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FOR IMMEDIATE RELEASE: DECEMBER 11, 1975

PLASTICS INDUSTRY SAYS PVC-INSULATED WIRE
IS BEST AVAILABLE MATERIAL TODAY

WASHINGTON -- In order to give the public a better understanding of the polyvinyl chloride (PVC) electric wire insulation used today in virtually every application from public building and home construction to automobile and appliance wiring, the Society of the Plastics Industry Inc. today issued the following fact sheet:

Polyvinyl chloride insulation is the predominant material used for wiring worldwide today. PVC replaced older traditional insulation materials for safety reasons. These include:

- Durability -- PVC is less sensitive to crumbling or breakdown than other materials used earlier.
- Superior insulation -- it provides better insulating properties than other materials.
- Fire resistance -- it is harder to ignite and has slower flame spread than traditional materials.

According to Ralph L. Harding, Jr., president of SPI, traditional insulating materials frequently deteriorated as a result of age or stress, causing electrical shorts to occur. Countless home and industry electrical fires have thus been prevented by use of PVC insulation, which can retain its insulating qualities for half-a-century, Harding said.

Harding noted that PVC is compounded from a mixture of hydrogen, carbon and chlorine. Thus when some outside source does ignite the material, the insulating material can release both hydrogen chloride and carbon monoxide, both of which can be hazardous to human life. However, PVC cannot burn on its own and some outside source of heat is necessary.

Hydrogen chloride (HCL) is also given off by other materials such as rubber or paper during combustion. While potentially lethal, HCL is the gaseous form of the hydrochloric acid found normally in the human stomach. In gaseous form it is an irritant to the mucous membranes and prolonged inhalation of HCL can cause a fatal inflammation of the lungs.

Because all organic material will burn and hence give off noxious gases, the plastics industry has stressed safe and proper installation methods be coupled with correct operation of electrical equipment using PVC or any other plastic or organic material.

No alternate insulating materials possessing comparable qualities are known to the industry to date. The industry, however, is supporting fire research efforts so that the fire community can develop more knowledge of the fire characteristics of this and other plastic materials.

Harding added that SPI has urged in the past and continues to say that a systems approach -- using detection, fire suppression and ventilation equipment is the best way to minimize hazards both to firefighters or civilians.

- 30 -

Explosion, Fire On K Street NW Hospitalizes 35

The Washington Star Wednesday, December 10, 1975

Explosions and fire rocked a nearly-completed office building in downtown Washington today, sending at least 35 persons to hospitals with burns and toxic smoke inhalation.

Two men, both electricians working in the building's basement, were in critical condition with severe external and internal burns.

For a time there was fear that one or more bodies would be found as firemen searched the smoke-filled basement of a 10-story office building at 2020 K Street NW, but apparently no one was caught in a fatal trap as was originally reported.

Acrid white smoke from burning plastic electrical insulation sent dozens of firemen and office workers staggering from the building and collapsing on the sidewalk, where rescue workers administered oxygen.

Dr. Victor Esch, surgeon for the D.C. Fire Department, said 14 victims were taken to Washington Hospital Center, 11 to George Washington University Hospital, 9 to Georgetown and one to Providence.

Esch said most of the victims treated in the hospitals had inhaled toxic gases caused by the burning polyvinyl chloride insulation used in an electrical panel.

Eighteen of the victims were rushed to hospitals by ambulance, and others were taken privately.

THE EXPLOSIONS and fire started at 9:35 a.m. in an electrical vault in the basement, according to Asst. Fire Chief J. W. Lewis. The building, being built by the George Hyman Co., was nearly completed, and in fact some of the office suites were already occupied.

Traffic on K Street and on Pennsylvania Avenue a short block to the south was blocked for hours by fire equipment. Hundreds of office workers watched the rescue efforts from the north side of K Street.

According to Chief Lewis, two men working on the electrical vault were overcome by poisonous fumes from plastic electrical installation. Lewis said each time the fire in the vault was extinguished, it would heat up again and explode, overcoming both the workers and rescuers.

The victims were taken out through an underground parking garage and up the stairways to the first floor.

THE BUILDING, which covers about two-thirds of the 2000 block of K Street up to 21st Street, occupies the site of the old K Street Mar-

See BLAST, A-10

BLAST

Continued From A-1

ket and the old Third Police Precinct house. Tenants of nearby buildings were unaffected by the fire, separated by alleys to both the east and south.

Though technically only a one-alarm fire, two subsequent special alarms calling for all the department's heavy rescue equipment filled K and 21st Streets with fire trucks and hoses.

One occupant of the building, William Adams Jr., a stockbroker in the third-floor office of Merrill Lynch Pierce Fenner & Smith, described it this way:

"It sounded as though some drilling was going on. Then the lights began to flicker. The alarm went off two or three minutes later. We got out pretty fast. We came right down the back stairs."

