



**TOGETHER**  
*for a sustainable future*

## OCCASION

This publication has been made available to the public on the occasion of the 50<sup>th</sup> anniversary of the United Nations Industrial Development Organisation.



**TOGETHER**  
*for a sustainable future*

## DISCLAIMER

This document has been produced without formal United Nations editing. The designations employed and the presentation of the material in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations Industrial Development Organization (UNIDO) concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries, or its economic system or degree of development. Designations such as “developed”, “industrialized” and “developing” are intended for statistical convenience and do not necessarily express a judgment about the stage reached by a particular country or area in the development process. Mention of firm names or commercial products does not constitute an endorsement by UNIDO.

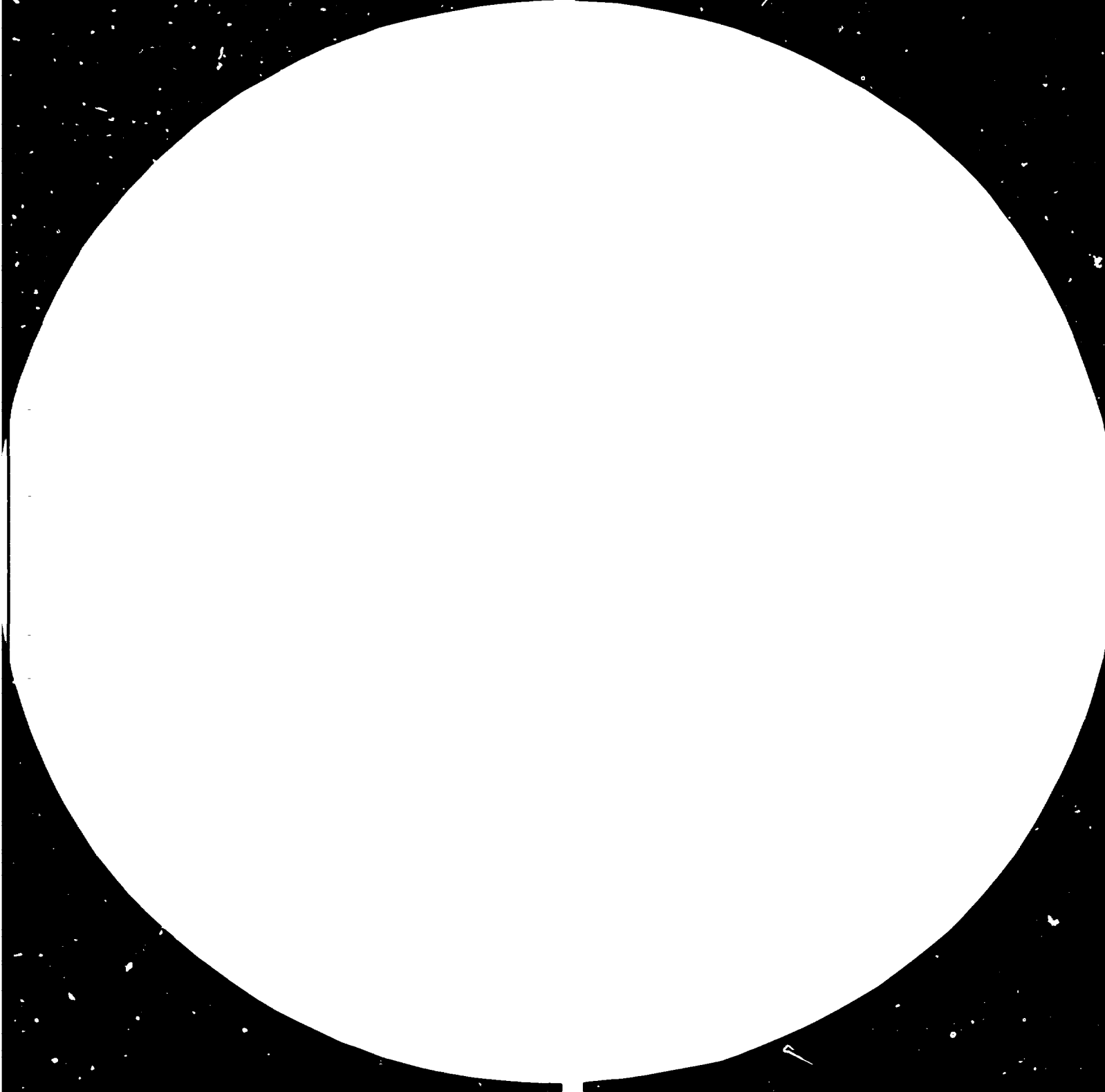
## FAIR USE POLICY

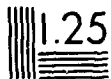
Any part of this publication may be quoted and referenced for educational and research purposes without additional permission from UNIDO. However, those who make use of quoting and referencing this publication are requested to follow the Fair Use Policy of giving due credit to UNIDO.

## CONTACT

Please contact [publications@unido.org](mailto:publications@unido.org) for further information concerning UNIDO publications.

For more information about UNIDO, please visit us at [www.unido.org](http://www.unido.org)





15

A



Resolution Test Chart (NBS 1963-A)

Resolution Test Chart (NBS 1963-A)



10756



Distr.  
LIMITED  
ID/WG.351/4  
30 September 1981  
ENGLISH

**United Nations Industrial Development Organization**

---

Seminar on the Role of Women  
in the Development of Industrial Branches  
Traditionally Employing Female Labour\*  
Sofia, Bulgaria, 15 - 18 October 1981

SAFETY REGULATIONS FOR WOMEN WORKERS IN THE P.R. BULGARIA\*\*

---

\* organized by the United Nations Industrial Development Organization (UNIDO) in co-operation with the Government of the People's Republic of Bulgaria.

\*\* This document has been reproduced without formal editing.

Legal Protection of Female Labour

The Socialist Revolution in this country opened up the road for the equal participation of women in all spheres of public life. For the first time the equality of women and men was proclaimed in this country in 1944 - immediately after the victory over fascism and the setting up of people's democratic rule, by approving a special Law for the equalization of the rights of the two sexes. The discriminating jurisdiction existing at this time was announced void and not valid.

