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The Organisation of Occupational Safety in the German Democratic Republic

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Legislative principles

O CCUPATIONAL SAFETY legislation in the German Democratic Republic is one of the means whereby effect is given to the basic rights of the citizen to the protection of his health and working capacity, and to leisure and recreation, as laid down in articles 34 and 35 of the Constitution. The principles of occupational safety, the general obligations laid on all workers, the special duties imposed on managerial staff (from Cabinet ministers down to foremen) and the duties and responsibilities assigned to the trade union and governmental supervisory bodies with a view to ensuring high standards of safety at work are set out both in legislation specifically relating to occupational safety and in other branches of law.

The legal texts specifically concerned with occupational safety are the Labour Code², the Protection of Labour Ordinance³, various occupational safety and fire prevention regulations, and the official engineering and other technical standards. Certain important subject areas, for example the duties and structure of the state Technical Supervision Service, are covered by regulations issued under the Protection of Labour Ordinance.

All these provisions represent minimum requirements. Factory managers must give the necessary instructions for their application in the particular circumstances of their undertaking, as they must also do in cases where scientific and technical progress opens up new ways of combating employment injury, or where previously unknown hazards arise for which the authorities have not yet issued regulations. This ensures that all workers are kept informed of the latest advances in safety engineering and the corresponding work rules.

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² See ILO: Legislative Series, 1961-Ger.D.R. 1, and ibid., 1966-Ger.D.R. 1A, B.

³ Ibid., 1962-Ger.D.R. 1.

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The practice of incorporating safety regulations into laws not issued for this specific purpose is resorted to with increasing frequency. In this way greater awareness is created of the vital importance of occupational safety in every sphere of administrative, industrial, agricultural or social activity. Thus we find occupational safety provisions embodied in the Local Government Act; the Fire Prevention Act; the Ordinance on the Aims, Rights and Duties of Nationally Owned Factories, Integrated Factories and Associations of Nationally Owned Factories; the Social Insurance Ordinance; the Standardisation Ordinance; and the Environmental Conservancy Act. The Standardisation Ordinance requires that, in addition to the establishment of specialised safety standards¹, all national, industry and factory standards must inter alia deal with occupational safety. The Government has decided that all safety and fire regulations must be transformed into standards over the next few years.

Technological considerations are the overriding factor in all occupational safety legislation and its application. Clearly, the most effective way to ensure safety at work is to adopt technical and organisational measures which eliminate all *possibility* of employment injury. But the "safe" technology this implies must begin at the research, project planning and design stage. With regard to risks which at the present stage of development cannot be avoided, but only guarded against, the regulations lay down appropriate rules of safe working procedures.

The allocation of responsibilities

Over-all responsibility for occupational safety lies with the Council of Ministers and is discharged within the framework of the Government's long-, medium- and short-term social planning. Clarification of fundamental principles and co-ordination of central management tasks are the responsibility of the State Labour and Wages Office in its capacity as the central administrative agency. Among other things such co-ordination covers research and development, resource allocation for personal protective equipment, and accident analysis. Scientific support for the Office, to which it is directly answerable, is provided by the Central Institute for Occupational Safety (ZIAS) in Dresden.

Each minister is responsible for the planning, co-ordination and supervision of occupational safety measures within his own field of competence. He satisfies himself that safety regulations are observed by the managements of such nationally owned industries, groups and factories as come under his charge and, after consultation with the appropriate trade unions, issues safety directives and special regulations. He is

¹ For details of the specific meaning attached to "standard" in the German Democratic Republic see *Lexikon der Wirtschaft : Arbeit* (Berlin, Verlag Die Wirtschaft, 1970), pp. 562-563.

also responsible for empirical research and development in the field of safety appliances and personal protective equipment, as well as for their manufacture and availability.

