EDITIORAL

The Politics of Occupational Health

The problems of health and safety at the workplace are generally viewed technically and medically. Some workers believe that a certain degree of health hazard is only a "natural" outcome of any job, particularly a factory job. Many others believe that scientific and technological criteria can be the limiting ground to determine how healthy and safe a particular workplace can be. In fact, the aspect is widely publicised that many workers believe in the finality of technical specification.

One clear case in point is the disease caused by inhaling cotton dust—Bysiniosis. The occurrence of this disease was discovered more than two hundred and forty years ago among the textile workers in England. But it took two hundred years before any measures to protect workers were taken up when British introduced a system of compensation for Bysiniosis.

Then came the concept of TLV—Threshold Limit Value. TLV implies the limit under which exposure to cotton dust is considered as safe for workers. It is supposed to be a scientifically established criterion. However, since 1960 onwards scientists have laid down different TLV for cotton dust. In 1966 the American Conference on Governmental Industrial Hygienists (ACGIH) adopted 1 mg/m³ of total dust as the recommended TLV for worker exposure to cotton dust. In 1971 Occupational Safety and Health Administration (OSHA) of the USA also adopted it. Subsequent research found out that even at the concentration of 0.1 mg of cotton dust in one cubic meter of air (0.1 mg/m³) at the work place, 7% of workers face Bysiniosis of all grades. But in most of the countries including the USA, 0.2 mg/m³ is considered as safe limit. In fact, there is no readily measurable limit for cotton dust that would completely eliminate Bysiniosis. What is really needed is safe work practice, medical surveillance and screening procedure which is grossly neglected in almost all industries.

The recommended standards are even not safe. If workers and their organisations are not alert and active these standards will remain as an eye wash.

The occupational health and safety issues are political questions. Besides the medical and technical aspects of health and safety at work place, we also need to recognise the politics of occupational health and safety.
and enter into the alveoli of the lungs after inhaling. Alveoli are minute air sacs which make close contact with the blood that flows in the liver. Here blood receives oxygen and discharges carbon dioxide. As the cotton dust penetrates the alveoli, it gets accumulated in the lymphatics vary fine tubles in the central area of lung. Continuous accumulation of the dust in the lungs damages the alveoli and reduces the capacity to retain oxygen. As the cotton dust accumulation increases, the worker develops a brown lung and suffers from byssinosis.

The symptoms of byssinosis were first documented way back in 1746 by Dr. Fernazza, the father of occupational medicine. Since then, many researches are carried on to know the exact symptoms of the disease caused by the cotton dust. Till date there is a great deal of confusion about the clinical manifestation of byssinosis among Indian workers, and the basis for diagnosis remains uncertain. Yet it has been established that the presence of cough and phlegm or spufulum among varied types of chest tightness, chest irritation, breathlessness and low fever are the main symptoms of byssinosis.

Stages of Brown Lung or Byssinosis

Grade - 0: No symptom of Byssinosis
Grade - ½: Occasional chest tightness on the first day of the work.
Grade - 1: Chest tightness and/or breathlessness on every first working day.
Grade - 2: Chest tightness and/or breathlessness on the first and other working days.
Grade - III: Permanent incapacity results because of reduced breathing capacity.

The final stage of illness resembles other serious respiratory diseases like asthma and chronic bronchitis with considerable trouble in breathing. An x-ray of the lungs shows it full of holes — evidence of destroyed alveoli. The decline in lung function is the primary symptom of brown lung. It can be diagnosed by medical examination done through a standard breathing test (Pulmonary Function Test). The instrument used for the testing purpose is called Spirometer. The pulmonary function test provides two measurements: the Forced Expiratory Volume (FEV) — the amount of air that lungs can blow out, and Forced Vital Capacity (FVC) — the amount of air the lungs can retain before blowing. When workers chronically exposed to cotton dust are asked to blow on a spiro-monitor the FEV and FVC show a graph relatively lower than the graph shown for normal persons.

Grave Situation: A conservative estimation shows that nearly 30% of the textile workers in India are suffering from different grades of Byssinosis. In most of our textile factories, the cotton processing is done manually without having any dust control mechanism. Starting from the mixing room to blow room, card room and spinning and weaving departments, the level of dust remains at a very high level. No factory in India adheres to the internationally recommended exposure limit for cotton dust. At present permissible cotton dust level is 0.2 mg/m³ (1.5 milligrams of dust in one cubic meter of air). But even at this exposure level of cotton dust, it is estimated that 13% of textile workers will suffer from Byssinosis.