Adams said there were about 50 persons in his office, which moved into the new building five months ago. He said there was no panic as they fled down the blacked-out stairwell, even though there was a strong smell of smoke as they approached the ground-floor exits.

Another Merrill Lynch employee, who asked not to be named, said, "I'm not sure how fast people could have gotten out if the building had been full or if there had been any panic."

WORSE OFF than the brokerage firm employees were workers in the seventh-floor offices of the U.S. Pension Benefit Guaranty Corp., who didn't

Jane Ceccorelli, an insurance specialist, said, "The lights went out. The building began to shake. It kept on shaking. It took us quite a while to get ourselves together. We heard bells and then sirens, and decided to leave." She was in a group of about 20 who made their way down the stairs in the dark. "It was scary," she said.

"We heard bells ringing," said Mabel Herbert of Rockville, a secretary at the federal agency, "but I didn't know it was a fire alarm, because we just moved into the building in the middle of September, and we had no training."

Mrs. Herbert's daughter, Susan, 21, a fellow employee, passed out from the poisonous smoke on the way out of the building.

"We looked out the windows and saw everyone outside but us," said Marjorie Ashby, of the 1000 block of 30th Street NW, a management assistant at the agency.

Ashby described how the agency workers groped their way down the seven floors of stairs. "We couldn't see anything," she said. "There were no lights in the stairwell. It was very smoky when we got to the

second floor. There were so many people in the stairwell we couldn't move swiftly."

Ashby said there was a certain amount of panic. "To a certain extent, I did panic — when I got to the second floor and didn't see anything but smoke and didn't know how far it was to the next exit."

Mrs. Herbert said the toxic fumes "caused a burning in our throats and we felt nauseated a while." At that, she said, "we were lucky; ordinarily the stairs are locked for security reasons but today they weren't."

The source of the smoke, polyvinyl chloride used as electrical insulation, gives off hydrochloric acid fumes as it burns. Even firemen wearing protective masks were overcome by the fumes, and a continuing procession of firefighters staggered out of the building basement to lie on the sidewalk to be given oxygen by ambulance attend-

Esch said the gas burned victim's lungs and also a delayed reaction. "Of the difficulty comes 14 hours later," he said the past several years Esch said, "we've had 150 injuries and one died from this stuff."

POLYVINYL CHLORIDE is the same material being used to line the walls and ceilings of Metro's new \$300,000 rapid transit cars. The National Academy of Sciences recommended that the PVC be

placed by a more resistant material, there has been no movement in that direction. Whether the Metro staff board of directors.

The two critically burned electricians were identified as Curtis Pimmer of Foote Lane, Springfield, Va., who was in a coroner's hospital with over 90 per cent of his body burned, and John Rucker of Paddington Lane, Culpeper, Va., with severe internal burns and poisoning.

Among the other victims all suffering from inhalation of the toxic fumes were the following, released by the hospital:

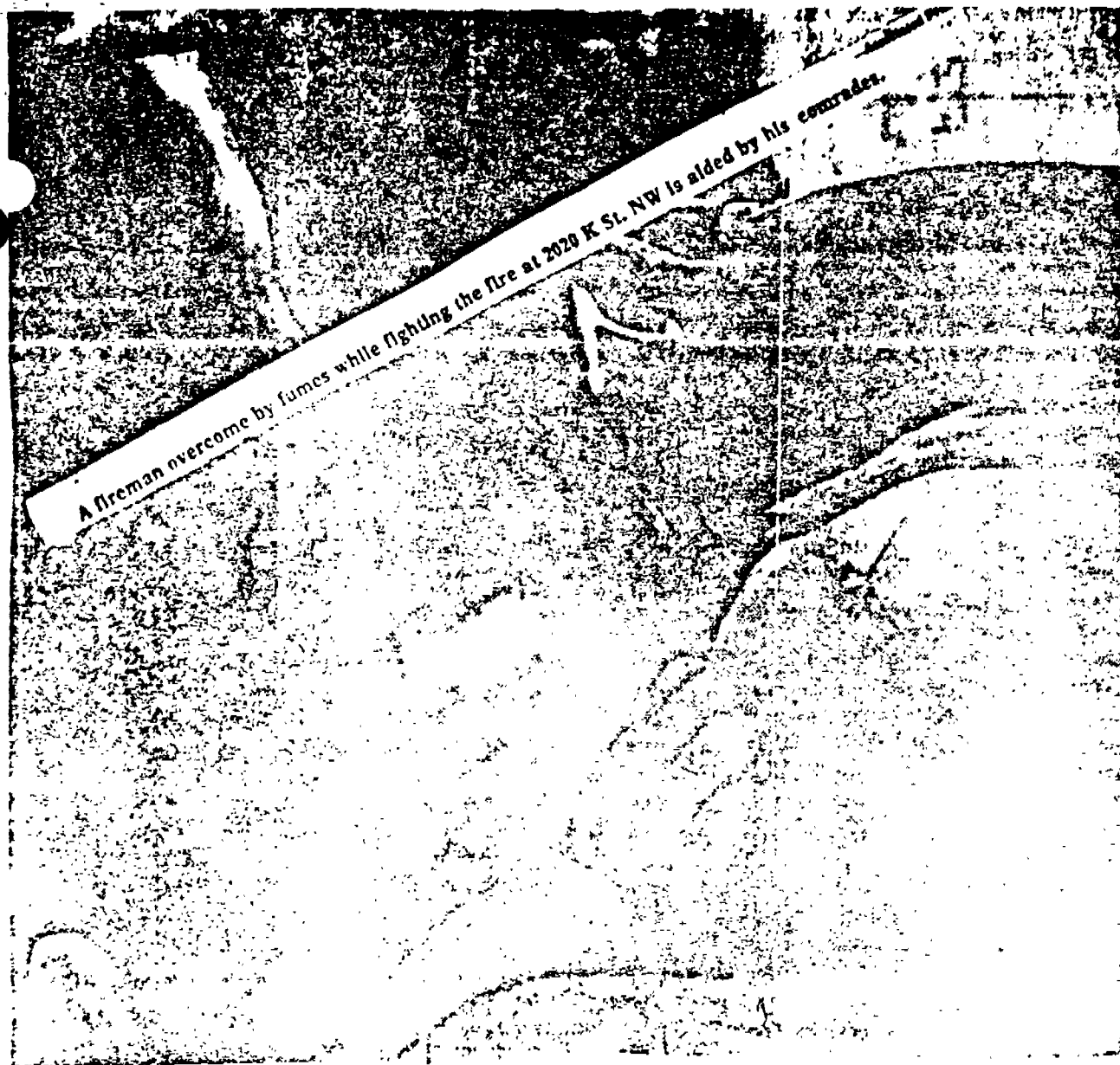
Jamie Hawkins, Church; William E. Alexandria; Anne Bethesda; Robert M. Fairfax City; Patricia deYoung, Washington; Henry Rose, Columbia, Md.; Jane Ceccorelli, McLean; Gail Sevin, Arlington; Susan H. Mabel Herbert, M. Ashby, Elvira Knap, nice Harrison and Chesley.

The following 14 were treated:

Wayne Myvill, Lohr, Steven W. Steven Sandy, W. Casey, Larry Buckard Long, Jesse Ty, William Handley.

This story was written by David Braaten based on reports from Star writers Charles M. Timothy Hutchens, Crosby, Robert Pe Lance Gay.

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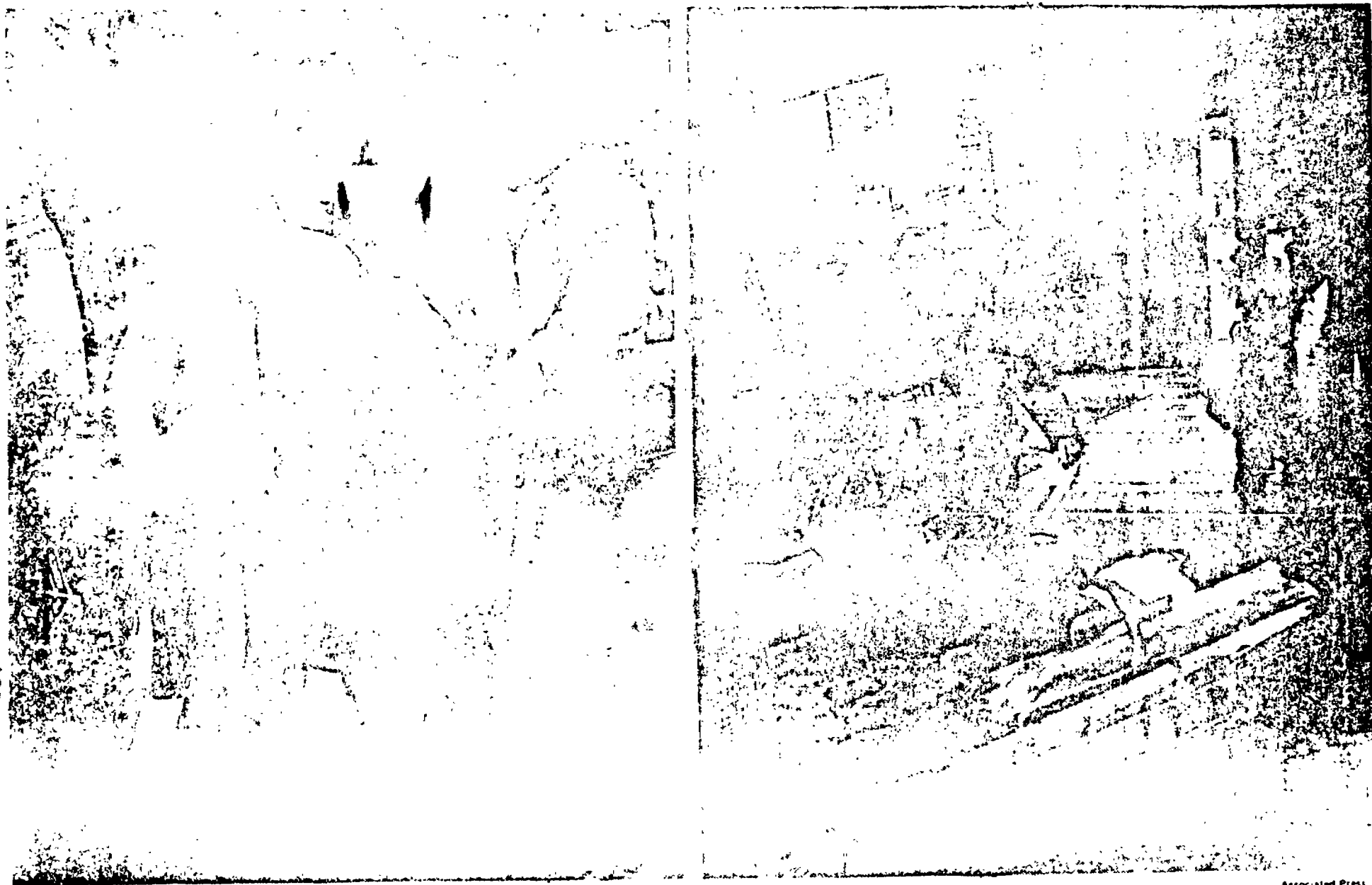
A fireman overcome by fumes while fighting the fire at 2020 K St. NW is aided by his comrades.