Safety at the workplace is the direct responsibility of the factory management. Managerial staff discharge this duty primarily by:

- the application and observance of safety provisions, and the design of workplaces in accordance with scientific principles;
- the provision of special safeguards for women and young workers;
- securing the observance of safety standards with regard not only to the plant and manufacturing processes used but also to the products themselves:
- --- medical examinations of prospective employees with a view to ascertaining their suitability for particular types of work, and regular health check-ups;
- care of workers who have suffered an industrial accident or contracted an occupational disease;
- regular analyses of existing health hazards, and investigation of industrial accidents and their causes;
- the further training of managerial staff in occupational safety and health matters;
- training workers in safe working procedures;
- the free supply of personal protective equipment.

These are legal obligations incumbent on each member of the management staff—according to his area of responsibility—from the director right down to the foreman or gang leader.

Managements are bound in law to appoint a safety inspector who reports directly to the head of the enterprise. The inspector acts as an expert adviser, carrying out checks and analyses and drafting documents needed for decision making in this area. Ministers also have inspectors attached to their offices.

All non-managerial staff must comply with the various safety regulations and instructions and participate in exercises and training courses when required to do so. Any shortcomings in labour safety must be reported at once to the worker's superior.

The trade unions' constitutionally guaranteed right to represent the interests of manual, white-collar and professional workers extends to the field of occupational safety too. Their mandate to work for the improvement of working conditions naturally comprises all measures conducive to creating a safer, healthier working environment calculated to promote the workers' sense of well-being and raise productivity. It follows that safety provisions occupy a prominent place in the industry-wide collective agreements concluded between national trade unions and the appropriate ministries, as well as in the enterprise-level agreements between factory trade union committees and individual managements.

Union control over safety at the workplace is exercised by the elected factory union committees, occupational safety commissions and shop stewards with special responsibility for safety. Safety supervision in its most comprehensive sense is carried out by regional inspectorates of the Confederation of Free German Trade Unions (FDGB). The inspectors are empowered at any time to carry out checks on the workshop premises, to examine all necessary documents, to participate in investigations into accidents and possible workshop hazards, to evaluate projects and rationalisation schemes and to issue instructions. In cases of dereliction of duty a fine can be imposed. Union safety inspectorates are attached to the national executive of the Confederation and to the corresponding committees at county and district level.

In specialised fields supervision is exercised by government bodies such as the Technical Supervision Service, the Mining Board, the Nuclear Safety and Radiation Protection Office, the Board of Works and the appropriate agencies of the public health service.

Certain kinds of manufacturing plant, processes and materials are subject to special procedures of usage, supervision and clearance by the Technical Supervision Service. The Service also has the responsibility of testing the aptitude of persons who work with machinery requiring clearance, such as hoisting gear or pressure vessels.

Safety in mines comes under the Mining Board. All other central government agencies are similarly responsible for occupational safety in their respective fields of specialisation. The Standardisation, Measurement and Materials Testing Office, for example, must always satisfy itself as to the observance of safety requirements.

The Board of Works sees to the observance of safety provisions in the building industry. Occupational Health Inspectorates are attached to all district councils for the purpose of advising enterprises and checking on health measures on building sites and in workshops. They take their instructions from the Ministry of Health and carry out their duties in consultation with the medical staff of the enterprises concerned.

Many enterprises have their own industrial health care facilities, the staff of which also take their instructions from and are supervised by the Ministry of Health, in this case via the responsible local health authorities. Such facilities may take the form of factory polyclinics, out-patient departments, surgeries or first-aid posts, depending on the size of the enterprise. Smaller ones are catered for by the public health service or by larger firms operating their own health care facilities. Among the tasks of the industrial health care unit are:

- prophylactic measures, such as medical examinations, dispensary care, rehabilitation, vaccination and health education;

- therapy and aftercare;
- giving medical opinions;
- exerting direct influence on working conditions especially by providing medical advice with regard to new projects;
- advising management and the factory trade union committee (for example about the incidence of sickness in the enterprise), and participating in planning.

Works medical officers are empowered to issue instructions requiring the management to eliminate any deficiencies they may detect in respect of health or safety.

