SPECIAL REPORT: DAY 4



The daughter and widow of Stanley Sobocienski visit his grave. Researchers in the 1940s traced his death - and others in Lorain, O. - to air pollution from a beryllium plant. But plant owner Brush has spread a different story.

Thought control

Brush devised strategy to shape knowledge

dozen years ago, Brush Wellman and its amazing metal, beryllium, were under increasing attack. More and more workers were getting beryllium disease, cus-

getting beryllium disease, customers were being scared off, and scientists were saying the metal was more dangerous than previously thought.

Brush decided to fight back – and not

with simple public relations.

The company, industry documents show, systematically and aggressively set out to influence the scientific knowledge of the hazards of beryllium.

It created a national committee of doctors and scientists to "promote research" – a group handpicked, organized, and primarily funded by Brush.

It published its own textbook on beryllium, distributing the

book to medical schools across the country.

It helped establish a Washington-based industry group to promote beryllium products and to attack damaging scientific studies.

Indeed, Brush's actions offer a rare giimpse at what a corporation facing mounting medical and public relations problems



KNOWLEDGE

Continued from PAGE 1

will do to protect its product.

In this case, Brush devised a detailed, year-by-year strategy to take greater control of how scientists, doctors, students, and

the public viewed beryllium.

This included spending more than \$1 million on its science group and pushing for medical papers to discredit research that had found beryllium extremely hazardous, company records disclosed in recent lawsuits show.

Brush's actions have far-reaching effects, in part, because the Cleveland-based company is America's leading producer of beryllium,



4lt's an industry-funded group of doctors who are hired to provide specific information that the companies can use for ammunition for public relations.

attorney James Heckbert commenting on the Brush-funded science group

an extremely hard, lightweight metal used to make everything from nuclear weapons to space probes to golf clubs.

So thousands of workers, customers, and doctors rely on Brush for accurate health and safety information.

Some victim advocates say Brush has been less than honest.

"They pervert science and injure people," says Theresa Norgard, a social research associate at the University of Michigan whose husband, Dave, contracted beryllium disease at Brush's plant outside Elmore, 20 miles southeast of Toledo.

Peter Infante, a senior administrator with the U.S. Occupational Safety and Health Administration, says Brush's textbook is clearly "propaganda." But he adds that the company can't control the knowledge of the disease because too many scientists are studying the issue.

Beryllium disease is a chronic lung ailment caused by inhaling microscopic bits of beryllium dust. Researchers estimate that 1,200 Americans have contracted the disease, which is often fatal and has no cure. At Brush Wellman, 127 workers have developed the disease – 50 at the Elmore plant.

A former Brush executive says the company's actions in the late 1980s weren't designed to deceive anyone or hide anything.

"They were meant to do the same thing we've always done: try to find out what the hell is going on and tell people what we know, when we know it," says Martin Powers, who helped devise the company's strategy to improve beryllium's image.

The strategy emerged in 1986, when Brush faced an increase in disease, customer concerns, and damaging scientific studies.

Top Brush officials, company records show, met for two days at a Cleveland-area hotel to devise a strategy "to protect the company from adverse medical, legal, public relations or legislative consequences."

Their conclusion: Brush must expand safe-

ty programs and worker training.

But they also proposed a massive plan to combat scientific studies that had found beryllium was extremely hazardous – studies Brush thought were inaccurate and "very damaging."

"These actions should be systematically approached over the next two years," one

Brush document says.

"The ultimate consequences to the company's future of not going forward with this program could be severe," another says.

The company proposed writing its own textbook and several medical papers. One company document names which Brush officials should write the papers, where they should be published – even what they should be titled.

One paper was to attack the links between

beryllium and lung cancer.

"Preferably," a Brush document states, "the primary authors should be Drs. MacMahon and Roth," two company consultants. "However, most of the work on this paper would have to be done by Brush Wellman."

And Brush wanted all of these papers written quickly, and so they could be used as references for its textbook.

The textbook was published in 1991 and titled Beryllium: Biomedical and Environmental Aspects. Brush paid for it and sent copies to hundreds of medical schools, businesses, and libraries across the country.

It's on the shelves of many of America's top medical schools, such as Harvard Medical School and the Washington University School of Medicine in St. Louis, as well as at the

KNOWLEDGE

Continued from PAGE 5

Centers for Disease Control and Prevention in Atlanta.

