The role of Information in Occupational Health.

After endorsing of the GATT by the Indian government it is indubitable now that the days of free and open flow of industrial technical know how are ahead. Every now and then our delegates visit the industrially developed countries to seek the inflow of foreign investors and companies. In future many multinationals will arrive with known and unknown technical know how divulging only certain aspects of its economic viability. All magazines and newspapers talk of the economic benefits of the future foreign collaborations by way of advertisement or general information neglecting or simply withholding the negative aspects. In this race of economic gains no importance is given to the fact that these new and awesome technologies are harmful not only to the workers who are in direct contact but also to the people. We must remember that there is a certain trend in technology transfer in industrialization. In the beginning, these technologies are invented and applied in the industrially developed countries. When people became aware about its being hazardous to their health, they get agitated and demand for its removal. This demand of theirs leads to its transfer to industrially less developed countries. Even in these industrially less developed countries it follows the same pattern. Take the example of India, any new technology which comes to our country first lands in the industrially advanced states like Gujarat, Maharashtra or Karnataka, then when people in general discover the health hazards it is transferred to an industrially backward area with attractive incentives and concessions. Most of the occupational diseases take ten to fifteen years to develop in normal conditions and it takes another twenty years for the worker to prove what is killing him. One can easily estimate that at each stage at least two to three generations of workers who are handling that technology and people living in the vicinity of the industry are sacrificed.

Some hazardous technologies are also promoted in less industrially developed countries by the so-called developed countries. Asbestos industry is the most obvious example in India. In almost all the developed countries asbestos is banned due to its health effects on the workers and the consumers, but during the same period it has developed tremendously in India. Not only in Industries, but even at small automobile workshops you will find automobile mechanics cleaning and fitting the break linings. These break linings are manufactured in small scale industries where no information is given to the workers that the raw material which they are using is one of the deadliest material on earth. The same thing applies to various chemical industries. The latest trend today is to shift the hazardous manufacturing process to the less industrially developed countries and then take the finished products. That is why one finds many heavily guarded and shady looking export oriented units in almost all the industrial areas. The only fact which is known to every one is that workers are dying due to a mysterious disease in these industries. The next industry which is going to flourish and cause harm in the coming years is foundries. Foundries are the backbone of the engineering industries, but the strict environmental laws of the West are pressuring them to either follow the law of the land or to stop operations. So they have found the easy way out and decided to promote Indian foundries and use the finished products for their engineering industry. India is also suddenly climbing up the ladder of those industrially backward countries where industrial waste is recycled. Few months back a ship-load of plastic waste landed in Madras for the same purpose, so it can be seen that in some cases hazardous technology is exported and in some cases it is promoted.

(continue on page 8)
THE CONDITION OF CONSTRUCTION WORKERS

Vijay Kanhera

Introduction:

In the Hindi movie 'Maine Pyar Kya' the hero breaks stones. The heroine applies ointment to his injured hands. We watch this all. If in real life, even if a construction worker is affected with the deadliest disease like cancer, there is nobody to take care of him. We know it, we are aware of this reality also.

In another Hindi film, 'Dil', the hero while working as a construction worker gets a serious injury. His father spends a handsome amount of money to make him well and fight to dance once again. But nobody takes count of how many poor construction workers lose their life due to fall from great heights. Many workers have lost their precious lives while constructing chimneys of the powerhouse at Khepartheta in the district of Nagpur, Maharashtra. When this solitary earning member of a family gets hurt, his family doesn't even get any compensation. The workers who work for the construction of powerhouse, who are instrumental in kindling light for the whole society, find the light extinguished in their own lives. "Nobody cares for the safety of construction workers. Education of their children is utterly neglected. The construction workers constitute nine percent of the nation's total population. They are economically very badly placed. They find themselves in the clutches of accidents and diseases". Want to know whose comment is this? The Managing Director of a well-known construction company 'Choudhary and Choudhary India' is on record passing this comment.

The Corner Workers: There is a category in construction workers who stand and wait for the job, in all corners of all cities. 'Corner Workers' or Naka workers, is the name they have got for themselves. This name given is also true when we think about how they are placed in society. Are not they cornered? Hundreds of workers like Plumbers, Craftsmen, Misties, helpers, etc. wait on the corners of the streets with the hope of getting work anywhere, anytime and at any wage. The nearby shopkeepers and passer-by look at them with contempt. 'What a nuisance?' they say to them and their work. All the parameters of national developments like roads, bridges, industries, offices and even our house in which we live are made by the contribution of their labour, but everybody tends to neglect them. The employers do not feel the need to bother themselves to remember them. The Government too pays no heed to the serious problems that benefit this nine percent of India's population, in their day to day life.

In Bombay there is a Union called 'Nirman Mazdoor Sanghathan'. There is a project called 'Nirman' initiated by Nirmala Niketan, College of Social Work. Its major task includes creating education facilities for the construction workers, providing creches, consciencing, organising medical camps. 'Nirman Mazdoor Sanghathan' is a union of construction workers which has no affiliation to any political party. There are also other unions of construction workers. Some of these unions of construction workers have joined hands towards providing legal provision for the benefit and betterment of construction workers.

Workers may meet with serious injuries, they may be afflicted with serious diseases while working at the construction site. In order to change the present depressing situation, we should strive to form committees for workers' safety and health. We should help in getting the compensation and treatment for the suffering workers. We should assist in making a good beneficial comprehensive legal provision for the workers. It's all necessary.

The help and assistance of Nirman Mazdoor Sanghathan and others have made this issue possible. I owe them thanks.

NATURE OF OCCUPATION:

Uncertainty of life:

Ramabai was waiting, a dingy place... hands and face bruised... badly injured leg. Ramabai must be forty or forty-five years old. But she looks very young. She falls down from a pile of bricks. Hostel for Members of Legislative Assembly is being built by the Public Works Department of Government. Place of the above scene is Bombay. This site is very close to the Government Secretariat and the Legislature. It is so close that even if one howls it would reach the ears of the Chief Minister. But when Ramabai fell, she did not even receive any first-aid immediately.

In this legislative assembly that there are leaders who give speeches about religion, social justice, human rights etc., and only at the stone throw distance where they decide the future of country these construction workers get disease and injury in return of meagre wages. And so many are working very close to the House of Legislature without any first-aid or help by the legislature, and that too when they have to work for a pitance.
All over India there are six and half million construction workers and among them are eighty thousand child labour. And other significant constituent of this group is women workers.

Uncertainty is the inbuilt in this occupation. There is not guarantee of work. Today you may get work, tomorrow you may be out of work and starving.

They are forced to live like vagabond. As soon as the construction work at a site is over you are forced to shift to another site. In most of construction sites there is always a shortage of drinking water and absence of first aid and other medical facility.

The workers who stand at street corners are in a worse situation. Contractors come to such corners and take their pick of workers. It’s grace of good luck if they get work. The employers are constantly changing. Therefore, workers not only struggle for daily work but many a times they have to quarrel to get their dues from these contractors.

Those who build houses are themselves homeless and unsafe.

Low wages and conditions mentioned above are only the iceberg of the problems. There are far more grave problems which make them encounter, life and death daily at construction site. It is now a known fact that compared to any other industrial activity, in the construction industry the rate of accidents is three times more.

