

Date	Exhibit	Source	Author	Information	Significance
1932	NSC-SB1	"The Effects of Inhaled Mineral Dusts." National Safety Council	Leroy U. Gardner	Asbestos dust, perhaps because of its fibrous structure, is not transported very far within the lung. It tends to lodge along the walls of the finer tubes and little of it is removed by the lymphatic drainage system. Tissue reaction, probably initiated by the solution of fibers, occurs in their immediate vicinity. As in the case of silica this reaction consists of an overgrowth of the connective tissues which is later transformed into leather-like scars.	Scarring & Cancer from Asbestos Known
1933	NSC-SB2	"How to Determine the Dust Content of the Atmosphere in Dusty Industries." National Safety Council	Dr. E.G. Meiter.	When small particles of dust are spread into the air, they swirl around like smoke and fall to the ground very slowly. A law of physics demonstrates that a very small particle will only fall 20.3 feet in 24 hours. This shows that fine dusts that are spread into the air are not only dangerous for a few moments, but for a very long time. Workers often do not know this fact, and assume that once they can no longer see a dust cloud, the danger is all gone.	Scarring & Cancer from Asbestos Known
1933	NSC-SB2	"How to Determine the Dust Content of the Atmosphere in Dusty Industries." National Safety Council	Dr. E.G. Meiter	The importance of atmospheric dust as an agent in the causation of respiratory disease has long been known. However, it is only within the last few years that this subject has achieved medical and legal importance in dusty industries. Because of the extension of compensation laws to include occupational diseases, and through an ever-increasing number of legal suits against industrial concerns by employees claiming disability due to dust inhalation, there is need for a severe attack on the problem of eliminating or otherwise combating the dust hazard. (p 39)	Scarring & Cancer from Asbestos Known
1934	NSC-SB3	"Types of Dust that Cause Occupational Diseases." National Safety Council	Leroy U. Gardner, M.D.	The only other type of dust which is generally recognized as a cause of severe pulmonary injury is asbestos, a silicate of magnesium. This substance is fibrous in character and is more readily soluble than quartz. Apparently the protective upper respiratory mechanisms seem inadequate to prevent the inhalation of many such fibers and even quite long ones may penetrate into the finer bronchial tubes. These structures have irregularities in their walls which seem to hold the fibrous dusts. In this location the asbestos particles are surrounded and ingested by phagocytes... Apparently most of them carry their burden of asbestos fragments directly into the walls of the tubes in which they lie. The mildly irritating dust sets up a proliferation of the connective tissue cells in the walls resulting in collar-like thickening of the tubes. Contraction of the new connective tissue narrows or closes the tube and thereby shuts off the ingress of air to the more peripheral air spaces. These spaces then collapse, a condition known as atelectasis. This in itself is a cause of fibrosis or scarring of lung tissue. The result is a fibrosis of numerous relatively small areas in the lung due to the collar-like constricting fibrosis about many small	Scarring & Cancer from Asbestos Known

