

**THIRTEENTH REPORT
OF THE STEEL INDUSTRY SAFETY
AND HEALTH COMMISSION**

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1. INTRODUCTION

The position of the steel industry remained very difficult in 1981. Production of crude steel was fairly stable, if slightly lower than in the previous year; the production quotas imposed between October 1980 and June 1981 were reintroduced on 1 Juli 1981 for a number of iron and steel products; while prices improved significantly in the second half of the year, they remained too low in view of the increase in costs in the Community; the workforce again contracted, with a net loss of 48.400 jobs, though this figure was much lower than the 71.000 jobs lost in 1980. Company restructuring and reorganization of departments also continued.

It is important that despite all these difficulties action to combat accidents and diseases should be sustained and intensified in the steel companies and in every sector of the iron and steel industry.

This report does not contain the usual analysis of the latest accident statistics as the Community data for 1980 are not available. The reasons are given in section 7 of the report. The SISHC greatly regrets this situation.

In 1981, the SISHC working parties carried out the work specified in their programmes. The SISHC also adopted its work programme for the coming years, which differs fundamentally from previous programmes. Details are given in section 2.

The SISHC hopes that it will thus be better able to achieve its aim of promoting the comparison of practical experience and the wide-spread dissemination of information.

2. MEETING OF THE STEEL INDUSTRY SAFETY AND HEALTH COMMISSION

The 17th meeting of the Steel Industry Safety and Health Commission was held in Luxembourg on 5 May 1981. In the course of this meeting, the SISHC :

- approved its twelfth annual report (activities in 1980);
- decided to follow up the suggestion of the ECSC Consultative Committee that it should investigate the cost of accidents and publish the information obtained in its next annual report;
- instructed its Secretary to contact the organizations and undertakings involved in order to ascertain their wishes and capabilities with regard to the compilation of simplified statistics of greater use to undertakings and to report his findings;
- adopted its programme for 1981-1983, the main features being as follows :
 - publication as soon as possible of an information bulletin available free of charge to all interested parties and containing reports on typical accidents occurring in steelworks and other information, the relevance of which would be decided by a editorial committee;
 - termination of the remits of the working parties dealing with technical subjects as soon as the studies in hand had been completed;
 - continuation of the activities of the Working Parties on the Organization of Accident Prevention and Safety-Training , the topics to be investigated being determined by the SISHC;
 - technical studies by individual experts of outstanding topics falling within the remit of the working parties or of new topics and scrutiny of the experts' conclusions by ad hoc groups;
- adopted the following draft conclusions drawn up by its working parties :
 - gas boosters (subject to amendment) - Working Party on Safety-Gas Lines;

- pollution in rolling mills - Working Party on Health-Rolling Mills;
- training of management staff and first-line supervisors (to be used as a chapter in the document currently in course of preparation on safety as an integral part of the operation of undertakings) - Working Party on Safety-Training;
- adopted the conclusions drawn from the study of serious accidents occurring in Lorraine between 1970 and 1976;
- adopted, subject to amendment, the conclusions drawn from the study on hazards and preventive measures during tuyere replacement in blast furnaces;
- took note of information on the Community research project on developments in techniques and working conditions in connection with the casting of steel (comparison between continuous casting and ingot mould casting).

3. MEETINGS OF THE WORKING PARTIES

3.1. Working Party on the Organization of Accident Prevention

This Working Party met twice on 5 and 6 February and on 18 and 19 May 1981.

At the first of these meetings it considered a draft text by the Secretariat on "Basic principles of making safety an integral part of the running of the enterprise - The role of management" and finalized its views on this topic.

At the second meeting, it revised the various translations of this document, in which the text on "Training of management staff and first-line supervisors", drawn up by the Working Party on Safety-Training, was incorporated as a separate section at the request of the SISHC.

The whole of this material will be submitted to the SISHC for approval at its 1982 meeting.

The Working Party also discussed communication arrangements. Conclusions on the topic would be drafted by one of the Working Party members and considered by the Working Party in 1982.

3.2. Working Party on Safety-Training

This Working Party held two meetings in 1981.

At the first, on 24 and 25 February, it approved the various language versions of its draft considerations on "The training of management staff and first-line supervisors", which was submitted to and approved by the SISHC at its meeting on 5 May 1981.

At its second meeting, on 24 and 25 September, the Working Party finalized the different language versions of its draft considerations on "Safety training for new entrants and workers transferred to new duties". This document will be submitted to the SISHC for approval at its 1982 meeting. The next meeting of this Working Party will be held when the SISHC hands down a new remit.

3.3. Working Party on Safety-Gas Lines

The Working Party on Safety Gas Lines met on 9 and 10 April 1981. It completed its studies of the topics :

- explosions in gas lines and equipment and their prevention;
- gasholders.

The draft conclusions will be submitted to the SISHC for approval at its 1982 meeting.

The Working Party will meet briefly in February 1982 to make the improvements to the document on "Gas boosters" requested by the SISHC when it scrutinized the text on 5 May.

In accordance with the decision of the SISHC on 5 May 1981, the terms of reference of the Working Party will then be allowed to lapse.

3.4. Working Party on Safety-Oxygen

As this Working Party had completed the work in hand and had been unable in the course of 1980 to reach a decision as to its future activities; its terms of reference lapsed in accordance with the decision taken by the SISHC on 5 May. It will therefore hold no further meetings.

3.5. Working Party on Health-Electric Furnaces

In 1980, this Working Party had undertaken a study of accident hazards in electric steelworks and it had determined the broad outlines of its conclusions at its meeting on 11 and 12 December 1980. However, the member of the Working Party who had agreed to draw up the draft conclusions and to submit them to his colleagues had not yet done so despite a number of reminders.

As the SISHC had decided to allow the terms of reference of the technical working parties to lapse and as an excellent study had been made by the Italian steel industry on safety in electric steelworks, it was concluded that there was no point in seeking to reactivate this Working Party.

3.6. Working Party on Health-Rolling Mills

The Working Party on Health-Rolling Mills held two meetings in 1981, the first on 26 and 27 March and the second on 15 and 16 October, to draw up draft conclusions on noise in rolling mills and to revise the text in various languages.

This document will be submitted to the SISHC for approval at its 1982 meeting. The Working Party has thus completed its remit.

4. EXAMINATION OF THE TWELFTH ANNUAL REPORT OF THE SISHC BY THE CONSULTATIVE COMMITTEE OF THE ECSC

4.1. An initial examination of the Twelfth Report of the SISHC by the ECSC Consultative Committee was carried out by the Subcommittee for Labour Problems at a meeting on 27 November 1981.