Two women overcome by fumes from the fire in a building on ... given oxygen.



ASI 00006003

Washington Star
Wed December 10,
1975



By Bob Gurnette—The Washington Post

Associated Press

Man at left is assisted from scene of explosion yesterday as firemen and rescue workers carry out seriously injured man, right, from building at 2020 K St. NW.

ASI 00006004

1 Dies, 20 Injured In Building Blast

By Douglas Watson and Patricia Camp

Post Staff Writers

One electrician was fatally injured, one critically injured and at least 20 other persons, including 21 District firemen, were admitted to hospitals suffering from gas inhalation following explosions and fire yesterday morning in the basement of a new office building at 2020 K St. NW.

The explosions, which occurred around 9:35 a.m. in the main electrical panel of the eight-story, largely completed and partially occupied building, caused the emission of a dangerous gas that accounted for most of the injuries.

Just before midnight, electrician John Rucker, an employee of Walter C. Doe and Co., died of severe burns at George Washington University Hospital. Curtis Trimmer, also a Doe and Co. electrician, was reported in critical condition early this morning at the hospital.

Rucker, of 6200 Fordington La., Centre, was in his mid-30's and had four children. Trimmer, of 7912 Shidell L., Springfield, is in

his late 20s and has two children.

Rucker had been admitted to the hospital with severe smoke or gas burns and third-degree burns to 10 percent of his body.

Most of the others hospitalized were reported in satisfactory or better condition. Some were admitted for observation as well as treatment.

The two electricians were working on the electrical panel when the explosions and fire started, officials said. Both reportedly were repairing an electrical switch at the time of the explosion.

An employee of the Pension Benefit Guaranty Corp., a firm occupying the building's top three floors, said the explosions sounded "like rolling thunder." Another building occupant said he thought he was hearing a jackhammer.

"It was like pow, pow, pow," a fire department official said.

The other injured persons were admitted to three hospitals and were treated for possible exposure to hydrogen chloride, a potentially lethal chemical gas produced in many electrical fires by the melting of the plastic coating around the wires.

The wire coating, made of polyvinyl chloride, decomposes when temperatures reach 450 degrees Fahrenheit, emitting the dangerous gas, according to Dr. Victor Esch, District of Columbia fire department surgeon.

"Many occupants of the building were not aware of the fire for several minutes. No nearby buildings were damaged."

Majorie Ashby, who works on the seventh floor, said later, "We heard a bell but we thought someone was stuck in the elevators. We then heard sirens and someone said, 'Everybody's down there but us.'"

Elvira Knepp, who also works in the building, said, "There were maybe 40 persons coughing and gagging in the lobby. The lobby was completely filled with smoke and there were several firemen who were dropping like flies."

Stephen Sandy, a D.C. fireman who was admitted to Washington Hospital Center, said, "I would have been OK if I didn't have to give mouth-to-mouth resuscitation. I was heaving, coughing and choking. I couldn't get my breath."

