



COMMISSION OF THE  
EUROPEAN COMMUNITIES



SEVENTH REPORT OF THE  
STEEL INDUSTRY SAFETY AND  
HEALTH COMMISSION

(1975)



The 7th report of the Steel Industry Safety and Health Commission details the activities of the Commission and of its working parties during 1975 and contains analyses of the work carried out during this period.



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	<u>Page</u>
1. Introduction	5
2. Meetings of the Steel Industry Safety and Health Commission	6
3. Activities of Working Parties	7
3.1. Working Party on the Organization of Accident Prevention	8
3.2. Working Party on Safety-Training	8
3.3. Working Party on First Aid and Rescue	9
3.4. Working Party on Safety-Tapping the Blast Furnace	10
3.5. Working Party on Safety-Overhead Travelling Cranes	10
3.6. Working Party on Safety-Gas Lines	10
3.7. Working Party on Safety-Oxygen	11
3.8. Ad hoc Working Party on the Use of Explosives in the Blast Furnace	12
3.9. Working Party on Helath-Electric Furnaces	13
3.10. Working Party on Helath-Rolling Mills	13
4. Other activities	13
4.1. Study by the Secretariat on accident statistics	13
4.2. Collaboration with the International Labour Office	14
4.3. Film on the principles of accident prevention	15
4.4. Studies	16
5. List of the members of the Steel Industry Safety and Helath Commission and its Working Parties	17



## INTRODUCTION

It is worth recalling the fact that the Steel Industry Safety and Health Commission is the result of the agreement of employers' and workers' professional organizations in the Community jointly to promote the exchange, within the framework of the ECSC, of practical experience in questions of safety and health, for the benefit of all concerned in the iron and steel industry. The Steel Industry Safety and Health Commission's task, therefore, is not to prepare documents containing some sort of obligation for undertakings or their staff, but to seek the most satisfactory solutions to the problems which it considers ought to be the subject of exchanges of experience, and to disseminate the information it obtains. The studies carried out by the working parties on subjects chosen by the Steel Industry Commission thus reach conclusions which must be considered as codes of good practice or concerted opinions, which those concerned may or may not implement, as they think fit.

The Steel Industry Commission is of the view that regulations cannot and should not cover all sectors of industrial activity and that, particularly in view of the constant changes and improvements in technological processes, there is wide scope for exchanges of information on the best solutions to identical or almost identical problems.

The activities of the Steel Industry Safety and Health Commission must be viewed in this light.

For the European iron and steel industry, 1975 was a year of deep recession. Crude steel production fell from 155 587 000 tonnes in 1974 to 125 261 000 tonnes, the question of employment created many serious problems, and the working week was shortened in many undertakings.

Although at the end of 1975 there were grounds for hoping that the trough of the wave had been reached, there was still no improvement in the general situation.

At the time of writing, the Steel Industry Commission is not in possession of the 1975 statistics on industrial accidents. Neither does it have those for 1974, although they are drawn up each year by the Statistical Office of the European Communities.

It cannot therefore include them in this report, nor can it give any interpretation of the accident situation in the year under review.

This state of affairs is due to a number of causes connected on the one hand to the accession of the new Member States, whose statistical system did not correspond to that of the Community, and on the other hand to changes in the structure of the work force in certain industries.

Consequently, there were delays which prevented the inclusion of these statistics in this report. A meeting of the SOEC held at the beginning of 1976 shed some light on this problem.

At the beginning of November 1975, eleven people were killed and eight badly injured in a very serious accident in the casting bay of a British Steel Corporation blast furnace in Scunthorpe.

As soon as it received from the British Steel Corporation details of the initial findings of the inquiry and the most pressing measures to be taken to prevent the repetition of an accident of this type, the Secretariat of the Steel Industry Commission forwarded them to the various employers' organizations for communication to the workers in the undertakings concerned.

Finally, in spite of the retrospective information it contains, this seventh report of the Steel Industry Safety and Health Commission is not an analysis of its activities since its inception, but a report on the work done in 1975. The first report, covering the period 1965 - 1969, provided such a retrospective view.

## 2. MEETING OF THE STEEL INDUSTRY SAFETY AND HEALTH COMMISSION

Each year the Steel Industry Safety and Health Commission holds one and sometimes two meetings. It met for the 13th time on 12 and 13 June 1976, the tenth anniversary of its first meeting.