The relevant section of the record of this meeting is quoted hereafter.

Mr DUBOIS presented the activity report of the Steel Industry Safety and Health Commission for 1980. The SISHC's activities in 1980 had been more or less normal in spite of the Budget having been approved late. It had adopted five texts, two relating to the cooperation of workers in accident prevention at work and on training workers' representatives in safety and health matters, and three other technical documents on noise and pollution in electric steelworks and the use of oxygen. In addition, the SISHC had decided to publish an information bulletin which would in particular contain accident reports. This decision had been confirmed in 1981, an editorial committee had been set up and the first issue would no doubt be available in May 1982. The bulletin would be sent to all those involved in safety matters : company managements, medical departments, safety committees, etc. It would not just contain studies but also readers' letters, which would permit an exchange of information.

It had also been decided to pursue safety research with financial assistance from the ECSC. The first study would cover the influence of technological changes on safety, working conditions and the working environment and the repercussions on health, comparing traditional casting and continuous casting methods. The project would be carried out in several Member States concurrently.

The speaker then turned to the studies carried out in 1980 - and continued since then. The SISHC had first of all gone into occupational accident statistics. It wondered why certain statistics varied so much from one country to another. For example, why did 25% of the accidents occurring in Italy lead to absences from work or 1 to 3 days, but only 3 or 4% in France. It also wondered why the average length of absence from work was 27 or 28 days in the Netherlands and only 12 days in Belgium. It was in order to gain an understanding of these disparities that the SISHC had decided in 1977 to launch a pilot survey in a number of works. The statistics provided by more than 50 companies for a three-year period varied greatly from one works to another and from one category of accident to another. For example, a work in which there was a large number of accidents leading to an inability to work of between one and 21 days rarely had very serious accidents. This meant that the normal statistical method

based on an absence from work of at least one day was not representative. It would be more significant to take fairly serious accidents, for example those which led to absence from work lasting at least 18 days - or 4 weeks, whichever one preferred. With this method, the difference between countries became less marked. A study had also been carried out of the hazardous operation constituted by replacing blast furnace tuyeres.

Lastly, one study dealt with very serious accidents, having caused either death or permanent disability above 10%, which had taken place in Lorraine between 1970 and 1976. This showed that accidents more frequently occurred to workers who had changed jobs than the newly-hired workers. Did this mean that reallocated workers received insufficient training? Or did it mean that they had a general tendency to think that they already knew their job?

In half of the cases observed, it had to be said that equipment was faulty or unsuitable. Similarly, in half the cases studied, safety instructions were not observed. And in a quarter of the cases, it should be stressed that there were no safety instructions at all.

The above study was based on archives. Another study had been undertaken in Belgium on accidents as they occurred, but it was too early to draw any conclusions.

It was impossible to assess the cost of accidents for the whole Community because of differences between the various compensatory systems used. But the next report would contain information relating to the various countries.

One was forced to admit that the situation reflected in the accident statistics had deteriorated. In 1978 and 1979, accidents leading to absence from work and fatal accidents in the Community had increased by 10%. This increase was no doubt related to higher output, but output had not increased in the same proportion, as the tables in the report made clear.

The SISHC had decided to replace the system of working parties, which was both unwieldy and expensive, by a system of studies entrusted to experts, and periodically submitted to public examination. However,

in certain specific circumstances, working parties would continue to operate. Lastly, Mr DUBOIS repeated that the SISHC would regularly publish an information bulletin from May 1982 onwards.

Mr BEEMS wished particularly to thank Mr DUBOIS for this report, which was in line with the Subcommittee's ~~thinking~~. He pointed out, however, that since the usefulness of such studies had been proved, further study ought to be made of how the number of accidents could be reduced. He added that this led to high savings - particularly where insurance premiums were concerned - and that the savings could perhaps be used to finance the studies.

The increase in non-fatal accidents referred to on page 13 of the report could doubtless be related, using a statistical law, to increased productivity. Similarly, in a period of crisis, due consideration should be given to psychosomatic factors.

Mr NOWAKOWSKI expressed his disapproval of the report's wording on early retirement, which was not a threat. It had on the contrary been requested by the workers and trade union organizers and was the outcome of beneficial agreements.

Reallocated workers, and there were many of them because of restructuring, were in effect the main accident victims. They were not sufficiently trained. A survey of this problem ought to be carried out at Community level and recommendations formulated.

Mr NOWAKOWSKI also noted, particularly at the bottom of page 13, the use of the term "incidence rate". Was this what was commonly known in France as the "seriousness rate" ? If not, a brief note ought to be added in order to give an exact definition of the term.

Lastly, he considered that there ought very rapidly to be a shift to higher gear where the general adoption of the new method of presenting statistics was concerned.

Mr DOYEN considered it difficult to assess at this point whether the SISHC's decision to change its working methods was good or bad.

However, he wondered whether the motivation behind this decision was not one of budgetary restraint. If this were the case, then the Labour Problems Subcommittee ought to take a stand against those in the Commission who were responsible for not giving safety and health matters their rightful place. Mr BEEMS' suggestion on using the savings resulting from a reduction in the number of accidents deserved consideration.

As for the bulletin, it was an excellent move. However it had to be published regularly. In addition, information on serious and fatal accidents should continue to be published rapidly.

Mr DOYEN would like to see the Commission, on the basis of observations derived from the improved comparability of statistics, study the accident prevention policy to be pursued and would also like it to make suggestions to undertakings on this matter and even to propose certain legislative changes. Lastly he asked about the time schedule of the study being carried out in Belgium.

Mr GAUDER was pleased that the Labour Problems Subcommittee was busying itself with safety and health matters at least once a year, but would like to see it devoting more of its time to them.

The Consultative Committee had conferred two tasks on the SISHC, one of bringing safety and health problems home to people and the other, more specific, of carrying out studies. Satisfactory results had been obtained in the latter respect, but in the former, whereas people in authority amongst the producers and workers had initially taken part in the meetings of the SISHC, they had been replaced by technical safety staff as time had gone by. These technicians were useful for technical studies but were not fully suitable for improving safety awareness. A rethink was required and agendas had to be found which were sufficiently attractive and reflected this approach.

Mr GAUDER approved the SISHC's decision to entrust technical studies to competent experts in future, provided that the experts' work would be subject to examination by a group.

On the subject of statistics, it was important to complete all the studies on accident prevention and it would be extremely desirable to establish more regular contact between the SOEC and the body dealing with safety and health in the iron and steel industry.

