Legal protection for problems of workplace safety and health in India are both antiquated and inadequate. The Factories Act of 1948 was an early attempt to enshrine certain provisions in respect of safe working conditions in factories. Similar provisions came about in mines, plantations and only organised sectors or workplaces. On the issue of occupational health and safety for the vast majority of workers in the unorganised sector—slate-pencil workers in Madhya Pradesh, women tobacco workers in Karnataka and Gujarat, silica mining and quartz crushing workers in Gujarat, agriculture and construction workers all over the country—a legal provision exists to date. This is despite the fact that one of the Directive Principles of State Policy of our Constitution specifically down that the State shall ensure "that the health and strength of workers not be abused".

The available provisions in the Factories Act, Mines Act and other similar legislations have hardly been implemented over these years. This has been largely due to disinterest and apathy of the owners/employers as well as inadequacy of the machinery to ensure implementation of these legislations. As industrialisation and rapidly increased after Independence in India, newer products, processes and raw materials began to be utilised all over the country. The existing legislations became extremely inadequate in identifying, recognising, regulating and preventing occupational health hazards in the vast diversity of workplaces in the country. It took the tragedy of the Bhopal gas disaster for the governmental set-up to seriously examine existing legislation on this issue. The new amendments brought about in Factories Act in 1987 (which is still awaiting Gazette notification for its implementation) have been the result of this exercise.

The new amendments make some important departures from the previous legislation in some of its provisions (see details below). It introduces the concept of "hazardous processes" and lists a series of workplaces where hazardous processes are involved; it prescribes Threshold Limit Values (TLVs) for 113 chemical substances; it demands that factory owners and managers develop a policy on health and safety and train the workers in ways appropriate to ensure health and safety at workplaces; it enhances the powers of Factory Inspectorate to detect, control, regulate and prevent hazards at workplaces, and enhances penalty for violation of these provisions. Most importantly, the amendments for the first time recognise the legal rights of workers to have information about hazardous processes at workplaces.

We know that implementation of these provisions will be a continuous struggle and possible only when workers and their representatives demand that these provisions be implemented. We also know that these provisions and amendments fall short of a comprehensive policy and legislation on health and safety issues related to mining, manufacture, storage, handling, transporting and utilisation of hazardous substances. We have continued to demand the development of a comprehensive law which will look at hazards at the workplace, and those outside in an integrated and holistic fashion. Despite this, the new amendments should be seen as a step forward, providing a greater opportunity for supporting the struggles of workers in ensuring a safe and healthy workplace.
The Parliament has approved several important amendments in 1987 in the Factories Act 1948. In the statement of object and reasons behind the amendment, the Government has clearly recognised the need for workplace health and safety: (1) Since the last amendment to the Act in 1976, several industries have come up dealing in hazardous and toxic substances which need more regulative standards to maintain industrial safety and occupational health. (2) It is necessary to provide for safeguards against use and handling of hazardous substances and laying down of emergency standards and measures. (3) Procedures in regard to installation of hazardous industries. (4) Workers’ participation in safety management.

Thus the amendments in the Act provide stricter statutory control to maintain the workplace, making it safer and better. For that purpose, it imposes upon the owners or the occupiers of industries certain obligations to protect the workers, and to secure for them employment in conditions conducive to their health and safety. Incidental provisions are made for securing information necessary to ensure that the objects of the Act are carried out. The State Governments have been authorised to employ inspectors to maintain effective supervision over the factories coming within the period of the Act.

1. A new provision, Section 7A, lays down that every occupier should ensure the health, safety and welfare of the workers. This general duty of the manager, owner, director, or any other occupier of the factory includes safe operation and maintenance of the factory; supply of information, instruction, training and supervision to ensure health and safety of all workers; and preparation of the written statement of the health and safety policy to be brought to the notice of all workers in the factory.

2. Another new provision, Section 7B, states that every person who designs, manufactures, imports or supplies any article for use in any factory should ensure that it has been designed and constructed to be safe and without risks to the health of the workers. Besides, it is imperative for them to provide adequate information in connection with the use of that article. If the article is designed or manufactured outside India, it shall be obligatory on the part of the importer to see that the article conforms to the standards in India as well as the standard adopted in the country of manufacture. Subsection 2 of 7B, lays down that every person who undertakes to design or manufacture any article for use in a factory may carry out or arrange for necessary research to discover or minimise any risk to health or safety of workers to which such design or articles may give rise.