Deputy Fire Chief William Q. Stickley said that most of the 75 firemen who fought the blaze had donned gas masks. He added that many of them ran out of oxygen before they could get back out of the building and were forced to breathe the fumes.

"These masks carry between 15 and 30 minutes of air and a lot of guys extended their stay in the smoke while they were searching for victims," Sandy said. He added, "I had to take off my mask because the man one of the injured electricians had stopped breathing and needed to be resuscitated."

The fire itself lasted about an hour and was confined to the basement room where the electrical panel housed. Firemen kept working in the building throughout the morning, using 30 fans to dissipate the gas and smoke.

"It wasn't a tremendous amount of fire but it put a dense smoke," Fire Chief William H. Casey said. "It took us a matter of minutes to remove the two men. The problem was finding them in the smoke," he said.

It was unclear yesterday what specifically caused the explosions in the electric panel. Police ruled out arson. A Potomac Electric & Power Co. employee said one of the switches reported to be broken and not repaired. A supervisor at Walter C. Doe and Co., who employs the two electricians, declined comment.

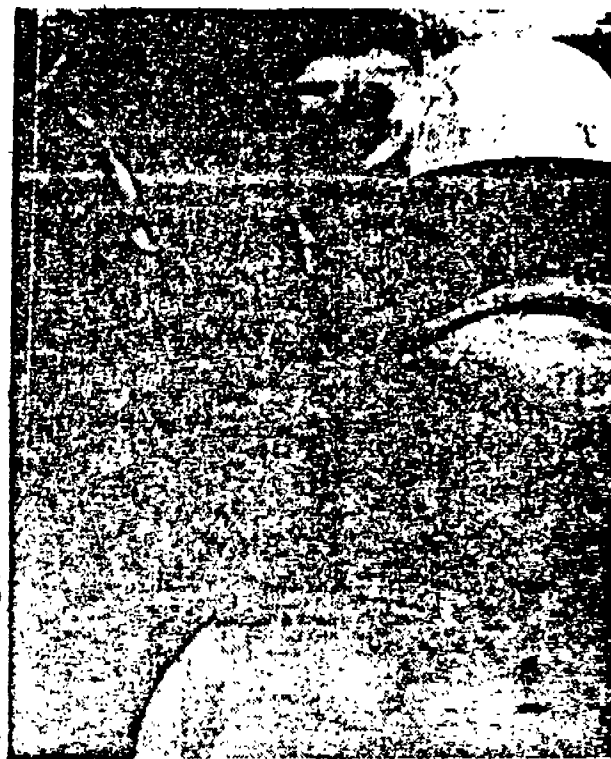
A Pepco spokesman said that the electric utility was notified at 9:38 a.m. of the

CONTINUED

THURSDAY, DECEMBER 11, 1975

Explosion, Fire Fumes Fell 31 in NW Building

EXPLODE, From A1



Associated Press

Unidentified fireman is assisted yesterday after leaving building at 2020 K Street, NW after explosion and fire.

and that one of its emergency crews cut off all electricity in the building by 10:21 a.m. by entering a nearby manhole and turning off switches to four transformers.

The building has been partially occupied since July and now is about two-thirds filled. The top three floors are occupied by 230 employees of the Pension Benefit Guaranty Corp., a U.S. agency established under pension reform law to help protect participants in private pension plans. Other than the injured electricians and firemen, most of the others hurt were employees of this agency.

Another tenant is the Merrill Lynch, Pierce, Fenner and Smith brokerage firm.

The building's general contractor is the George Hyman Construction Co.

A Pension Benefit Guaranty Corp. employee said, "People didn't panic much. Nobody really thought it was a fire at first." Occupants of the building filed down darkened stairwells with the help of matches and cigarette lighters. One woman fainted on the sidewalk outside, officials said.

The District firemen ad-

Washington Hospital Center were Jessie M. Tyson, Richard L. Long, Stephen Wright, Larry Buck, Robert A. Jacobs, Walker P. Carpenter, Henry W. Ashauer, James Monahan, John T. Mulligan, Robert Lee Wayne Wyvill, Raymond G. Smith, William E. Smith, Frederick Blalock, Sephas Lewis and William Haney.

Firemen admitted to Providence Hospital were John Stone, William M. Case, Michael Lee and Stephen Sandy. Fireman William Embry was admitted to George Washington Hospital.

Other persons admitted to Washington Hospital Center were Mabel A. Herrert, Susan Herbert, Camille Nathanson, Marjorie Ashby, Joyce Chesley, Elvira Hampton, Janie Harrison, Anne G. De who also works at 2020 K St. NW, was admitted to George Washington Hospital.

