

THE ACHIEVEMENTS IN DUST-CONTROL AND DUSTPROOF MEASURES TAKEN SINCE THE FOUNDING OF THE PEOPLE'S REPUBLIC OF CHINA

QIUHUA QIN Eng. B.

Department of Economy, Technology and Labour Protection of the All-China Federation of Trade Unions

Mr. Chairman and fellow delegates,

At the invitation of the International Labour Office, the Chinese trade union has been offered the opportunity to be able to attend the VIIth International Pneumoconiosis Conference. Therefore, I would like first of all to thank the ILO for its kind invitation. It is my wish, Mr. Chairman, to address the Conference on our efforts to control dust in China for the purpose of promoting mutual understanding, exchanging information and experience in the course of this Conference.

THE ACHIEVEMENTS MADE IN CHINA IN THE DUST-CONTROL WORK

With regard to dust harm affecting our country, we insist on priorities given to the preventive measures against dust harm and apply the principle of three-stage prevention namely, at the first stage, to eliminate dust harm and control dust sources; at the second stage, to provide check-up regularly to ensure the early diagnosis of diseases; at the third stage, to make sure that diseases are controlled and treated at a possible early stage. The stress is placed upon the first stage prevention when applying the above-mentioned principle.

To apply this principle, the state, with the active participation of our trade unions, has formulated in the last thirty-odd years a series of laws, decrees, instruments and standards. In 1956, "The Safety and Health Regulations at Workplaces" was promulgated and applied following which, "The Resolution on the Prevention of Silicon Dust Hazards at Workplaces" was published. Then "101-56 Standard"—health design standards on dust concentration—was set by the state, based upon which the maximum allowable concentration (MAC) of the dust is set to $2\text{mg}/\text{m}^3$ if free silicon dioxide content is greater than ten percent in the dust and MAC is set to $10\text{mg}/\text{m}^3$ if less than ten percent. In 1958, the relevant departments issued "The Provisional Regulations on the Technological Measures Against Silicon Dust Hazards at Workplaces," illustrating demands on the practice to control dust. In 1962, the state formally promulgated "The Health Design Standards on the Industrial Enterprises," prescribing in detail the provisions on ventilation and dust sources control at the workshops. In 1979, that Standard was revised. In 1963, "The Managerial Measures against Silicon Dust Hazard" was put into practice on a trial basis in our country, thus making our work on dust-control even more systematic. Therefore, these laws, decrees and standards have constituted a very important guarantee for the prevention and treatment of pneumoconiosis. Particularly, in recent years, the State

Council, taking into account new problems arising from the economic reform of our country, has made "the Decision on Strengthening the Work of Preventing Dust and Toxicant and Pneumoconiosis," thus pushing the dust-control work further.

Positive steps have been taken in China actively by various industries, enterprises and relevant departments in accordance with the state's laws, decrees and regulations. Three nationwide working conferences on dust-control were held in 1957, 1962 and 1985 respectively, summarizing and spreading afterwards the experience on dust-control throughout the country. In the field of dust-control, we focus our attention on our own efforts by taking such comprehensive measures against dust as: to transform old enterprises; to improve technology and regenerate equipment. Of many years in China, we have found out a number of ways of our own to prevent and treat pneumoconiosis, i.e. mechanical ventilation; wet-operation; dust-sealing; personal protection; maintenance and management of dustproof installations; technological innovation and improvement of technology; regular check-up for the workers exposed to dust; propaganda and education on dust-control. This comprehensive measure against dust has been proved by the fact to be a successful experience suitable to China's situation. And we have already achieved tangible results. According to the statistics collected from 16 key refractory factories, the average working age to acquire silicosis in the 1950s was 7.55 years; in the 1960s 14.52 years; in the 1970s 20.73 years; at the early stage of the 1980s it was 25.89 years. There has been a big reduction in the dust concentration in factories. Various steps have been taken to control dust in all industries in accordance with their own industrial features and experience. Take coal mining for example. A whole series of effective measures against dust has already been taken as follows:

1. Wet-drilling;
2. Coal seam infusion to increase moisture content;
3. Making use of "water stemming" i.e. to suppress dust by incompressibility and vaporization of water at exposure;
4. Spraying to minimize dust in the course of transportation and blast loading;
5. Mechanical ventilation, dust suppression by water mist and purification of airflow;
6. Replacing dry-mix shotcreting with wet-mix shotcreting;
7. Cleaning the fallen dust in the tunnels, on the rock sidewalls, support and road so as to prevent dust from floating again.

Sucun Coalmine of the Xinwen Coal Mining Management Bureau in Shandong province, well-known for its dust-control

work throughout our country, has taken nothing but the above-mentioned measures. By so doing, up to now, none of the miners employed in 1959 has suffered from pneumoconiosis.

In our country, great importance has been attached to training and scientific research in this respect. So far there are more than twenty universities and colleges where departments or specialities of safety and health have been set up; there are thirty-one research institutions with more than four thousand research fellows all over China.

THE PRESENT COUNTER-MEASURES AGAINST DUST IN CHINA AND THE ROLE OF THE TRADE UNIONS

Being a developing country, in the last thirty-odd years since the founding of the People's Republic of China, tremendous work has been done in the field of prevention and treatment of pneumoconiosis and fairly great progress made. However, as is known, the occurrence of pneumoconiosis is closely related to the development of the industrial modernization. China is now undergoing the primary stage of socialism under which, except some modern industries, a large number of our industries still remain quite backward, falling behind those modern levels for several decades or even a hundred years. In recent years, there has been a big boom of rural enterprises. The mode of production in most of those rural enterprises is fairly backward. Apart from that, our management and technical levels on dust-control for the time being remain quite backward on the one hand, and on the other, the level of science, technology and culture of our workers as a whole is not high enough. This is the situation in our country under which dust harm still remains very serious and pneumoconiosis can not be controlled yet. Therefore, we are still faced with a very arduous task. I think that almost all the developed countries in the process of their industrialization have gone through this dust-harm stricken period, longer or shorter, respectively. And this seems to be one of the common features of all the countries to prevent and treat pneumoconiosis. The crux of the problem lies in how we should, proceeding from our own situation, draw lessons from other countries so as to shorten this dust-harm stricken period.