The equality of women was proclaimed in the 1947 Constitution, as well as in the 1971 Constitution now in force in the P.R. of Bulgaria.

The basic prerequisites for the inclusion of women in the labour process were the industrialization of the country and the abolishment of the legal barriers which lay in the way of women in Bulgaria at that time.

According to the Constitution of the P.R. of Bulgaria proclaiming the right to work, the State secures this right by developing the socialist social-economic system. Even with the drawing up of the new Labour Law the basic principles for the protection of working women were set up. Simultaneously a number of legal standards determined juridical guarantees including those for working mothers. The subject of the labour legislation was the special care for working women during pregnancy and the first months after childbirth, as well as the social measures for working mothers.

Pregnant women are protected by the rule which states that no enterprise can refuse a Labour Contract with a pregnant woman. It is explicitly prohibited to change the conditions of a Labour Contract with a woman worker after the establishment of pregnancy. This is also valid for mothers whose children are less than eight months old or whose husbands serve their term in the army. This rule does not hold good in the cases of grave offences on the part of the working woman or when the enterprise is wound up. Even in these cases

the Labour Contract can be terminated or changed only after obtaining a permission from the corresponding Labour Inspectorate with the Trade Unions. The possibility of cancellation or change of the Labour Contract, irrespective of the seriousness of the offence, is absolutely excluded in case the woman is on maternity leave or on leave for bringing up children. Thus the legal protection is absolute and in full force during maternity leave. It is also prohibited for pregnant women and women with young children to work overtime or night shift. Pregnant women working in harmful conditions are moved to easier jobs with normal working conditions, without change of pay, on establishment of the pregnancy.

Our labour legislation abounds with other legal standards aiming at a better correlation of the basic social roles of women. These proved particularly suitable for application in the food and light industries. As a result of concrete Government decisions mothers whose children are young or study as ex-mural students have the right to fulltime work and those on maternity leave or whose children are less than 6 years old can work in their homes. The greatest number of positions taken by two women in one work-shift are available in the sewing and textile industries.

