

# LABOR SAFETY AND HEALTH INSTITUTE

377 Park Avenue South (27th Street)  
New York, New York 10016  
212-689-8959

*"To assure safe and  
healthful working conditions  
for working men and women..."*

GUIDE # 9

FRANK GOLDSMITH, Director

## SILICOSIS AND DUST CONTROL PROGRAM

### IN A

### LOCAL UNION

Tunnel excavation work is extremely hazardous work. Dynamiting, drilling and mucking out accompanied by working at great depths below sea level yield occupational hazards which place workers at increased risk to their health and lives. Tunnel workers ("sandhogs") constructed the Holland and Lincoln Tunnels; subways in Washington, D.C. and New York City; and were preparing to construct a tunnel under the English Channel. No city can exist without tunnels for its sewage and other vital necessities. Yet, few city residents are aware of tunnel workers and construction hazards they face.

#### The Environmental Water Tunnel

Fresh drinking water is brought into New York City via two tunnels from up-state New York reservoirs. These two tunnels were built in the 1910's and 20's and are in dangerous disrepair. Experts agree that these tunnels cannot be cleaned out, they are beyond repair. A third water tunnel was deemed necessary to replace them as a source of water supply. Thus in 1970, the New York City Board of Water Supply accepted bids and contracts were let to a group of five major tunnel construction companies to commence work on the "Third (Environmental) Water Tunnel". The tunnel is 800 feet below sea level.

A construction union, the Tunnel Workers Union Local 147, of the International Laborers Union, began recruitment of workers for the project and work commenced in 1971. Six years later, in 1977, a cruel toll has mounted in deaths and sickness from hazards in the tunnel. Eighteen workers have been killed, many have suffered crippling injuries, and many now have developed silicosis, a debilitating lung disease. This lung disease is caused mostly by silica (rock) dust.

The tunnel is now shut down due to lack of funds from the City of New York. The funds cut-off came as a result of structurally weak ceilings and walls of the tunnel which require steel supports to end dangerous rock falls which increase hazards and lead to the destruction of the tunnel before it is used. Without

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these steel supports the same conditions which now exist in the first two tunnels would result in the third within a very few years. Prior to the cut-off of funds, over 1,600 workers were employed.

Local 147, prior to this project, had established an excellent safety work record in construction of various city projects. Only one worker had been killed in the previous twenty years. The union's safety record came after suffering decades of illnesses and deaths in the construction of, for example, the Holland and Lincoln Tunnels. These tunnels were constructed under "compressed air" which has the job-related risk of an illness known as "caissons" (or decompression) disease, a crippling bone disease. The subways, sewage and water tunnels are fresh air tunnels.

### Safety Training

A major problem facing this new job resulted when the involved construction companies began hiring new workers who had no previous tunnel construction experience. The handling of explosives, working with an underground narrow gauge railroad, and other unique underground construction work require experienced workers. The companies provided no training programs. The union did not sit still in this situation. It invested its own money and sent union safety and health leaders to the Bureau of Mines in Pittsburgh for advanced safety training. Union training classes were held in New York City to up-grade the importance of working safely for the whole membership. Without this emphasis on safety, the death and injury toll in the water tunnel doubtlessly would have been greater.

### Tunnel Hazards Numerous

The membership of the union is aware of the health hazards associated with excessive noise exposure. Hard-of-hearing workers are very common because of the failure to take precautionary action to prevent ear damage. The smell of oil fumes from drilling machines cannot be escaped in the tunnel unless proper ventilation is installed and maintained. Workers are also very aware of the high dust levels in the tunnel. However, in the past, they were not as aware of the long term effects of breathing rock dust as they are now.

### Learns From History

The union leadership has informed all of the union members about the criminal story of Gauley Bridge, West Virginia in the early 1930's. In this tunnel project, the Union Carbide diverted the meandering New River from Hawks Nest to a power station to be built near Gauley Bridge. A book called Hawks Nest was written about this episode in labor history, but the company, to conceal the disaster, bought all the copies. Congressional hearings in 1941 heard the U.S. Public Health Service report of how 476 workers died of silicosis with as little as three months exposure to rock dust from the tunnel. The death toll was probably far higher. It usually takes at least fifteen years to show breathing impairment caused by silicosis. Thousands suffered permanent lung damage. A New York City member of Congress, Vito Marcantonio, lead the Congressional hearing into this carnage since many of the workers came from New York State seeking jobs.

This awareness of labor history and the mounting breathing problems faced by Local 147 membership brought the union into action to seek remedies against this

disabling disease. However, a major obstacle stood in the way of a medical program to protect tunnel workers from silicosis.