At this meeting, in accordance with its function of deciding the basic options of its activity, it :

- took note of the European Parliament's Resolution, adopted on 13 May 1975, on its fifth report;

- adopted the wording of its sixth report;
- discussed possible relations with the new Advisory Committee on Safety, Hygiene and Health Protection at Work;
- decided to continue the study carried out by its Secretariat on the usefulness and improvement of industrial accident statistics;
- adopted, on a proposal from the Working Party on the Organization of Accident Prevention, the text of a study on the comprehensive recording of accidents, carried out by Mr Cavé, Président of the INRS (Institut National de Recherche et de Sécurité);
- adopted the final conclusions of the Working Party on Safety - Tapping the Blast Furnace on all aspects of the subject assigned to it, thus bringing this Working Party's task to an end;
- adopted the conclusions of the Working Party on First Aid and Rescue respecting various updatings of and additions to the document on first aid and rescue published in 1973, the periodic revision of which had been provided for.

On 13 June 1975, the Steel Industry Commission visited the INRS Research Centre at Nancy.

### 3. ACTIVITIES OF WORKING PARTIES

These are examined in the following order, corresponding to the chronological order in which the working parties were set up:

- general studies:

- . Working Party on the Organization of Accident Prevention
- . Working Party on Safety - Training
- . Working Party on First Aid and Rescue

- technical studies::

- . Working Party on Safety - Tapping the Blast Furnace
- . Working Party on Safety - Overhead Travelling Cranes
- . Working Party on Safety - Gas Lines
- . Working Party on Safety - Oxygen
- . Ad hoc Working Party on the Use of Explosives in the Blast Furnace
- . Working Party on Health - Electric Furnaces
- . Working Party on Health - Rolling Mills

### 3.1. Working Party on the Organization of Accident Prevention

This Working Party had previously drawn up a number of conclusions which were approved by the Steel Industry Commission and published, namely :

- Principles of accident prevention
- Adoption and use of personal protection equipment
- Standard questionnaire for checking the organization of accident prevention in an undertaking.

It was also responsible for the production of the film on the principles of accident prevention.

In 1975 the Working Party met on three occasions, on 6 and 7 March 26 and 27 June, and 30 and 31 October. The work carried out as a result of these three meetings was most fruitful: the study prepared by Mr Cavé on the comprehensive study of accidents with a view to preventing those which cause injuries was analysed in depth and submitted to the Steel Industry Commission at its meeting of 12 June 1975. Furthermore, the Working Party was able to adopt conclusions on "The accident prevention programme", which will be proposed for adoption by the Steel Industry Commission in 1976.

Discussions and exchanges of views on the cooperation of workers and their representatives in accident prevention were initiated; two experts were given the task of preparing an interim in-depth study on the form such cooperation might take and the conditions under which it could be set up.

### 3.2. Working Party on Safety - Training

This Working Party, which had prepared the document on the principles of industrial safety training published in 1969 and whose activity had been shelved from 1969 to 1974, held three meetings in 1975, on 16 and 17 January, 24 and 25 April, and 29 and 30 September.

At the first of these meetings, the Working Party carried out an initial examination of the draft conclusion on the training of safety officers and members of safety departments, prepared by the Secretariat, and made a number of amendments to it. It also held an initial exchange of views on the problems of the training of migrant workers.

At the April meeting, the same topics were on the agenda, but because of the unforeseen absence of the British experts, it was not possible to put the finishing touches to the document on the training of safety officers and members of safety departments. This meeting was therefore mainly concerned with the problems of safety training for migrant workers; the discussions led to the conclusion that such training was similar to that of new recruits, but that language problems had to be taken into account. It also revealed the great disparity between the methods and length of training for new recruits in the Member States.

In order to provide a follow-up to this work and illustrate it in practical terms, the September meeting was held in Nantes, thus giving the members of the working party the opportunity to visit the Basse-Indre works of the J.J. Carmaud and Basse-Indre company, to obtain a good deal of practical information on the training methods used by this company and to take part in demonstrations of some of them. This meeting was devoted entirely to the problems connected with the training of new recruits.

On the occasion of this meeting, the Nantes Town Council held a reception hosted by the Sénateur-Maire, Monsieur A. Morice, and the Secretary of the Steel Industry Commission was interviewed on the aims and activities of the Steel Industry Safety and Health Commission for a regional current affairs television programme.

### 3.3. Working Party on First Aid and Rescue

At its meeting held in December 1974, the Working Party on First Aid and Rescue had decided to rewrite and update a chapter of its conclusions adopted by the Steel Industry Commission in 1973 and published in the same year. This chapter deals with the training of workers exposed to the hazards of gas poisoning, burns from splashing metal or molten slag, electrocution, drowning or burying, to enable them to take simple action in the event of an accident and thus save the victims from serious incapacitation.

