted a considerable proportion of its time in 1976 to this work.

This study covered all accidents involving bodily injuries from 1965-1974 in these 16 mills, which had an average workforce of 96,000. Over this ten-years period, the number of hours worked in these mills was 1,738,752,000 and the number of recorded accidents involving bodily injuries was 961,094.

This study was completed in 1976 and will be examined by the Steel Industry Safety and Health Commission at its meeting of 25 January 1977.

2.3. Study of Very Serious Accidents

As a result of the study carried out on industrial accident statistics and their significance, the Secretariat and a number of experts who had taken part in this work came to the conclusion that a special study of very serious accidents was necessary, for several reasons.

The annual figures for such accidents, defined for the purposes of this study as those which result in death or recognised disablement greater than 10%, are relatively low compared with the total number of accidents involving bodily injuries (0.2-0.3%) and thus do not affect the frequency rate of a particular work.

As they are not regarded as a special category, such accidents, and in particular their causes, have never been the subject of a specific global study even though it seems that there must be a number, or at the very least categories of main causes such as transport, gas and molten substances.

It must also be understood that these very serious accidents, giving rise to the greatest social, moral, economic and legal consequences need, first and foremost, the essential preventive measures and constitute the fundamental reason for the promotion of safety.

A study of this type on the causes of very serious accidents can only be carried out with the co-operation of several mills and on the basis of experience over several years due to the relative infrequency of such accidents in each mill. For this reason, ASSIMILOR (Association de la sidérurgie et des mines de fer lorraines) was approached with a view to obtaining its agreement in principle and the agreement of the mills in Lorraine for such work to be carry out.

The approaches were very successful and four steel undertakings in Lorraine promised their co-operation.

An initial meeting of safety engineers from these mills was organised at the headquarters of ASSIMILOR on 22 and 23 September 1976 with a view to preparing a draft specimen questionnaire. This questionnaire was subjected to an initial exercise, the results of which were examined at a second meeting also held in Metz, on Friday 10 December 1976. A number of improvements have already been made.

The aim of the study to be carried out by ASSIMILOR in conjunction with these Lorraines undertakings is to seek and analyse as far as possible the causes of all the very serious accidents which occurred from 1970-1976 in the mills in question.

The anticipated results of this study are as follows :

- finalising of a standard questionnaire to be used for surveys on very serious accidents and possibly other accidents also
- initial information on the categories of causes of very serious accidents
- establishment of a method of research into the causes of such accidents.

The study will probably last for two to three years.

3. DISSEMINATION OF INFORMATION

3.1. Distribution of documents

In 1976 the following documents were prepared for publication:

- Comprehensive Accident Control for Preventing Accidents Causing Injury
- First Aid and Rescue (revised edition)
- Tapping the Blast Furnace
- Development of Industrial Safety at Cockerill-Liège.

Moreover, in 1976 1,023 Steel Industry Commission documents were sent out at the request of the Community or external undertakings or organisations.

3.2. Film on the " Principles of Accident Prevention "

Copies of this film were made available free of charge to 15 agencies which hire out industrial and/or safety films on a non-commercial basis and to eight bodies, whose aim is the promotion of safety, to be used in their training activities.

In addition, a circular was sent to all iron and steel works in the Community, giving the addresses of the film libraries having the film available.

This film was also shown at the first Colloque of the ISSA International Section for the Prevention of Occupational Risks in the Iron and Steel Manufacturing Industry (Vienna, October 1976) and at the ILO International Seminar on Industrial Safety Policies (Turin, November 1976).

It was awarded a "Special Merit" Diploma at the Belgium film festival held in Namur on 18 and 19 November 1976.

4. STUDIES

4.1. Hydrogen

The studies on " The use of hydrogen in the iron and steel industry " and " Safety problems involved in the use of hydrogen in the iron and steel industry", assigned to Mr DECKER and Mr ARRAGON respectively, are complete and will be used as the basis for a seminar to be organized in due course.

4.2. The causes of very serious accidents in the iron and steel industry in Lorraine

The contract for the first part of this study, mentioned in Section 2.3., was signed at the end of 1976. It will be recalled that this study is expected to last for two to three years.

STATISTICAL TABLES

TABLE I

Fatal accidents in the Community of Six

Year	Number of fatalities	Frequency rate (1)	Accident: production ratio (2)
1960	198	0,19	2,71
1961	168	0,16	2,28
1962	192	0,20	2,62
1963	148	0,16	2,02
1964	151	0,16	1,82
1965	167	0,18	1,94
1966	115	0,13	1,35
1967	107	0,13	1,19
1968	136	0,17	1,37
1969	136	0,16	1,27
1970	133	0,16	1,22
1971	115	0,15	1,11
1972	93	0,12	0,82
1973	117	0,12	0,95
1974	114	0,14	0,86