How Widespread Is Byssinosis In India

☆ In India, 5.1% of the workers in textile industries are suffering from various grades of Byssinosis. — ANOH Study.
☆ In the absence of regulated work standard and medical surveillance, 35,000 workers working in nine textile industries of Kanpur might face serious breathing problem. One forth of the active textile workers show some level of Byssinotic symptoms — A PRIA Assessment.
☆ In India, half of the workers in the carding departments and 20% in blow rooms suffer from Byssinosis. — A NIOH Study.
☆ In Indian textile industries, workers show Byssinotic symptoms after five years of exposure to cotton dust. — A NIOH Study.

Measuring Cotton Dust Levels

☆ The law requires your employer to measure the average amount of breathable cotton dust (2 x 2 mm and less than 10) present at the workplace.
☆ A Vertical Elutriator is a device that measures the concentration of cotton dust in the air. The dust samples can be collected using a Haichur Apparatus.
☆ If work places are not monitored properly against cotton dust, the workers can demand for a measurement of dust level.
Workers Demanding Dust Free Work Place

In Kanpur the textile industry workers are struggling on the issues of health and safety. Rashtriya Textile Swaraj Sangathan, a Kanpur based Trade Union, submitted a memorandum to the Management of the Egin Mills on March 24, 1986. It demanded to reduce the level of noise and cotton dust at the work place. It also demanded that those workers who have shownbyssinotic symptoms should be shifted to dust free zones with light work.

One possible limitation in seeking compensation is the clinical proof of Byssinosis. Workers will need to have some evidence that they suffer from Byssinosis. But existing medical facilities (private or ESI) do not seem to be ready to diagnose Byssinosis. It is partly a problem of lack of expertise and facilities, and partly a political issue. Identification and certification of Byssinosis will imply fixing responsibility on the employers and management. Therefore, non-diagnosis is a safe way out. In case of persistent complaints by workers, doctors tend to diagnose it as TE or other lung disease and prescribe treatment for the same.

In the light of this, it is perhaps important that the workers and their organisations understand the politics of Byssinosis, its causes and treatment. Several actions may be needed before it is possible to begin to exercise workers’ own ‘right to breathe’ and breathe easily?

LEAK-AGE

An assortment of recent gas leaks and nuclear radiations:

★ On April 23, 1986, a major nuclear accident occurred at the Chernobyl atomic power plant north of the Ukrainian capital of Kiev, the third biggest city in the USSR. It has resulted in extensive radiation leakage. The radioactive cloud has spread across part of Poland and into Sweden, Norway, Denmark and Finland.

★ On April 23, 1986, a fire broke out in the compressor unit handling synthetic gas in the heavy water plant at Talcher, Orissa. According to a Worker’s Association spokesman, the explosion was the result of exceeding the pumps’ working capacity of 300 Kg. to 350 Kg. to increase production. (May 1, 1986, Indian Express, New Delhi)

★ On April 8, 1986, six persons received severe chemical burns following an accident in Asia’s biggest fertilizer plant, KRISHCO, at Hajira, Gujarat. (April 9, 1986, Indian Express, New Delhi)

★ On April 3, 1986, two workers were killed in an explosion at a furnace in the steel melting shop at Bhilai Plant. The explosion was the third in the plant since January this year. (April 4, 1986, Indian Express, New Delhi)

★ On April 21, 1986, six persons had received burns when a tanker carrying 6,500 to of liquefied petroleum gas from the Indian Oil Corporation refinery, Mathura, to Jallandher had caught fire near Patial Chowk in Mohanagar. New Delhi (April 23, 1986) Indian Express, New Delhi

★ On May 7, 1986, about 50 people were affected when a poisonous gas leaked from the containers of a cable manufacturing factory in Ghaziabad. The factory has been closed down for the last two years following complaints of gas leak from it (May 10, 1986, Indian Express, New Delhi).
1. Accident Prevention: A worker’s manual
It provides the basic principles of accident prevention in manufacturing industries and presents 14 simple illustrated lessons. Prepared by and available from International Labour Office, CH-1211 Geneva 22, Switzerland.

2. Occupational Exposure to Cotton Dust
Occupational Safety and Health Administration (OSHA), USA, documents the rules and regulations involved in finalisation of mandatory occupational safety and health standards for cotton dust. Federal Register, Vol. 43, No. 122-Friday, June 23, 1978. Contact: OSHA, Health Response Unit, P.O. Box 15200, 1781 South 300 West, Salt Lake City, U.T. USA.