The labour legislation on women, adopted in this country, is in compliance with the First Convention No.3 of 1919 of the International Labour Organization founded in the same year and Convention No. 103 of 1952 for the protection of motherhood. It also complies with Recommendation No. 123 of 1960 also of the International Labour Organization concerned with the employment of women with family obligations.

Our labour legislation for the protection of women is also influenced by other international acts of a more general character the most important ones being the Human Rights Declaration of 1946 and the Pact for Economic and Social Rights of 1955.

Working Conditions for Women - Safety and Hygiene of Labour

Some production activities in the food and light industries in bourgeois Bulgaria were organized with a view to securing goods that could not be manufactured by small private units. But the labour legislation of that time did not set out any conditions and requirements forcing the owners to provide labour conditions which guaranteed the health of the people employed in such production activities. Practical requirements with regard to safety regulations existed only in some enterprises with a view to obtaining maximum profits. The technical achievements were used mostly to increase the volume of production while the workers were subjected to severe exploitation and constant increases of working standards - all harmful to their health. That is why the problems relating to the safety of labour and the working conditions in some more technically developed enterprises were extremely acute. These problems were even more grave in the enterprises which were less technically developed. In the latter enterprises, production was based mainly on the physical force of the workers. Together with this the working conditions in these enterprises were completely neglected. The micro-climatic conditions were particularly poor, characterised by low temperatures, high humidity and poor lighting. These enterprises lacked any equipment for the removal of dust and harmful chemical substances. No care was taken of the sanitary conditions. All these led to deterioration in the health of the workers, reduced capacity for work and productivity of labour. The prevailing conditions in these enterprises were the main reason for the lack of interest and opportunities for women to find employment in them.

After the Socialist Revolution in P.R. of Bulgaria the improvement of the living standards of the people, including the working conditions, became a task of supreme importance and an essential guide-line in the social policy of the Party and Government. In this connection the first task of our State

at that time was the setting up of an improved jurisdiction as regards the working conditions of workers - women included.

According to the Constitution of the P.R. of Bulgaria workers are entitled to harmless and hygienic working conditions. On the basis of this constitutional right a whole system of regulations settling this problem has been worked out. Some of these settle a narrower circle of problems relating to the working conditions of pregnant women and mothers of young children.

Certain fundamental prerequisites connected with the working conditions, including those for working women, are stated in the Labour Law. Enterprises are obliged to take the necessary measures to ensure the safety of plant and equipment, working positions and building sites, as well as for the removal of any harmful substances to such an extent that there will be no danger to the health and life of workers and employees.

A policy document embracing the fundamental requirements pertaining to the working conditions for women and protection of motherhood, thus creating the necessary prerequisites for the improvement of the social policy in this respect, is the decision of Politburo of the Central Committee of the Bulgarian Communist Party and the State Council of P.R. Bulgaria for raising the role of women in building up a developed socialist society.

This decision was a reply to a growing necessity dictated by the ever growing participation of women in the labour process and the necessity for the co-ordination of their functions as mothers, workers and public activists. The basic requirements set out in the decision relating to women working in industry are the securing of completely safe and hygienic working conditions corresponding to their anatomic and physiological characteristics, the establishment of scientifically based work norms, the gradual introduction of a better work/leisure ratio - particularly for the pregnant ones and the working out of schedules reducing women participation in night shifts. Taking into consideration the



characteristics of women and their child bearing functions it is instructed that no woman should work in certain production impurities. A number of social benefits for pregnant women and women with young children were also adopted.

Special Government Decisions determine the responsibility of Ministries and Offices for the further improvement of working conditions, mode of life and woman care. Special attention has been given to the questions of mechanisation of labour consuming processes and the reduction of hand and unappealing labour.

On the basis of the experience from the USSR and our own research the Ministry of Public Health, together with the Central Council of the Bulgarian Trade Unions, has approved and systematically improves Sanitary Hygiene Standards for the working environment corresponding to the physiological capabilities of workers. These Standards are obligatory for all enterprises. Standards have been established as regards dust, micro-climate (temperature, humidity and air movement), noise, vibrations, lighting, radiation and others. After the Soviet Union, our country takes one of the first places in setting out low acceptable limits for the concentration and amount of harmful chemical substances used in our industry, as well as in the food and light industries. The acceptable standards for the physical stress of women taking into consideration their anatomic and physiological characteristics, have also been approved. Thus women are allowed to lift and transport weights not exceeding 10 kgs, if they do this work for the full duration of a work-shift and if it is for 4 hours - up to 15 kgs. For the full duration of a work-shift women are allowed to transport loads up to a maximum of 4 tonnes. Girls under 18 years and pregnant women are not allowed to carry any weights. These standards are a guarantee for the protection of the health and ability to work of women, for the protection of their generative functions and the creation of a normal and healthy new generation.