3. The amendment inserts a new chapter — IV A on ‘Provision Relating to Hazardous Process’. It also lists industries involving hazardous processes in schedule IV. Section 41A provides that the State Government may appoint a Site Appraisal Committee to examine any application for the establishment of a factory involving a hazardous process. The Committee also has the power to call for any information from the person making an application, for the establishment and expansion of a factory involving a hazardous process.

4. Section 41B of this chapter makes provisions for compulsory disclosure of information regarding health hazards by the occupier (owner, director, manager, etc.). Such a disclosure of likely hazards during the workplace process is to be made to the workers employed in the factory, the Factory Inspectorate and the public in the vicinity of the factory. This information should not only include the potential hazards but also emergency health and safety policies for the workers, information on the quantity, specification, and other characteristics of waste and the manner of their disposal, detailed emergency plans and disaster control and safety measures required to be taken in the event of an accident.

5. Section 41C also asks the occupier of the factory involving any hazardous process to maintain an up-to-date health record of the workers in the factory who are exposed to any chemical, toxic or any other harmful substance which are manufactured, stored, handled, or transported and such records shall be accessible to the workers.

6. Section 41D authorises the Central Government to appoint an enquiry committee in the event of occurrence of an accident in a factory engaged in hazardous processes. The committee also has the power to enquire into the standards of safety that have been prescribed in respect of a hazardous process or class of hazardous process.
7. Section 415 provides permissible limits of exposure to chemicals and toxic substances. Schedule 11 is amended to indicate permissible threshold limit values (TLVs) of exposure to chemicals and toxic substances in the manufacturing process (whether hazardous or otherwise). This list is in the second schedule contains such specifications in respect of 113 substances.

8. Wherever any hazardous material is handled or produced, it is the responsibility of the occupier to set up a safety committee consisting of an equal number of representatives of workers and management to maintain proper safety and health at the workplace and to review and modify the measures taken for safety (as per section 415).

9. Section 419 provides the right to the worker to inform the occupier of an inspectorate in case they apprehend any likelihood of danger to their health or lives. And it is the duty of the occupier to take immediate remedial action and refer the matter to the inspectorate.

10. The powers of the inspectorate have been enlarged (vide Section 27A newly inserted) to stop the factory initially for three days if injury to workers or public in the vicinity is apprehended because of a serious hazard at the workplace.

11. The revised penalties in the Factories Act have been made much more stringent — should the occupiers violate any of the provisions of the Act. It is hoped that the substantially increased fines and improvements may prove an effective deterrent to the occupiers.

12. The list of Notifiable Diseases has been enlarged and recognised in the Third Schedule. It now contains 29 notifiable diseases, in respect of which the occupier has to inform the inspectorate, and the latter has the power to investigate.

13. A new section (111A) has been inserted to provide for workers’ rights. These rights include:
   - right to information from the occupier about their health and safety at work;
   - right to be trained for worker’s health and safety at work;
   - right to represent to the inspectorate on this issue.

Thus the new amendments to the Factories Act have provided additional opportunity for workers to struggle for safer, healthier workplaces in the country.

With this new issue of the Bulletin, we have a new format and larger coverage. As a consequence of a series of reviews and discussions held with our collaborating partners working on the issue of occupational health and safety in different parts of the country over the past six months, the relevance and importance of regular, simplified and widespread dissemination of information, ideas and experiences on this issue has been reinforced. Therefore, we have decided to strengthen the Bulletin so that it can serve this important purpose more fruitfully. We shall be looking forward to your feedback on this new format, style and coverage in order to ensure that it continues to meet your needs.
The second meeting of the working group on pesticide residues was held in April 1987 at the Department of Science and Technology (New Delhi). The group is responsible for preparing a status report on the subject of pesticide residue. It aims to include the following action points in the report:

1. Education and training of workers, analysts, and inspectors
2. Strengthening the laboratory facilities at the state level for testing of pesticide residues
3. Developing the threshold limits (TDLs) for pesticide residues
4. Regularly reviewing and registering new pesticides

Baroda-based worker activists have demonstrated against the use of pesticides and have formed an Occupational Health and Safety group — Varchak Swasthya Suraksha Mandal. It plans to alleviate the occupational health and safety problems by providing a forum to discuss the issues. It also plans to disseminate information about various hazards in local languages.