Piece Rate work:

"In piece-rate work you have to work fast" added another worker. "Work more and earn more is the logic of piece rate work. The contractor wants trucks to be emptied fast, bricks to such proper piece fast, he would give that work on piece-rate. Piece rate work also spreads rivalry among the workers. Speed of each worker is linked not only to his wage but also to the wage of other worker."

Ramabaig has past her prime time of life. She could not manage to work fast. She must have toiled in farm work, in fetching firewood and must have spent her energy in arduous domestic task such as fetching water form a distance in her earlier life. Over and above she is working as a construction workers for many years now. Her health is deteriorating. This condition is not only of Ramabaig but almost all of the women workers. Pregnancies, drunken husband, and malnutrition are some other health hazards toiling women have to face.

She also knows 'No Wealth No Health'. She has to work hard, as long as possible to earn money. Is there a pension? Is there health insurance? No, so she works in hazardous job with a piece-rate.

Piece-rate causes more accidents. The system of piece-rate work is prevalent everywhere. It is beneficial for the contractor as well as for the workers. No doubt the work is done at a greater momentum in this system, but the speed causes stumbling, tripping. It is responsible for back-ache in many cases. More work is accompanied by more dangers, also workers slog to get more money, as wages are too less. Hence more the piece work, more are the cases of accidents.

ACCIDENTS AND FALLS:

Falls

We are reminded of an incident in which a child lost his life after fall from the second floor while the construction work was on. In a similar accident, Yeeshwant, hardly 25 years of age fell down while he was standing on the scaffolding. He suffered injury at the spinal column. Now he can just manage to sleep on the bed that too with great difficulty. We often hear of cases of death while erecting lifts. Sometimes death occurs while the demolition work is carried, one may fall into the debris.

Receiving shocks, getting wounded because of construction material has fallen on the body are some recurring cases. There so recurring that we should not call them accidents.

Is it really not an accident if a worker while he/she climbs up to do the work, falls? For us it is as common as ripe fruits drop from the trees. We consider it a normal feature of this occupation. We should change the situation. Take the case of lift erection, if the shaft is kept open, it is very likely that a child or an adult would fall in it. The shafts should have guards so that the workers may not trip and fall in the shaft for lifts.

Nirmal recently started a study on three accidents. In two cases of accidents, Salma, age 2 and another girl aged 12, died because there were no toe guards. As the workers stay in houses under construction. These houses normally have no walls. Children after all would play, they would crawl, so we have to build temporary walls or any barricade that would prevent fall and loss of life. We should work for sometime to get these things done so that we can save a life.

DANGER AREAS FOR FALLS: When a high rise building is under construction there are many places from where one can fall down.
1. Shafts for lift: Shaft for lift is a big rectangular space running from base up to the top floor of the building. On every floor if it has an opening where lifts stop after they are installed. But before lifts are installed the shafts many times are kept open on every floor. These are the most dangerous spot for fall.

2. Spaces for Plumbing lines: Spaces are kept at every floor for passing plumbing lines, wires, etc. Such spaces are also dangerous as one fall from one floor to the lower floor.

3. Staircases: In a under construction building staircases are without side walls or barricades. While walking up especially with weights, one may fall straight down the height of the floor one is working at.

4. Room Walls: Rooms do not have outside walls. Children may fall straight outside the building under construction.

Children of construction workers who have to stay at the site with their parents are most vulnerable to falls. As mostly both of their parents work in the building and they are at risk throughout the day, because there is no one to watch their movement.

ACCIDENTS AND USE OF SAFETY BELTS:

Accident often occurs when worker fall from height, he or she either gets brushed, fractures or loses life.

"I was twelve when I saw with my own eyes a worker falling from eighth floor and dying. And recently I have been witness to a accident when Siddappa fell from twelfth floor. Thanks to Safety Belt, he kept himself afloat and did not lose his life". Ramu was narrating. Then he firmly displayed, his safety belt tied to his waist. "I make it a point to use safety belt whenever I am working at a height", he added.

Many people must have experienced what Ramu underwent. Nobody can escape getting severely wounded, be it Ramu, Siddappa, Humayun, Mahadev or anyone else, why, be it little Aminabi or Sangeeta.

When Ramabal fell down, she was sitting on a pile of bricks and giving bricks to other women workers. Some workers said "it was piece-rate work". If she could not manage to work fast, she should not take up the work.

Absence of first aid and other medical facility:

In case of Ramabal one must also know that there was no first aid available to her. Its nowhere available. What should one do about it? This is another area for action and thought. All construction workers work without having any first aid facility. They don’t have any recourse to immediate relief. There should be first aid box at every work place and it should contain the following things:

1. Gauze and medicine to clean the wound
2. Bandages required to put on the wound
3. Splint in case the hand is broken or sprained.

These are very necessary things to provide relief to the worker when he gets injury. It causes more pain if the bone of the hand is broken and it does not remain fixed at one place. There should be splints and plaster available to keep the hand straight or to be kept hanging.

Indeed we need a law that there should be first-aid essentially available at work place where so many workers come together and do work that is dangerous and prone to accidents and injuries. Not only making of such law, we must see that it is implemented stringently. Having merely a law is futile. It is a known fact today that implementation of law depends upon the vigilance, pressure and influence of the public. How much are we prepared to do that?

Can organised corner workers come together to get for themselves these minimum things?

DISEASES

Instances of diseases from a study conducted by Nirman are as follows:-

One among the three workers has joint pain, bodyache, stomach ache, headache, and weakness.

There is a need to have an extensive study of sickness and also effort to develop measures for treating them.

Instances of chest and breathing problems were also found and they were in quite a big proportion. World wide studies also tell us that among the construction workers diseases related to digestion, breathing, cough, chest pain, joint pain, back-ache are wide spread.

Occupational Cancer

Cancer is a disease noted among these workers. Due to asbestos, construction workers are prone to cancer. Asbestos can cause lung cancer. Incurable asbestosis can also occur. Because of Chromium Chrome ulcer may be caused. This disease leaves scar on hands, shoulder, nose and legs. Where the workers work for
picking they work with acid, workers carry acid in cans to fill the acid tank. There are many obstacles on the path. Acid might drop from the can and the worker may suffer deep injury due to burns. If the worker inhales acid fumes which he is likely to, it is very harmful to him.

**Deafness**

The machine that mixe cement makes a big noise. Many other machines used during construction also make heavy noise. This might cause deafness. If one suffers due to noise, one's ability to listen is gradually deteriorates. Person starts talking loudly himself or herself. One can also get compensation for the deafness caused due to noise pollution. One can also work to see that the noise of the machine is reduced.

**THE NEED OF ORGANISATION**

It is easy to put pressure on contractor at sites where Governmental work is undertaken. The Government puts some conditions before giving a contract. We may not be aware of all those conditions. How much daily wages should be given, may be one of the conditions which might be helpful to give more wages for the workers if there is a union.

Before Nimran Mazdoor Sanssthana came into being at the P.W.D site, daily wages for men were Rs. 18/- and for women Rs. 12/-. Since 1990 workers started getting minimum wages. Because of the union, workers of both sexes started getting more than Rs. 50/- a day. There would be certain conditions in the contract laid down by the Government regarding accidents. We should take note of such conditions and take precautionary measures so that workers don't lose their lives.