A system of Standards on hygiene and safety of labour is being developed in this country. This new system is being applied in the design of machines and

technical-sanitary equipment. The standards set out some requirements taking into account the anatomic and physiological characteristics of women. Safety Regulations which are strictly obligatory have been worked out and are constantly being improved in the basic branches of the food and light industries.

According to the Labour Law and other Regulations it is absolutely compulsory that hygienic and safe working conditions are created in all new and reconstructed enterprises. All designs of new and reconstructed enterprises must have a special section 'Safety and Hygiene of Labour'. No plant, shop or technological process can be put into operation without the prior approval of the Bulgarian Trade Unions and Ministry of Public Health.

The Bulgarian Trade Unions take an active part in the working out of labour legislation. They have the right to propose drafts for Acts related to labour problems including safety regulations, social security, etc., in accordance with the rights delegated to them in this respect.

Together with working out and improving legislation related to safety of labour, the Bulgarian Trade Unions have created an effective control organization which has a differentiated approach to the specific problems related to working women. The Central Council of the Bulgarian Trade Unions is empowered by the Public State Control to carry out the Safety Regulations Control including that for women. This is so because of the character of the basic tasks of the Council connected with the care of man and the preservation of his health and ability to work.

An important part of the State Control in securing normal working conditions and protecting the rights of women workers is taken by the Department of 'Labour Safety' with the Central Council of the Bulgarian Trade Unions, as well as the professional Trade Unions including that of the food industry, the Labour Safety Inspectorates with the District Councils of the Bulgarian Trade Unions and the Trade Union Committees. They have the right to force the management of

a certain plant, through obligatory recommendations, to improve the working conditions, to suspend working positions, to stop machines, shops and whole enterprises where the working conditions are harmful to the workers' health or there is a threat to their life, as well as to sanction the managements who have neglected the application of safety regulations and the legal protection of labour.

The Bulgarian Trade Unions exert public control by means of the Commissions for Labour Safety with the Trade Union Committees set up with all Trade Union units.

The Ministry of Public Health carries out state control on the hygiene of labour. Departments for Labour Safety with executive powers have been set up with all Ministries and their sub-divisions.

The administrative and economic managements and control organs are helped systematically by the Institute of Hygiene and Professional Diseases, with a Clinic on Professional Sickness, the Institute of Obstetrics and the Laboratory for Physiology and Psychology of Labour with the Ministry of Public Health, as well as by the Institute on Labour Safety and Ergonomy with the Central Council of the Bulgarian Trade Unions. The Research Institutes with the food and light industries also have special scientific sections for this purpose. The above mentioned institutes carry out systematic research on the physiological characteristics of women, the influence of the industrial environment and working process on the health of women and their childbearing functions, they study the specific obstetrics irregularities and pregnancy complications resulting from their participation in production and the common professional diseases, thus improving the medical profilactic measures. They work out regimes of work and leisure for women and make proposals on the problems of safety regulations, and up-date the legal Acts connected with their work and mode of life.

Research carried out in this country and data from literature prove that women are 15.2% shorter than men, their skeleton is 7% smaller and they have less physical strength per square cm. of muscle. The percentage of muscular fibres to the skeleton in women is smaller whereas the percentage of fat is larger. That is

why the strength of women hands is 40% less than that of men, and endurance is about 50% of that of men.

Their chest is 20-25% smaller and the maximum oxygen consumption is 2-2.5 lt per minute, whereas men consume 3-3.5 l/m. The ratio between weight and haemoglobin in women is 20% less than in men.

Due to their specific anatomic and physiological structure women are more prone to develop flat feet and varicosity.