The publication of a bulletin was a very good step provided that the editors adopted an extremely pragmatic approach and that it was distributed as quickly as possible. It would, for example, be a good thing if it could deal with the problems of job transfer, of safety instructions and equipment. The companies which had a store of knowledge on safety and health matters would thus exchange information amongst themselves.

Lastly, on the relationship between occupational accidents and productivity, it ought not to be forgotten that the most productive works in the Community were generally those with the best accident prevention record and which afforded workers the least arduous working conditions.

Mr MUELLER asked whether enough financial assistance was forthcoming for research or not.

Mr DUBOIS answering the speakers, stated that on the cost of accidents, which Mr BEEMS referred to, he had already received a certain amount of information and that he would summarize this in the report for 1981.

He also explained to Mr NOWAKOWSKI that he could not modify the report because it has already been published, but that he would make allowances for his remark on early retirement when drawing up the next report. In addition, the Working Party on Safety and Training had just finished a study on training relocated workers, the conclusions of which would be examined by the SISHC in June. On the topic of statistical references, a distinction had to be drawn between the incidence rate and the rate of seriousness. The incidence rate, recommended by the ILO and used particularly in the Federal Republic of Germany, was the number of accidents occurring for 100 or 1000 full-time workers, whereas the rate of seriousness calculated in France and in Belgium in particular was the number of days lost per 1000 hours worked.

It would, of course, be desirable to improve the statistics on accidents in the steel industry, but this problem was the province of the SOEC, to which a specialized working party for the iron and steel industry was attached. Mr DUBOIS was making every effort to convince both the members of this working party and representatives of the iron and steel industry to various European countries.

He then answered Mr DOYEN's question by stating that the SISHC had no budgetary difficulties. The problems encountered in 1980 had been the result of the European Parliament's belated approval of the Community budget. It was true that the machinery of Working Party meetings was unwieldy and expensive because of the need for translation and the number of experts. As for the bulletin, it would make the dissemination of information on accidents at work as fast as possible - but many companies were somewhat unwilling to provide such information, particularly when legal proceedings were pending. The bulletin would be published three times a year and consist of twelve pages. In addition, special sheets would be published whenever a particularly serious catastrophe occurred. The number of cases so far covered by the current Belgian study was too small to be significant and the study would have to be continued for two or three more years.

Mr DUBOIS agreed with Mr GAUDER that it was not right for workers' and producers' representatives to be replaced at meetings of the SISHC by safety technicians, who were thus called upon to assess the validity of the conclusions they had themselves put forward. Information flow between companies would be carried out via the readers' letters in the bulletin. It was to be hoped that the producers would cooperate. Lastly, it was true that the most efficient plants were also the ones with the least accidents.

In conclusion, Mr DUBOIS pointed out to Mr MUELLER that one research project would be financed, basically in order to draw a comparison between the effects on safety of continuous casting and ingot casting.

The Chairman thanked Mr DUBOIS and all the other speakers.

4.2. The Consultative Committee of the ECSC also scrutinized this report in plenary session on 5 February 1982. The following is the text of the official record of the discussion.

The President stated that the reason why the Committee had not been able to examine the report of the Subcommittee for Labour Problems, which dated back to 27 November, at an earlier date was because of its overcrowded agenda.

Mr MOURGUES rapporteur, expressed his regret at this delay and then presented his report.

During the year under review, the SISHC had adopted five documents, comprising :

- two on the cooperation of workers in accident prevention within the enterprise and on appropriate training for their representatives;
- three technical documents on noise and pollution in electric steelmaking plants and on the use of oxygen.

In addition, an information bulletin on accident reports would be published; it would also include studies on the subjects covered by the activities of the SISHC. The first issue was scheduled to come out in May 1982.

It had been decided to carry out research on safety with financial assistance from the ECSC. This research would be carried out in several Community countries in accordance with the programme laid down, dealing in particular with the impact of technological developments on safety.

Mr MOURGUES also pointed out that the work of the specialized working parties had become orientated towards studies of a more markedly technical nature.

The SISHC had also devoted its attention to harmonization of the statistics compiled in the various ECSC countries.

A study had been carried out on dangerous operation of replacing blast furnace tuyeres and the conclusions would be circulated. Conclusions had also been drawn from a study on very serious or fatal accidents or accidents leading to permanent disability of more than 10% occurring in Lorraine between 1970 and 1976; this study showed that it was essential to constantly adapt equipment to safety requirements and to consolidate appropriate training.

The adverse trend noted in 1978/79, when serious accidents had increased by 10% in the Community, meant that the necessary efforts had to be made.

Mr MOURGUES continued the comments made by various speakers after the presentation of this study, which showed that the main concerns were : ways and means of reducing the frequency and seriousness of accidents; particular attention to be paid to job training for workers transferred as a result of company restructuring; stopping up the efforts to make the Commission aware of the safety and health problems in the steel industry through more effective contribution from the organizations represented at the Commission to give these efforts the tangible form required at company level; finally, more effective coordination with the Statistical Office of the European Communities. The Working Party specializing in the steel industry would be asked to try to achieve some degree of standardization.

Mr von HULSEN made a comment to the Commission representative regarding the steel industry's share of social research. He stated that the German industry was working towards an increased effort within the ECSC in the field and hoped that a programme on safety research would be drawn up. This wish, which had already been expressed on a number of occasions, did not seem to be included in the report. Mr von HULSEN therefore took the liberty of reiterating it.

Mr DUBOIS replied that there would be a positive follow-up to this wish in the near future, since a German expert had been commissioned to prepare a draft document comparing safety, working and training conditions for continuous casting and ingot mould casting. This draft was due to be discussed on 5 March at a meeting to be attended by the companies concerned. Research was therefore ready to begin once the Committee had given an opinion on its suitability.

Mr DUBOIS also informed the Committee with some regret that two countries had not provided full information on accidents occurring in 1980; this would make it impossible to present and comment on Community statistics for that year unless the required information reached the Statistical Office in the very near future.

5. STUDIES AND RESEARCH

5.1. Study of accident statistics

From 1974 to 1976, the Secretariat of the SISHC had conducted a study of the significance of industrial accident statistics with the assistance of sixteen steelworks in the Community. This study had revealed that the frequency rate generally used to assess the position with regard to accidents, i.e. the number of accidents involving at least one day of absence from work per million hours worked, was largely determined by accidents resulting in short periods of absence from work and that annual variations in this frequency rate largely reflected variations in the number of such accidents causing only brief spells of absence (less than three weeks for the purposes of the study in question). It had also demonstrated that an undertaking could simultaneously have a good frequency rate and poor results for very serious accidents (i.e. fatal accidents or accidents involving over 20% permanent disability) or vice versa.