### Workers' Comp "Catch-22"

Up to July, 1974, the New York State workers' compensation system did not cover workers with permanent, partial disability from dust diseases. This prohibition has run through the whole history of the New York State law since its inception in 1914 with the exception on one year, 1934. This one year coverage came as a result of the public outcry from the Gauley Bridge exposé. However, the insurance companies and employers created a giant scare among companies, unions, and politicians at the time, saying that the workers' compensation system would be destroyed, run financially dry, if this provision was retained. In addition, thousands of construction and manufacturing workers who refused to submit to employer x-ray examinations by company physicians were laid off. They refused the test for fear of being found unhealthy, being laid off, and not hired by other employers. These examinations would have reduced the employer's liability if the worker applied for permanent, partial disability benefits in the future. Thus without one worker receiving permanent, partial disability workers' compensation, the New York State Legislature withdrew this provision.

But the "Catch-22" only begins here. To be able to collect for permanent, total disability under compensation law, a worker must report to the Compensation Board, within a 30 day time limit, any suspected or diagnosed silica damage even though they could not collect on a partial disability claim.

This seems a rather simple, innocuous, if not meaningless thing to do, however, workers justifiably fear that their employers, who must be informed of this report under law, will terminate their employment just as they feared 40 years ago. Employers do this to avoid a rise in their workers' compensation insurance premiums once the worker becomes totally disabled and receives an award. Under compensation law, only the last employer's insurance company pays. Thus the last employer of the compensated workers receives premium increases. Since July, 1974, under tremendous pressure from the labor movement, lead by Local 147, and against stiff employer resistance, the New York State Compensation Law was amended by the Legislature so that workers employed after that date can collect for permanent, partial disability for dust diseases. However, this provision does not cover workers working before that date. Protecting workers who are collecting permanent partial workers' compensation for dust diseases from employer discrimination (firing the workers before total disability set in) may still be a problem.

### Union Program Fills Gap

Local 147 leadership launched a special medical program for its membership which partially filled the loophole in the workers' compensation law. It is similar to medical screening programs which unions in similar situations utilize. (See Guide # 8 on Noise Control Programs).

The keystone of the Local 147 dust control program is to make a medical test available to the union member which reports the worker's health status, but at the same time protects the worker's confidentiality. It also guards against incriminating union officials who can be subpoenaed by the workers' compensation board to give evidence against the claiming worker and union member. Compensation hearing officers responding to the demands of the company's insurance carrier can

call union officials to testify that the official and the worker knew of the illness, but didn't inform the employer or compensation board within the prescribed 30 day time limit. This knowledge would make the claim invalid.

The union made arrangements with Mt. Sinai School of Medicine's Environmental Sciences Laboratory for workers to receive chest x-rays. A numbering system was used so that only the worker knows the chest x-ray results and diagnosis. A composite of all the chest x-rays are grouped together for analysis by the union and laboratory. Under this system, 1) only the worker knows the degree of lung impairment; 2) the union and the construction companies can know to what extent the dust is creating an occupational hazard problem in the tunnel; 3) the company and union do not know the health status of the individual workers; 4) union officials are protected against workers' compensation subpoena; 5) workers can judge for themselves at what point they will quit working in the tunnel and/or seek workers' compensation for permanent total disability, or since 1974, permanent partial disability.

### Dust Control in Tunnels

In order to test for dust concentrations and for proper ventilation, the union had to first settle a jurisdictional dispute between the Bureau of Mines, Interior Department (under the Coal Mine Health and Safety Act) which had the expertise, but no legal jurisdiction, to conduct these tests, and the Occupational Safety and Health Administration of the Labor Department (under OSHA law) which had no expertise, but had legal jurisdiction on this issue.

It took over two years to reach an agreement by which OSHA would use Bureau of Mines expertise to test for silica concentrations and ventilation effectiveness. In 1978, the Labor Department has taken over all legal and scientific apparatus under the Coal Mine Health and Safety Act. This reshuffling may result in more foot dragging in standard setting and enforcement programs on the short-run, but should be a positive step on the long-run.

### Tunnel Shutdown Ends Programs

The shutdown of work in the tunnel suspended the medical surveillance program with Mt. Sinai and the attempts to bring effective ventilation systems into the tunnel.

### The Solution

A solution to this complicated compensation problem is the revision of New York State Workers' compensation laws which will:

1. Award workers' compensation for permanent partial disability for all dust diseases, regardless of date of employment;
2. Take aggressive action against employers who discriminate against workers who have a permanent partial disability which may develop into a total disability;
3. Penalize worker'compensation insurance carriers who consistently and unnecessarily controvert every workers' claim for compensation for dust diseases and other job-related health problems.

In addition, proposed national health legislation must cover the whole cost of preventive and health screening, including periodic out-patient exams. Until that time, third-party payment insurance companies, (i.e. Blue Cross, Blue Shield, Group Health, Inc., and commercial carriers) should cover these exams with no increase in premiums.

Hospital out-patient, emergency, and in-patient facilities can utilize this added insurance coverage through revision of existing hospital procedures. (See Labor Safety and Health Guide # 2 for details.)

In addition, extensive training and education programs, at no cost to workers or the union, should be mandatory. These should be conducted on working time.

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