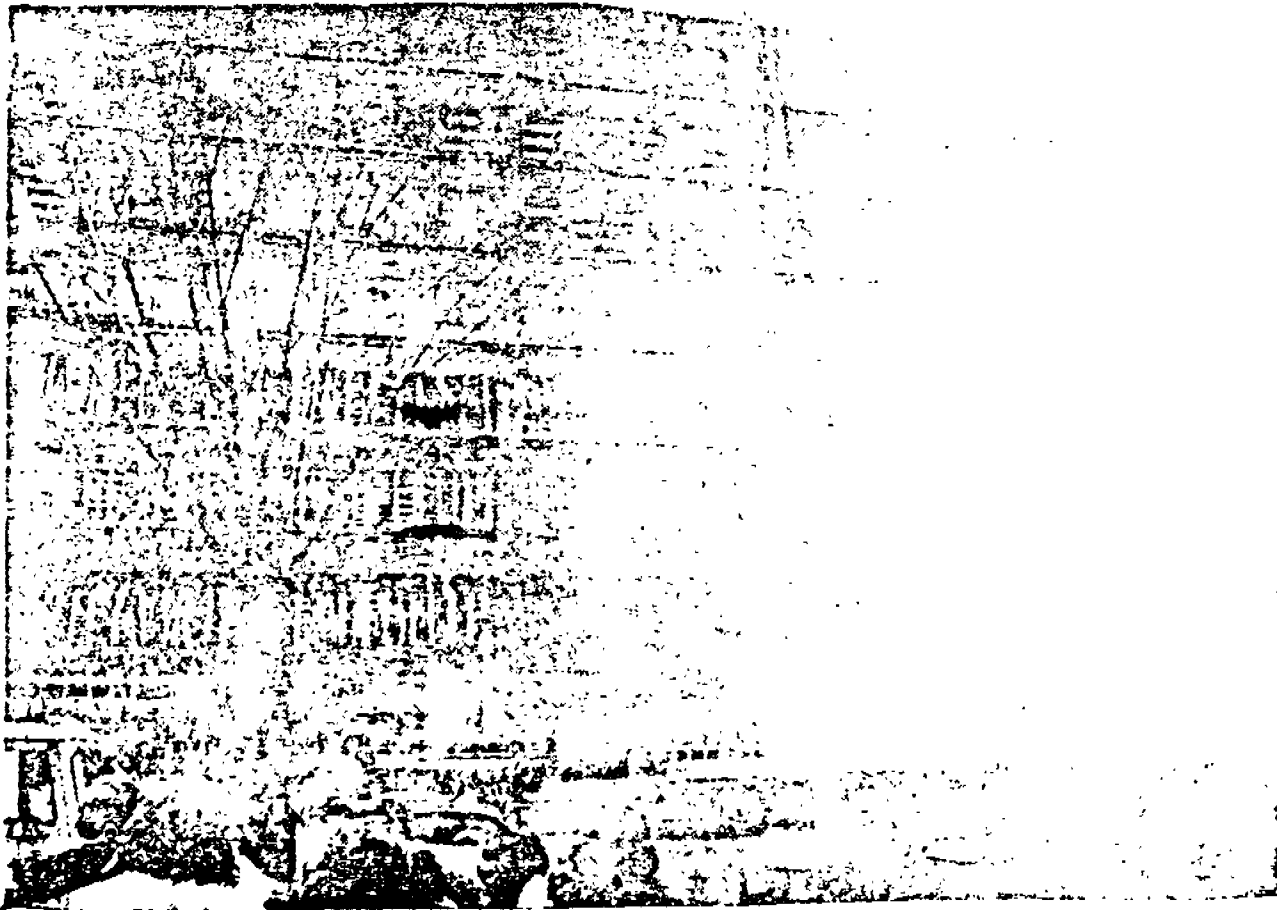
Employees of the Pension Benefit Guaranty Corp. are not expected at work today but have been asked to return to work Friday.

Washington Post Staff
writer Douglas C. Lee

ASI 00006006



Two women left in a state of shock after the explosion. The explosion occurred at the site of the fire.



at right is the building where fire and explosion occurred. One person was killed and one critically injured.

THURSDAY, DECEMBER 11, 1975

Plastic Fumes Insidious

By Margot Hornblower

Washington Staff Writer

Hydrogen chloride, the gas that apparently affected at least 29 firemen and civilians at an electrical explosion here yesterday, already has been responsible for one fireman's death, D.C. fire officials said yesterday.

The fireman, who died in 1970, was one of 150 firemen who have been exposed to the gas here during the last five years, according to police and fire clinic director Dr. Robert Dyer.

The men are under close observation, but no long term effects have been observed.

Hydrogen chloride is produced in electrical fires when the plastic coating around the wires, called polyvinyl chloride, decomposes. If inhaled, the gas can cause a potentially fatal inflammation of the lungs called pulmonary edema.

It was uncertain yesterday whether the victims admitted to area hospitals following the explosion were affected by inhalation of hydrogen chloride, since the symptoms—throat irritation, headaches and coughing—are similar to those of general smoke inhalation.