The study thus indicated that the use of the usual frequency rate as a measure of accident frequency was probably unsatisfactory.

When informed of these findings, the SISHC set up an ad hoc working party to consider them in depth and to draw up proposals for any follow-up which might be desirable to this investigation. This working party decided that a pilot survey should be carried out over a period of three years with the assistance of undertakings which were prepared to collaborate in order to establish what advantages undertakings might derive from the use of additional statistical definitions in order to arrive at a better interpretation of the accident data.

This proposal was approved by the SISHC and the pilot survey was launched with the collaboration of 58 works from six different countries, which agreed to provide information on their 1978 results (a specimen of the form completed is included in the Tenth Report - activities in 1978). In 1979, returns were made by 49 works.

For 1980, the number of forms returned to the SISHC secretariat was 45, but as the information provided by certain works over the three-year period was inadequate, full analysis of the data could be carried out for only 36 works in Belgium, France, Germany, Italy, Luxembourg and the Netherlands. The total workforce of these 36 works in 1980, however, was about 190.000, i.e. almost one third of the total workforce of the Community steel industry, and the sample is thus very representative.

An analysis of the various data compiled in the course of the three successive years by these 36 works yielded a number of interesting conclusions. They indicated that the safety grading of a given works varied greatly according to the category of accident considered :

- lost-time accidents (at least one day of absence from work)
- serious accidents (at least 21 days of absence from work)
- very serious accidents (fatal accidents or accidents involving over 20% permanent disability),

and that the lost-time accident figure was seldom representative of the other results.

An experimental classification of the 36 works on the basis of the gradings for the three categories of accident showed that statistics for serious accidents (over 21 days of absence from work) are much more reliable and give a better picture of the overall situation in the undertaking.

This study has been completed and the report will be examined by the SISHC at its meeting in 1982.

The Secretary of the SISHC addressed various safety committees, viz those of the Wirtschaftsvereinigung Eisen- und Stahlindustrie, Assider and Assimilor, on the findings of this study, which were also described to the British Steel Corporation. A meeting with the safety committee of the Comité de la Sidérurgie Belge which was planned for December 1981 had to be postponed to 1982 for reasons of ill-health.

5.2. Study of the causes of serious accidents occurring in Lorraine between 1970 and 1976

The study has been completed and the report drawn up by the secretariat with the cooperation of Assimilor, which assisted in the conduct of the investigation. It was approved by the SISHC at its meeting on 5 May 1981. The text has gone to press and should be available in the second half of 1982.

5.3. Study of safety during tuyere replacement in blast furnaces

The report on this study, which was completed at the beginning of 1981, was submitted to the SISHC for scrutiny at its meeting in May 1981. As one of the translations was delayed, however, the text was only approved in principle, one delegation having expressed the wish to submit its observations at a later date. This was done in July 1981 and the comments were referred to the author of the study, who asked for time to draft amendments. These were made available in January 1982.

5.4. Study of the causes of serious accidents occurring in steelworks in Wallonie between October 1980 and September 1981

The aim of this study is to investigate the causes of serious accidents as they occur. The work was very competently carried out by the expert to whom it was entrusted. However, the number of serious accidents recorded during the reference period proved much lower than anticipated by the representatives of the medical and safety departments of the undertakings collaborating in the study. The conclusions to be derived from a study of the causes are therefore not significant. The secretariat of the SISHC has initiated the necessary administrative procedure to enable this study to be continued over a period of several years so that a sufficient number of accidents can be analysed to ensure statistical significance.

5.5. Research on the effects of technological changes on safety and working conditions in relation to the casting of steel

An expert was commissioned to draw up a draft programme for a Community research project comparing the two methods of steel casting (conventional and continuous casting) in respect of accidents, safety aspects and working conditions. He contacted a number of undertakings which were interested and his draft will be discussed with representatives of these undertakings at a meeting arranged for March 1982.

It is hoped that the project can be launched at the end of 1982.

6. THE COST OF ACCIDENTS (approximate indications)

6.1. The various national systems for accident compensation

The problem of accident costs cannot be considered without first setting out some information on the system of compensation for industrial accidents in the various countries and the differences between these systems.

In the United Kingdom, Denmark, Ireland and France compensation for industrial accidents is the responsibility of civil services departments which also have other social functions (e.g. the payment of sickness, old age and maternity benefits, etc). In the Grand Duchy of Luxembourg and Italy it is the responsibility of bodies which have the status of public institutions and whose function is to ensure compensation for industrial accidents and occupational illness irrespective of the economic sector involved. In Germany, there are various employers' mutual associations (Berufsgenossenschaften) which cover the same risks but cover specific economic sectors and/or geographic areas. The German steel industry is thus covered by three different employers' associations, two of which are concerned with metallurgical or metal-processing activities other than the production of iron and steel. In Belgium, compensation for industrial accidents is provided by private carriers (insurance companies or mutual associations with which the undertakings have concluded contracts), while benefit for occupational illnesses is paid from a national fund. In the Netherlands, there is no special insurance for industrial accidents and occupational illnesses, these risks being covered by sickness insurance (benefits in cash and kind), insurance against incapacity for work (invalidity) and survivor insurance.

In certain countries, such as Denmark, Ireland and the United Kingdom, commuting accidents (occurring on the way to and from work) are not covered, whereas in other countries they fall under the scheme for accidents at the workplace.

The person insured against the risk is not necessarily defined solely as the employee. In the Grand Duchy of Luxembourg, for example,

the insurance carrier (Association d'Assurance contre les accidents - Section industrielle) covers not only workers in the various sectors of industry but also civil servants, members of the armed forces, school-children and students.

There are also very marked differences in the benefits provided in the event of temporary disability and the conditions to which they are subject (waiting period, duration, basic income for purposes of calculation). Compensation for permanent disability is paid above a minimum "degree of disablement" which confers the right to benefit; while this threshold is 1% disability in Belgium, France and the Grand Duchy of Luxembourg, Ireland and the United Kingdom, it is as high as 11% in Italy, 15% in Denmark and 20% in Germany. There are also marked differences from country to country in the arrangements for financing of the insurance carrier and the calculation.

- of the basic income used to determine the pension and its limits;
- supplements for the existence of a third party and for dependents;
- pensions to surviving spouses, orphans or dependent parents or relatives.

While the insurance carriers in certain countries publish statistics on accidents and their severity and on the occupational illness for which they have provided compensation, their financial information seldom allows a distinction to be made between the two categories of risk, let alone a breakdown of the benefits provided according to the severity of the accident.