The Working Party had also planned to supplement the information on particularly delicate first aid and rescue operations.

The texts of these modifications were finalized by the Working Party at the meeting held on 25 and 26 March 1975.

The reworded conclusions were adopted by the Steel Industry Commission at its meeting of 12 June 1975.

The new version of the document on first aid and rescue will be published in 1976.

#### 3.4. Working Party on Safety - Tapping the Blast Furnace

This working party had completed in 1974 the preparation of its conclusions on all the safety and health problems which arise during the tapping of blast furnaces. Its draft finalized document was examined and adopted by the Steel Industry Commission at its meeting of 12 June 1975. This working party's mandate was terminated. It is planned to publish the conclusions of the Working Party on Safety - Tapping the Blast Furnace in 1976, comprising the following chapters:

- Requirements for taphouse construction
- Use of oxygen
- Plugging and de-plugging devices
- Plugging material
- Preparation for tapping
- Tapping operation
- Desulphurization of the cast in the taphouse
- Solidification processes
- Personal protection for foundrymen
- Collective protection

#### 3.5. Working Party on Safety - Overhead Travelling Cranes

Cf. sixth report (page 13).

#### 3.6. Working Party on Safety - Gas Lines

The activities of this working party had been shelved in 1971.

Provision was made in the programme for 1974-1976 for this working party to resume its activities in 1975.

This it did, meeting on three occasions : 30-31 January, 15-16 May and 13-14 October.

The January meeting took the form of a renewal of contact and a survey was made of previous work with a view to possible adaptation.

The requirements to be met by hydraulic seals and siphon drip pots were discussed by the working party; the Secretariat was instructed to prepare a working document on the basis of these discussions.

This document was examined at the meeting held in May and a number of joint positions were adopted.

This examination was continued at the October meeting and the working party's conclusions finalized, except for those concerning the special case of underground siphon drip pots, for which special draft conclusions are being prepared. At the same meeting, the working party studied appropriate precautions for the prevention of gas explosions, and devices intended to relieve the increase in pressure caused by the explosion.

### 3.7. Working Party on Safety - Oxygen

This working party, which has the task of conducting exchanges of experience on pressurized gaseous oxygen, held three meetings in 1975 on the following dates: 19, 20 and 21 February, 28, 29 and 30 May, and 3, 4 and 5 November.

The working party dealt with three different documents at these meetings:

1. One of them was adopted definitively by the working party and will be submitted to the Steel Industry Commission at its next meeting. It is entitled "Precautions to be taken in the preparation of equipment", and is addressed to the consultancy bureaux of iron and steel undertakings, engineering companies, equipment manufacturers and assembly companies. It gives a number of recommendations on the methods to be used for the correct preparation of the various devices such as valves, regulators, measuring devices, filters, etc., to be used with pressurized gaseous oxygen, as well as a sample specification

which iron and steel undertakings may use when ordering such equipment. This document is an important one, since it has been found that, because of the small market in devices to be used with oxygen and the inadequacy of order specifications, equipment designed and prepared for other fluids such as gases, petroleum, steam, etc., was being used too frequently instead. Safety requirements are much stricter for equipment to be used with oxygen, however, because of the hazards involved; hence the value of this study.

2. The second study in progress is concerned with the problems posed by the many uses of oxygen in the iron and steel industry, viz:

- manually operated outlet points such as those used for oxy-acetylene or oxy-hydrogen welding, flame-cutting, scarfing, etc.
- use of oxygen-enriched air in the blast furnace
- oxygen lances used in steelworks and blast furnaces
- injection of pure oxygen into steelworks furnaces either by means of lances or via the bottom of the converter
- oxygen-fuel burners

It can thus be seen that this study is a complex one; it was begun in 1973 and the work is well under way. There are hopes that it will be completed by late 1976 or early 1977.

3. The third study in progress is concerned with the superoxygenation of working atmospheres which may be the result of oxygen leaks, broken valves or releases caused, for example, when the network has to be rebuilt or maintenance operations carried out. It is hoped that this study will be completed early in 1977.

### 3.8. Ad hoc Working Party on the Use of Explosives in the Blast Furnace

This working party did not meet in 1975. Before drawing up its conclusions, it had planned to carry out tests in Belgium with a special explosive authorized in that country only, to be cooled by means of a water jacket.

A situation justifying the use of explosives did not arise in 1975 in any of the blast furnaces belonging to the Belgian iron and steel company which is collaborating on this work.

### 3.9. Working Party on Health - Electric Furnaces

The new Working Party on Health - Electric Furnaces, which the Steel Industry Commission decided to set up at its meeting of 6 March 1974, held its first meeting on 6 November 1975.