				terminal bronchial tubes. Not a few cases of asbestosis die of tuberculosis or bronchopneumonia...	
1935	NSC-SB4	"Silicosis and Silico-Tuberculosis – Medical Problems of an Important Industrial Disease." National Safety Council	Edgar Mayer, M.D.	Silicates, as in asbestos, produce a definite change in the lung, as well as other dusts... Such changes are represented by a fibrosis brought about because... insoluble, minute particles of minerals in sufficient concentration have been brought by the activity of phagocytic cells into intimate contact with the pulmonary connective tissue. This fibrosis is a diffuse cellular one that occurs in walls of the smaller bronchi and all of their finer divisions and extends to involve the supporting connective tissue of the adjacent blood vessels and to some extent also the walls of adjacent air spaces. (p 128)	Scarring & Cancer from Asbestos Known
1936	NSC 55	"The Lesser Known Facts About Common Occupational Diseases." National Safety Council	Dr. Robert B. Hunt	Asbestosis is a disease that develops very slowly. Firstly, dust collects in a worker's lungs and causes changes in them. Scar tissue then begins to grow over the parts of the lungs that have been affected, in order to heal them. However, the scar tissue may not stop growing even after the lesions are healed. This scarring makes it difficult for the lungs to work, and can eventually make the lungs stop completely. By the time a worker becomes disabled from Asbestosis, it could be months or years after he has stopped working in dusty conditions.	Scarring & Cancer from Asbestos Known
1937	NSC-SB5	"The Doctor's Part in Controlling Dust Hazards." National Safety Council National Safety	A.D. Lazenby, M.D.	Only a few kinds of dust can truly be considered dangerous. Asbestos dust is one of these: it produces fibrosis of the lungs and makes the victim more likely to catch respiratory infections, especially tuberculosis.	Scarring & Cancer from Asbestos Known
1938	NSC-SB6	"The Trend of Occupational Disease Legislation." National Safety Council	Henry D. Sayer	Dust disease results from years of exposure, and leads to disability. ...Fibrosis of the lungs, once acquired, is permanent and incurable, and, in uncomplicated cases is not susceptible to medical treatment. (p 217)	Scarring & Cancer from Asbestos Known
1937	NSC-SB5	"What Industrial Dusts Are Harmful? Why?" National Safety Council	Senior Surgeon R.R. Sayers.	Breathing dusts that contain silicates can be harmful to lung tissue. Asbestos dust seems to be the most dangerous of the silicate dusts. It causes more severe disease and affects more people.	Scarring & Cancer from Asbestos Known
1934	NSC-SB3	"The Dust Hazards in Industry." National Safety Council	Dr. R.R. Sayers.	During the past few years, scientists have become aware that asbestos dust is dangerous. Asbestosis, a fibrosis (disease) of the lungs caused by breathing asbestos dust, has already been documented by investigators in other countries. No studies have been reported yet in the United States.	Scarring & Cancer from Asbestos Known
1935	NSC-SB4	"Occupational Diseases Made Compensable in North Carolina." <i>National Safety News</i> .		North Carolina amended its Workmen's Compensation Law so that employers must now compensate (pay) workers with occupational diseases, in addition to those who suffer accidents on the job. Asbestosis is listed as a disease for which employers must compensate. North Carolina was the 12th state to change its Workmen's Compensation Law in this way.	Scarring & Cancer from Asbestos Known
1937	NSC-SB5	"Work of the National Silicosis Conference."	R. Campbell Starr	Workers who develop tuberculosis and silicosis should not continue working. The company	Scarring & Cancer from Asbestos Known

		National Safety Council		should provide compensation payments and medical care.	
1935	NSC-SB4	"Respiratory Protective Devices." National Safety Council	Carlton E. Brown, Chemist and William P. Yant, Supervising Chemist.	Workers need to use respirators to protect against breathing dust Existing respirators not effective enough U.S. bureau of Mines performing tests to develop better respirators	Known: Respirators Not Effective
1934	NSC-SB3	"Using Exhaust Systems and Respiratory Equipment to Protect Workers Exposed to Dust." National Safety Council	Stuart W. Gurney and David S. Beyer	Filter respirators are the simplest way to protect workers from dust hazards. These respirators are good to use during quick tasks such as sweeping up, cleaning out bins, shoveling materials, etc. But employers need to provide constant supervision to make sure that workers are using the respirators correctly, and also to ensure that respirators fit properly.	Duty to Protect Workers
1933	NSC-SB2	"The Mechanical Control of Dust." National Safety Council	E.O. Jones	Many companies provide equipment, such as positive pressure helmets and respirators, to employees who work in extremely dusty conditions. But some employees do not use this equipment, even though it is for their own protection. Companies need to do a better job of supervising their employees to make sure that they are protected.	Duty to Protect Workers
1934	NSC-SB3	"The Medical Supervision of Workers Exposed to Dust." National Safety Council	W.J. McConnell, M.D.	Providing medical examinations of employees is the best way for companies to see if their dust control systems are working. It is very important for workers to be examined and cared for periodically in order to prevent dust diseases and also to make sure that dust exposures are being well controlled.	Duty to Protect Workers
1934	NSC-SB3	"The Medical Supervision of Workers Exposed to Dust." National Safety Council	W.J. McConnell, M.D.	Companies need to set up medical programs to protect employees exposed to dust. Program steps: 1. A medical department with proper facilities and medical personnel who are trained in industrial medicine. The medical supervisor should analyze all operations in the plant and make a list of all possible health hazards. 2. The medical staff should physically examine all people applying for jobs in the plant, to make sure that they are not already sick or at increased risk for lung disease. 3. Employees should be assigned jobs according to their level of health. 4. The medical staff should physically examine all employees on a regular basis. 5. Employees who develop disabilities while working should be given new jobs that will not make their disabilities worse, or they should be given monetary compensation.	Duty to Protect Workers
1937	NSC-SB5	"What Industrial Dusts Are Harmful? Why?" National Safety Council	Senior Surgeon R.R. Sayers	The best way to treat industrial injuries and illnesses is to prevent them. One of the most crucial steps in preventing them is to monitor employees' health through periodic medical examinations, starting from the time they are hired.	Duty to Protect Workers
1938	NSC-SB6	"Handicaps in the Diagnosis of Occupational Diseases." National Safety Council	Carey P. McCord, M.D.	Companies need to tell physicians when employees are exposed to harmful substances at work. If companies cooperate with doctors, workers' health will be better protected.	Duty to Tell About Employee Exposure