The danger of fires involving extensive burning of plastic rather than natural materials is that firemen may

remove their oxygen masks too soon. While black smoke produced by house fires is a clear danger, hydrogen chloride can sometimes be colorless and does not always produce immediate irritation, Dyer said.

"Most firemen are aware of carbon monoxide," he said. "But they aren't aware of hydrogen chloride. So when the fire seems to be out, they feel secure about going in and they are exposed."

The effects of hydrogen chloride sometimes are not evident until 24 hours after the fire. The fireman who died in 1970, whose name was not available, did not go to the hospital for his mild irritation symptoms, but the autopsy revealed that exposure to the gas caused his death, Dyer said.

The gas, said Dr. Victor Esch, D.C. fire department surgeon, "is a hazard of the occupation... We live in a plastic world." D.C. fire officials have been concerned, he added, about the use of polyvinyl chloride to cover wiring.

Officials at the Bureau of Standards Center for fire research said it would be premature to ban polyvinyl chloride. "There is no indication that we have any safer material for wire insulation," said toxicology chief Merritt Birkey.

"No matter what burns in a fire, there is a potential risk. We don't know if synthetic materials are more toxic than

natural materials. It's debatable whether hydrogen chloride is high risk."

Birkey said he has been in touch with D.C. fire officials and has approved several grants to study the effects of hydrogen chloride. "Our only recommendation now is that it is extremely important for firefighters to use their oxygen masks."

Dyer said he had talked to other doctors and fire departments about the effects of hydrogen chloride, but had never heard of other fatalities linked to the gas. "This fatality is possibly a unique case," Birkey said.

He said that polyvinyl chloride is harder to burn than other plastics. "The problem is that often the polyvinyl

fires are not judged serious enough for a breathing apparatus. Then, as a result of inhalation, there is severe respiratory distress.

More than 50 per cent of those who die in fires, die of inhalation rather than burns, according to the Bureau of Standards, and about 90 per cent of inhalation deaths are caused by carbon monoxide.

FIRE

Continued From A-1

"A building engineer tried to put the switch back in," Meyer continued, "but when he did, he jammed it and broke a pin. The two electricians from the Walter Doe Co. were trying to repair the switch while it was hot, but they should have called Pepco and had them disconnect the current to the building."

While the two employees were working, apparently another short circuit touched off a series of explosions and fires about 9:30 a.m., according to Asst. Chief J.W. Lewis, who directed dozens of firemen at the scene.

William Embry of Engine One at 2225 M St. NW was one of the first three rescuers to reach the electricians lying in the vault.

All of the clothes were burned off one of the men, Embry said, and the rescuers pulled him out. While pulling the second man out, however, Embry's mask ran out of air, he took it off and began breathing the gas.

"Unlike other types of smoke that you inhale without a mask," he said, "it leaves a burning sensation in the chest."

AFTERWARD, he said, he felt his chest getting tight and became faint. Other rescuers helped him out, and he was admitted to George Washington in fair condition.

And so rescuers became the rescued who emerged coughing and choking, some after never having taken off their masks. The gas is insidious enough to seep behind them.

In yesterday's fire, there were tremors from the explosions, flickering of lights and confusion about what was happening among many of the 275 employees of the federal pension agency, which directs retirement funds of companies that have gone out of business.

Jane Ceccorelli, an insurance specialist, said, "The lights went out. The building began to shake. It kept on shaking. It took us quite a while to get ourselves together. We heard bells and then sirens and started to

MURRAY GELLER, the agency's director of communications, said, "Initially, I guess, we weren't sure whether it was the elevator alarm or whether it was a fire alarm or fire drill."

The agency's employees, as well as those of Merrill Lynch Pierce Fenner & Smith on the third floor, where about 50 people work, groped their way down darkened and smoke-filled staircases to the street. The building has been partially occupied since September.

"It was lucky," said Mabel Herbert of Rockville, a secretary at the pension agency whose 21-year-old daughter, Susan, passed out. "Ordinarily, the stairs are locked for security reasons. But today, they weren't."

"I think they moved us into the building too soon," said one secretary. "It's still under construction."

OCCUPANCY PERMITS for the building have been issued for only the third floor, according to records of the occupancy branch in the city's economic development department.

Ernest Pifer, the branch chief, said there were none on file for the federal agency's floors and that inspectors would be sent out today to determine why.

Usually, the symptoms from inhaling the gas show up about 12 hours later, which is why so many people were being held for observation.

THE BUREAU of Standards has commissioned several authorities to determine alternatives to the plastic. One of them is Dr. Ives Alarie of the University of Pittsburgh, who said, "I don't know what material will replace it. You're not going to produce anything that won't give off dangerous smoke unless you use stainless steel."