This first meeting provided an opportunity for determining future working methods and discussing the various aspects of the Working Party's proposed brief. The members of the Working Party shared out amongst themselves some preparatory work on noise and fume.

### 3.10. Working Party on Health - Rolling Mills

This new working party met for the first time on 28 November 1975.

As was the case with the above-mentioned working party, this first meeting provided the opportunity to carry out an initial analysis of the subject for study, to determine working methods and to assign the preparation of preliminary studies to certain members.

The work will really get under way only at the first meeting in 1976.

## 4. OTHER ACTIVITIES

### 4.1 Study by the Secretariat on accident statistics

The Secretariat continued its study on accident statistics in 1975, thanks to the cooperation of the following undertakings or organizations:

- Association de la sidérurgie et des mines de fer lorraines
- S.A. Cockerill-Ougrée Providence et Espérance Longdoz
- Acciaierie e ferriere lombarde FALCK Spa
- Italsider Spa.

The Secretariat was thus able to make use of information relating to all the accidents involving bodily injuries which occurred between 1965 and 1974 in 17 different mines. It hopes to be able to present its overall conclusions to the Steel Industry Commission at its meeting in 1976.

#### 4.2 Collaboration with the International Labour Office

In September 1975, the International Labour Office organized in Geneva the ninth meeting of the Iron and Steel Committee. As agreed with the Commission of the European Communities, the Secretariat of the Steel Industry Commission collaborated with the ILO on the preparation of the report on one of the items on the agenda, namely the working environment in the iron and steel industry. It also took part in this meeting as an observer for the Commission of the European Communities.

Collaboration with the ILO's Information Centre on Industrial Safety and Health (CIS), which began in 1959 when the CIS was set up, continued in 1975.

The aim of the CIS is to collect and abstract systematically specialized documentation on industrial safety and health. Each year it produces abstracts of studies and articles on industrial safety and health published throughout the world, being careful, however, to select only those which appear to make some contribution to progress or which must be covered by an international service.

The documents selected (some 2 000 - 2 400 a year) are summarized in abstracts giving full bibliographical details of the chosen texts (title, author, publisher, date of publication, number of pages, number of illustrations, price, original language); the abstracts are published in a monthly bulletin.

Subscribers to the CIS may obtain, either from the ILO in Geneva or from the national CIS centre in their own country, a copy of the full text of any study or article they wish to consult.

The CIS is also able to retrieve all bibliographical abstracts issued by it in connection with specific problems (e.g. noise in electric steel works).

Under the terms of the agreement between the Commission of the European Communities and the CIS, the latter publishes the abstracts of all Commission documents on industrial safety and health, and provides the Commission with a number of copies of its monthly bulletin (some of which are used as information sources for members of its working committees), as well as with the microfiches of all the texts abstracted. Thus the Commission departments can avail themselves of all the information supplied by the CIS.

The Secretariat of the Steel Industry Commission is responsible for liaison with the CIS; it keeps the CIS card index and documentation, which it uses in particular to provide documentation for experts.

#### 4.3 Film on the principles of accident prevention

This film, which illustrates the principles of accident prevention adopted by the Steel Industry Commission, is intended to provide food for thought for those in charge of managerial and supervisory staff and for workers' representatives with regard to the organization of safety and health measures in the undertaking. It is thus neither a general propaganda film on safety, nor a didactic film.

At the end of 1975, 75 copies of this film were available, in different languages. The various bodies in the Member States which hire out industrial or safety films were informed that this film could be obtained free of charge.

At the beginning of 1976, the copies requested were sent to them, together with a supply of copies of the printed principles of accident prevention. They undertook to submit every year to the Steel Industry Safety and Health Commission information on the number of showings and the size of the audience at each showing.

#### 4.4 Studies

The programme of activities which the Steel Industry Commission adopted at its meeting of 6 March 1974 includes the organization in 1976 of an experts' seminar on the safe use of pure hydrogen or hydrogen mixtures in the iron and steel industry.

In preparation for this, a preliminary study had to be carried out. Because of its complexity, it was entrusted to two experts: Mr Decker, Director of the Centre de recherches métallurgiques du Bénélux, and Mr Arragon, rapporteur of the Working Party on Safety - Oxygen of the Steel Industry Commission. This preparatory study is to be completed at the end of April 1976. A discussion seminar on these topics might be organized in the third quarter of 1976.

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

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EN VAN HAAR WERKGROEPEN

LIST OF THE MEMBERS OF THE STEEL INDUSTRY SAFETY  
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