(1) Number of fatal accidents per million hours worked

(2) Number of fatal accidents per 1.000 000 tonnes of crude steel

Accidents causing absence from work in the Community of Six

Year	No. of workers	Accidents resulting in ≥ 1 day's absence			Accidents resulting in > 3 day's absence		Percentage of accidents resulting in between 1 and 3 day's absence
		Number	f.r.(1)	acc:prod (2)	Number	f.r. (1)	
1960	494,264	102,686	98	1.405	89,569	86	12,2
1961	501,332	100,656	96	1.369	88,685	84	12,5
1962	469,941	88,142	92	1.207	76,422	80	13,0
1963	46 02	84,496	89	1.154	73,747	78	12,4
1964	468,836	88,395	93	1.067	76,994	81	12,9
1965	460,564	83,479	90	971	72,378	78	13,3
1966	442,123	73,687	85	865	64,000	74	12,9
1967	426,329	66,628	80	741	56,804	68	15,0
1968	418,916	66,962	82	679	57,167	70	14,6
1969	424,273	71,686	87	669	62,201	75	13,8
1970	433,507	76,943	92	705	67,382	81	12,0
1971	428,562	73,882	94	714	63,241	81	13,8
1972	421,098	74,391	97	657	62,777	82	15,5
1973	430,540	80,494	103	656	67,480	87	15,5
1974	443,891	81,710	103	616	68,592	87	16,1

(1) frequency rate

(2) number of accidents causing absence from work per million tonnes crude steel

Seriousness of accidents in the Community of Six

Year	Number of calendar days lost	Number of hours lost per 1.000 hours worked	Number of days lost per accident
1960	1.735.370	9.59	16.9
1961	1.747.758	9.55	17.4
1962	1.576.954	9.21	17.9
1963	1.527.193	8.98	18.1
1964	1.580.937	9.21	17.9
1965	1.492.686	8.88	17.9
1966	1.355.529	8.40	18.4
1967	1.206.785	7.76	18.1
1968	1.202.514	7.91	18.1
1969	1.323.955	8.55	18.5
1970	1.387.454	8.78	18.1
1971	1.431.769	9.15	19.4
1972	1.401.376	9.09	18.8
1973	1.462.756	9.31	18.2
1974	1.494.021	9.22	18.3

GERMANY

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 day's absence	Percentage of accidents with 1 - 3 days' absence
			r.r. +	f.r. +	f.r. +	
1960	214.671	427.479	0.18	108	95	13.6
1961	214.845	426.250	0.12	102	92	9.8
1962	203.976	386.124	0.20	95	85	10.5
1963	198.184	376.060	0.16	89	79	11.2
1964	200.656	389.527	0.15	97	85	12.3
1965	196.246	376.518	0.19	98	87	11.2
1966	186.913	351.223	0.13	98	80	13.0
1967	179.935	392.045	0.14	86	72	16.2
1968	177.372	336.016	0.18	94	80	14.9
1969	179.616	346.463	0.15	100	87	13.0
1970	181.686	345.182	0.15	105	94	10.5
1971	175.187	310.063	0.15	106	92	13.2
1972	165.488	298.213	0.11	105	90	14.3
1973	169.409	312.292	0.18	113	96	15.0
1974	173.179	314.874	0.13	106	90	15.1

(+) f.r. = frequency rate

TABLE IV

BELGIUM

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1960	53.361	108.542	0.20	128	100	28.0
1961	52.878	106.915	0.19	122	95	22.1
1962	51.021	107.981	0.19	110	84	23.6
1963	50.662	107.150	0.23	107	82	23.4
1964	52.193	108.605	0.17	114	87	23.7
1965	50.459	108.767	0.18	107	80	25.2
1966	48.164	97.564	0.14	95	70	26.3
1967	47.581	94.790	0.13	90	67	25.6
1968	48.031	95.516	0.18	87	65	25.3
1969	49.043	97.666	0.17	87	66	24.1
1970	50.018	98.347	0.16	93	72	22.6
1971	50.049	94.843	0.17	96	73	24.0
1972	50.017	95.069	0.15	105	82	22.1
1973	51.249	93.505	0.30	112	85	24.1
1974	52.979	96.601	0.17	113	86	23.9

(+) f.r. = frequency rate

FRANCE

Year	No. of workers	No. of hours worked x 1.000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1960	148.362	343.471	0.22	74	71	4.0
1961	150.312	341.506	0.20	73	71	2.7
1962	128.977	287.720	0.20	73	70	4.3
1963	129.410	282.906	0.14	72	70	2.8
1964	130.129	284.695	0.15	71	69	2.8
1965	126.839	270.871	0.17	67	65	3.0
1966	119.944	251.737	0.12	65	63	3.1
1967	113.013	234.055	0.10	59	58	1.7
1968	107.809	219.408	0.13	57	56	1.7
1969	107.634	218.766	0.20	62	60	3.2
1970	109.274	218.742	0.17	64	62	3.1
1971	107.863	209.250	0.15	68	66	2.9
1972	105.823	199.664	0.13	70	68	2.9
1973	105.785	197.588	0.09	73	71	2.7
1974	108.786	197.838	0.13	79	77	2,5

(+) f.r. = frequency rate

ITALY

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1960	51.177	111.132	0.15	104	78	25.0
1961	54.532	118.503	0.15	112	82	26.8
1962	57.081	118.145	0.20	110	80	27.3
1963	57.609	122.318	0.15	112	88	21.4
1964	55.665	111.331	0.10	107	84	21.5
1965	55.614	112.587	0.19	102	77	24.5
1966	55.506	108.360	0.16	95	75	21.0
1967	54.640	110.263	0.12	96	75	21.9
1968	54.611	108.322	0.18	91	69	24.2
1969	56.026	102.701	0.14	98	76	22.5
1970	59.287	108.790	0.17	117	91	22.2
1971	62.370	109.731	0.12	121	91	24.8
1972	66.518	114.022	0.12	132	95	28.0
1973	69.946	116.084	0.08	141	102	27,7
1974	73.902	123.481	0,14	143	105	26,6