Locally, it's at the Medical College of Ohio, the University of Toledo, and the Toledo-Lucas County Public Library.

It is edited by two former Brush officials and a Pennsylvania physician who has received research money from the beryllium industry. Many chapters were written by Brush's executives, doctors, and lawyers.
"What that book is is the company

line," says James Heckbert, a Colorado attorney for about 50 workers with beryllium disease who are suing Brush.

The chapter on beryllium's health risks is written by Dr. Otto Preuss, a former Brush medical director and one of the book's editors. He states a long-held position of the company: No worker has ever gotten sick when exposed to levels of beryllium dust below the federal safety

He states this as fact, discounting studies that have found otherwise. Dr. Preuss does not elaborate, but a footnote gives the source for why these studies should be discounted: His own letter to the editor of the British Journal of Industrial Medicine.

Mr. Powers, the former Brush official and one of the textbook's editors, says the book is fair.

But he acknowledges that there are "some statements in there that I think are too dogmatic" - opinions, he says, that are stated as facts.

In addition to the book, Brush has:

Arranged graduate-level seminars at universities. One Brush document states: We need to actively educate the university professors on our materials and health issues in order to train the next generation of engineers on the truths and myths about beryllium-containing mate-

■ Helped create the Beryllia Ceramic Development Association, an industry group in Washington. Brush says it was formed, in part, "to combat erroneous health and safety information being disseminated" about beryllium products.

Helped establish the Beryllium Industry Scientific Advisory Committee, consisting of Brush's company doctor and sev-eral scientists from noted universities, such as Harvard.

The science group is particularly controversial.

It is funded entirely by the beryllium industry, with Brush picking up most of the costs. Records show that Brush has contributed more than \$1 million to the group since it was formed in 1990.

Mr. Powers, the group's executive director, has received more than \$230,000 for his time and expenses.

He says he and a Brush consultant picked the original members. Since then, the group has picked its own members. The group meets a couple of times a year, and members are paid \$2,000 a day, plus travel expenses.

Mr. Powers says the group was created to finance worthwhile research. One current study is trying to determine whether there is a genetic predisposi-tion for getting beryllium disease.

Knowledge:

Industry group fought cancer connection

Continued from PAGE 6

Still, others see the science group differently.

"It's an industry-funded group of doctors who are hired to provide specific information that the companies can use for ammunition for public relations," says Mr. Heckbert, the attorney for the beryllium victims.

Industry documents turned over in recent court cases show that the group is not just interested in science.

Its charter says its purpose is, in part, to "develop and implement a strategy to address...the perception of beryllium as a human carcinogen."

Brush has long fought the notion that beryllium causes cancer, and one company document states that the science group "will provide the scientific basis for our cancer strategy."

At a meeting in 1992, the science group discussed how cancer was not just a medical issue but a "public relations and marketing problem" as well, according to minutes of the meeting.

The scientists wanted a lawyer "familiar with these kind of broad strategy considerations," so they asked Brush attorney John Newman to address the group.

He did, warning the scientists that "if beryllium is perceived as causing lung cancer, regardless how scientifically unsound that perception may be, lawsuits alleging cancer will ensue."

The Brush attorney then advised the scientists how best to deal with that threat.

A few months later, in 1993, the International Agency for Research on Cancer, an arm of the World Health Organization, was deciding whether to classify beryllium as a human carcinogen. The beryllium science group sent member Dr. Paul Kotin to the meeting in Lyon, France, to argue that the metal did not cause cancer, industry records indicate.

But the cancer organization still ruled that beryllium was a human carcinogen.

Dr. Kotin is now chairman of the beryllium science group. The 82-year-old retired cancer researcher says his visit to France had "an element of industry advocacy."

But he says he did not go to misinform anybody; rather, he wanted to present the industry's data so others could make informed decisions.

Dr. Kotin has never published a paper on beryllium, but he has had nearly 50 years' experience in environmental health. He has taught medicine at several universities and was a senior officer at Johns-Manville Corp. in the 1970s when the asbestos-maker was facing scores of civil suits over asbestos-related disorders and death.

He says the beryllium science group is honest and worthwhile.

"I have been on advisory committees for many, many industries and many, many unions. This is as good as I've ever been on."