" Safety quality "

The following provision has proved particularly effective in the field of occupational safety:

Workplaces, plant, installations and equipment shall be so planned, constructed, installed, erected, maintained and repaired as to ensure a high standard of safety and to limit arduous and unhealthy work as far as possible. They shall not be offered, sold or brought into operation unless they possess the required "safety quality" (*Schutzgüte*).¹ The necessary conditions for the protection of health and the protection of labour shall be observed in the planning and implementation of rationalisation schemes and in the preparation and implementation of capital investment projects.³

The safety inspectors of the Confederation of Free German Trade Unions and the public authorities responsible for supervising the protection of health and occupational safety have the right to issue binding orders to the managers of establishments in this connection.

The degree to which a machine, for example, possesses "safety quality" constitutes one of the criteria by which its "over-all quality" is judged. Where health, safety and fire-prevention requirements are met by other properties (functionality, technology, design, etc.) we speak of its *general* safety quality. Where additional technical safety devices are incorporated we speak of *special* safety quality. Safety quality is also important when exporting and importing machinery, production processes and licences. There are special regulations applying to imported products and licences.³

The necessary safety quality is ensured by the observance of the legal requirements contained in safety regulations and directives and in engineering and other technical standards. The provisions laying down

¹ For a definition of Schutzgüte see Lexikon der Wirtschaft : Arbeit, op. cit., p. 540.

² Labour Code, section 91 (1).

⁸ See Abt. Arbeitsschutz des Bundesvorstandes des FDGB mit Zentralinstitut für Arbeitsschutz: *Kleines Lexikon des Arbeitsschutzes* (Berlin, Verlag Tribüne, 1973), pp. 258-259.

the responsibilities and the administrative organisation involved and the nature of the safety quality required are set out in a separate regulation covering occupational safety and fire prevention. Responsibility for maintaining the necessary safety quality rests with the management of the particular enterprise, which is assisted by an advisory safety committee. During the past 15 years a major effort has been made throughout industry, especially in the research, planning, design, repair and production departments, to apply and strengthen the concept of safety quality: the results are reflected in the steadily declining incidence of industrial accidents (see below).

Training and information

Much stress is laid on spreading the knowledge and skills that are the foundation of occupational safety. This takes the following forms in particular:

- (i) general training for all workers;
- (ii) further training for managerial and supervisory staff;
- (iii) special training courses for safety experts.

General safety training begins in the polytechnical secondary schools with a subject called "Introduction to socialist production" and in natural science classes. It is continued during the course of vocational training and kept up to date by means of instruction given on the factory floor. Foremen are required to conduct safety classes during working hours, generally once a month, when they explain new safety rules and go back over those already in force, analyse accidents and cases of damage to equipment, and advise on first aid and fire-fighting. Attendance is compulsory and must be certified by the worker's signature in the safety control book.

The management may not appoint anyone to a supervisory post who has not passed the requisite occupational safety examination, which must be taken anew every three years. Courses leading to this examination cover the rules in force in the factory as well as particular hazards and means of avoiding them. Independently of this organised training, all supervisory staff are bound by law to improve their knowledge of safety techniques by their own efforts: in this they have the assistance of the management, which makes available the documentation containing the necessary legal regulations.

Occupational safety is a compulsory subject on the syllabus of technical colleges and vocational schools. The postgraduate training of safety engineers at seven institutes of higher technology has been especially effective; well over 1,500 of them have been turned out since 1967. They work as safety inspectors in factories or on the staff of trade union or state supervisory bodies. These postgraduate courses, leading to the Certificate of Occupational Safety Engineering, are for qualified engineers who already have some practical experience. The syllabus is based on the correspondence courses published by the ZIAS.¹

Textbooks and technical periodicals, but primarily posters, films, leaflets, instruction sheets and similar printed matter, for the most part distributed free, serve to keep the worker broadly informed on safety matters. In 1967 the permanent Occupational Safety and Health Exhibition was opened in Dresden as an information centre for the benefit of the general public, specialists and research workers. Comprising a display area of about 1,000 square metres, it draws attention to potential risks and how to avoid or combat them. On 7 October 1974, the 25th anniversary of the founding of the German Democratic Republic, the exhibition was reorganised in order to meet the growing public demand for safety information. To date it has been visited by more than 600,000 persons, including groups of factory workers, school parties, foreign tourists and specialists.