(+) f.r. = frequency rate

GRAND DUCHY OF LUXEMBOURG

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1960	19.705	47.619	0.05	121	115	5.0
1961	19.308	40.646	0.17	117	110	6.0
1962	19.082	39.108	0.23	107	100	7.0
1963	19.902	38.581	0.10	111	103	7.2
1964	19.403	39.279	0.46	112	102	8.9
1965	19.572	38.717	0.21	115	106	7.8
1966	19.552	38.071	0.26	108	100	8.0
1967	19.299	37.121	0.27	104	98	5.8
1968	18.968	36.347	0.22	94	88	6.4
1969	19.045	36.780	0.16	105	97	7.6
1970	19.576	36.734	0.14	102	94	7.8
1971	19.294	35.635	0.17	94	87	7.4
1972	19.041	34.501	0.09	85	74	12.9
1973	19.351	34.693	0.14	82	76	7.3
1974	19.563	34.578	0.35	84	79	6.0

(x) f.r. = frequency rate

TABLE VIII

NETHERLANDS

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1960	—	—	—	—	—	—
1961	9.457	18.201	0.05	63	54	14.3
1962	9.804	18.597	0.32	69	57	17.4
1963	9.935	18.946	0.11	61	53	13.1
1964	10.790	20.634	0.05	70	61	12.9
1965	11.834	22.372	0.04	69	59	14.5
1966	12.044	22.404	0.04	66	57	13.6
1967	11.863	22.047	0.05	54	48	11.1
1968	12.125	22.292	0.09	55	49	10.9
1969	12.909	23.620	0.08	44	40	9.1
1970	13.666	24.427	0.12	42	38	9.5
1971	13.799	23.953	0.17	47	43	8.5
1972	14.211	24.192	0.17	45	40	11.1
1973	14.800	24.137	0.08	48	42	12.5
1974	15.480	25.331	0.08	43	38	11.6

(+) f.r. = frequency rate

TABLE IX

DENMARK

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 day's absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1973	-	-	-	-	-	-
1974	1.705	3.005	0,33	79	63	20,03

(+) f.r. = frequency rate

GREAT BRITAIN

Year	No. of workers	No. of hours worked x 1.000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1973	137.676	270.274	0,15	30	29	3,3
1974	138.767	263.680	0,08	32	29	9,4

(+) f.r. = frequency rate

IRELAND

Year	No. of workers	No. of hours worked x 1,000	Fatal accidents	Accidents causing ≥ 1 day's absence	Accidents causing > 3 days' absence	Percentage of accidents with 1 - 3 days' absence
			f.r. +	f.r. +	f.r. +	
1973	-	-	-	-	-	-
1974	906	Not published	0	55	45	18,02

(+) f.r. = frequency rate

ACCIDENTS, PRODUCTION AND THE WORKFORCE

COMMUNITY OF SIX

Year	f.r. ⁺	Crude steel production in 1,000 t	Variation in % (++)	Load factor	Variation in % (++)	Number of workers at end of year	Variation in % (++)	Foreign workers	Variation in % (++)	Percentage of total workers	Intake (2)	Percentage of total workers
1960	98	73,076		95.5		482,453		(1)			81,765	16.9
1961	96	73,511	+ 0.05	91.7	- 3.8	483,351	+ 0.2	(1)			72,320	15.0
1962	92	73,011	- 0.07	87.5	- 4.2	479,466	- 0.8	56,050		11.7	73,522	15.3
1963	89	73,218	+ 0.03	83.3	- 4.2	469,326	- 2.1	55,399	- 1.16	11.8	67,644	14.4
1964	93	82,856	+13.2	90.0	+ 6.7	477,513	+ 1.7	65,293	+17.8	13.7	84,144	17.6
1965	90	85,991	+ 3.8	84.2	- 5.8	464,707	- 2.7	64,052	- 1.9	13.8	63,424	13.6
1966	85	85,105	- 1.0	78.6	- 5.6	439,949	- 5.3	58,486	- 8.7	13.3	52,109	11.9
1967	80	89,885	+ 5.6	80.1	+ 1.5	423,984	- 3.6	53,809	- 8.0	12.7	43,715	10.3
1968	82	98,634	+ 9.6	85.7	+ 5.6	421,658	- 0.5	56,039	+ 4.1	13.3	57,640	13.7
1969	87	107,318	+ 8.8	89.0	+ 3.3	432,122	+ 2.5	64,570	+ 15.2	14.9	80,155	18.6
1970	92	109,203	+ 1.8	86.2	- 2.8	437,181	+ 1.2	69,115	+ 7.0	15.8	79,894	18.3
1971	94	103,376	- 5.3	76.1	-10.1	426,639	- 2.4	67,665	- 2.1	15.9	60,421	14.2
1972	97	113,147	+ 9.5	81.5	+ 5.4	426,172	- 0.1	72,058	+ 6.5	16.9	67,084	15.7
1973	103	122,874	+ 8.6	85.1	+ 3.6	439,511	+ 3.1	81,260	+12.8	18.5	86,297	19.6
1974	103	132,563	+ 7.9	88.1	+ 3.5	460,772	+ 4.8	84,776	+ 4.4	18.4	80,925	10.4

(+) f.r.= frequency rate of accidents causing absence from work per million hours worked

(++) Each column marked " variation in % " shows the variation of the figure in the preceding column as against the previous year.

(1) figure calculated on different basis prior to 1962, as Algerian workers in France were not classed as foreign workers.