A new rule concerning safety on construction sites was announced by the Hong Kong Government in October 1988. The rule includes prohibiting the compulsory employment of on-duty safety inspectors for every 200 workers, and a safety supervisor must be available with over 20 workers. Failure to comply will result in fines of HK $20,000 (US $2,500). In late October, unions began pressuring the government to abolish a construction site in which five men were killed since July.

The Singapore Labour Ministry has announced the addition of six further occupational diseases to those covered by the Workers' Compensation Act, bringing the total to 22. The new six are: lung cancer, associated with asbestos, affecting the lung; (3) Liver Angiosarcoma, a liver cancer caused by exposure to vinyl chloride monomer; (4) Renal cancer, caused by exposure to benzidine; (5) Occupational asthma, caused by exposure to certain airborne substances; (6) Cadmium poisoning, caused by exposure to cadmium fumes or dust; (7) Byssinosis, a lung disease caused by cotton dust.

The Environ Protection Agency (EPA) of the U.S.A. has recently proposed a rule that all uses of asbestos be banned within a decade. The United Kingdom has introduced regulations to control the use of asbestos. Sweden and Iceland have effectively banned the use of asbestos in their textile and chemical industries. The governments are encouraging the substitution of asbestos in local industries.

Two new occupational hazards were identified in the latest issue of the International Journal of Cancer. The Singapore Labour Ministry has announced the addition of six further occupational diseases to those covered by the Workers' Compensation Act, bringing the total to 22.

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- About 420 slum dwellers in Bhorari Industrial Area, near Pune, were affected following leakage of sulphur trioxide fumes at the premises of the Yipishika Chemicals on July 30, 1987. Surprisingly, none of the factory workers were affected. All the victims complained of irritation in the eye and vomiting.

- In Malaysia, one out of every five factory workers could be going deaf. Initial results of a four-year survey of 20,000 workers by the Industrial Hygiene division of the factories and machinery department showed that 20 percent or 4,000 workers were found to be losing their hearing with irreversible damage. Seventeen types of factories were selected for the survey. These factories are manufacturing products such as metals, machinery, textiles, food items and transport. For detailed information contact: Editor, Sahabat Alam Malaysia, 37 Lorong Birr, 10250 Penang, Malaysia (ref. SAM Vol.4 No.2 March, April, 1987, P. 15).

- On June 28, 1987, ammonia gas leak at a processing plant at Kaleparghat, near Bhavnagar, took four lives and affected almost all the workers.

- Some 800 miners were killed in accidents in South Africa's mines last year. This is a 19 percent increase on the 706 deaths reported in 1986.

- On February 5, 1987, 17 coal miners were killed and 20 seriously injured in a methane gas explosion at a mine near Kotowice, in Southern Poland.

- In the mines of Koderma in Hazaribagh, Bihar, the workers are inflicted with silicosis, a severe occupational disease.

- Thousands of workers, including women, employed in the five major electronic industries in the country, are exposed to various health hazards. (Source: A Survey conducted by Industrial Toxicology Research Centre, India.)

- On June 21, 1987 chlorine gas leakage from a defective chlorine cylinder stored in the pumping station No. 1 in the cantonment area of Meerut claimed one life and affected more than 200 persons. The 6 pump stations are maintained by the Military Engineering Service. On June 18, three days before the incident some local people had verbally informed the police about the continuous leakage of chlorine from the water pumping station.

- On June 23, 1987, thousands of men, women and children fled their homes in Bhopal when ammonia gas leaked from an ice factory adjacent to the Union Carbide Plant.

- On June 19, 1987, two persons died of asphyxiation and another person was affected severely by poisonous gas while repairing pipelines in an old well at Lali Village in Ahmedabad.
The third session of the day was devoted to understanding how adequate and appropriate occupational health services for the small scale sector. Dr. S.K. Dal, Instrument Director, National Institute of Occupational Health, Ahmedabad, spoke on the subject.