BRUSH'S STRATEGY

Documents turned over by Brush Wellman in recent lawsuits show that the company has tried to take greater control of what doctors, regulators, and the public know about the dangers of beryllium. Here is an excerpt from a Jan. 23, 1987, memorandum from retired Brush vice president Martin Powers and company medical director Dr. Otto Preuss to Brush executive James Gulick:

SUBJECT: PROPOSED PROGRAM OF FILLING NEED FOR NEW AND ACCURATE BERYLLIUM HEALTH AND SAFETY LITERATURE

The Need

The medical and industrial hygiene information on beryllium is largely obsolete and inaccurate. With the exception of a relatively few documents such as Eisenbud's 1984 paper on the Beryllium Registry, the literature on beryllium published in the last twenty years has been very damaging.

The literature is constantly being cited, either to our doctors at medical meetings in rebuttal of the Brush experience, or by potential customers as the cause of their unwillingness to use our products. Federal Government regulatory agencies such as OSHA and EPA publish much of this material and then in the absence of good data, cite these erroneous documents to support regulatory activities that are harmful and expensive to Brush.

The Solution

What is needed to combat this situation is a complete, accurate and well written textbook on beryllium health and safety. It will have to be financed by Brush (or Brush and NGK?) and the bulk of the work done by Marty Powers and Otto Preuss. To be fully accepted and credible, however, it will have to be published under the auspices of some not-for-profit organization such as a university or medical group. We estimate the project would cost about \$50,000 and take two years to complete.

In addition to the book, we should have a number of medical papers published in prestigious medical books. In order to have these papers published timely enough to be used as up-to-date references for the book, one would have to begin their preparation without further delay. This is also important because several papers should be written in coauthorship with reknowned secondary authors who, in general, require additional time for their review and approval.

Day 4: Thought control

Firm rewrote its role in Lorain tragedy

ORAIN, O. – It was one of the most mysterious public health cases in Ohio history: Fifty-one years ago, several residents here were dying from beryllium disease even though they had never set foot in the local beryllium plant.

Federal and state health officials investigated, sampling the city's air for weeks and X-raying 10,000 residents – a fifth of the entire town.

The researchers' conclusion: Air pollution from the beryllium plant had caused beryllium

disease in at least 10 people.

That was 1948.

Since then, the plant's owner, Brush Wellman Inc., has spread a much different version of events.

It has said air pollution from its plant didn't harm all of those people; rather, workers going home in dust-covered clothing were mostly to blame.

This information came to light, a Brush doctor once told an international conference, "after much painstaking, detective-style investigation."

Or did it?

Lorain: Brush disputed air pollution link

Continued from PAGE 1

A Blade investigation suggests this is one of several examples of Brush Wellman rewriting history without the facts to back it up.

U.S. government and industry records show that Brush has repeatedly made misleading or unsupportable statements about past events relating to the dangers of beryllium.

At times, these statements were made to federal regulators or international scientists trying to stop beryllium disease.

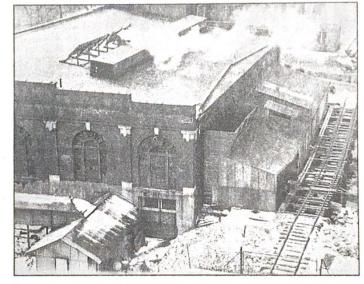
In the Lorain tragedy, Brush officials cannot produce any evidence supporting their claim that air pollution didn't poison those 10 residents.

They have no study, no government report, and no retraction from the scientists who did the original investigation

In fact, the U.S. government scientist who led the inquiry 51 years ago, Merril Eisenbud, criticized Brush's version of the tragedy shortly before he died in 1997

"I think it's a very poor quality reporting of the facts.... I'm just trying to put it kindly," Mr. Eisenbud, the former health director of the U.S. Atomic Energy Commission, testified in a court deposition.

His study in 1948 found 11 victims in



the Lorain neighborhood – 10 who had contracted the disease solely because of air pollution; another case was attributed to handling dusty work clothes.

The number of recognized neighborhood cases would eventually exceed 20, with researchers attributing some illnesses to air pollution and some to contaminated clothing.

But Brush Wellman continued to say air pollution was not to blame.

For Brush, there is a motivation to dispel the belief that air pollution from its Lorain plant had caused beryllium disease, company records indicate.

One Brush document, stamped "company confidential" but recently disclosed in an Arizona court case, states that if the company could get the gov ernment to reverse its position that pollution had harmed citizens, "we might be able to eliminate beryllium as an air pollutant (from the official list of pollutants)."