(2) including movements from one work to another

LISTE DES MEMBRES DE LA COMMISSION GENERALE
ET DE SES GROUPES DE TRAVAIL

LISTE DER MITGLIEDER DES ALLGEMEINEN AUSSCHUSSES
UND SEINER ARBEITSGRUPPEN

ELENCO DEI MEMBRI DELLA COMMISSIONE GENERALE
E DEI SUOI GRUPPI DI LAVORO

NAMEN VAN DE LEDEN VAN DE ALGEMENE COMMISSIE
EN VAN HAAR WERKGROEPEN

LIST OF THE MEMBERS OF THE STEEL INDUSTRY SAFETY
AND HEALTH COMMISSION AND ITS WORKING GROUPS

COMMISSION GENERALE DE LA SECURITE ET DE LA SALUBRITE DANS LA SIDERUGIE
ALLGEMEINER AUSSCHUSS FUR DIE ARBEITSSICHERHEIT UND DEN GESUNDHEITSSCHUTZ IN DER EISEN-UND STAHLINDUSTRIE
COMMISSIONE GENERALE PER LA SICUREZZA E LA SALUBRITA' NELL'INDUSTRIA SIDERURGICA
ALGEMENE COMMISSIE VOOR DE ARBEIDSVEILICHEID IN DE IJZER-EN STAALINDUSTRIE
STEEL INDUSTRY SAFETY AND HEALTH COMMISSION

DEUTSCHLAND

- K.H. MARESCH - Wirtschaftsvereinigung Eisen-und Stahlindustrie - 4000 Düsseldorf
H.G. WEYMANN - Stellv. Betriebsratsvorsitzender der August Thyssen-Huette AG - 4100 Duisburg
H. KARL - Leiter der Abteilung Arbeitswissenschaft Hoesch A.G. - 4600 Dortmund
K. MEYERWISH - Sachbearbeiter des Zweigbüros des Vorstandes der I.G. Metall - 4000 Düsseldorf

BELGIQUE

- J. BETTE - Directeur du groupe Marchienne-Athus S.A. Cockerill - 6030 Marchienne-au-Pont
J. DOYEN - Secrétaire général de la Centrale chrétienne des Métallurgistes de Belgique - 1120 Bruxelles
GAUDER - Directeur du Dpt. social. Groupement des hauts fourneaux et aciéries belges - 1040 Bruxelles
R. VANDEPERRE - Secrétaire général Centrale des Métallurgistes de Belgique - 1050 Bruxelles

FRANCE

- R. BRIESCH - Secrétaire national de la Fédération française de la métallurgie C.F.D.T. - 75009 Paris
J.M. CAVE - Conseiller auprès de la Présidence. Union des Industries Métallurgistes et Minières - 75017 Paris
A. DAUPTAIN - Directeur du Groupe Est. Usinor - 54402 Longwy
B. MOURGUES - Secrétaire général Fédération confédérée Force ouvrière de la métallurgie - 75640 Paris

ITALIA

- E. BUSSETTI - Dirigente - Servizio Sicurezza Soc. Italsider - 16128 Genova
G. DABALA' - Dirigente Centro Ecologia e Prevenzione Acciaierie e Ferriere Lombarde Falck -20099 Sesto S.Giovanni
A. GUTTADAURO - Segretario Nazionale Unione Italiana Lavoratori Metalmeccanici - 00159 Roma
R. VALBONESI - Segretario Nazionale Federazione Italiana Metalmeccanici - 16126 Genova

LUXEMBOURG

- A. ROBERT - Directeur du Groupement des industries sidérurgiques luxembourgeoises - Luxembourg
- M. CASTEGNARO - Secrétaire central Letzeburger Arbechterverband - Esch sur Alzette
- P. METZ - Directeur général S.A. ARBED - Luxembourg
- M. ZWICK - Sekretär der Metall-und Bergarbeiter L.C.C.B. - Luxembourg

NEDERLAND

- C. KRIJGSMAN - Distriktbestuurder Industrie Bond NKV - Utrecht
- G. de JONGE - Consultant Hoogovensijmuiden BV - Ijmuiden
- P.J.KOOPER - Directeur NKF Staal NV - Alblasserdam
- H. KRUL - Distriktbestuurder Industriebond NVV - 131 Velsen

UNITED KINGDOM

- J.A.CATTON - Manager Safety, Health and Welfare British Steel Corporation - London WC1E 6BB
- R.L.EVANS - Assistant General Secretary I.S.T.C.- London 1X 8DD
- COOKE - The National Union of Sheetmetal Workers Copper Smiths, Heating & Domestic Engineers - London
- D.M.REA - Manpower Affairs Adviser, The British Independent Steel Producers Ass. - London SW7 2HX

IRELAND

- H.T.KEER - Assistant General Manager Irish Steel Holding Ltd.- Haulbowling
- A. KELLY - Secretary Irish Transport and General Workers Union - Dublin
- A.F.RICE - Research Officer Federated Union of Employers - Dublin
- T. WALSH - Irish Transport and General Workers Union - Dublin

SVERIGE

- M. BRANNSTROM - Gränges Stal Oxelösunds Järnverk - 61301 Oxelösund

GROUPE DE TRAVAIL "ORGANISATION DE LA PREVENTION"
ARBEITSGRUPPE "ORGANISATION DER UNFALLVERHÜTUNG"
GRUPPO DI LAVORO "ORGANIZZAZIONE DELLA PREVENZIONE"
WERK GROEP "ORGANISATIE VAN DE ONGEVALLENPREVENTIE"
WORKING GROUP "ORGANIZATION OF ACCIDENT PREVENTION"