**Recommendations by I.L.O**

International Labour Organisation (ILO) has given a set of recommendations to reduce accidents (such as described above). Do you know these were passed by ILO in 1937, more than fifty years before and Government of India did not implement these? Workers are campaigning all over India for implementation of these recommendations. The recommendations are fairly detailed. Here we give only few examples.

Salient points of the recommendations are as follows:

**ILO recommendation No.52** states in detail how scaffolding should be done. Screws used in scaffolding should not be of cast iron mold. (Here we use ropes). If the ladders or stools are to be kept, one on the top of the other, there should be at least four and a half feet overlap of lower and upper ladder. Ropes or bamboo should be tied on both sides of the passages, if it is more than six feet high and worker has to carry the material and climb it.

All staircases should have baristers or bamboo barricades. Whenever there is a possibility of fall, such places should have toe guard and planks above toe guards. Within three feet of toe guard there should be a plank, one foot board. The distance should not exceed two and a half feet between two planks.

Not only in Bombay, but all over India these recommendations are put aside. Khaparkheda of Nagpur is one such case. Workers who built powerhouse Khaparkheda say "While the construction of the chimney was going on, at least 15 workers lost their lives due to fall. Those who became handicapped from these accidents are countless". To date there are two and a half thousand thermal construction workers are working on contract there and accidents occur frequently. The danger continues, accidents are galore, yet Khaparkheda power house received first prize for safety by Vidarbha Oondyng Suraksha Sanchanayaa (Vidarbha Industrial Safety Organisation).

One officer from the Electricity Board said, "Whenever worker gets injured while working, we don't keep record, we send a nil report". This statement is self-explanatory how they got a safety prize.

**Safety Committee**

Experienced and young workers can come together and do following things:-

1) Wherever and whenever accident takes place, keep a note, get information about how that accident happened. Suggest ways so that accident can be prevented in future.

2) One cannot expect the workers would accept all new things. One has to talk with them, Helmet, safety belt, gloves, planks are all important, but the workers must be convinced about their importance. Suitability of these safety equipments also matters. If the construction is a government project, safety committee can work more effectively. Corner workers can also form safety committees. They can collect information about accident and disseminate the information to their colleagues. They can work for getting the compensation due to them.

**Accident analysis and workers committee**

From every accident we can examine why the accident took place? What care should be taken? What reforms
should be initiated? So that no further accidents happen. All of us can think on these lines. All reforms may not be possible but some of them at least are possible. In construction work, many diseases occur. Before giving thought to diseases we can think what can be done about accidents. How accidents can be prevented. How can we form a workers committee for safety which would always be with the workers, try to act as a pressure group on government, and initiate a dialogue with the employers?

Crachas for children of construction workers: Crachas for such children at the site too is an important thing. The crachas has started by Nirmen, on the site of P.W.D. During daytime children are in the crachas.

Children study, eat and sleep there, and far more important thing is they are safe. Organised effort has eased the children's problem a little bit. Some of the children attend the normal school. One has to see to believe that the union has done something very important. After all these children don’t have a permanent house in Bombay. They come from far off places such as Andhra Pradesh or Uttar Pradesh. “Why do we tall, why have we come here from far so far a distance? To keep our pot boiling and to bring up our children. Is my child going to fall from a height?” said a worker. “I am always worried that he might fall while playing”. One of the worker was narrating her experience. “We should do everything to save our children’s lives, otherwise it would be sacrifice of our children for the sky scrapers,” said Rahman.

Training

Construction Workers should received training

ILO has put forward one important suggestion, Situation differs in every site. Season change, materials, instrument used are different everywhere. So there is a need for trained labour everywhere.

Where there is governmental work, worker should be sent on training by Labour Commissioner to the worker’s education centre to make them aware of ‘disease and accident caused due to construction work and its prevention’. Workers should get full pay and allowances during such training.

Skin diseases are considerably high among the construction workers. Eczema caused due to cement is so wide spread that doctors have given it a special name ‘Cement Eczema’. This is caused due to working unsewn with cement. If one doesn’t want to get afflicted with cement eczema, then one must see that the worker come in least contact with cement. There should be arrangement whereby workers can immediately clean their hands and bodies after work. In construction work, acids, paints, asbestos, lead for pipes are also used. Thinners mixed with paint are used. All these are very dangerous for health. Chromium, Nickel used in cement are also dangerous.

Compensation

One must get compensation in case of death caused by accident, or if one is permanently crippled say for example, if one loses an eye or hand is dislocated or if one loses all vitality because of the diseases caused by the construction work. Main employer and contractor are responsible for giving compensation. Can one centre come up? A centre that would help in getting the compensation for the injured worker and his/her family from the employer/contractor? Lawyers, Social workers, organisers, activists can come together and form such a group. In Bombay whichever an accident takes place, male or female workers and their relatives can approach this Centre. We should make effort to see that such centres come up with the help of Central Government and with our own help. In other cities also they should work on similar lines.

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<tr>
<th>Reasons</th>
<th>Diseases/Sickness</th>
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<tr>
<td>1. Cement dust</td>
<td>Irritation in lungs, skin diseases</td>
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<tr>
<td>2. Plaster</td>
<td>Irritation in lungs, eyes, skin diseases</td>
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<tr>
<td>3. Sand</td>
<td>Silicosis of lungs. (Incurable)</td>
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<td>4. Blasting noise</td>
<td>Dizziness, high blood pressure</td>
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<td>5. Heat</td>
<td>Sunstroke, Giddiness</td>
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<td>6. Repetition of movement</td>
<td>Whitening of fingers, diseases of nerves</td>
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<td>7. Carrying heavy weights</td>
<td>Mental tension, pain in joints, Backache, body pain</td>
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Recently a worker working on erection of lift fell down and died. He fell down from a height of 70 feet and his body was found in the pipeline covered with coal. The bodies of victims are removed away from the site to avoid the recording as accidental deaths in the work. Like this the contractors and the electricity board try to evade the compensation.

TWO EXAMPLES

A] 28.3.89 - Ishwar Marobrao Thakarey, age 23, died due to fall from a height.

B] 18.7.89 - Sudhekar S. Tamimichaki, age 20 years, Resident of Ramamundum, Taluka Pondaonkol, District - Kalmnagar, Andhra Pradesh. He was found in the pipe carrying coal. Two workers died on the same day while constructing chimney and were killed. (as per report of Sharad Dhudhage).

"Mishaps are always more when power house is under construction," an engineer comments. "Why at your Chembur in Bombay where the powerhouse was constructed, mishaps must not have taken place? Now they are going to construct power houses at Dahanu and Debboli. Will these power houses take sacrifices for construction workers life?

A different example, Prakashbha is a corner worker. On December 7, 1993 he was working with an electric drill. He received a electric shock while working on the second hole of the day and due to which his body virtually took flight. He fell down in such a way on the wire, that it was pulled out from the board. Suddenly the current stopped and Prakashbha was saved. Suppose the drill had remained attached to him ....?

For two days Prakashbha was under tension. He did not go for work. "The incidence haunted me, I felt I should be with my family. I felt like not going for work at all. Hand was also paining, but then I often work other times even when my hand is paining."