It has been established that women are more sensitive to toxic substances particularly to those passing through the skin, which is more tender and therefore less protective.

Women cannot stand high temperatures and emitted heat that is why in 'hot shops' the temperature for them should be 2°C lower.

Due to the very structure of their bodies women are more sensitive to vibrations and are more easily influenced by them. Women are also more sensitive to noise above 4000 Hz.

All those anatomic and physiological characteristics become even more acute during pregnancy and may bring about unfavourable consequences for the mother, fetus and the breast child.

Thus the existing labour legislation, standards and requirements, scientific and control activities created the prerequisites for purposeful actions on the part of the administrative and economic managements, assisted by the corresponding Trade Unions for a radical change of the old plant and equipment and improvement of the working conditions in the food and light industries, as well as in all other branches employing women. This has been effected on the basis of Party and Government targets for a complete change/renovation of the nationalized enterprises and for a quick expansion of production capacities, the volume and assortment of production with a view of meeting the requirements of the population more fully.

This was a long period full of difficulties, characterized by a hard struggle for starting heavy industry in this country to produce the necessary plant and equipment required for re-equipment and expanding industry including the food and light industries to meet the needs of the population.

It is typical for these branches of industry that during that early period, they were reconstructed, improved and expanded mainly in their architectural part thus providing well-lighted and more spacious working premises. It was at this stage that the first sanitary standards were set out requiring bathrooms, washrooms, lockers, the first canteens and rest-rooms for pregnant women etc. The basic production processes started being gradually mechanized - the preparation of raw materials, packing, etc.

Airconditioners, respirators, fans etc., required by the standards for creating a proper micro-climate, were introduced more slowly and on a smaller scale due to some difficulties connected with their supply. Together with this, special care was taken with the mechanical safety of the existing plant and equipment by providing sleeves, screens etc. for preventing production accidents.

This stage developed into another one characterized by the speedy introduction of scientific and technical achievements particularly during the last decade. A permanent modernization and reconstruction is being carried out on the basis of world achievements. New enterprises are being built with new up-to-date technologies which are less harmful and much safer. This brings about a qualitative change in the technological basis in all branches of industry and particularly in the food and light industries. The quality and structure as well as the volume of production was changed in these branches of industry.

The most typical feature of the scientific and technical progress is that mechanization was introduced in practically all basic and supplementary production processes. Lifting and transport equipment, the use of pallets and containers find ever increasing application in all branches of industry. With a view to doing away with manual labour the speedy automation of production

was also introduced. Conveyor belt lines, automatic devices and systems for the washing and packing of raw materials, preparation and packing of ready-made products in the food industry; preparation of raw materials and products in the glass and faience industries were also introduced. Many production operations in the shoe and sewing industries were also mechanized - such as cutting, sticking and sewing. In the textile industry all supplementary processes were mechanized and the basic operations such as spinning, twisting, weaving, dyeing and others were fully automated.

All working positions where hand and physical labour prevail are being filed with a view to their defeminization.

In the light industry for instance, a qualification of the difficulty and stress of labour of the basic professions - spinners, weavers, knitters etc. was effected. In order to determine the correlation between work stress and the endurance of the body of women 'profesograms' giving the characteristics of all professions have been worked out. These are being used for the professional orientation of young people.

New modern and more effective lighting equipment are being introduced in order to bring lighting up to the corresponding standards. The variety of airconditioners is constantly being increased, particularly in the textile, sewing and tobacco industries, thus creating normal conditions as regards temperature, humidity, dust, toxic substances etc. Very effective local aspiratory equipment, removing dust and toxic substances, is used in the glass, faience and in some operations in the tobacco industry where the production processes are not sealed. In the textile and shoe industries all toxic dyes, glues, varnishes etc. are being replaced by less toxic or non-toxic ones. A wide variety of measures against humidity such as the sealing of processes, the introduction of aspirators, heaters, heat curtains etc, have been introduced in the food, leather and textile industries. Sanitary services meeting the requirements of working women, like lockers etc., have been organized.

Mechanically dangerous working processes and positions are provided with modern signal and blocking devices. Special attention is being paid to electrical safety, which is of particular importance in view of the wide use of electricity in our enterprises, by providing the most reliable local and foreign safety devices.