DEUTSCHLAND

K.H. MARESCH - Wirtschaftsvereinigung Eisen-und Stahlindustrie - 4000 Düsseldorf
H. BECKER - Abteilungschef -Hauptsicherheitsingenieur Stahlwerke Röchling-Burbach GmbH - 6620 Völklingen/Saar
H. PARTIKEL - I.G. Metall - 6000 Frankfurt/Main

BELGIQUE

R. THISSEN - Centrale chrétienne des métallurgistes de Belgique - 1120 Bruxelles
..... -

FRANCE

A. BERTHON - Chef du Service Sécurité Assimilor - 57000 Metz
J.P. DELPECH - Directeur du service "Sécurité et conditions de travail" -U.I.M.M. - 75017 Paris
R. NOWAKOWSKI - Hauts Fourneaux de la Chiers S.A. - 54402 Longwy

ITALIA

E. ANNONE - Capo Ufficio Sicurezza del Lavoro. Soc. Fiat Ferriere - 10149 Torino
G. DABALA' - Dirigente Centro Ecologia e Prevenzione Falck - 20099 Sesto-San-Giovanni
B. TOMMASO - Federazione Lavoratori Metalmeccanici F.L.M. - 00198 Roma

LUXEMBOURG

E. SCHMITT - Chef du Service central de la sécurité du travail Arbed - Luxembourg

NEDERLAND

L.P.A. VAN POL - Chef van de Veiligheidsdienst Hoogovens IJmuiden BV - IJmuiden

UNITED KINGDOM

J.A. CATTON - Manager of the Accident Prevention Section British Steel Corporation - London NW1 2DN
R.L. EVANS - Assistant Gen. Secretary I.S.T.C. - London WC1X 8DD

GROUPE DE TRAVAIL "SECURITE-FORMATION"
ARBEITSGRUPPE "ARBEITSSICHERHEIT-AUSBILDUNG"
GRUPPO DI LAVORO "SICUREZZA-FORMAZIONE"
WERGROEP "VEILIGHEID-OPLEIDING"
WORKING GROUP "SAFETY-TRAINING"

DEUTSCHLAND

K.H. MARESCH - Wirtschaftsvereinigung Eisen-und Stahlindustrie - 4000 Düsseldorf
E. SCHNEIDER - Hauptabteilungsleiter Mannesmann A.G. - 4000 Düsseldorf
..... -

BELGIQUE

J.D. VANDOREN - Chef de Sécurité générale-Relations humaines et incendie. S.A. Hainaut-Sambre - 6090 Couillet
R. VANDEPERRE - Secrétaire général Centrale des Métallurgistes de Belgique - 1050 Bruxelles

FRANCE

R. BRIESCH - Secrétaire national Fédération Générale de la Métallurgie (C.F.D.T.) - 75009 Paris
R. PESLERRE - Chef du Service du Personnel - Soc. des Forges de Basse Indre - 44610 Indre
P. VAYSSADE - Directeur du Service Formation-Sécurité Assimilor - 57000 Metz

ITALIA

E. BUSSETTI - Dirigente - Servizio Sicurezza Soc. Italsider - 16128 Genova
A. MIGNANI - Responsabile Centro Addestramento Soc. Dalmine - 24044 Dalmine Bergamo
V. NATALI - Federazione Lavoratori Metalmeccanici F.L.M. - 00198 Roma

LUXEMBOURG

A. RAUCHS - Ingénieur - Chef de Service Sécurité du Travail. Arbed Div. Esch-Belval - Esch-Alzette

NEDERLAND

L.P.A.VAN POL - Chef van de Veiligheidsdienst Hoogovens IJmuiden BV - IJmuiden

UNITED KINGDOM

R. GREGORY - Assistant Manager. Accident Prevention Section. British Steel Corporation - London NW1 2DN
W. SIRS - Gen. Secretary Iron and Steel Trades Corporation - London WC 1X 8DD

GROUPE DE TRAVAIL "SECOURS ET SAUVETAGE"
ARBEITSGRUPPE "ERSTE HILFE UND RETTUNGSWESEN"
GRUPPO DI LAVORO "SOCCORSO E SALVATAGGIO"
WERK GROEP "E.H.B.O. EN REDDINGSWEZEN"
WORKING GROUP "FIRST AID AND RESCUE"

DEUTSCHLAND

H. VOLTZ - Dr. med. Thissen Edelstahlwerk Witten AG - 5810 Witten/Ruhr
H. SCHNEIDER - Dr. med. Fried. Krupp Hüttenwerke A.G. Hüttenwerk Rheinhausen - 4100 Duisburg

BELGIQUE

. -

FRANCE

A. GOULLARD - Dr - Chef du Service médical Usinor, usine de Dunkerque - 59760 Grande Synthe
. -

ITALIA

P. LERZA - Dott. - Dirigente Servizi Sanitari Italsider S.p.A. - 16128 Genova
G. VOLPI - Dott. - Capo Servizio del Centro Sanitario Soc. A.F.L. Falck - 20099 Sesto-San-Giovanni

