

George Stewart dead; was Architect of Capitol

J. George Stewart, Architect of the Capitol and frequent target of the American Institute of Architects, died this week in Washington, D.C. at the age of 79.

Although the job title implied his main function was concern for esthetics and the appearance of the Capitol Hill buildings, his training was in engineering, and in private industry he might have been described as a plant engineer. Stewart was in charge of building maintenance, repairs and alterations. In the case of new buildings, he acted as owner-representative from the time a decision was made to construct a building until the time it was completed.

For this reason he was the target of critics in the architectural profession, and also found some fault-finders in Congress. He reaped the most criticism for the extension of the east front of the Capitol, and construction of the Rayburn House Office Building and the Senate Office Building.

Stewart was appointed to the \$27,000-a-year lifetime post in 1954.

Stadium site, transit scheme rejected by Seattle voters

Seattle voters last week rejected a \$440-million rail-bus transit bond proposal and probably killed their \$40-million domed stadium project by voting against approval of its already-purchased site.

The stadium planned for the site would have been topped by a 660-ft-dia thin shell concrete dome. The proposal involving the site went on the ballot after the Washington State Supreme Court overturned a lower court ruling that would have invalidated the voting results. Observers indicated that fears of traffic congestion at the site and loss of Seattle's American League baseball franchise were major factors in the negative vote.

More than two years after the original \$10-million stadium bond proposal was approved by the voters (ENR 2/22/68 p. 112), \$10 million of the bonds have already been sold and over half are spent, \$1.6 million for the land and \$700,000 for design fees.

The rail transit system turned down is essentially the same 19-mile network defeated two years ago (ENR 2/22/68 p. 112). Added was provision for a comprehensive interim bus system that would have been operational by 1972.

Concrete placement record put on pedestal

Walsh Construction Co., New York City, may have set a record for the biggest single concrete pour in one day.

Walsh placed 5,458 cu yd of structural concrete in 17½ hours for the turbine pedestal of Chicago's Commonwealth Edison Co. nuclear powerplant at Zion, Ill. The pedestal, to support the plant's 1.1-million-kw turbine, is 207.5 ft long, 57 ft wide and 50.5 ft high.

In placing the concrete, Walsh used 10 concrete pumps, 72 transit mixers and four concrete batch plants, one, its own and three outside plants. The five, 5-in. slick lines of the pumps ran 50 ft on the flat and 60 ft vertically.

The mix used standard aggregates and conformed to government specifications.

Nine of the pumps, rated at 60 cu yd per hour, were of American manufacture and the 10th was from Germany.

The placement was virtually without incident. Early in the operation, one of the pumps broke down but continued pumping on one engine to place another 365 cu yd of concrete. Three pumps were used in the initial phase with the others coming into service as the concrete began rising.

Walsh, using conveyors, required 26 to 28 hours on a similar sized pour in October for the pedestal base.

City may ban sprayed-asbestos fireproofing

New York City may prohibit the spraying of asbestos-content fireproofing material because the material is believed a cause of cancer.

The possibility was revealed in a publicized letter to Commissioner Robert Rickles of the city's Department of Air Resources from Austin J. Tobin, executive director of the Port of New York Authority.

"You have advised us," the letter read, "that you are recommending that the city's new air pollution code include a provision banning the spraying of all asbestos-containing material in the city of New York." The letter's primary purpose was to inform Rickles that non-asbestos fireproofing would be used on the World Trade Center. The center is one of five building projects where fireproofing of steel members had been halted since mid-April for

violation of the city's temporary regulations that spell out how a contractor applies sprayed asbestos (ENR 5/7 p. 21).

But even as city officials were pondering a sprayed-asbestos ban, the fireproofing segment of the membership of the International Association of Wall and Ceiling Contractors, (formerly the Contracting Plasterers and Lathers) met in Winnipeg this week with the medical researcher who started the flap, Dr. Irving J. Selikoff. Believing the reports of the threat to health and the link to cancer were exaggerated, they wanted the story from Dr. Selikoff, director of the Division of Environmental Medicine, Mount Sinai Hospital, New York City, and an adviser to New York's Department of Air Resources. But the doctor told them the situation was as reported.

WRG 000315

PLAINTIFF'S
EXHIBIT

WRG-531

Twenty trucks feed 10 pumps in 17-hour, 5,458-cu-yd pour for nuclear plant.