Under the slogan "see—think—act" the permanent exhibition provides a mass of information about the latest advances in the theory and practice of safety at work. Modern audio-visual means of communication are used to give both laymen and experts a general picture or specialised data on the subject. A variety of suggestions for improvement of existing working conditions are demonstrated. Among the aspects of occupational safety and health that are presented both scientifically and in popular language are safety engineering; noise control; the design of transport and storage procedures; safety and maintenance; workplace design; the characteristics and forms of socialist labour culture; and working and leisure time. Special machines are provided on which the visitor can test his knowledge of occupational safety. An extensive range of audio-visual material designed for further safety training at factory level is also available.

Since 1956 the ZIAS has also been providing interested users with a monthly series of abstracts based on a scrutiny of all significant literature, both national and foreign. Descriptors to index these abstracts for retrieval purposes are taken from a special "descriptors list". The ZIAS cooperates with the International Occupational Safety and Health Information Centre (CIS) in Geneva, and has contributed to the CIS Abstracts bulletin since 1964.

Research

Research in this field is carried out by the ZIAS in Dresden and by a number of scientific institutions at technical colleges, universities and at ministerial level.

¹ Zentralinstitut für Arbeitsschutz: Arbeitswissenschaftliche Lehrbriefe — Reihe Arbeitsschutz (Berlin, Verlag Tribüne, 1973).

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Occupational safety research being a complex, interdisciplinary subject, it is carried out jointly by experts from various fields, including medicine, industrial health, psychology, economics, engineering, sociology and law, together with representatives of government agencies, voluntary organisations and, of course, workers.

The ZIAS concentrates on research in the following areas:

- methods of integrating safety measures into the planning and management system, in particular the rating of workplace safety by means of indices and similar methods;
- advanced methods of statistical recording and analysis of industrial accidents, e.g. by electronic data processing (all reported accidents are computer-recorded, stored and evaluated, and a data bank is being established);
- proposals for further occupational safety legislation;
- development of basic safety standards and the evaluation of other standards from the safety point of view;
- psychological factors as a basis for safe workplace design (this forms part of the over-all research into safety-conscious behaviour);
- publicity material on occupational safety;
- development of training targets and methods to promote basic and advanced training in occupational safety;
- participation in, and advice on, the preparation of teaching syllabuses and the design of educational aids;
- ways of securing the requisite safety quality in industrial plant and processes;
- development of technical standards and principles for the prevention of industrial accidents;
- theoretical and practical work on occupational safety in transport, protection against electrical hazards and the abatement of noise and vibrations;
- priority participation in the development, certification and cataloguing of safety gear, personal protective equipment and safety measuring instruments.

It would be beyond the scope of this general survey to go into greater detail here on the question of research.¹

Some results

The joint efforts made by the trade unions, factory managements, the public authorities and particularly the public health service and the

¹ For further information see Zentralinstitut für Arbeitsschutz: Ergebnisse und Aufgaben der Arbeitsschutzforschung, Schriftenreihe Arbeitsschutz, Heft 33 (Berlin, Verlag Tribüne, 1972).

Year	Accident rate ²	Year	Accident rate ¹
19 61	49.5	1 9 68	40.6
1962	46.8	1969	40.5
1963	46.1	1970	40.8
1964	45.5	1971	40.3
1965	45.2	1972	36.7
1966	43.1	1973	36.5
1967	41.2	1974	34.6

 TABLE 1. RATE OF NOTIFIABLE INDUSTRIAL ACCIDENTS 1 IN THE GERMAN

 DEMOCRATIC REPUBLIC, 1961-74

¹ Notifiable industrial accidents are those which result in the loss of three or more working

days.