LUXEMBOURG

P. ANDRIES - Ingénieur, Chef du Service de Sécurité, Arbed Div. d'Esch-Schifflange - Esch-Alzette

NEDERLAND

H.G. KEULS - Bedrijfsarts N.K.F. Staal B.V. - Alblasserdam

UNITED KINGDOM

J.A. RICHARDS - Dr. Senior Medical Officer British Steel Corporation - Newport

GROUPE DE TRAVAIL "SECURITE-COULEE DE FONTE EN HAUT FOURNEAU"
ARBEITSGRUPPE "ARBEITSSICHERHEIT-HOCHOFENABSTICH"
GRUPPO DI LAVORO "COLATA DELLA GHISA ALL'ALTOFORNO"
WERKGROEP "VEILIGHEID-RUWIJZERAFTAP BIJ DE HOOGOVENS"
WORKING GROUP "SAFETY-TAPPING OF METAL FROM BLAST FURNACES"

DEUTSCHLAND

K.H. PETERS - Dipl.-Ing. Betriebsdirektor des Hochofenwerkes Hamborn August-Thyssen Hütte AG - 4100 Duisburg 11

BELGIQUE

A. CANTIGNIAUX - Ingénieur Hauts Fourneaux S.A. Métallurgique Hainaut-Sambre - 6090 Couillet

FRANCE

C. BARBIER - Ingénieur, Chef du Département Fonte , Solmer - 13771 Fos-sur-Mer

. -

ITALIA

D. CHATRIAN - Dott. Soc. Nazionale Cogne - 11100 Aosta

S. TALAMO - Capo Servizi Sicurezza, Italsider S.p.A. - 80124 Bagnoli

LUXEMBOURG

J. HEUSBOURG - Chef de Service des Hauts Fourneaux, Arbed Differdange - Differdange

NEDERLAND

B. WISMANN - Ing.-Bedrijfs-Assistent Afd.Hoogovens, Hoogovens IJmuiden BV - IJmuiden

GROUPE DE TRAVAIL "SECURITE-PONTS ROULANTS"
ARBEITSGRUPPE "ARBEITSSICHERHEIT-LAUFKRANE"
GRUPPO DI LAVORO "SICUREZZA-CARRIPONTE"
WERK GROEP "VEILIGHEID-LOOPKRANEN"
WORKING GROUP "SAFETY-OVERHEAD CRANES"

DEUTSCHLAND

G. TASCHÉ - Dipl. Ing. Technischer Aufsichtsbeamter Hütten- und Walzwerk Berufsgenossenschaft - 4300 Essen

BELGIQUE

L. DARVILLE - Ingénieur - Sous-Chef de service entretien Cockerill S.A. - 4220 Jemeppe sur Meuse

FRANCE

.
J. DUMAINE - Ingénieur - Chef du Service central de Prévention Usinor - 59381 Dunkerque

ITALIA

E. ANNONE - Capo Ufficio Sicurezza del lavoro. Soc. Fiat Ferriere - 10149 Torino
B. MARCELLETTI - Capo Ufficio Progettazione Impianti di Trasporto e Automazione Soc. Dalmine - 24044 Dalmine Bergamo

LUXEMBOURG

A. MANGEOT - Ingénieur - Préposé au Service des Ponts Roulants - Arbed-Dudelange - Dudelange

NEDERLAND

J.W. VAN HAMBURG - Chef Veiligheid-en-Milieudienst NKF Staal NV - Alblasterdam

GROUPE DE TRAVAIL "SECURITE-CONDUITES A GAZ"
ARBEITSGRUPPE "ARBEITSSICHERHEIT-GASLEITUNGEN"
GRUPPO DI LAVORO "CONDOTTE DI GAS"
WERK GROEP "VEILIGHEID-GASLEIDINGEN"
WORKING GROUP "SAFETY-GAS PIPES"

DEUTSCHLAND

- W. RISSE - Oberingenieur - Leiter der Energiebetriebe Hoesch Hüttenwerke A.G. - 4600 Dortmund
G. SCHNEGELSBERG - Oberingenieur - Erhaltungsbetrieb und Hüttenbetrieb, August Thyssen Hütte AG - 4100 Duisburg-Ruhrort

BELGIQUE

- J.L. HURTGEN - Ingénieur, Chef du Service thermique, S.A. Cockerill - 4200 Ougrée

FRANCE

- R. DUFOUR - Ingénieur Chef du Service Energie Sté nouvelle des Aciéries de Pompey - 54340 Pompey
B. MOCHE - Ingénieur Chef du service Exploitation et Appareillage. Sté centrale sidérurgique de Richemont - 57750 Richemont

ITALIA

- L. CARBONCINI - Capo Ufficio Sicurezza Dalmine S.p.A. - 24044 Dalmine-Bergamo
F. FATICA - Dirigente A.F.L. Falck - 20099 Sesto San Giovanni

LUXEMBOURG

- E. BUSLIN - Ingénieur - Chef de service S.A. Minière et Métallurgique de Rodange - Rodange

NEDERLAND

- J.C. WEENINK - Adjunct Bedrijfschef Hoogovens. Hoogovens IJmuiden BV - IJmuiden

GROUPE DE TRAVAIL "SECURITE-CONDUITES A OXYGENE"
ARBEITSGRUPPE "ARBEITSSICHERHEIT-SAUERSTOFFLEITUNGEN"
GRUPPO DI LAVORO "CONDOTTE DI OSSIGENO"
WERK GROEP "VEILIGHEID-ZUURSTOFFLEIDINGEN"
WORKING GROUP "SAFETY-OXYGEN PIPES"