He received shock from the body of the drill. Now he is using plastic coated drill. "When that is not available to me I again and again checks whether there is leakage of current." If he had been wearing rubber gloves, he would not have received shock. If precaution had been taken, accident should not have happened. If proper precaution is taken accidents and damage can be prevented. Provided there is scope for that provided by the employer.

Generally three type of reactions emerge from this Incidence:

a). should we blame luck for accident,

b). should we say it was good luck, that connection was snapped and hence life was saved,

c). should we take lesson from this and take care that no accidents take place in future. :

Is my cancer due to asbestos? Ask your doctor. You can get compensation, even if are old. Thanks to Workers' Compensation Act. Keep Records of how many places you have worked? With whom you have worked? Keeping records is always useful.

box ends.

Vibration:

Compressor drill, polishing machine are constantly trembling. These are called vibrations. If one is in constant touch with vibrations, fingers are badly affected. One cannot touch very hot or very cold things, fingers tend to get white. Nerves of the fingers become disease prone. One can use gloves so that one might receives less vibrations from the drill. One can pad up one's hands as well. One can rest for a while after working for sometime, this too might give relief. If one feels that the fingers are paining then consult the doctor and tell him what type of work does one do.

Lifting weight and some chemicals affect women more.

Corner workers and ration cards

Due to malnutrition, intestinal problems and weakness are caused. Workers working on site and corner workers don't have a fixed place to stay. So they don't get ration card.

Since they have ration card they cannot form cooperative society of their own. If such society is formed they can get better work, better wages, greater safety because they can approach the contractor through the society.

Vidhan Sabha elections are soon to take place. During election time, many slogans come up, expectation rise, demand rise. Ration cards for the construction workers can be demand which can be pushed forcibly. We should contact all institutions that work for construction workers in Maharastra union a divist and NGO like the Samarthan should also be consulted.
Problems of woman workers

In a Hindi film 'Dharm', Amitabh Bachchan's mother is a construction worker. While working, she is harassed by the contractor's Supervisor young Amitabh hits the supervisor with a stone from a distance. (In retaliation.)

Brick making, working in stone mines, carrying and dispatching bricks, stones, cement, all laborious jobs are done by women. Yet they are called helpers, they received by less wages as compared to men. There is always a danger of miscarriage, when you are carrying weights. Inspite of working hard and working dangerously no proper remuneration is made. They have to face man's injustice. One has to change this situation.

Women workers are harassed at corners, on site. Women have to face this problem all over India. Contractors, Mukaddars, Officers give them ugly looks. They try to do injustice to them. As it is mostly only 15 days, during a month they get jobs and what happens when one losses life? Men try to take undue advantage of this fact. Women cannot openly complained about it, Due to possibility of a stigma over and above losing a job.

Can male and female workers come together and try to do something about it? In 'Dharm' Amitabh himself buying that building. It's not possible for us, so we are very pleased to see it in a movie. In 'Dil' Aamir Khan - Madhuri send 'message of love' on the site itself. We watch movie to forget our pains, We can make efforts to make our workplace worthwhile to work. We can help each other and remain safe and healthy. Like Aamir and Madhuri we can send messages of solidarity on the workers and gain strength.

Every person from a family out of seven families had met with an accident. 65% of the victim of accidents have not got any compensation. among every ten families, at least in four families, one or the other was ill, fever, cough, cold, cause more thenness. Instances of backache, bodyache are more.

In 1987, 'Mobile Crashes' made a sample survey of two thousand construction workers. The above analysis is from that report (Ref. National Commission report).

(continued from page 1)

The question which comes to every concerned mind is what should we do now? Can workers and community / peoples' group take appropriate action if they are denied the access to the proper, impartial and authentic information about themselves and their surroundings. Are we not victims of the hegemony of certain groups? Recently the government announced that all the Research Institutions have to generate their own resources, which they can do only if they provide their services as consultancies to private agencies. The infrastructure and reputation which they gained from public money is now used for commercial purposes. Earlier at least the creation of knowledge had some amount of credibility and these institutes had some social role to play, but now in the coming

'Knowledge is power' and 'Information is key to rule' are the two precepts which have dominated not only the post-industrialised era but also from the very first day of human civilization. Knowledge is the most democratic source of power, which makes it the most important commodity to be controlled by the people who want to rule. They not only want to control the quality but also the quantity and distribution of knowledge. Should not the peoples group and workers group try to develop their own knowledge base? Should not we try to link up with like minded groups in developed countries to exchange information about the dangers of incoming or promoted technology? Should not we develop a proper mechanism to disseminate information among the people where these industries are? Should not we include like minded people from every stream of life into this struggle of ours?
Bhopal-Docctors Involve-ment:-Ethical Issues and the future.

Dr. V. Murkhar, GHSC, Bombay.

It is more than nine years since over 40 tonnes of lethal gases leaked from Union Carbide Corporation’s Bhopal based pesticides plant and affected over 500 thousand people. Most of these gases, which includes Methyl Isocyanate, Hydrogen Cyanide, Monomethylamine have caused permanent damages to the respiratory, gastrointestinal, reproductive, immunological, nervous, muscular skeleton and other systems of the body and over one-fifth of the affected population continues to suffer acutely from exposure related diseases.

Problems with ICMR research:

The permanency and the progressive nature of the medical illnesses have been proved by the Indian Council of Medical Research (ICMR). The research have also indicated chromosomal aberrations among the gas exposed and physical and mental retardation among the children born in subsequent years to the exposed parents. The damage to the immune system and the subsequent proneness to secondary illnesses has given alarming rise in the incidence of pulmonary tuberculosis (TB), and other infectious diseases. But volume of ICMR publications produced after studies that have been done on blood, urine, semen, tissues and other samples, continue to be classified for mysterious reasons.

Almost all research work of the ICMR have been stopped by a government order in 1981 just when they had reached a consensus on the long term effects of the gas. All the staff members have gone to the Court seeking a stay order.

The second tragedy

While people are suffering, doctors, lawyers, bureaucrats have become rich on the basis of tragedy at Bhopal. Since private practice is allowed to Government doctors, the patients who come to these hospitals are shunted to their consulting rooms. Almost all the doctors have advertised themselves as ‘experts’ on gas-related illnesses. They have minted money. Hospitals are hopelessly overcrowded. Medicines that are supposed to be given to the victims free of charge are unavailable because hospital staff sell them to the local shopkeepers.

Doctors take bribes from victims to testify in the courts. Although people continue to die every week from gas-related complications - medical authorities vigorously estimate the death toll to be anywhere between 7000 to 14000, no cure and no definitive treatments have been found for the victims.

To be fair to them, very often doctors themselves are in the dark regarding the patients’ illnesses as the patient herself, but such shared ignorance provides little comfort.

Many survivors suffering from lung problems are misdiagnosed as patients of tuberculosis and sent to the TB hospital, only to be referred back after several months and advised to discontinue the anti-TB treatment. For some more unfortunate, the cycle is repeated.

The trauma suffered by such patients has been glaringly demonstrated in two instances where gas exposed young male patients in the TB hospital have dosed themselves and lit up in the very wards in which they were admitted.

Prescription Audit

Despite the passage of nine years and expenditure of crores of rupees (from the public exchequer), the medical treatment of the gas affected people continues to be the same as it was on the first day of the disaster, namely prescription of symptomatic supportive drugs.