The plastic disintegrates into about 75 products when it burns, and some might give off even more toxic material than chlorine gas. "But the success of the research is not finding what's more toxic but in finding what produces less smoke," he said.

The hospitals listed the following firemen as those admitted in fair to good condition:

Robert A. Jacobs, 58, of 4003 East West Highway, Chevy Chase; John H. Stone, 37, of 6427 Silver Ridge Circle, Alexandria; Henry W. Ashauer, 40, of 4403 Independence St., Rockville; Michael J. Lee, 38, of 9319 Avenel Road, Silver Spring; James Monahan, 23, of 5651 Kennedy St., Riverdale; Jesse M. Tyson, 29, of 1932 Jackson St. NE; Richard L. Long, 31, of 1512 Bright Seat Road, Landover;

William H. Coasey, 37, of 1104 Colony Ridge Road, Odenton, Md.; Stephen Sandy, 28, of 18 Redspruce Court, Byransroad, Md.; Stephen Wright, 25, of 14417 South Ave., Oxon Hill; Larry Buck, 26, of 1937 Grovewood Drive, Richie, Md.; John Nulligan, 34, of 12419 Flack St., Wheaton; Robert Lohr, 22, of 4141 N. Henderson Road, Arlington; Wayne Wyvill, 23, of 3900 Mitchellville Road, Bowie; William Handley, 26, of 1123 Prince Road, Upper Marlboro;

Raymond Gist, 35, of 9008

Lynnalan Drive, Oxon Hill; Walker P. Carpenter, 34, of 8509 Richmond Ave., Alexandria; William E. Smith, 25, off 3602 55th Ave., Cheverly; Cephas S. Lewis, 31, of 721 Rittenhouse St., Hyattsville; Frederick M. Blalock, 37, of 1209 Simmons Drive, Rockville, and Embry, 39, of 5602 Burgandy Place, Alexandria.

Others admitted were Susan Herbert, 21, of 13812 Marianna Drive, Rockville, and her mother Mabel, 55;

Elvira Knepp, 55, of 307 Penwood St., Silver Spring; Joyce Chesley, 30, of 6415 Pennsylvania Ave., Suitland; Janice Harrison, 32, of 17th Street NW; Camille Nathanson, 24, of 10900 Bucknell Dr., Silver Spring; Marjorie Ashby, 30, of 1001 30th St. SE, and Anne Guille, 31, of 5907 Rolston Road, Bethesda.

Treated and released were Gail Sevin, 29, of 2440 Virginia Ave. NW; Jane Ceccorelli, 50, of 77000 Tremayne Place, McLean; Henry Rose, 48, of 10691 Rain Dream Hill, Columbia; Patricia DeYoung, 33, of 2700 Virginia Ave. NW; Robert Meyers, 43, of 5023 Gainsboro Road, Fairfax; Jamie Hawkins, 35, of Falls Church; John Hirschmann, 33, of 154 13th St. SE, and Sharon Rosenberg, 23, of 2775 N. Washington Blvd., Arlington.

Fire Is Laid To Wiring Break, 39 Hurt, 1 Dead

By Timothy Hutchens

Washington Star Staff Writer

Two electricians should have made sure the power was turned off before they tried to repair a broken switch in the downtown building where fire yesterday sent 39 people to the hospital, according to the District's chief electrical inspector.

One of the electricians died last night as a result of injuries. The other is in critical condition at George Washington University Hospital with severe burns.

They "should have never worked the switch live," said William H. Meyer, head of the electrical section of the D.C. Economic Development Department's building, housing and zoning bureau.

Meyer said the electricians and their company, a Northwest Washington contracting firm, were competent. But he said that the two men got overconfident.

"Every electrician should know better," he said.

MEANWHILE, according to city records, occupancy permits have only been issued for one of the four floors occupied at the time of the fire.

The electricians are Curtis Trimmer, about 35, of the 7900 block of Foote Lane, Springfield, who was burned over 90 percent of his body; and John Rucker, about 30, of the 6200 block of Paddington Lane, Centreville, who died of burns and smoke inhalation at George Washington University Hospital about 11:45 last night.

In all, 31 people, including 21 firemen, were admitted to George Washington and the Washington Hospital Center for observation and treatment.

They were injured after inhaling the acrid, white chlorine gas given off by the polyvinyl chloride insulation used for electrical wiring and panels in the new building at 2020 K St. NW.

Another eight people who work for the Pension Benefit Guaranty Corp., on the fifth, sixth and seventh floors of the eight-story building, were treated at George Washington and released.

"Tuesday night there was a short circuit of some sort and the main switch opened up," Meyer said in recounting events leading up to the fire in the electrical room, reached by a narrow hallway in the basement.

See FIRE, A-6



—Washington Star Photographer Paul Schmick

D.C. firemen take oxygen to combat effects of fumes created by the fire.

ASI 00006010