It will be readily understood that in view of all these structural differences in arrangements for accident compensation it is impossible to obtain information on accident costs at Community level which would permit any degree of comparison between countries. Some information has, however, been derived from studies or reports which have recently become available. It is appended to the present report at the request of the ECSC Consultative Committee, but the SISHC emphasizes that the sums quoted cannot be used as a basis for comparing costs in different countries and are thus only a rough guide.

6.2. The cost of accidents in the steel industry

6.2.1. In Germany, the "Hütten- und Walzwerks-Berufsgenossenschaft" is the insurance carrier for the steel companies in North Rhein-Westfalia and part of the Rheinland Palatinate (the steel companies of other regions belong to two other mutual associations which also cover mechanical engineering and manufacture of structural metal products). In its administrative report for 1980, the Hütten- und Walzwerks-Berufsgenossenschaft states the average cost of accidents per "Vollarbeiter" or labor unit corresponding to a full-time worker, i.e. 1.800 hours worked. This average cost was DM 689 in 1979 and DM 744.7 in 1980.

6.2.2. In Belgium, where benefit is paid under two separate schemes for accidents and for occupational illnesses, the Belgian steel companies together paid the insurers a total of Bfrs 934.000.000 to cover the industrial accident risk (including commuting accidents) for the 49.279 employees which made up their labour force. The mean cost of accident compensation for manual workers was Bfrs 20.545 per active worker and that for non-annual workers Bfrs 11.759 per active workers. (Source : Comité de la Sidérurgie Belge).

6.2.3. In France, an in-house study carried out in a steel undertaking, based upon compensation payments for industrial accidents, the number of accidents, the amount of time lost and permanent disability benefit, estimated the mean direct cost per lost-time accident in 1980 at FF 16.400.

6.2.4. In Germany, a steel company carried out a study of the total cost of its accidents in 1979. The total cost includes not only compensation of the victim but also loss of time, production, etc.

According to this study, the total cost per day of absence from work, depending on the job performed by the victim, was :

- DM 709.60 for machine operators;
- DM 665.28 for other manual workers;
- DM 646.62 for non-manual workers.

6.2.5. In the Netherlands, two steel companies calculated their average accident costs in 1980. In one, the average cost of a non-fatal accident involving at least one day of absence from work was Fl 4.400, including loss of earnings, medical care, invalidity benefit and other costs of compensating the victim (e.g. for loss of promotion prospects). In the other company, but for the same year, it was calculated that the loss of earnings alone for the same category of accident cost a little more than Fl 2.000.

6.3. The cost of accidents in the metallurgical sector

6.3.1. In France, the 1979 national statistics on industrial accidents published by the Caisse Nationale de l'Assurance Maladie des Travailleurs salariés can be used to calculate the following average costs for the metallurgical sector (which includes all industrial activities involving the processing of metals) :

cost per accident not resulting in permanent disability :	FF 3.216
cost per accident resulting in permanent disability or death :	FF 82.550
cost per employee :	FF 684

6.3.2. It can be calculated from the 1979 administrative report of the Nordwestliche Eisen- und Stahl-Berufsgenossenschaft, one of the insurance carriers for the steel sector, mechanical engineering and manufacture of structural metal products, that the average cost of accidents and occupational illnesses per "Vollarbeiter" or labour unit (1.800 hours worked) was DM 378.38. In view of the structural differences in the insured population and of the different risks covered, this figure should not be compared with that given in section 2.1.

6.4. The cost of accidents in industry as a whole

6.4.1. The mean direct costs of industrial accidents for the years 1974 to 1978 is given with a breakdown by degree of severity in a table produced by the Inspection des Assurances contre les Accidents du travail of the Belgian Ministry of Social Welfare, and published in the February 1980 issue of the review PROMOSAFE.

The average cost of a fatal accident occurring at the workplace was Bfrs 2.882.360 in 1978, that of an accident resulting in permanent disability was Bfrs 747.200 and that of an accident resulting only in temporary disability was Bfrs 16.800.

In the same year, the average cost per compensated accident was Bfrs 54.900. In 1978, a fatal accident in Belgium thus cost 58 times the average cost of an accident and an accident causing permanent disability cost 15 times the average figures.

7. ACCIDENT STATISTICS

Previous SISCH reports always contained an analysis of the most recent statistics on accidents occurring in the Community steel industry.

These statistics are calculated by the Statistical Office of the European Communities on the basis of data supplied by the undertaking and collected annually at national level.

On 1 March 1982, the date on which the present report was drawn up, a number of countries had not yet provided all the information requested for 1980. These countries are :

- Ireland, which has made no returns
- the United Kingdom, which has not forwarded figures on hours worked nor on the workforce in each sector of activity
- France, which has sent no figures on the workforce or on the hours worked by works size class.

As a result, no accurate Community statistics are available at the present stage. The most that could be done was to compile a few figures, which do not take account of the Irish results.

These figures are set out in the tables I to IV below, tables I to III being similar to those in the 12th Report and table IV being modified by substitution of the incidence rate (number of accidents per 1.000 workers registered) for the frequency rate (number of accidents per million hours worked) which could not be determined for the year 1980.

Tables V "Accidents in the various technological departments" and VI "Accidents by class of size of steelworks" could not be completed for lack of data. They have therefore been omitted.


















The results by country are given in tables VII to XV, whose numbers have been left unchanged in the hope that it will be possible to reintroduce tables IV and VI in future reports.

In these circumstances, it would be very unwise to seek to draw conclusions. At most, it may be thought on the basis of such incomplete overall results as are available that the situation in 1980 did not deteriorate in comparison with 1979. There would also appear to be further confirmation of the hypothesis already formulated whereby an increase in production and in the rate of utilization of capacity is associated with an increase in the accident rates and vice versa.

The SISCH greatly regrets the above-mentioned statistical shortcomings, which make analysis impossible. It is, however, aware that it may be difficult to collect accurate information, especially in certain countries, while the use that can be made of the statistics currently compiled is broadly speaking of comparatively little interest to the works. This is, moreover, the reason for the SISCH's efforts to find new lines of approach.