It is common to find illing survivors indicating the amount of capsules and tablets consumed by them not in numbers but in kilograms and it is extremely rare to find cases where such consumption has provided anything but short-term relief. That a substantial
Mental Health-Socio-economic determinants

The mind of a victim has to cope up with the macabre scenario that surrounds her. She sees doctors making piles of money (and lawyers and government officials and medical stores and photoawalls etc. etc.) while the patients get no better, she finds government officials drawing monies allocated for them while she and her fellow survivors have not been provided jobs;

She finds Warren Anderson, former Chairman of the Corporation, charged with manslaughter with a non-bailable arrest warrant issued against him and still being able to avoid the Courts while her son gets locked up for protesting against such un-lawful behavior.

She finds herself having to prove her case “beyond reasonable doubt” based on scanty medical records available to her and if she succeeds, she has to suffer the humiliating experience of standing in a long queue and begging to get her due.

She still doesn’t know as to what happened to her body and what her future health would be, since all information is mysteriously classified and doesn’t know as to when will she ever earn a livelihood and how will she sustain her family.

She thus finds herself being part of a black comedy which would be absurdly funny if it is not hurting. Such existential situations cannot be injurious to the psyche of the individual survivor. As with physical illness, mental illness cannot be isolated from the social, economic and political context in which they are caused.

The Future?

1. To being with all the 5 lakh people of Bhopal should be considered as victims until the state proves them otherwise, i.e. the onus of responsibility should shift from presently the victims to the government, to prove or disprove whether a victim is gas affected or not. This was the kind of approach adopted by the Japanese government towards the victims of atomic explosion in Hiroshima and Nagasaki.

2. It is basic minimum that the government provide treatment free of cost to the 5 lakh people.

3. The doctors in government hospitals should not be allowed private practice.

4. The ICMR study which was going on smoothly should be restarted immediately.

5. A prescription audit should be undertaken immediately. A 500 bedded hospital which the supreme court had ordered the Union Carbide to construct should be set up earnestly by the government without wasting any further time.

6. The centers started to provide jobs to people of Bhopal (they were making profit before they were shut down) should be restarted.

The above things are needed to be done immediately and there is a lifetime of work to be done and I am sure that the people of Bhopal are themselves capable of taking care of themselves provided there is no interference from profit seekers who like vultures are feeding on the dying at present.

The above write-up was based on material from the following sources:

1. Personal experience as part of the Occupational Health and Safety Centre (OHSC), Bombay.

2. Work being done by the Bhopal Group of Information and Action (BGIA), Bhopal.

3. Medico Friends Circle (MFC) write-up.

Occupational Health and Safety Centre
(OhSC) Bombay

1. Formation

The OhSC was formed in April 1988, in Bombay, by a group of trade unionists, lawyers, doctors, scientists, safety engineers, researchers and health activists.

2. Objectives

OhSC's objectives are to conduct surveys at workplaces, organise training and other educational inputs and assist in obtaining compensation etc., so as to help workers and unions to fight to create a safe and healthy working environment.

3. Studies/Advice

3.1 Sewage workers study:

The OhSC's first major project undertaken on the request of the Municipal Mazdoor Union (MMU) in 1988 was the study of the occupational hazards and working conditions of Bombay sewerage workers. The survey covered 200 out of the 400 workers of the main sewer department of the Bombay Municipal Corporation (BMC). On the spot study of the sewerage workers at work was done during the night hours followed by a medical examination. Based on the survey and health check-up, a report was published which described the hazardous working conditions and occupational related illnesses of eye, skin etc. The report made a series of recommendations on technical, medical, work organisational related aspects. Some of the major recommendations were that the continuous night shifts should be adjusted, regular medical check-ups be done, work environment be examined, systems of pre-entry and general ventilation be improved; and water and soap be provided. The MMU and the OhSC representatives have held a series of meetings with the BMC officials on the report and there have been positive changes to better the living conditions of the workers. The OhSC continues to be associated with the project work with MMU.

3.2 Transport and Dock Workers Union (TDWC) asked OhSC to visit their welding shop. A list of hazards of welding and necessary precautions were given by the OhSC and the union succeeded in getting the recommendations accepted by the authorities. The changes brought about have made welding work safer.

3.3 OhSC activists visited Talasheri near Dahanu (Dist.-Thane, Maharashtra) to assess the acute lead poisoning due to pollution from Hind Alloys Factory. This was arranged by the Centre of Indian Trade Unions (CITU).

3.4 Workers from Union Carbide Factory showed some symptoms of Manganese poisoning. The Manganese testing of their hair could not be done due to some unavoidable reasons.

3.5 Forum for Environmental Concern (Nirmala Niketan), a constituent of OhSC had conducted a survey of the dumping ground workers and published a report. OhSC and MMU was associated with the study.

3.6 The Bharat Petroleum Workers Union had obtained technical information from the OhSC for use in their intervention during the investigation of the major explosion at the BPCL factory. (1990)

3.7 A health survey of construction workers, working in the quarries at Saki Naka area was organised jointly by Nirmal Mazdoor union and the OhSC (1993).

3.8 The OhSC is assisting OTIS employees union in accident surveys and also investigating a fatal accident at the lift erection work site. (1991 up to now)


3.10 The OhSC helped organise a medical camp in Bhopal during the visit of the international commission in Nov. 1993.

3.11 The OhSC is conducting a campaign against Byesinosis (Occupational respiratory disease due to Cotton Dust) which includes Byesinosis Detection Camps like the one held in the Bombay Textile Mill on the April 4 to 6, 1994 and later on to file cases in the ESIC for compensation.

4. OhSC Clinic

The OhSC runs a regular clinic at their Dadar office on the first and the third Mondays of every month by a group of well qualified doctors, lawyers and health...
activists where workers are given medical and legal advice.

**Important cases handled at the OHSC clinic**

4.1 A sewerage worker who had developed impotence was referred to Slon Hospital and after a series of tests, a certificate to this effect was issued. The case was taken up by the union and the BMC has agreed to give an alternate job.

4.2 Mr. K., a worker suffered radiation burns on his hands while X-Raying a pipeline to detect a fault ten years back. A disability certificate was issued after evaluation. This case is being fought by an OHSC Lawyer at present by the labour commissioner.

4.3 Mr. C., employed by a contractor of the Bombay Port Trust (BPT) suffered pelvic fracture and urethral injuries. The disability certificate issued is being taken up by the BPT union to ask for compensation.

4.4 Two textile workers from the Sarve Shramik Sangh (SSS) had major hand injuries which could not be properly assessed for percentage-disability by the Workmen’ Compensation Act. Further information was collected from a booklet "Criteria to assess percentage disability (WHO Conference, Delhi)" and a certificate assessing disability, using these criteria was given. The case was taken up by the union and one of the workers Mr. P., from Hindustan Process House was given a compensation of Rs.16000/-.

4.5 A recently retired worker Mr. A., had suffered from an accident while going away from work, some years back and suffered a fracture of the thigh bone. He realised after attending the workshops for safety committee activists that the said injury is also compensable as per the law. An OHSC lawyer is filling the case for him.