Water cannon—A U.S. patent was granted a Soviet inventor for a jet nozzle that, it is claimed, produces 1-million-psi pulsed jets. Terraspace, Inc., Bethesda, Md., which acquired the U.S. rights, says it has begun development work to apply the nozzle to a hard-rock mining machine.

Harry Truman Dam—President Nixon signed a bill naming the Kaysinger Bluff project on the Osage River in Missouri after former President Harry Truman. The project, whose 160,000-kw powerhouse will have the nation's first reversible tubular units, is now under construction.

Prevention creates problem—Excavation costs on a 400-acre highway project will increase from \$1,200 to \$5,400 per acre, say contractors, after the Allegheny County, Pa., pollution board, upholding a 1969 code, refused them permission to continue burning trees and bushes. There is the problem now of disposing of decaying debris that supports vermin and is unsuitable for landfill.

Hawaiian dam proposed—A study prepared by Parsons, Brinckerhoff-Hirota Associates, Honolulu, calls for a dam that would provide storage for 5,492 acre ft of water and an effective yield of 10 million gal a day in the Kohala Mountains. The dam would rise 205 ft high and 2,000 ft long on the Kohakohau stream at an elevation of 3,700. Cost of the two-stage project is estimated at \$15.4 million.

Super drydock—Mitsubishi Heavy Industries, Japan, is applying for government approval to build a \$79-million shipyard near Nagasaki that might handle vessels weighing over 1 million tons. The drydock will be 3,200 ft long, 330 ft wide and 48 ft deep.

Big second—A \$250-million high-rise commercial development is planned for a 128-acre site at El Segundo, south of Los Angeles International Airport. The project will contain 25 buildings, according to the developer, Sepulveda Properties, Inc., a company formed by Boise Cascade Corp., Boise, Idaho, and Chevron Land & Development Co., Los Angeles. Daniel, Mann, Johnson & Mendenhall, Los Angeles architects-engineers, prepared the master plan.

Bridge work halted—New York Gov. Nelson Rockefeller (R) has stopped preliminary planning for a \$140-million bridge over Long Island Sound between Westchester and Nassau counties until a comprehensive study is made of the area transportation needs. Backed by the governor in 1967, the bridge has since come under bitter protest from civic groups and local officials, who say it will cause traffic congestion.

Snoqualmie dam approved—The Board of Engineers for Rivers and Harbors approved construction of the \$47-million Middle Fork, Snoqualmie River Project in Washington. Its principal feature is a rock and earthfill dam 6 miles east of North Bend.

Nine above estimate—An Argentine-Uruguayan consortium headed by Empresa Argentina de Cemento Armado, Buenos Aires, was apparent low bidder at \$8.2 million for a 2.5-mile Uruguay River crossing about 170 miles north of Buenos Aires (ENR 1/29 p. 15). The estimate was \$6.6 million for the structure. Eight other bids ranged up to \$17.6 million.

New department—The New Jersey legislature passed and Gov. William Cahill (R) signed a law creating a new State Environmental Protection Department to handle all environmental matters now scattered through various state agencies. Richard J. Sullivan, formerly head of the clean air and water division, is the new commissioner.

Detailer association—The National Institute of Steel Detailing, has been formed by the steel detailers not affiliated with steel fabricators. The association has 130 member firms employing about 400 persons. The organization aims at obtaining legislation in the states that require licensing of steel detailers. The organization is headquartered in New York City.

Airport monorails—A \$2-million suspended monorail system that carries up to 2,000 people an hour is operating at Dallas' Love Field airport. The monorail runs $\frac{3}{4}$ of a mile between an airport parking area and Braniff International's passenger-loading wing. The system operates by destination and carcall buttons similar to those of an automatic elevator.

Danger of lung cancer cited as New York City ponders ban

The use of asbestos as a fireproofing and insulating material for buildings in New York City eventually may be outlawed because medical research shows the material can cause lung cancer.

The possibility of a ban was suggested last week at public hearings aimed at making permanent the temporary rules now governing the method of spraying asbestos on the exposed steel surfaces of steel frame buildings.

Robert Rickles, commissioner of the city's Department of Air Resources, said that to enforce the regulations on the five building jobs where spraying operations were under way held the full attention of five of his field staff of 50. Spraying operations at five buildings halted in mid-April because of visible emission of asbestos into the area around the job sites.