STATISTICAL TABLES

LIST OF SYMBOLS

-  Registered workforce
-  Number of hours worked x 1.000
-  Number of fatal accidents
- F**  Frequency rate of fatal accidents (number of deaths per million hours worked)
- I**  Incidence rate of fatal accidents (number of deaths per 1.000 workers registered)
-  Number of fatal accidents per million tonnes of crude steel produced
- F**  Frequency rate of non-fatal accidents leading to at least one day's absence from work (number of cases per million hours worked)
- I**  Incidence rate of non-fatal accidents leading to at least one day's absence from work (number of cases per 1.000 workers registered)
-  Number of non-fatal accidents leading to at least one day's absence from work per million tonnes of crude steel produced
- F**  Frequency rate of non-fatal accidents leading to more than three days' absence from work (number of cases per million hours worked)
- I**  Incidence rate of non-fatal accidents leading to more than three days' absence from work (number of cases per 1.000 workers registered)
- %**  Percentage of non-fatal accidents leading to between one and three days' absence from work
- H**  Number of days lost as a result of accidents leading to at least one day's absence from work per 1.000 hours worked
- M**  Average number of days lost per accident leading to at least one day's absence from work
-  Crude steel production x 1.000 tonnes
-  Percentage utilization rate of production capacity of crude steel-producing plant
-  Percentage variation in relation to previous year, the latter being taken as 100%

ACCIDENTS IN THE COMMUNITY

Table I

Fatal accidents

	\dagger	F \dagger	I \dagger	\dagger / T
1974	137	0,13	0,23	0,88
1975	110	0,12	0,19	0,88
1976	88	0,09	0,16	0,86
1977 *	75	0,07	0,11	0,60
1978	75	0,06	0,11	0,57
1979	94	0,08	0,14	0,67
1980 **	-	-	0,11	0,53

* Excluded Belgian statistics

** Excluded Irish statistics

Table II

Non-fatal accidents leading to absence from work					
	F ≥ 1	I ≥ 1	F > 3	I > 3	% 1-3
1974	85	154,8	72	130,5	15,3
1975	78	131,6	67	111,8	14,1
1976	80	137,8	67	115,0	16,2
1977 *	57	97,2	47	80,0	17,7
1978	60	103,2	49	84,9	18,3
1979	63	108,1	51	89,0	16,9
1980 **	-	104,1	-	85,2	18,2

* Excluded Belgian statistics

** Excluded Irish statistics

Table III

Seriousness of accidents		
	$H \geq 1$	$M \geq 1$
1974	-	-
1975	-	-
1976	-	-
1977 *	5,01	18,8
1978	5,23	18,5
1979	5,47	18,5
1980 **	-	18,6

* Excluded Belgian statistics

** Excluded Irish statistics

Table IV

Accidents leading to absence from work and production












	$\frac{\geq 1}{T}$	I ≥ 1	T	$\%L$	V%		
					I ≥ 1	T	$\%L$
1974	582	154,8	155.587	87			
1975	597	131,6	125.235	66	- 15,0	- 19,5	- 26,7
1976	563	137,8	134.156	68	+ 4,7	+ 7,1	+ 3,0
1977 *	561	97,2	126.121	63			
1978	528	103,2	132.587	66	+ 6,2	+ 5,1	+ 4,8
1979	500	108,1	140.195	69	+ 4,7	+ 5,7	+ 4,5
1980 **	514	104,1	127.738	63	- 3,7	- 8,9	- 8,7

* Excluded Belgian statistics

** Excluded Irish statistics

ACCIDENTS IN THE IRON AND STEEL INDUSTRY
IN THE VARIOUS COMMUNITY COUNTRIES



DEUTSCHLAND

			F 	F 	F 	I 	I 	I 	% 	H/ 	M 
1960	214.671	427.479	0,18	108	95	0,359	215,1	189,2	13,6	10,61	18,1
1965	196.246	376.518	0,19	98	87	0,367	169,9	166,9	11,2	10,03	19,4
1970	181.686	345.182	0,15	105	94	0,286	199,5	178,6	10,5	9,85	18,1
1975	167.823	267.988	0,13	92	79	0,209	146,9	126,5	14,1	7,09	17,6
1976	162.315	269.589	0,14	94	80	0,234	156,1	132,8	14,9	7,28	17,1
1977	201.279	321.444	0,08	64	54	0,129	102,2	86,2	15,6	4,69	16,9
1978	204.963	340.402	0,06	63	54	0,098	104,6	89,7	14,3	5,12	17,8
1979	189.446	316.635	0,12	67	56	0,201	112,0	93,6	16,4	5,37	17,5
1980	220.263	360.670	0,08	68	58	0,136	111,0	94,5	15,0	5,37	17,6



DEUTSCHLAND

Table VII












FRANCE

			F \uparrow	F ≥ 1	F > 3	I \uparrow	I ≥ 1	I > 3	% 1-3	H/ ≥ 1	M ≥ 1
1960	148.362	343.471	0,22	74	71	0,512	171,3	164,4	4,0	7,76	16,6
1965	126.839	270.871	0,17	67	65	0,362	143,1	138,8	3,0	7,11	18,2
1970	109.274	218.742	0,17	64	62	0,348	128,1	124,1	3,1	6,57	18,7
1975	107.529	179.836	0,13	83	80	0,214	138,8	133,8	3,7	10,23	26,9
1976	104.140	174.979	0,10	79	76	0,163	132,7	127,7	3,8	9,11	25,2
1977	147.927	242.323	0,07	51	49	0,115	83,5	80,3	3,9	6,28	27,2
1978	133.222	225.150	0,06	53	51	0,105	89,5	86,2	3,8	6,59	27,1
1979	121.973	209.845	0,05	52	50	0,086	89,5	86,0	3,8	6,81	27,9
1980	118.813	175.510	0,03	47	45	0,050	69,7	66,1	4,6	6,30	33,0



ITALIA

			F \uparrow	F ≥ 1	F > 3	I \uparrow	I ≥ 1	I > 3	% 1-3	H ≥ 1	M ≥ 1
1960	51.177	111.132	0,15	104	78	0,332	225,8	169,3	25,0	9,97	16,1
1965	55.164	112.587	0,19	102	77	0,380	208,2	157,1	24,5	9,75	17,3
1970	59.287	108.790	0,17	117	91	0,304	214,7	167,0	22,2	10,85	18,4
1975	74.373	118.260	0,06	144	107	0,094	229,0	170,1	25,7	9,72	15,4
1976	75.373	123.856	0,06	146	104	0,093	243,2	170,9	29,8	9,47	14,3
1977	88.090	150.408	0,08	140	97	0,136	239,0	165,6	30,7	8,49	12,9
1978	81.462	140.487	0,09	139	96	0,160	239,7	165,6	30,9	8,68	13,2
1979	89.132	147.407	0,06	137	97	0,101	226,6	160,4	29,2	8,23	13,2
1980	92.364	152.798	0,09	125	89	0,152	206,3	144,5	30,0	7,22	12,8