With the application/introduction of the scientific and technical progress, work became easier with less physical stress and the working environment and working process were improved. That is why work became more appealing to women. There is a marked feminization in the branches of food and light industries, as well as in a number of other branches of industry, particularly in electronics, services and to a lesser extent in the chemical, machine-building and other industries. Mechanization and automation introduced a number of professions with operator control, creative and management functions accessible for women. They are trustworthy partners of men behind the control panel and carry out complicated technological processes. Conveyor lines are run exclusively by women. In the new working conditions women proved to have better capabilities for carrying out complicated production processes and operations in a number of cases. This is due to the excellent qualities which women possess to concentrate better, be more flexible, skillful, adaptable etc. These facts prove without any doubt the unreliability of the theories for the inferiority of women leading to their taking only 'office positions' in the Western countries.

Some new problems connected with the safety of labour including that of working women appeared as a result of the technical revolution. The qualitative changes in the character of labour replaced physical efforts with precise quick movements. The mechanization of labour limited the general motor activity and brought about stresses in the motor system. The automation and rhythm so characteristic of present day organization of labour enforced very high requirements as regards the nervous system and sight/vision. They are also the prerequisites of monotony of labour. The introduction of high speed equipment

in some technologies causes an intensification of labour, noise, vibrations, radiation and others. These problems both on a world scale and in this country remain unsolved because the present day level of science and technology cannot cope with them efficiently.

That is why research is directed mainly at eliminating the unfavourable factors existing in the labour process and working conditions resulting from the technical revolution.

Special measures are being taken for the preservation of the health of workers, including that of working women on a national and branch scale in the following basic trends: improvement of the working conditions and reduction of the burdens of labour; improvement of the organization of labour; improvement of the personal safety of workers and medical profilactics.

At the present stage of our development in the conditions of the building up the developed socialist society, further improvement of the conditions of labour for working women in the food and light industries is envisaged through the methods of social planning. After the European Trade Union Conference on the problems of working conditions and environment, which was held in Geneva in 1975, Bulgaria was the first country to adopt a comprehensive National Programme for the improvement of the safety and working conditions of labour for the VIIth five-year-plan. The amounts allotted by the Programme represented 10% of the National Income and were successfully used for the purpose. As a result more than 55.1% of the workers in the light industry (women included) work in conditions which correspond to the sanitary and hygiene requirement, and for the food industry this percentage is 63.9. The number of accidents and professional diseases is being reduced each year. Accidents and professional diseases among women are subjected to special analysis and separate filing.

During the present VIIIth five-year-plan the Central Council of the



Bulgarian Trade Unions and the Ministry of Public Health have worked out a new National Programme for the Safety and Hygiene of Labour. It has been approved by the Government and is thus an unseparable part of the General Plan for Social and Economic Development of the country. The Programme comprises a number of technical, sanitary and organizational measures as well as research. It sets out the control figures for the funds required and the targets both generally and specially for women for each year and the five-year-plan as a whole, for the reduction of professional diseases and the percentage of women working in normal working conditions on a national and branch scale.

On the basis of the National Programme all Ministries and enterprises, together with the corresponding Trade Union Committees have also approved and adopted five-year programmes setting out the targets regarding the Safety and Hygiene of Labour. For the light industry, for instance, where the prevailing number of workers are women, the targets for 1985 are that 78% of the workers will work in normal working conditions, 90% in favourable micro-climate, 99% without static or radiation, 85% in clean air, 91% with good lighting, 70% without noise or vibrations, 88% within ergonomic requirements. The number of women doing manual or physical labour within the prescribed norms is also expected to be reduced. Similar tasks have been set out for the food industry.

Ergonomy takes an important part in improving the conditions and organization of labour. The basic trends in this field are: an ergonomic organization of labour, introduction of furniture corresponding to ergonomic requirements, struggle against monotony of labour by changing the speed of conveyors, exchange of workers and working positions after obtaining the necessary qualifications and the introduction of breaks.

The physiologically based organization of labour is achieved in several ways: optimization of shifts, working standards and labour/leisure ration.