It reviews and summarises the findings of the studies done on Byssinosis in India. Technical Information Bulletin, No. 4, 1967. Indian Council of Medical Research (ICMR). Contact: ICMR, Medical Enclave, Ansari Nagar, New Delhi-110029, India.

4. The Clinical Manifestations of Byssinosis in Indian Textile Workers
A research paper, analyses the Byssinotic symptoms among the textile workers in Ahmedabad, India. Contact: Dr. J.R. Pandhi, National Institute of Occupational Health, Meghani Nagar, Ahmedabad, India.

5. Hamari Sahat, Hamari Ladai
A simply written booklet in Hindi on the health issues of Bhopal gas victims. It discusses the impact of toxic MIC gas on various parts of the human body for different age and sex groups. It also provides information about right diagnosis and health care with illustrations. Available from Etalava, E1/128 Arera Colony, Bhopal-462016, India and Medico Friends Circle, 1877 Joshi Gal, Nipari, Dist. Belgium, Karnataka—59137, India.

6. Health for Millions
Voluntary Health Association of India (VHAI), published an epidemiological survey on Bhopal gas victims and conditions of women’s and children’s health in the gas affected area of Bhopal in their journal Health for Millions, December, 1985, Vol XI, No. 6 Contact VHAI, Plot No. 40 Institutional Area South of IN Gate, New Delhi-110017, India.

7. Indian Council of Medical Research (ICMR) published a document on the sufferings of Bhopal gas victims. The publication is a comprehensive account of the results of autopsy, toxicological studies, clinical management of the victims and epidemiological investigations carried out by Indian scientists and medical research workers. Contact: ICMR Medical Enclave, Ansari Nagar, New Delhi-110029, India.

8. The Bhopal Syndrome: Pesticide Manufacturing and the Third World
It reveals the nature of pesticide poisoning and even death among communities and workers in Brazil, Indonesia, Taiwan and other developing countries. Authored by David Weis. Available from International Organisation of Consumers Unions (IOCU), Regional Office for Asia and Pacific, P.O. Box 1045, 10830 Penang, Malaysia.

9. ICPE Occupational Health (OH) Newsletter
International Federation of Chemical, Engineering and General Workers Union (ICEF) brings out a thematic OH Newsletter in its bulletin. Contact: ICEF, 109, Avenue Emile de Becc, B-1050 Brussels, Belgium.

10. Work Hazards
An informative bulletin on occupational health and safety, helpful for shop floor workers in the industries. Contact: Workers Centre, 27 John St., Lidcombe, NSW 2141, Australia.

Events of Interest

1. The Occupational Health and Safety Administration (OSHA) of the US is to impose a fine of $1.4 million on the Union Carbide for its willful disregard of health and safety at its plant in Institute, West Virginia. OSHA has asked for a “walk the walk” examination of the plant after last August’s accident at West Virginia which led to the proposed sanction.

2. Billions of dollars in damage claims arising from the Bhopal disaster should be decided by courts in India, not in the US, decision given by the US district judge Mr. John F. Kanan. Even since the disaster it is believed that the compensation will be decided by the US court. This decision is a victory for the Union Carbide.

3. In a North Malaysian town, after a long struggle, the residents obtained a court order against Asian Rare Earth Co. to stop operations until it takes adequate safety measures to prevent radioactive rays escaping from its factory. It is a major victory of the people whose court recognises the importance of people’s health over the narrow interests of industry.

4. Consumer Education and Research Centre (Thakorai) Desa, Mainak Bhawan, Near Law College, Elissbridge, Ahmedabad, filed a writ petition before the Supreme Court of India, highlighting the total occupational hazards of Asbestos industry affecting over 10,000 workers and sought direction for medical checkups of all workers engaged in this industry. The Supreme Court has issued directives to the Asbestos Industry and asked to comply with during three weeks.

5. The Punjab Government rejected the proposal of General Insurance Company (GIC) who had planned to provide a compensation of Rs. 25,000 to the workers who lose a limb in accident. GIC had wanted the state to insure each labour for Rs. 6,000 for the loss of a limb. Against the insurance company’s compensation of Rs. 25,000 for the loss of a limb, the maximum financial aid from the State Government is Rs. 5,000 and that in case of death from a newer accident, which is very rare.