NEDERLAND

			F 	F 	F 	I 	I 	I 	% 	H/ 	M 
1960	9.457	18.201	0,05	63	54	0,106	121,3	103,9	14,3	4,87	14,7
1965	11.834	22.372	0,04	69	59	0,085	130,5	111,5	14,5	5,69	15,9
1970	13.666	24.427	0,12	42	38	0,219	75,1	67,9	9,5	5,06	24,6
1975	16.152	26.601	0,04	37	34	0,062	60,9	56,0	8,1	4,24	25,7
1976	15.586	25.409	0,12	34	32	0,192	55,4	52,2	5,9	3,76	24,6
1977	23.467	39.404	0	23	21	0	38,6	35,2	8,7	2,32	22,1
1978	21.353	34.737	0,03	27	25	0,050	43,9	40,7	7,4	2,98	24,7
1979	20.532	33.013	0,09	33	29	0,150	53,1	46,6	12,1	3,45	23,8
1980	20.685	32.401	0,06	36	31	0,097	56,1	49,0	12,7	3,69	24,0



BELGIQUE - BELGIE

			F \uparrow	F ≥ 1	F > 3	I \uparrow	I ≥ 1	I > 3	% $1-3$	H ≥ 1	M ≥ 1
1960	53.361	108.542	0,20	128	100	0,412	260,4	203,0	21,9	9,15	12,9
1965	50.459	102.767	0,18	107	80	0,365	217,9	162,9	25,2	7,19	12,1
1970	50.018	98.347	0,16	93	72	0,320	182,8	141,5	22,6	7,51	15,0
1975	50.857	77.666	0,15	97	74	0,236	148,1	113,0	23,7	5,76	14,2
1976	48.102	76.941	0,10	105	81	0,166	167,9	129,6	22,8	6,68	14,5
1977	-	-	-	-	-	-	-	-	-	-	-
1978	48.650	81.163	0,11	95	75	0,185	158,5	125,1	21,1	6,17	14,2
1979	44.435	74.222	0,12	105	85	0,203	175,6	141,4	19,5	6,95	14,5
1980	46.958	75.785	0,11	96	77	0,170	155,1	123,8	18,1	6,67	15,7

BELGIQUE - BELGIE

Table XI












GRAND DUCHE DE LUXEMBOURG

			F \square \dagger	F \square ≥ 1	F \square > 3	I \square \dagger	I \square ≥ 1	I \square > 3	% \square 1-3	H/ \square ≥ 1	M \square ≥ 1
1960	19.705	47.619	0,05	121	115	0,101	292,3	278,0	5,0	14,42	20,6
1965	19.572	38.717	0,21	115	106	0,409	227,5	207,7	7,8	12,64	20,4
1970	19.576	36.734	0,14	102	94	0,255	191,4	176,4	7,8	10,67	20,5
1975	18.198	30.394	0,20	75	68	0,330	125,2	113,6	9,3	7,85	22,8
1976	17.012	28.768	0,17	82	73	0,294	138,7	123,4	11,0	8,43	22,2
1977	19.092	33.318	0,06	60	51	0,105	104,7	90,0	15,0	6,33	22,1
1978	16.708	28.756	0,17	62	54	0,299	106,7	92,9	12,9	6,35	21,8
1979	16.032	27.146	0,29	69	60	0,499	116,8	101,6	13,0	7,97	24,9
1980	15.061	25.335	0,08	68	60	0,133	114,4	101,3	11,5	7,31	23,3

GRAND DUCHE DE LUXEMBOURG

Table XII












UNITED KINGDOM

			F 	F 	F 	I 	I 	I 	% 	H 	M 
1960											
1965											
1970											
1975	130.779	248.694	0,10	28	25	0,191	53,2	47,5	10,7	-	-
1976	123.381	240.413	0,04	27	25	0,081	52,6	48,7	7,4	-	-
1977	179.594	336.835	0,05	22	19	0,09	41,3	35,6	13,6	2,84	25,3
1978	169.833	314.209	0,04	20	18	0,08	40,0	33,3	10,0	2,54	24,7
1979	161.452	302.840	0,05	20	19	0,09	37,5	35,6	5,0	2,60	25,5
1980	113.880	-	-	-	-	0,05	29,8	25,8	13,4	2,07	25,3

UNITED KINGDOM

Table XIII

IRELAND

			F 	F 	F 	I 	I 	I 	% 	H 	M 
1960											
1965											
1970											
1975	644	-	(a)	76	39	-	-	-	48,7	8,68	19,2
1976	544	-	0	58	59	-	-	-	32,8	11,44	30,8
1977	703	889	0	33	27	0	41,2	34,1	18,1	4,78	42,3
1978	593	1.303	0	41	29	0	89,1	63,9	29,3	6,32	25,9
1979	600	1.278	0	43	38	0	91,6	80,0	11,6	9,15	36,4
1980	-	-	-	-	-	-	-	-	-	-	-

(a) 1 tödliche Unfall
1 fatal accident



1 accident mortel
1 infortunio mortale

1 dodelijk ongeval

IRELAND

Table XIV

DANMARK

			F \dagger	F ≥ 1	F > 3	I \dagger	I ≥ 1	I > 3	% 1-3	H \dagger ≥ 1	M ≥ 1
1960											
1965											
1970											
1975	1841	3.222	0,24	88	65	0,543	154,3	113,5	26,1	6,18	14,6
1976	1993	3.421	0	75	59	0	133,5	101,4	21,3	5,84	16,7
1977	2410	4.122	0	53	44	0	90,6	74,7	17,5	4,82	19,4
1978	2.532	4.401	0	66	51	0	114,7	88,7	22,7	5,23	16,6
1979	2.618	4.459	0	70	54	0	119,2	92,4	22,5	4,50	13,8
1980	2.390	4.039	0	65	53	0	109,2	90,37	17,2	5,83	19,5

DANMARK

Table IV

**LIST OF DOCUMENTS OF THE
STEEL INDUSTRY SAFETY AND HEALTH COMMISSION**

Those documents in the list marked (*) can be obtained from :
Commission of the European Communities
DG IX - Service diffusion des documents
Bâtiment Jean Monnet
Plateau du Kirchberg
LUXEMBOURG

and those marked (**) can be obtained from :
Commission of the European Communities
DG XIII- Directorate A
Bâtiment Jean Monnet
Plateau du Kirchberg
LUXEMBOURG