**5.0 Training**

5.1 The OHSC has developed and has been conducting workshops for safety committee activists and members and individual workers. Four such one day courses have been held so far and it is becoming a regular feature of the OHSC. Nearly 15 different companies’ unions have sent their workers and safety-committee members for these workshops. The course covers legal provisions, role of safety committees and trade unions, health hazards, accident investigation and their prevention, control of chemical hazards etc.

5.2 The OHSC has delivered lectures at various training programmes as follows:

(i) OTIS Elevator Employees Union, Bombay

(ii) Rashtriya Chemicals and Fertilizers, Thane, Dist. Raigad, Maharashtra

(iii) Shramik Sevak Sangh, Chiplun, Dist. Ratnagiri, Maharashtra

5.3 The OHSC education cum exhibition was held for Blue Star Workers Union activists at Aarey colony, Goregaon in 1989.

5.4 An audio-visual presentation on the Hazards of Visual Display Units (VDUs) was held at the VJTI and for the journalists at the office of the Bombay Union of Journalists (BUJ).

5.5 A first-aid training camp for construction workers of the new MLA Hostel at Nariman point was organised by Nirmala Niketan College of Social Work and the OHSC in Jan. 1994. Training on safety also took place.

**6.0 Seminars Organised**

6.1 A half-day seminar was organised to release the sewerage workers report in 1993.

6.2 A one day training session on "Occupational Health and Safety Issues: A challenge to unions and professionals" was held in 1992 and attended by lawyers, doctors, engineers, enforcement officials, trade unionists and social workers. There were 35 participants in this training session.

**7.0 Publications**

7.1 A booklet in Marathi on occupational health and safety was published in 1992 and was distributed to the workers at a nominal cost of Rs. 2/-.

7.2 500 copies of the report entitled "A survey of the occupational health hazards and working conditions of workers from the main sewer department of the BMC" was printed and circulated among the workers.

7.3 "Computers and you" is the name of the joint publication of the OHSC and PRIA (Delhi) which is a write-up about the hazards of computers and how one can easily rectify them with minimum of expenditure.
7.4 Members of the OHSC helped prepare the booklet 'Diseases for which compensation can be claimed Part I and II' which was brought by PRIA (Delhi).

7.5 "Manual for Safety Committee members and workers" is the name of the publication being brought out, which would be given to the people attending the workshops for the safety committee activists which is held regularly by the OHSC.

8.0 Facilities:

8.1 Exhibition

A multi-lingual mobile poster exhibition on various aspects of occupational health and safety has been developed and has been shown to various audiences in factories, union offices and during training sessions conducted by the OHSC. It is available for use by any union or an organization.

8.2 Library

OHSC has a number of useful reference books on the subject which is kept at the OHSC office.

9.0 Membership

The OHSC has both trade union and individual membership with annual membership fees as follows:

i) Trade Unions Rs. 250/-
ii) Individuals Rs. 100/-

Address for communication:

6, Neelkant Apartments,
Gokuldas Pasta Road, Dadar (E),
Bombay - 400 014
Ph: 4150750

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Technoogy increases indoor pollution

Government and private research have found that pollution levels have increased drastically, with the use of modern building materials and air conditioning. A recent study by the U.S. Environmental Protection Agency (EPA) has shown that nearly 10,000 people die each year due to indoor pollution.

Dr. Alfred Munoz, a pulmonary specialist and president of the American Lung Association, says, according to the latest statistics, 100,000 people are exposed to an unhealthy environment at home, at work, or outdoors.

The well-known diseases in buildings are the moldy and moldy-furred plants, which affect the outdoor environment, and the indoor environment.

These sources have become an increasing problem in developed countries in recent years, as modern buildings are more tightly enclosed, and indoor pollution is more prevalent.

Indoor pollution is also a problem in developing countries, but the sources and pollution are different. Most pollutants come from outdoor sources, such as dust, smoke, and vehicle exhaust.

Indoor pollution can cause a wide range of health problems, including respiratory problems and heart disease. In developing countries, indoor pollution is also a major concern, as people are exposed to it for longer periods of time.

NATIONAL HERALD - March 29, 1994
1. One worker dies and another seriously injured in the collapse of canal wall:

On Feb. 23, 1994, in Nangloi area of eastern Delhi one worker died after the wall collapsed of a canal. Under the supervision of National Building Construction Company the work for water disposal was going on. The deceased worker Gurdev Singh and his partner Atul Paswan were digging the mud 20 feet below. The soil collapsed due to rain and both of them were taken to hospital where Gurdev Singh (23) died.


2. Slate pencil industry took the lives of 235 workers in last decade:

According to the Secretary of Madhya Pradesh Slate Pencil Workers Welfare Trust and Labour Officer Mr. Prakash Kundra, 235 workers died due to silicosis during the years 1985 to 1993. Four workers died only in the month of January, 1994. According to him those workers who are affected by silicosis and tuberculosis are provided rupees 300 to 500 for their treatment by the trust. Free service for X-ray of these victims is also arranged by District hospital.


3. Three workers died due to collapse:

On Feb. 24, 1994 at sector 24-25 of Faridabad (Haryana) three workers died while working in under construction hospital.


4. Eighty workers missing in mine accident:

On Feb. 25, 1994, 80 workers were reported missing in South Africa, after two mining accidents. In Virginia province due to collapse of roof of gold mine resulted in destruction of house. It was estimated that 13 people might have lost their life in this accident.


5. Seven workers died after blast in factory:

Seven workers lost their life and 22 sustained serious injuries after the blast in a factory at Dhulia district of Maharashtra.

Swaunta Bharat (Lucknow) March 26, 1994.

6. Child labour burnt alive by factory manager:

Information received from various reports reveals a disturbing trend in the field of child abuse and exploitation which is serious for all those concerned with the issue of human rights. The Centre of Concern for Child Labour (CCFCL), a member organisation of Child Labour Action Network (CLAN) has voiced its concern about a 15 years old boy Mohammed Zafrar Imran who was burnt by his employer Islam because the child worker asked for leave to visit his native place in Bihar. According to information received Mohd. Zafrar Imran who was working in the factory at Kutcha Pardak in central Delhi for the past several months wanted few days off to visit his native town Samastipur (Bihar) on April 6, 1994. The employer refused the leave to the child worker. Poor Zafrar slogged the whole day and again late in the night about 10:30 p.m. (after 12 hours of work) approached his employer for leave. The employer refused and poured kerosene on the tired exploited child worker and set him fire. Zafrar received about 80% burnt injuries and was admitted to the hospital. He gave statement to the police that his employer set him on fire because he asked for leave.


7. One worker died after hooked up in machine:

On March 22, 1994 Mr. Rajender Rai, lost his life while his leg strangulated in machine at Faridabad (Haryana).


8. Seven workers died:

On March 5, 1994, seven workers lost their life after the collapse of under ground mine in Shahdol, Madhya Pradesh.

Swaunta Bharat (Lucknow) March 6, 1994.

9. Mysterious deaths in Thailand due to Chemical:

Trade union leader Arunee Sito has called on Thai government to step up measures to protect workers’ health. Speaking on behalf of the working committee on the Health of Workers, she said at least five electronic workers employed in the Lamphun Industrial Estate died in December in mysterious conditions, possibly as a result of chronic lead poisoning.