 * Accident rate =	total notifiable industrial accidents \times 1,000
Accident late -	average number of persons employed.
1 P. 1	

workers themselves have resulted in rising standards of safety on the factory floor. Many factory collectives have worked for several years without a single accident. This improvement is reflected in the declining trend of industrial accidents (table 1) and occupational diseases.

A remarkable drop in the incidence of fatal accidents has also been achieved. In 1974 there were only eight such accidents per 100,000 employed persons, a 28 per cent reduction over the 1961 figure.

Action to eliminate the causes of occupational diseases has proved particularly effective over the past five years. There has been no further increase in the annual increment of occupational diseases, and in 1973 it fell for the first time below the mean value of the previous five-year period. In this connection a number of interesting trends have become apparent. Whereas in the case of noise-induced deafness the number of new patients registered fluctuates from year to year, a distinct downward trend in the incidence of zoonoses can be observed. A special success has been achieved with the reduction in the incidence of pneumoconioses, which have fallen to fifth place among new registrations. Second on the frequency scale after noise-induced deafness are skin diseases, which show no significant fluctuation in the number of new cases. With occupational diseases affecting the musculoskeletal and locomotor systems, a small but steady increase in new registrations is noted.

More generally, there has been a constant improvement in keeping track of workers exposed to potentially dangerous environmental conditions. Steps are being taken by the public health and social insurance services to provide effective prophylactic and therapeutic care and to ensure that the victims and their dependants do not suffer financially.

Outlook for the future

The very positive accomplishments of the occupational safety and health system in the German Democratic Republic are in themselves the necessary basis for still greater efforts to identify and eliminate the causes of hazards that have not yet been mastered and of new ones arising from the latest technology. Among the priorities in this connection are accidents in the 18-22 age group, accidents in small enterprises and accidents caused by a factory's internal transport system. Special attention needs to be given to factors that contribute to accidents such as loose, collapsing, falling, tipping, rolling or sliding parts; sharp angles, points and cutting edges; and insecure footing (table 2). In the field of occupational diseases priority is being given to identifying sources of noise-induced deafness, disorders of the musculoskeletal and locomotor systems, zoonoses and skin diseases. Major efforts are being directed towards problems such as reducing eye-strain at work, monotony, and the further improvement of safety engineering and personal protective equipment.

There is a growing conviction that the attack on industrial accidents and occupational diseases calls for the concerted application of scientific knowledge in several different fields. Experience in recent years has taught us that interdisciplinary teamwork is the only way to solve such problems effectively. This implies co-operation between scientists of various kinds and experienced practitioners pooling their technical, medical and social resources, combined with strict observance of the statutory obligations and responsibilities in the matter. Two additional

 TABLE 2. CONTRIBUTORY FACTORS IN NOTIFIABLE INDUSTRIAL ACCIDENTS

 SUFFERED BY PRODUCTION WORKERS AND MEMBERS OF PRODUCTION CO

 OPERATIVES IN THE GERMAN DEMOCRATIC REPUBLIC, 1973

Contributory factor Loose, collapsing, falling, tipping, rolling or sliding parts	
or on the level	17.8
Sharp angles, points and cutting edges	17.7
Moving parts of machines or equipment	10.2
Machines and vehicles in motion	6.4
Extremely hot or cold parts or materials	3.5
Live animals	3.3
Toxic, caustic or similar substances	1.4
Inflammable or explosive substances	0.5
Electric power	0.4
Other	15.9

and decisive factors consist in securing the active co-operation of the entire labour force (for example by socialist emulation campaigns and through the "innovators' movement "¹) and in waging an uncompromising fight against all influences tending to retard progress in this field.

It is of crucial importance that occupational safety should not be looked upon as an activity solely concerned with the application of new technical knowledge. Instead, it should be regarded above all as a constituent element of policy influencing the evolution of major social processes.

¹ See ILO: Legislative Series, 1963-Ger.D.R. 2.