- First, the government has promulgated "The Regulations on the Prevention and Treatment of Pneumoconiosis" and inspects the application of the Regulations in enterprises of different economic forms;
- Second, it is stipulated by our government that for the newly-built, extended, rebuilt, on-going projects or those projects introduced from abroad, the dustproof installations must be designed, constructed and operated simultaneously with the principal part of those projects mentioned above. The state departments responsible for labour, health and environment protection as well as the trade unions have the rights to examine, check and approve the projects. Without the signatures of the above-mentioned organizations, the projects can never be put into operation, thus to ensure that new dust sources will never be produced again;
- Third, a great importance is attached to the research on the dust-free or dust-reducing techniques as well as new anti-dust technique. In the course of our Seven-Five-Year plan, the state has allocated special funds to place the item of occupational dust-harm control, prevention and treatment

techniques into the state target projects of science and technology, thus making efforts to resolve completely the problem of dust hazards;

- Fourth, it is necessary to enforce macro-control by the state over the work of preventing dust, the management of enterprises and guidance to the industries and to carry out training on dust-control techniques for the leaders at different levels and workers as a whole for the purpose of enhancing their awareness of preventing dust and the abilities to protect oneself.

As far as our work on occupational safety and health is concerned, the system of combining state inspection, management by enterprises and industries and trade union supervision is practised. Therefore, the trade unions have important roles to play in the dust-control mainly as follows:

1. To participate, representing the interests of their members and workers, in the studies and formulation of laws and decrees related to them.
2. To take part in the procedure of design, construction and operation of the anti-dust installations related simultaneously with the principal part of the projects and to supervise the management of enterprises to bring the dust under the control in a well-planned way and to draw and use funds for dust-control purposes in accordance with the regulations.
3. To organize and mobilize workers and trade union members to carry out activities of technical cooperation so as to pool the wisdom and efforts of everyone involved to control dust.
4. To exercise mass supervision to raise criticism and constructive suggestions over those enterprises with dust hazards problems. A deadline is imposed by trade unions to the settlement of the dust problem and workers and staff members will be organized and supported by the trade unions if necessary to refuse to work under serious dust-harm stricken conditions of their workplaces.
5. To carry out an extensive education and propaganda activities among the workers and trade union members.
6. To strengthen cooperations and exchanges with the ILO/CIS and all the countries the world over, learning from their advanced experience.

At present, the All-China Federation of Trade Unions is making positive efforts to prevent pneumoconiosis. Last year, a general survey was carried out in the dust-stricken enterprises from all 29 provinces, municipalities autonomous regions except Taiwan province of our country. In addition, a major analysis was made to the 125 workplaces where dust hazards remained serious still. As a result, the foundation has been laid to better represent and safeguard the interests and rights of the workers and staff members.

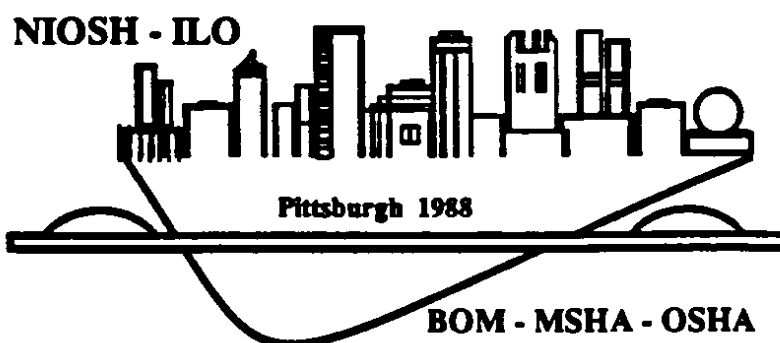
Mr. Chairman and fellow delegates,

I sincerely wish that through this Conference we will be able to strengthen the exchanges and cooperations between China and all the countries the world over, and at same time to obtain useful experience and measures of other countries so as to speed up the work to prevent and treat pneumoconiosis in my country.

Thank you Mr. Chairman.

Proceedings of the VIIth International Pneumoconioses Conference *Part*
Transactions de la VIIe Conférence Internationale sur les Pneumoconioses *Tome*
Transacciones de la VIIa Conferencia Internacional sobre las Neumoconiosis *Parte*

II



Pittsburgh, Pennsylvania, USA—August 23–26, 1988
Pittsburgh, Pennsylvanie, Etats-Unis—23–26 août 1988
Pittsburgh, Pennsylvania EE. UU—23–26 de agosto de 1988



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
National Institute for Occupational Safety and Health

CDC
CENTERS FOR DISEASE CONTROL

Sponsors

International Labour Office (ILO)
National Institute for Occupational Safety and Health (NIOSH)
Mine Safety and Health Administration (MSHA)
Occupational Safety and Health Administration (OSHA)
Bureau of Mines (BOM)

November 1990

DISCLAIMER

Sponsorship of this conference and these proceedings by the sponsoring organizations does not constitute endorsement of the views expressed or recommendation for the use of any commercial product, commodity, or service mentioned.

The opinions and conclusions expressed herein are those of the authors and not the sponsoring organizations.

DHHS (NIOSH) Publication No. 90-108 Part II