

# Shipyards, Ship-breaking Industry and Railways

Moderator: Paul Bastian

There were, said the first speaker in this session, about 60,000 Indian workers in the ship-breaking yards who lived in abject poverty and suffered all the consequences associated with financial deprivation including poor health, lack of access to clean water and medical care, and exploitation. Having visited a Mumbai ship-breaking yard, a team of the International Metalworkers Federation (IMF) resolved to put into practice a 1997 IMF resolution to organize the unorganized. The IMF's General Secretary Marcello Malentacchi explained the urgent need to:

“gather information on the working conditions of the shipbreaking workers in Mumbai and Alang, regarding wages, working and living conditions, migration and the economic status of workers... the shipbreaking workers have never had any organization or voice to speak up for them and defend their most basic rights. There is no legislation directly covering the industry which means no protection whatsoever for the workers and very little information available about working conditions.”[96]

In the presentation *Organizing Migrant Shipbreaking Workers in India*, by Sudhershnan Rao Sarde, an IMF representative from the South Asia Region, the speaker delineated the phased approach which the IMF team put into place which began with providing water, ambulance services and first-aid boxes. Having gained the workers' trust, the next steps were to conduct a blood donation camp, issue identity cards and offer reduced rate subscription for ship-breaking workers [97]. Mohalla (Neighborhood) Committees, which were formed to help integrate migrant workers into civil society, created a sense of confidence and security for the workers. The news of this pioneering initiative spread to Alang.

The IMF's work was not warmly received by all stakeholders; there was stiff resistance from employers, moneylenders and local mafia. These obstacles were overcome and the Alang Sosiya Ship Recycling and General Workers Association – the only union for ship-breaking workers in India – was registered. This body conducted a survey on the socio-economic conditions of migrant workers which identified linguistic and cultural challenges and established that 96% of the workers were internal migrants from economically backward states of India. Following the submission of this research to the Supreme Court of India, a Monitoring Committee was appointed to study the conditions in the ship-breaking yards. On March 23-24, 2009, 20,000 ship-breaking workers at Alang went on strike; the strike, led by the Alang Sosiya Ship Recycling and General Workers Association, was successful.

*Report of Malignant Mesothelioma Caused by Occupational Exposure to Asbestos in Taiwan Shipyards* was the subject of the next presentation which was given by a representative of the Taiwan Association for Victims of Occupational Injuries (TAVOI). Between 1967 and 1995, asbestos victim Mr. Lee worked in the Keeulung Shipyard operated by the China Shipbuilding Corporation of Taiwan. He undertook installation work and seam welding of pipelines; these jobs would have brought Mr. Lee into contact with asbestos which the shipyard admitted it had used in insulation materials. In 2007, more than a decade after he retired, Mr. Lee was diagnosed with mesothelioma; he died shortly thereafter. The family was informed by a doctor that the death had probably been caused by work; a case was put to the city government requesting arbitration with the employer on the subject of compensation. TAVOI staff helped the Lees obtain a diagnosis certificate from the Occupational Disease Certification Committee and armed with this they were fighting for compensation. The second case discussed related to Mr. Siu who had worked for 23 years in the Cijin Military Shipyard of Kaohsiung in Taiwan as a ship repairer. After suffering a heart attack in 2006, he was diagnosed with mesothelioma; in 2007, his condition was certified as an occupational illness.

The situation in the Taiwan shipyards was put into perspective by the next presentation, *Shipbuilding and Mesothelioma in Europe and in Asia*, by Dr. Claudio Bianchi from the Center for the Study of Environmental Cancer, Italian League against Cancer, Hospital of Monfalcone, Monfalcone, Italy. The speaker, having detailed the history of the Italian shipyard industry, described the consequences for Italian shipyard workers of their occupational asbestos exposures. Anecdotal evidence, backed up by scientific and epidemiological data, revealed a strong relationship between shipbuilding and mesothelioma. A review of 451 cases of malignant mesothelioma of the pleura, diagnosed in 1968-2008 among shipyard workers in the Trieste-Monfalcone area, northeastern Italy, showed the following:

- the mean and median ages of the patients were 68.9 and 69.0 years, respectively;
- about 75% of the patients had been employed in the shipyards for more than 20 years;
- in 104 cases, asbestos bodies were isolated after chemical digestion of lung tissue; 53% showed more than 10,000 bodies per gram of dry tissue;
- more than 65% of patients received their first shipyard asbestos exposures before 1950, 12% in the 1960s and 3.5% in the 1970s;

- the lag between asbestos exposures and the manifestation of disease ranged from 14-72 years; in the vast majority of cases, latency periods were more than 40 years.

Graphs shown illustrated the concurrent decline in European ship production and the rise in Asian ship produc-

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tion between 1955 and 1971; despite fluctuations in demand from 1981 to 1990, Japan and South Korea became world leaders in ship construction. The experience of workers from the Trieste–Monfalcone shipyards suggested that a mesothelioma epidemic would occur due to occupational exposures at the big shipyards in Eastern Asia in the coming decades.

Given the widespread usage of asbestos in transportation infrastructure, the contamination of older European railway vehicles is a common occurrence. How countries which have banned asbestos deal with this contamination highlights the existence of accepted clean-up measures which minimize occupational hazards. In his presentation, Heinz



*The contaminated dump is first sealed.*



*Access tunnel for clearance of contaminated waste.*

Kropiunik quantified the problem in Austria, showed photographs of faulty working practices and explained a decontamination program which safely removed huge quantities of asbestos-containing material (ACM) from hundreds of Austrian rail vehicles. According to available estimates, a typical Austrian rail vehicle built during the 1960s-1970s could contain between 40 and 80 kilograms of ACMs; these products were used for acoustic, thermal and electrical insulation and fireproofing. Common ACMs in railway vehicles included sprayed-on asbestos insulation, which was extremely friable and had a high asbestos content, panels, ropes and boards.

According to Austrian law, after rail vehicles reached the end of their working lives they could be scrapped, but only after all ACMs had been professionally removed. About 10 years ago, the Austrian Federal Railways sold 400 rail vehicles to a private company which scrapped them over 3-4 years without taking any notice of the asbestos contamination which was present. The ACMs and other hazardous materials were dumped illegally; the contaminated debris – about 8,500 m<sup>3</sup>, containing 20+ tons of asbestos – formed two huge mounds. In 2004, local authorities as well as the media became aware of this problem. The private company which did the illegal scrapping of the rail vehicles was obliged to remove the waste dumped on the hillsides. A plan devised by the speaker and his team to remove the debris was approved by the local authorities; work began in March 2009 and was scheduled to take 30 workers 3 months to complete.