Due to accident in New Kenda Mine at Asansol various articles appeared in the news papers highlighting the plight of miners and mining industry. The significant information given in some of them is here for the benefit of our readers:

A) EIGHTEEN COAL MINES TO BE CLOSED
A “turnaround” plan for the uneconomic mines of Coal India recommends closure and envisages an improvement by marginal investment. The proposal for the closure of 18 mines will render 16,000 people out of work.

The document has been prepared on the basis of the cost data provided by Coal India for 1992-93. It says that the 18 mines - 14 underground and four opencast - should be closed in a phased manner. The manpower could be redeployed in new or other reorganised projects. The production loss due to the closure of these mines totals 1.79 million tons per year.

Among the other measures suggested are better equipment and reduction of manpower with an voluntary retirement scheme. STATESMAN - February 9, 1994

B) COALMINERS FACE A SLOW AND DUSTY DEATH
As the death of 55 coal miners of the New Kenda colliery passes into cold statistics of at least 140 fatalities in collieries every year, tens of thousands of coal miners face a slow death called pneumoconiosis. Thousands of coal miners in the country are likely to be suffering from pneumoconiosis if the trends of the last official survey conducted in 1986 still hold.

The situation, according to industry sources, has been aggravated by the carelessness of the public and private sector companies, which failed to provide adequate safety measures and acquire enough dust sampling equipment, and make their workers aware of the dangers they face every day. And the Central Government watches impassively, documenting data on health and safety and making recommendations that are not heeded.

The mine safety norms have been flouted by Coal India Limited (CIL) and its six subsidiaries, Tata Iron and Steel Company (TISCO) and other public sector companies. The only exception perhaps is the public sector Neyveli Lignite Corporation in Tamil Nadu.

Though there is no record of the number of coal miners suffering from pneumoconiosis in the entire industry, the last of the five official surveys conducted in 1985 found that the percentage of affliction was 14.4. Considering that there are around a lakh colliery workers all over the country, it can be estimated that at least ten per cent of them, i.e., 10,000, have pneumoconiosis.

Moreover, the industry did not even acquire enough dust sampling instruments in the coal mines against an estimated requirement of about 300. The concern of the coal companies for their workers’ health is evident from the fact that the recommendation for creation of a separate department on occupational health services in each mining company was ignored by four of the 11 public and private sector coal companies. Most of the companies had also failed to draw up a health scheme in consultation with experts in the occupational health service, according to the last mines safety conference in December 1992. Only NLC and the Steel Authority of India Limited (SAIL) drew up the scheme. Efficient lighting arrangements adhering to statutory limits was provided only in 20 of the 44 mines run by BCCL.

PIONEER - February 7, 1994

C) THE HEAT IS ON
Fires rage in the Raniganj-Dhanbad-Jharia belt damaging coal, the environment, and the health of inhabitants.

Mine fires have a century-long history in Indian coalfields. The first such fire was reported in 1865 in the Raniganj coalfield, which has since been taken over by Eastern Coalfield Limited. In the Jharia coal belt, the first fire was spotted at Bhasra Colliery in 1916, and have since spread all over the region.

More worrying is the fact that these fires, which had been raging underground for several decades, have now come overground. Spread over a 17.32 sq. km., these fires have not only reduced over 42 million tonnes of prime coal to ashes, but also pose a grave danger to the environment and the neighboring habitations.

Moreover, because of the fires over Rs.50,000 crore worth of coal has been locked up. And it is estimated that even modern scientific methods will not help in extracting this coal.

When the first fire was reported in Raniganj, the then private colliery owners had not paid much attention to dousing it. Since then, the problem has assumed larger proportions.

According to a study done by the CMRS and IISM, about 75 per cent of the residents of the area, especially children, are suffering from various airborne diseases. And about 85 per cent of the miners, who work underground, have lung diseases.

Shiv Nath Jha
STUDY ABSTRACT

1. Pneumoconiosis in refractories and copper mines

by Shaw T and Deshmukh PA

This is a study of 100 patients, all males referred from the medical units of refractories and copper mines, having radiological abnormalities with or without symptoms.

Each group is of 50 patients. Patients from refractories belonged to silica section producing silica, fine clay bricks and copper mines patients belonged to underground workers with a minimum of 10 years duration of service, having radiological abnormalities. The cases were referred to our chest clinic with a suspicion of pneumoconiosis.

1. Diagnosis

2. Observation of lung impairment by carrying out Lung Function studies.

3. Detection of pulmonary Tuberculosis.

Findings:

1. It showed that 26 (52%) of the exposed refractory workers had developed silicosis during 5 to 15 years duration of service, whereas, only 14 (28%) among the copper mine workers were detected during this period. Similarly, a greater number of patients from the refractories were detected (17) during the 16 to 20 years duration of service. That is, up to 20 years duration of service in the refractories, 43 had developed silicosis compared to only 25/50 in the copper mines.

2. The earliest case of silicosis was from the refractories which was detected after only 5 years span of service.

3. About 16% cases showed lung function tests in normal limits, although they had the radiological abnormalities of silicosis.

2. Industrial Hygiene survey in Thermal Power Station

by Ghodasara NB, Sethawani NC, Shah SH, Parikh DJ and Chatterjee SK. (of NIOC, Ahmadabad)

An industrial hygiene survey was carried out in a boiler department of a thermal power station situated in Ahmadabad city having capacity of producing 500 M.W. electricity. Total airborne and respirable dust, thermal stress and carbon monoxide was assessed at work environment of boiler house of the thermal power plant. The total airborne and respirable dust levels were found higher than the threshold limit values prescribed by ACGIH, while heat stress and carbon monoxide were found below the TLV. Preventive measures were recommended to improve the work hygiene and minimise the occupational health hazards.

3. A Short study of 21 cases of Cyanide Poisoning among the workers involved in the detoxification of Cyanide in a canal in Madras

by Duraimaj A

Cyanide waste or spent cyanide in big lumps were dumped in Captain Cotton Canal - Ezhlinagar, Kodungaliyar, Madras city on August 6, 1989. Eleven buffaloes which consumed the water died within few minutes. Their viscera and blood confirmed cyanide poisoning. From August 21 to 24, detoxification operation of the cyanide wastes was carried out with calcium carbonate, sodium bicarbonate and bleaching powder, raising the pH to 11. The Madras Corporation workers were engaged in the clean up operation of the canal with personal protective equipments. Following the operation all the workers developed symptoms of cyanide poisoning and referred for treatment to the Government General Hospital.

58 suspected cases of cyanide poisoning were clinically examined and investigated. Their blood cyanmethaemoglobin levels, blood cyanide levels and serum electrolyte were determined and electrocardiogram and chest X-ray were taken. Cyanide poisoning was confirmed in 21 cases.

The workplace can present very serious dangers to health. Something that causes mild symptoms now could have serious long-term effects. Don't ignore headaches, frequent colds and coughs, dizziness or skin irritation. Symptoms may be caused by poor working conditions or chemicals. The following diagram shows the type of health problems that work can cause.

**EYES** Symptoms: redness, irritation, watering, grumpy feeling, "welder's flash", conjunctivitis, blindness. Common Causes: smoke, eye strain, mechanic fumes (ozone), fumes (ammonia), metal dust, acids, eye strain, ultraviolet radiation.