DEUTSCHLAND

R. DREISSIG - Betriebschef, August Thyssen-Hütte AG - 4100 Duisburg 11
O. GÖLLER - Dipl. Ing. Technischer Aufsichtsbeamter, Berufsgenossenschaft der Chemischen Ind.-8500 Nuernberg
W. SIMON - Dr. Ing. Leiter der mechanischen Instandhaltung Fried. Krupp HüttenWerke - 4100 Duisburg 14

BELGIQUE

.-

FRANCE

P. ARRAGON - Ingénieur-conseil S.A. Air Liquide - 75007 Paris
H. HERMANN - Ingénieur, Service Energie, Sollac-Exploitation - 57190 Florange

ITALIA

G. BUZZI - Tecnico Coordinatore Sicurezza Impianti, Italsider S.p.A. - 16128 Genova
F. FATICA - Dirigente; A.F.L. Falck - 20099 Sesto-San-Giovanni
L. IVALDI - Capo Fabbrica Ossigeno, Italsider S.p.A. - 16152 Genova-Cornigliano

LUXEMBOURG

H. KIRSCH - Ingénieur - Chef de Service adjoint, Arbed Differdange - Differdange

NEDERLAND

K. LAARKAMP - Chef Uitvoerende Dienst, Hoogovens IJmuiden BV - IJmuiden
L.J.W. PICHEL - Bedrijfsleider Zuurstofffabrieken, Hoogovens IJmuiden BV - IJmuiden

UNITED KINGDOM

E.A. TAYLOR - Senior Technical Officer, British Steel Corporation - Middlesbrough, Teeside TS6 7RP
T. WEBSTER - Safety Manager, British Oxygen Co.Ltd - Brentfor, Middlesex TW8 9DQ

GROUPE AD HOC "UTILISATION DES EXPLOSIFS AU HAUT FOURNEAU"
AD HOC-GRUPPE "VERWENDUNG VON SPRENGSTOFFEN AM HOCHOFEN"
GRUPPO AD HOC "IMPIEGO DI ESPLOSIVI NELL'ALTOFORNO"
WERK GROEP AD HOC "GEBRUIK VAN EXPLOSIEVEN IN DE HOOGOVEN"
AD HOC GROUP " USE OF EXPLOSIVES IN THE BLAST FURNACE"

DEUTSCHLAND

K.H. PETERS - Oberingenieur, Betriebsdirektor des Hochofenwerkes Hamborn, August Thyssen Hütte AG - 4100 Duisburg
P. RÜTZE - Dipl.-Ing. Leiter der Abt. Werksicherheitsdienst Fried. Krupp Hüttenwerke AG - 4100 Duisburg 14
G. SCHNEGELSBERG - Oberingenieur Erhaltungsbetrieb und Hüttenbetrieb, August Thyssen Hütte AG - 4100 Duisburg-Ruhrort

BELGIQUE

A. DEMAREZ - Ing. principal, Hauts Fourneaux, Div. de Monceau, S.A. Forges de Thy-Marcinelle et Monceau -
6001 Marcinelle
P. BRUYERE - Sous-chef de Service H.F. d'Ougrée, S.A. Cockerill, 4100 Seraing

FRANCE

E. HERDLICKA - Directeur. Sté Aciéries et Tréfileries de Neuves Maisons - 54230 Neuves Maisons
..... -
..... -

ITALIA

G.B. ROCHI - Capo Ufficio Sicurezza. Italsider S.p.A. - 16152 Genova-Cornigliano

LUXEMBOURG

E. BUSLIN - Ingénieur - Chef de service S.A. Minière et Métallurgique de Rodange - Rodange
R. SCHMIT - Ingénieur - Sous-chef de service. Arbed-Esch-Belval - Esch-Alzette

NEDERLAND

J.M.J. BORMANS - Adjunct Bedrijfschef, Hoogovens IJmuiden BV - IJmuiden

UNITED KINGDOM

R.M. GREGORY - Assistant Manager. Accident Prevention Section, British Steel Corporation - London NW1 2DN
F. SUTTON - Assistant Manager Iron Works Services, British Steel Corporation, Scunthorpe, S. Humberside DN16

GROUPE DE TRAVAIL "FOURS ELECTRIQUES"
ARBEITSGRUPPE "ELEKTROÖFEN"
GRUPPO DI LAVORO "FORNI ELETTRICI"
WERKGROEP "ELEKTRO-OVENS"
WORKING PARTY "ELECTRIC FURNACES"

DEUTSCHLAND

D. EICKELPASCH - Betriebschef Umwelttechnik und Angewandte Arbeitswissenschaft. Hoesch Hüttenwerke AG -
4600 Dortmund
E. GORGEN - Dr. Ing. Geschäftsführer Verein Deutscher Eisenhüttenleute e.V. - 4000 Düsseldorf

BELGIQUE

PIRON - Ing. Chef de Service, S.A. Cockerill - 4100 Seraing

FRANCE

AUBERT - Usinor - 57100 Thionville
R. NOWAKOWSKI - Hauts Fourneaux de la Chiers S.A. - 54402 Longwy
J. RAGUIN - Ingénieur principal, Irsid - 57210 Maizières-les-Metz

ITALIA

F. CIUCHI - Ing. Responsabile per l'Ecologia, Italsider - 16128 Genova
G. MINGHELLI - Ing. Responsabile dell'Ente Antinquinamento, Sezione Ferriere - Fiat - 10149 Torino