The regimes of work and rest are yearly, weekly, daily and within the

working shift. Annual leaves are differentiated and depend on the working conditions, experience and qualifications of the workers. Normally women work in two shifts in this country. There are certain exceptions, mainly in the textile industry, where there is a third - shortened night shift.

In the food and light industries, electronic and chemical industry, metallurgy, public health and others, breaks are regulated. Work is being done for preparing scientifically based regimes of labour and rest in most branches of economy. The lunch break is not included in the working time whereas the other breaks are and represent a certain percentage of the working time.

During the breaks workers do physical exercises, listen to functional music, do breathing exercises (for some professions only) and have biostimulators, sandwiches, tea, coffee etc.

Pregnant women and mothers of small children have special breaks which have been prescribed by the Ministry of Public Health in conjunction with the Central Council of the Bulgarian Trade Unions. Pregnant women receive a free midshift meal.

Women working in a harmful environment receive free profilactic food and anti-toxic preparations for improving their resistance. Their working day is shorter and their annual leave is 4, 6, 8, 10, 12, 16, or 22 days longer.

As far as the personal safety against harmful substances, still existing at this stage, is concerned women workers in all branches of economy receive free of charge: working clothes, shoes, hats, scarfs, gloves, goggles, masks, barrier and washing creams. There are a number of profilactic shoe models specially designed for women who work while standing.

Before taking up a job all women must pass an obligatory lecture on hygiene and safety of labour. These lectures are repeated periodically.

In view of the anatomical and physiological characteristics of women and their childbearing functions, our Labour Legislation prohibits female work in some branches of industry where working conditions are particularly harmful to them or their children. This has been regulated by the List of

Prohibited Professions for Women which has been approved by the Ministry of Public Health and the Central Council of the Bulgarian Trade Unions. The list includes mainly positions connected with harmful chemicals and high physical stresses in all branches of industry, including leather enterprises and slaughterhouses. There is another List of Working Positions and Professions which are suitable for women and where women have priority.

It is also prohibited for girls under 15 years of age or pregnant women to work in temperatures, noise, vibrations, dust, toxic substances and radiation, exceeding the acceptable limits.

#### State Social Security

The mass participation of women in production created a number of problems as maternity is an extremely important social function and both the State and society are obliged to support it. These were the prerequisites for providing additional rights in connection with maternity and other social measures.

The duration of the leave for pregnancy, child birth and rearing small children is differentiated according to the number and sequence of children, as well as whether they are born or adopted by the mother. For the first born child the mother is entitled to 120 calendar days leave, the second - 150 and for the third - 180 days; for the fourth and others - 120 calendar days. The maternity leave commences 45 days prior to child birth.

During maternity leave women receive the full amount of their salary/wages.

After exhausting the maternity leave women have the right, if so desired, to use an additional leave for rearing children. This leave is also differentiated - 6 months for the first child, 7 months for the second, 8 months for the third and 6 months for each subsequent child.

During the additional leave mothers receive the minimum salary for the country. If the mother does not use the additional leave but resumes work she is entitled to receive half of the minimal salary on top of her normal wages/salary.

Mothers can use unpaid leave until the child reaches the age of 3 but even during this sort of leave they receive some support and this leave is taken into account for their retirement.

Mothers who do not work receive a money grant provided that their Labour Contract has been terminated less than six months prior to child birth or social security.

Workers or pensioners receive monthly payments to their salary/wages for each child. The amount depends on the number and sequence of children. Normally this money is received by the mother and when she does not work - by the father.

The retirement requirements for women are more favourable than those for men - depending on the category of labour.

In the 1st category - women retire at the age of 45 with 15 years of working experience; 2nd category - 50 and 20 years experience and 3rd category - 55 and 20 years working experience.

Mothers with many children - 5 or more enjoy more favourable conditions for retirement - 1st category - 45 years of age and 15 years working experience.

These are the guidelines of the social policy of the State which form its strategy for the security of its greatest investment. The fulfilment of the important targets connected with the preservation of the health, mother functions and ability to work of the working people in this country, are day-to-day care have become a tradition in the activity of managements,

Trade Union organizations and other organizations at all levels and the organs of public health. They are the care of women themselves who follow the rules and requirements of Safety and Hygiene of Labour.