**CHEST & LUNGS** Symptoms: watering, congestion, dry cough, shortness of breath after mild exercise, flu-like symptoms (metal fume fever). Common Causes: organic dust (e.g. cotton and other textile dust, detergent enzymes, animal products, molds), dusts (e.g. asbestos), metal oxides from welding.

**MUSCLES & BACK** Symptoms: soreness, strain. Common Causes: excessive or improper lifting, bending, vibration, poorly designed chairs, heavy carrying loads, psychological stress.


**NERVOUS SYSTEM** Symptoms: stress, nervousness, irritability, sleeplessness, tremors, heart palpitations, anxiety, depression, fatigue, emotional instability, poor concentration, memory disturbance, hypertension, gas/tic ulcers. Common Causes: speed-up, poor work pace, noise, metal poisoning (lead, mercury), sexual harassment, shift work, exploitation, lack of job control, solvents, pesticides.


**EARS** Symptoms: ringing, temporary deafness, hearing loss. Common Causes: trauma caused by excessive noise (e.g. explosions).

**TEETH & GUMS** Symptoms: corrosion of tooth enamel, blue gums. Common Causes: acid fumes, cellulose acetate production, lead poisoning.

**ARM & HAND** Symptoms: pain, swelling, numbness, tingling, cuts, loss of fingers, hand or arm. "White fingers". Common Causes: rapid repetitive movements, vibration, dangerous machinery.

**LIVER** Symptoms: disturbed liver function, liver cancer. Common Causes: polychlorinated dibenzofurans, dibenzodioxins, hexachlorobenzene, methylenediamine, vinylchloride.


**BONES** Symptoms: arthritis, (early) arthritis. Common Causes: excessive vibration, constant dampness, physical overwork.

**REPRODUCTIVE SYSTEM** Symptoms: miscarriage, irregularities in menstruation, anatomical or functional disturbances in the offspring, diminished fertility. Common Causes: lead, pesticides, ionizing radiation, anesthetic gas, polystyrene production, xylene, some solvents, benzene, lead, mercury radiation.

This page is adapted from 'Work Hazards', July 1982, with additional comments from R. G. Dry (Health Advisor, Dutch Ministry of Foreign Affairs) and T. F. Schneider (Nijmegen University).
1. Asbestos Action in Japan:

In Japan many workers in various industrial sectors are exposed to asbestos. For example, workers who work in dockyards, automobile factories, bakeries, and printing factories. Japan is still the biggest importer of asbestos in the world. Therefore, sufferers from asbestos-related diseases such as lung cancer, asbestosis, and mesothelioma will not decrease. The number of sufferers who were given workers compensation insurance was 10 in 1988, 13 in 1989, 16 in 1990, 18 in 1991.

2. Rubber - Do the benefits outweigh the risk?

Rubber gloves provide effective protection when used with care, but the allergy risk is not to be taken lightly.

Of major concern in natural rubber latex (NRL) in medical instruments and rubber protectors; the main problem for nursing staff is dermatitis, but for patients, contact with rubber may have more dangerous consequences.

The effect of rubber exposure has varying degree of severity. NRL gloves worn by a nurse or examining physician can elicit a nasty skin reaction in patients allergic to natural rubber. The risk of anaphylactic is at its greatest when the allergen comes into direct contact with mucous surfaces. More than twenty fatalities have reportedly occurred in US during the radiological examinations of rectum and the large intestine; anaphylactic shock resulted from internal contact with a rubber ball attached to the end of catheter inserted into the intestine. Severe allergic reaction have also occurred in Finland under similar circumstances, although luckily no fatalities have resulted.

Precautions should be taken against NRL allergy during surgery, dental work and radiological and gynaecological examinations. Norebutan, a chemical sprayed on surgical wounds, may have unwanted side-effects for patients allergic to thiuram. Rather than helping the healing process, it may cause the wound to become inflamed. Exposure to Antabuse and Esperal (drugs used in the treatment of alcoholism) or Kultasaa (used for treating secalas) can elicit a skin or heart reaction in patients allergic to thiuram.


3. Overwork in Hongkong:

More and more Hong Kong workers are compelled to work long working hours to catch up with high living standards on the meager salary. This is reflected by the CTU review on working hours. The fact is there is a 9% increase in the number of people who work more than 50 hours a week when compared to last year. They are engaged in overtime work in order to make enough earnings. This directly affects their health and family life.

For the sake of workers’ health, the CTU is fighting for improvement of working conditions through collective bargaining. The CTU also calls upon the business community to show concern over the trend of increased working hours in Hong Kong and to reduce them to a reasonable level.

<table>
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<th>Weekly working hour</th>
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<tr>
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Published by Hong Kong Confederation of Trade Unions.

4. WORLD MINING SAFETY STANDARDS SOUGHT

The first ever International Convention on Safety and Health in Mines will be up for negotiation at the International Labour Conference in Geneva this June. The conference is the annual plenary of the UN’s International Labour Organisation (ILO), in which workers, employers and governments are represented on equal terms. ILO Conventions, which are ratifiable and binding, set international standards on labour-related issues.
This year's session will be the first of a two-year process which should lead to the adoption of the new Convention. Coordination the Trade Union side is the Miner's International Federation, whose lobbying got the much-needed on the conference agenda in the first place.

The MIF will be pushing for a convention that ensures basic health and safety rights, including trade union rights in this field. "We all know that the actual battle for a safe and healthy workplace is always fought in the enterprises", the miners' international says. "What we want to ensure is that the battle can be fought in fair conditions".


5. Occupational Diseases among workers in the Free Trade Zone in Sri Lanka.

A German owned company which is situated in free trade zone at the outskirts of Colombo and produces hand gloves, is pointed out to be providing the worst living and working conditions to the workers. The total 2,000 people (men and women) are employed in this factory and about 200 of them are exposed constantly to liquid chemicals and fumes in the dyeing section of the factory. No safety equipment is supplied to the workers, nor are safety measures followed. Even though workers have complained of skin diseases and lung problems, the management has ignored them.

Since there are no effective mechanisms for implementing the laws related to occupational health, the management gets away with their violations of workers' rights to compensation and other welfare measures.

Victimisation of worker-leaders is a common phenomenon and it is much more in free trade zones. Mr. George Jayaratnam who tried to take up the issue of occupational safety in the workplace was sacked.
1. NIOSH BOOKSHELF (Revised).

The purpose of this document is two fold: firstly, to provide a listing of basic reference publications of National Institute for Occupational Safety and Health (NIOSH) and secondly, to supplement the latest NIOSH Publication Catalog (7th edition, 1987).

For copy write to:

National Institute for Occupational Safety and Health Division of Standards Development and Technology Transfer, ATTN: Publications, C-13 4676 Columbia Parkway, Cincinnati, OH 45226-1998 Fax: (513) 533-8573

2. The perfect Crime: How Companies Can Get Away With Manslaughter?

This unique investigation into 28 workplace deaths in the West Midlands reveals how company directors and senior company officers could commit serious criminal offenses, including the manslaughter, and never face the courts. It shows how, through inadequate or incompetent investigations, and an apparent lack of will to criminalise employers' conduct, official investigative bodies allow this to happen.

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