PREVENTION

- Memorandum on the prevention of accidents in the Swedish iron and steel industry - 1966
(DE. FR. IT. NL.) out of print
- Report of the information seminar held on 29 and 30 November 1966 - 1967
(DE. FR. IT. NL.) (*)
- Application of the principles of accidents prevention in the United Kingdom - 1968
(DE. FR. IT. NL.) (*)
- Adoption and regular use of individual means of protection - 1971
(DE. EN. FR. IT. NL.) (*)
- Principles of accident prevention - 1973
(DE. EN. FR. IT. NL.) (*)
- The accident prevention policy on the British Steel Corporation - 1973
(DE. FR. IT. NL.) out of print
- Check questionnaire of the accident prevention organisation within the enterprise - 1974
(DE. EN. FR. IT. NL.) (*)
- Accident prevention programme - 1977
(EUR 5922 - DE. EN. FR. IT. NL.) (**)
- Trends in industrial safety at "Cockerill-Liège" 1956 - 1974 - Analysis and conclusions - 1977
(EUR 5927 - DE. EN. FR. IT. NL.) (**)
- Cooperation of workers and their representatives in accident prevention within the enterprise

TRAINING

Principles of training in industrial safety - 1969
(DE. FR. IT. NL.) out of print

Training of industrial safety advisers
(EUR 6091 - DE. EN. FR. IT. NL.) (**)

Integration into an industrial environment
of unskilled production workers. The experience
of the Forges de Basse-Indre (**)
(EUR 6205 - DE. EN. FR. IT. NL.)

General considerations in the training of worker's safety
representatives in safety and health matters

OVERHEAD TRAVELLING CRANES

Access to the cabin of an overhead travelling crane
1968 out of print
(DE. FR. IT. NL.)

Selection and training of crane-drivers - 1970 out of print
(DE. FR. IT. NL.)

TAPPING THE BLAST

Blast furnace tapping - 1977 (**)
(EUR 5896 - DE. EN. FR. IT. NL.)

MAINTENANCE AND REPAIR WORK ON GAS LINES AND APPARATUS

Construction requirements - 1968 (*)
(DE. FR. IT. NL.)

Personal protection; monitoring and detection of gases
1970 (*)
(DE. FR. IT. NL.)

Insulating and degassing lines - 1973 (*)
(DE. FR. IT. NL.)

Water seals and drain seal pots - 1978 (**)
(EUR 6048 - DE. EN. FR. IT. NL.)

Gas Boosters

OXYGEN

Oxygen pipe connections - 1969 (**)
(DE. FR. IT. NL.)

Shut-off and control devices - 1970 out of print
DE. FR. IT. NL.)

The design, construction, location and operation
of fittings in oxygen installations - 1971 (*)
(DE. FR. IT. NL.)

Filters, intermediate storage vessels, measurement
equipment of importance for safety, lubrication,
degreasing of oxygen lines and equipment - 1973 (*)
(DE. FR. IT. NL.)

Flexible pipes - 1974 (*)
(DE. EN. FR. IT. NL.)

Precautions to be taken in the preparation of plant
and equipment - 1977 (**)
(EUR 5923 - DE. EN. FR. IT. NL.)

Oxygen enriched atmospheres - 1978 (**)
(EUR 6047 - DE. EN. FR. IT. NL.)

Oxygen in the iron and steel industry - 1982 (EUR 7782) (**)
DE, EN, FR, IT, NL)

STEELMAKING PLANTS

Noise in electric steelmaking plants

Pollutant dust and gas emissions inside electric steel works

MISCELLANEOUS

- Symposium on accident prevention - Luxembourg
21, 22 and 23 October 1970 - 1972 (*)
(DE. EN. FR., IT. NL.)
- Information seminar in Dortmund, on 20 and 21
October 1973 (*)
(DE.)
- Comprehensive accident control for preventing
accidents causing injury - 1977 (**)
(EUR 5926 - DE. EN. FR. IT. NL.)
- First aid and rescue - 1978 (**)
(EUR 5928 - DE. EN. FR. IT. NL.)
- Hydrogen in the iron and steel industry' -
safety aspects (**)
- The causes of serious accidents which occurred
in Lorraine -1970-1976 - 1982 (**)
(EUR 7783 - DE, EN, FR, IT, NL)

BIBLIOGRAPHES

- Problems of lifting, the use of explosives
in the blast furnace - 1967 out of print
(DE. FR. IT. NL.)
- ECSC Publications, problems of the iron and
steel industry, anti-collision devices for
overhead travelling cranes, handling cost
of accidents - 1968 out of print
(DE. FR. IT. NL.)
- Noise out of print
(DE. FR. IT.)
- Transport and handling out of print
(DE. FR. IT.)

ROLLING MILLS

Pollution in Rolling Mills

REPORTS

First report of the Steel Industry Safety and Health Commission - 1969 (DE. FR. IT. NL.)	out of print
Second report of the Steel Industry Safety and Health Commission - 1970	out of print
Third report of the Steel Industry Safety and Health Commission - 1971 (DE. FR. IT. NL.)	out of print
Fourth report of the Steel Industry Safety and Health Commission 1972 (DE. EN. FR. IT. NL.)	out of print
Fifth report of the Steel Industry Safety and Health Commission - 1973 (DE. EN. FR. IT. NL.)	out of print
Sixth report of the Steel Industry Safety and Health Commission - 1974 (DE. EN. FR. IT. NL.)	out of print
Seventh report of the Steel Industry Safety and Health Commission - 1975 (DE. EN. FR. IT. NL.)	(*)
Eighth report of the Steel Industry Safety and Health Commission - 1976 (DE. EN. FR. IT. NL.)	(*)
Ninth report of the Steel Industry Safety and Health Commission - 1977 (DA. DE. EN. FR. IT. NL.)	(*)
Tenth report of the Steel Industry Safety and Health Commission - 1978 (DA. DE. EN. FR. IT. NL)	(*)
Eleventh report of the Steel Industry Safety and Health Commission - 1979 (DA. DE. EN. FR. IT. NL)	(*)
Twelfth report of the Steel Industry Safety and Health Commission - 1980 (DA. DE. EN. FR. IT. NL)	(*)

LISTE DES MEMBRES DE LA COMMISSION GENERALE

LISTE DER MITGLIEDER DES ALLGEMEINEN AUSSCHUSSES

ELENCO DEI MEMBRI DELLA COMMISSIONE GENERALE

NAMEN VAN DE LEDEN VAN DE ALGEMENE COMMISSIE

LIST OF THE MEMBERS OF THE STEEL INDUSTRY SAFETY
AND HEALTH COMMISSION

FORTEGNELSE OVER MEDLEMMERNE AF DET
ALMINDELIGE UDVALG

=====

COMMISSION GENERALE DE LA SECURITE ET DE LA SALUBRITE DANS LA SIDERURGIE
ALLGEMEINER AUSSCHUSS FUER 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 ARBEITDSVEILICHEID IN DE IJZER-EN STAALINDUSTRIE
STEEL INDUSTRY SAFETY AND HEALTH COMMISSION

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