IRELAND

M. WALLEY - Melting Shop Manager, Irish Steel Holding Ltd - Haulbowline

NEDERLAND

O.D. SCHOENMAKER - Hoofd van de Staalafabriek NKF Staal BV - Alblasterdam

GROUPE DE TRAVAIL "SALUBRITE-LAMINOIRS"
ARBEITSGRUPPE "GESUNDHEITSSCHUTZ-WALZWERKE"
GRUPPO DI LAVORO "SALUBRITA'-LAMINATOI"
WERK GROEP "GEZONDHEIDSZORG-WALSERIJEN"
WORKING PARTY "HEALTH IN ROLLING MILLS"

DEUTSCHLAND

R. GORGEN - Dr. Ing. Geschäftsführer Verein Deutscher Eisenhüttenleute e.V. - 4000 Düsseldorf
H. MAURER - Dipl. Ing. Leiter der Abteilung Wärme- Messe- Regeltechnik, Stahlwerke Peine Salzgitter AG-
3150 Peine

BELGIQUE

E.J. GIENS - Chef de service adjoint -Forges de Thy-Marcinelle et Monceau - 6001 Marcinelle
G. NEYT - Ing. Chef du Service Sécurité, Sidmar S.A. - 9000 Gent

FRANCE

H. AZEMAR - Responsable Conditions de travail, Sacilor-Gandrange - 57360 Anneville
R. NOWAKOWSKI - Hauts Fourneaux de la Chiers S.A. - 54402 Longwy
J. RAGUIN - Ingénieur principal, Irsid - 57210 Maizières-les-Metz

ITALIA

L. METRICO - Dirigente Servizi Igiene, Lavoro, Italsider S.p.A. - 16128 Genova
V. VEDOVATO - Capo Ufficio Sicurezza ed Igiene Industriale Breda Siderurgica S.p.A. - 20126 Milano

IRELAND

W.D. SCANNEL - Assistant Rolling Mills Manager, Irish Steel Holding Ltd - Haulbowline Co Corn

LUXEMBOURG

J. REIDO - Ingénieur. Chef de Service adjoint Arbed-Differdange - Luxembourg

NEDERLAND

F.A. LOOS - Chef van de groep Arbeidshygiene Hoogovens IJmuiden BV - IJmuiden

UNITED KINGDOM

M.R. EDWARDS - Works Manager - Mills and Finishing, British Steel Corporation - Newport -Gwent NPT OXN

Sales Offices

Belgique – België

Moniteur belge – Belgisch Staatsblad
Rue de Louvain 40-42 –
Louvainseweg 40-42
1000 Bruxelles – 1000 Brussel
Tél. (02) 512 00 26
CCP 000-2005502-27 –
Postrekening 000-2005502-27

Sous-dépôt – Agentschap:
Librairie européenne –
Europese Boekhandel
Rue de la Loi 244 – Wetstraat 244
1040 Bruxelles – 1040 Brussel

Danmark

J.H. Schultz – Boghandel
Møntergade 19
1116 København K
Tel. 14 11 95
Girokonto 1195

BR Deutschland

Verlag Bundesanzeiger
5 Köln 1 – Breite Straße – Postfach 108 006
Tel. (0221) 21 03 48
(Fernschreiber: Anzeiger Bonn 08 882 595)
Postscheckkonto 834 00 Köln

France

*Service de vente en France des publications
des Communautés européennes*
Journal officiel
26, rue Desaix
75732 Paris Cedex 15
Tél. (1) 578 61 39 – CCP Paris 23-96

Ireland

Stationery Office
Beggars Bush
Dublin 4
Tel. 68 84 33

Italia

Libreria dello Stato
Piazza G. Verdi 10
00198 Roma – Tel. (06) 8508
Telex 62008
CCP 1/2640

Agenzie:
00187 Roma – Via XX Settembre
(Palazzo Ministero
del tesoro)
20121 Milano – Galleria
Vittorio Emanuele 3
Tel. 80 64 06

Grand-Duché de Luxembourg

*Office des publications officielles
des Communautés européennes*
5, rue du Commerce
Boîte postale 1003 – Luxembourg
Tél. 49 00 81 – CCP 191-90
Compte courant bancaire :
BIL 8-109/6003/300

Nederland

Staatsdrukkerij- en uitgeverijbedrijf
Christoffel Plantijnstraat, 's-Gravenhage
Tel. (070) 81 45 11
Postgiro 42 53 00

United Kingdom

H.M. Stationery Office
P.O. Box 569
London SE 1 9NH
Tel. (01) 928 6977, ext. 365
National Giro Account 582-1002

United States of America

European Community Information Service
2100 M Street N.W.
Suite 707
Washington D.C. 20 037
Tel. (202) 872 8350

Schweiz – Suisse – Svizzera

Librairie Payot
6, rue Grenus
1211 Genève
Tél. 31 89 50
CCP 12-236 Genève

Sverige

Librairie C.E. Fritze
2, Fredsgatan
Stockholm 16
Post Giro 193. Bank Giro 73/4015

España

Libreria Mundi-Prensa
Castelló 37
Madrid 1
Tel. 275 46 55

Other countries

*Office for Official Publications
of the European Communities*
5, rue du Commerce
Boîte postale 1003 – Luxembourg
Tél. 49 00 81 – CCP 191-90
Compte courant bancaire :
BIL 8-109/6003/300

XK0904009ENC

9049

FB 45,-	DKr. 7,-	DM 2,90	FF 6,-	Lit. 1050	Fl. 3,-	£ 0.70	\$ 1.20
---------	----------	---------	--------	-----------	---------	--------	---------