About two weeks ago, spraying operations resumed on the World Trade Center. There a nonasbestos material is now being used, according to Austin J. Tobin, executive director of the Port of New York Authority (ENR 5/28 p. 17).

Although Rickles did not mention the possibility of a complete ban on sprayed asbestos he indicated this goal in recent conversations with Tobin. Rickles' emphasis on the manhours needed to enforce the regulations suggested that he thought such policing a less efficient method of protecting public health than a ban.

Dr. Irving J. Selikoff, director of the Division of Environmental Medicine at New York City's Mount Sinai Hospital, and one of those researching the effects of asbestos on workers, said he was not certain that other mineral fibers beside asbestos—rock wool and fiberglass, for instance—are safe if inhaled. I am not willing to play Russian roulette with the people of New York, he said, and I'm unwilling to wait until further research determines the safety of the nonasbestos materials.

Selikoff said the amount of asbestos that will cause cancer is unknown, but that 20 years or more of inhalation of asbestos by workers makes them highly prone to the disease.

Representatives of contractors and manufacturers of sprayed-asbestos products promised full cooperation in promulgation and enforcement of the regulations. They also indicated they would develop a wider range of nonasbestos fireproofing materials.

CITY ACTS TO CURB ASBESTOS SPRAY

Begins Hearings on Cancer
Peril in Industrial Use

By DAVID BIRD

The city opened hearings yesterday on proposed regulations that would control the spraying of asbestos to insulate and fireproof buildings.

The regulations concerning asbestos, which has been strongly implicated as a cancer-causing agent, would be the first of their kind in the country.

But because expert testimony yesterday indicated that substitutes might be just as harmful, officials said the regulations would be extended to the spraying of all such material.

One of the witnesses was Dr. Irving J. Selikoff, director of the Environmental Sciences Laboratory at Mount Sinai Medical Center and a leading specialist on the dangers of asbestos.

He said that it had taken long years of study to prove that asbestos caused cancer and that he was not willing to "play Russian roulette with the people of New York" to wait and find out if the new substitute materials would cause cancer.

Dr. Selikoff said that such substitutes as rock wool and fiberglass had long-lasting qualities similar to asbestos and could therefore remain in the lungs for long periods and damage the tissue as asbestos did.

A Long-Time Suspect

Asbestos has long been considered a danger to those who work with it, but the relatively new spraying technique has increased the danger to the general public. Most of the spraying is done to make buildings fireproof with the dry asbestos mixed with water and shot through a nozzle onto beams, floors and ceilings.

Spraying has grown rapidly because it replaces the much costlier method of enclosing supporting members in concrete.

In the spraying process, however, as much as 50 per cent of the asbestos escapes into the air.

To control this, the regulations proposed by the city would require the enclosing of spray areas and cleanup and disposal procedures.

Dr. Selikoff said that as long ago as 1924 it was discovered that people who worked with asbestos developed scarred lungs. It took almost 30 more years of study to link the asbestos with cancer.

A study of 632 members of the asbestos workers' union here was begun in 1943 by Dr. Selikoff. By last April 4, he said, 403 of the 632 had died, 72 of lung cancer. He termed that number of lung cancer deaths a "disaster" because in a normal group of that size only about 10 such deaths would be expected.

The physician said the contamination had spread to the point where "every person in New York City has some asbestos in his lungs."

The proposals to enclose asbestos-spraying areas to protect the public drew concern from the State Labor Department that concentrations of the dust might then be even greater for those doing the spraying.

Jack Baliff, chief engineer of the state agency's industrial hygiene division, said the higher concentrations of asbestos dust would require breathing apparatus with an independent air supply instead of the present filter masks. Dr. Robert N. Rickles, who heads the city's Department of Air Resources, said the new regulations include that protection.

The hearings resume today at 10 A.M. at The Cooper Union, 51 Astor Place, which is also the headquarters of the Department of Air Resources.

April 27, 1970

NEW YORK CONSTRUCTION NEWS

**Show Cause Order
Due In Asbestos
Spray Controversy**

The first show cause order on the sealing of asbestos spraying equipment was returnable as we went to press for this week's issue. The order was supposed to be returned last Friday, April 24, at 10 a.m. at a hearing in the office of New York City Air Resources Commissioner Robert N. Rickles.

The order was served on the contractor at the World Trade Center for continuing to spray the material without complying with the handling of cleanup procedures institutes by the Commissioner's order on April 13. These interim regulations are believed to be the nation's first to control asbestos pollution. Final regulations will be written after full public hearings on the entire question of asbestos use.