1935	NSC-SB4	"Some Practical Considerations in Dust Control." National Safety Council	J.J. Bloomfield.	Four methods of dust control are: (1) substitution of harmless substances or others that don't create dust; (2) isolation of the dusty operation; (3) wetting the dust at its source; (4) local exhaust ventilation. Personal respiratory protection may also be used. (p 123)	Ways to Protect Workers Known
1932	NSC-SB1		Leonard Greenburg	Asbestos dust has been shown to cause fibrosis of the lungs, resulting in death. Four ways to protect workers against hazardous dust are: (1) Using wet processes instead of dry ones; (2) Blocking off areas where dust is produced; (3) Removing dust by using exhaust hoods; (4) Using respirators and helmets.	Ways to Protect Workers Known
1939	NSC-SB7	"Occupational Disease Control – Thursday Morning Session, October 19, 1939." National Safety Council	Speaker: Dr. E.G. Meiter	Doctors believe that there is enough information available to employers to prevent occupational dust diseases. If companies are not taking action to protect their workers, it is because they do not want to, and not because they do not know enough to.	Ways to Protect Workers Known
1931		"Editor's Note: From Information Circular No. 6439 of the Bureau of Mines." <i>National Safety News</i>	Dr. R.R. Sayers, Chief Surgeon	Cases of Asbestosis have been reported by numerous scientists. An important study was done to determine the best way to control dust. Local exhaust ventilation systems were found to be the best.	Ways to Protect Workers Known
1937	NSC-SB5	"What Industrial Dusts Are Harmful? Why?" National Safety Council	Senior Surgeon R.R. Sayers.	It is extremely important to stop hazardous dusts from being spread through the air. Once they get into the air it is very difficult to protect people against breathing them. In general, the best way to control dust hazards is to use exhaust ventilation systems.	Ways to Protect Workers Known
1934	NSC-SB3	"The Dust Hazards in Industry." National Safety Council	Dr. R.R. Sayers.	There are many ways to protect workers against toxic dusts. One way is to use a non-toxic material instead of a toxic one. Another way is to use wet instead of dry processes. The best way to eliminate dust hazards is usually through exhaust ventilation systems.	Ways to Protect Workers Known
1937	NSC-SB5	"Work of the National Silicosis Conference." National Safety Council	R. Campbell Starr.	Recommended ways to protect workers from dust exposure: Survey the working conditions to determine how dangerous they are and how to make them safer. Research best way to make conditions safer. Design plant for dust controls. Provide building ventilation. Store dusty materials in dust-tight bins. Isolate dusty processes.	Ways to Protect Workers Known
1935		"Respiratory Protective Devices." National Safety Council	Carlton E. Brown, Chemist and William P. Yant, Supervising Chemist.	Existing respirators not effective enough U.S. bureau of Mines performing tests to develop better respirators	Known: Respirators Not Effective
1934		"Using Exhaust Systems and Respiratory Equipment to Protect Workers Exposed to Dust." National Safety Council	Stuart W. Gurney and David S. Beyer		Known: Respirators Inadequate

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