On the second day, an educational visit was made to the National Institute of Occupational Health, Ahmedabad. The objective was to make the participants aware of the research being done on the issue of occupational health and to expose the activists to different instruments generally used to measure different physical and chemical hazards at the workplace. The visit also familiarised them with the technical and scientific aspects of measurement, diagnosis, treatment and prevention of occupational health and safety problems.

The opening session was on the concept of toxicology and how different toxins react in the body exposed to the workplace. The discussion also focussed on levels of toxic hazard and their measurement. Participants showed keen interest in knowing the chemistry of toxic effects and the natural detoxifications. Dr. N.K. Mehta, Assistant Director of Industrial Toxicology Research Centre, Lucknow, spoke on the subject.

Another session on the opening day was spent on the subject of industrial hygiene, diagnosis and treatment of occupational diseases. Dr. D.V. Vyas, Baroda-based industrial physician, spoke on the subject.

Safety audit was stressed at every phase so as to check and recheck the work process so that the probability of systems failure towards causing hazard reduces to the minimum.

Another session was spent on discussing the legal provisions available for safe work conditions and better occupational health of the workers. Mihir Desai, an advocate, provided legal advice to the workers. In Bombay, spoke on the Workmen’s Compensation Act, ESIS Act and the new amended Factories Act. The chapter on “Provisions Relating to Hazardous Processes” evoked interest. However, participants showed concern for the delay in gazette notification of the amendment.

On the last day, factories in Nandesri Estate were visited in order to reflect on the learning received during the first three days. The participants also showed concern on the last day, for the detailed study of occupational hazards at workplace. Plans also have been checked out to identify a few sectors for research and intensive educational processes of worker activists at the shop floor.

The four-day residential programme was full of educational input in an atmosphere of solidarity and fraternity.

A detailed report of the Workshop will be prepared by PRIA soon.
This newsletter covers problems relating to hazardous technologies, products and wastes. For subscription contact: Editor, Nobuo Matsushita, Ondake Foundation, Central Building, 9th Floor 1-1-5 Kyobashi, Chuo-ku, Tokyo, 104 Japan.

The Women's Work Book.
Edited by Patti Schom-moffet and Cynthia Telfer, this book covers various problems women face at work. It talks about social, economic and sexual exploitation of women at different sectors of work, starting from the household industry to the corporate sector. It also explores the myths attached to working women. In a separate section, it lists specific work hazards. Published by Between The Lines, 427 Bloor St. W., Toronto, Ontario, M5S 1X7, Canada.

The Hazard Bulletin
A bi-monthly bulletin, publication of Hazard Network, it is an informal platform of a public interest group fighting hazards in India. It contains technical, medical, and legal information, methods to monitor and combat hazards, in-depth case studies, etc.

For subscription contact: The Hazard Bulletin, 2/32 Trimurti, Chunna Bhati, Bombay - 400 022.

Women - Workers and Health, Hazards

The Asian Women Workers Newsletter features two issues on women worker's health - Ref. Asian Women

Workers Newsletter, Vol. 6
No. 1 and 2. Contact: Committee for Asian Women, 57 Peking Road, 4/F Kowloon, Hong Kong.

Success with Occupational Safety Programmes
An ILO publication by Maurice Bryant, it specifies and examines the critical factors which need to be present in any safety programme if it is to be a success. It also documents some successful safety programmes. At the end some operational standards and monitoring programmes are outlined. For a copy contact: International Labour Office, CH-1211, Geneva 22, Switzerland.

Audiovisual Materials

Five Walnuts: The Health Effects of Asbestos
This is a new educational video tape, produced by the Occupational Health Clinic of San Francisco General Hospital. It focuses on medical screening of asbestos-related illnesses. The tape explains the various types of lung diseases associated with asbestos exposures and the reasons why workers may hesitate to undergo screening. The importance of detection of lung disease is stressed. It is designed to be used in medical surveillance programmes, worker training, union meetings and patient education in clinics. This 29-minute colour video tape is available in VHS. Order from: Occupational Health Clinic, Building 9, Room 109, San Francisco General Hospital, San Francisco, CA 94110, U.S.A.