IN THE Commissioner's affidavit on the show cause order, Dr. Rickles stated that 'exposure to asbestos particulate may result in lung cancer, mesothelioma, and cancer of the peritoneum or the pleura. Medical research has not as yet established safe levels of exposure to asbestos containing particulate.

'However, there is evidence that short exposure at relatively low levels has caused cancer to develop many years after the initial exposure.'

The City agency has been investigating the newly identified form of air pollution with asbestos-familiar technicians at Mount Sinai's Environmental Services Laboratory since last

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**Bar Asbestos
In City Work**

Mayor Lindsay ordered all city construction agencies yesterday to halt the use of sprayed asbestos on future projects wherever possible to curb air pollution.

A directive from the mayor's office said the city's Environmental Protection Administration has slapped tough regulations on private builders to curb the use of asbestos as insulation on steel work. Health experts have cited the hazard to workers and passerbys.

Lindsay's statement said: "I am asking that all construction agencies and all future works adopt an even more stringent policy. Public agencies should serve as an example to private ones."

Agencies affected by the order are the Municipal Service Administration, Health Services Administration, Housing and Development Administration and the Housing Authority.

DAILY NEWS, TUESDAY, JUNE 16, 1970

Adv...
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pects read it every week.

summer.

Since the regulations were issued on April 11, each of six active asbestos spraying sites have been kept under surveillance by departmental inspectors. In serving summonses on sites where there is active spraying, air pollution inspectors must be garbed in the protective coveralls and respirators, the rules required for anyone entering the site.

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versity trustee meeting was going on at the time. They could not find the trustee who gave up the search. Dr. Carson emphasized that "The handling of violations is no longer in the hands of the university, but in the hands of the court." The university has received that it had filed papers petitioning for a permanent injunction against future disruptions. The temporary injunction was granted by State Supreme Court Justice Harold E. Simpson in Binghamton.

CITY SWEARS IN TWO TO ACT ON ASBESTOS

Two new officials of the Environmental Protection Administration were sworn in at City Hall yesterday to enable the city to take swift action against a growing pollution danger—insulating asbestos that is sprayed in the construction of new buildings.

The officials are Robert Rickles, Commissioner of Air Resources, and Neal Fabricant, legal counsel for the Environmental Protection Administration. Both had been working in their posts and were hurriedly sworn in so the city could legally promulgate new regulations requiring the containment of asbestos dust.

The new regulations—the first of their kind in the nation, officials said—are to be delivered today to construction sites, and will become effective at 7 A.M. Monday.

They require that tarpaulins cover areas where asbestos is being sprayed on building structures, that waste asbestos be vacuumed and swept into closed containers and that the containers be buried in designated disposal areas. Asbestos dust has been linked with cancer, especially of the lungs.

There has been growing public concern over the asbestos danger. Some officials said the regulations, in addition to attacking the asbestos problem, would offer the city a point of progress on Earth Day, April 22, when nationwide anti-pollution demonstrations will be held.

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NEW YORK POST, TUESDAY, MARCH 24, 1970 18

Ottinger: Asbestos Is Threat

Westchester Rep. Ottinger charged today that "New Yorkers are being unnecessarily exposed to thousands of tons of cancer causing asbestos dust every year."

The Democratic Senatorial aspirant said medical studies show that "as many as 50 per cent of city residents may have asbestos in their bodies."

Noting that 5000 tons of fireproofing material will be sprayed on the two large buildings in the World Trade Center, Ottinger said that 1000 tons will be asbestos "and as much as 50 per cent of that is expected to escape into the air."

He said that during the construction of a 30-story building 200 tons of asbestos are sprayed, with about half of it escaping.

He cited a study made by Dr. William Nicholson, of Mt. Sinai Environmental Laboratories, that showed a concentration of asbestos 1000 times greater than the acceptable level at a location a quarter of a mile from a recently sprayed site.

Ottinger called upon the Federal Air Pollution Control Administration to issue criteria controlling the spraying of asbestos. He said that under present plans the criteria "are not expected before 1972."

The candidate recalled that studies have shown that "persons exposed to asbestos dust have incidence of lung cancer seven times more frequently than those not exposed."

Emphasizing that he was not critical of city officials who have been working on this problem for several years, Ottinger said that "only federal regulations could provide effective standards for public health."