And that would mean Brush would no longer be required to maintain expensive pollution controls.

In addition, the Lorain residents were found to have gotten sick at exposure levels far below what is currently considered safe for workers inside beryllium plants – a finding that has serious safety and legal implications.

ous safety and legal implications.

Brush Wellman denies it has ever tried to deceive anyone or rewrite history to suit its needs.

Martin Powers, a former Brush executive who for 26 years was largely responsible for what the firm publicly said about beryllium disease, acknowledges that some Brush officials have claimed air pollution was not a major factor in the Lorain illnesses.

But he says they were expressing their personal opinions, not speaking for the company.

"We at Brush have never officially taken a position one way or the other" regarding whether pollution from the plant hurt residents, says Mr. Powers, now a Brush consultant.

See LORAIN, Page 6

Lorain: Brush doctor claimed a 'detective-style investigation'

Continued from PAGE 5

But that is not the truth.

In 1969, Mr. Powers himself wrote to the Consumer Protection and Environmental Health Service, an office of what was then the U.S. Department of Health, Education and Welfare, saying air pollution was not to blame for the Lorain tragedy. Rather, he told the agency, all of the citizens who contracted beryllium disease got it from washing contaminated clothes or other direct contact with the metal.

This statement, Mr. Powers wrote, was "the fundamental philosophy of our

company" on the issue.

In addition, Brush Wellman in 1967 sent formal statements, signed by Mr. Powers, to Pennsylvania and New York state regulators saying that the notion that pollution caused the illnesses "was an erroneous one."

And when Brush was fighting against tougher federal safety standards in the 1970s, it told U.S. regulators in a report that "virtually" all of the community cases had been traced to causes other than air pollution.

That position was based on what Brush once called a "detective-style investigation." The person who used those words was former Brush Medical Direc-

tor Dr. Otto Preuss.

But in a recent deposition, he acknowledges he has never investigated the Lorain illnesses, has never interviewed the victims, and has no evidence that disproves the original U.S. government study.

Dr. Preuss is now retired and living in Arizona. Through a Brush spokesman,

he declined to comment.

The old Lorain plant, on 1st Street on the banks of Lake Erie, closed in 1948 and was later torn down. The spot is now a parking lot for the municipal fishing pier.

One person upset with Brush's version of the tragedy: Joseph Gorka. His 7-year-old daughter, Gloria, died of beryllium disease in 1948, researchers concluded.

Mr. Gorka says she was never exposed to beryllium other than from air pollution, and Brush officials have never interviewed him about her death. "They have never wrote, called or anything," says Mr. Gorka, now 81 and living in Florida.

Stanley Sobocienski's relatives also dispute Brush's story. He died in 1946 at age 34, but doctors didn't blame beryllium because he had never worked in the plant. But when other people living near the plant became ill, researchers in 1948 reopened his case and concluded he had died of beryllium disease from the plant's air pollution.

His widow, Leda Denka, says he never knew why he was so sick. "He just thought he had a bad cold and cough and couldn't get rid of it," says Ms. Denka, 87,

of Amherst, O.

Mr. Sobocienski's daughter, Cheryl Sanders, was 5 when he died. She now has only two images of her father: Him sick in bed, and the funeral in her aunt's home.

"I remember him laying in the casket," recalls Ms. Sanders, 57, of Amherst, "and I remember crying, and they would take me into the kitchen and calm me down and tell me that he was with God now."

Her brother, Stanley Jr., was 11 at the time. He remembers his father as a large, vibrant man who dropped to under 100 pounds. When he died, little Stanley's aunt came to school to break the news.

"I thought he would live for a while longer or get healthier, one or the other, you know?" recalls Stanley, Jr., now 63 and running the Bering Sea Saloon in Nome, Alaska.

There are other examples of Brush Wellman rewriting history.

■ Throughout the 1970s and 1980s, Brush argued that it had beryllium disease under control and that there was no need for tighter regulations.

As proof, the firm said that among its recent hires, only two had contracted the disease, and both cases could be traced to accidents. They were "definitely preventable" accidents that "were obviously the result of human error," the company told federal regulators in 1977.

But Brush officials now acknowledge in interviews that they don't know for sure how these workers – or any others – contracted the disease. In fact, they acknowledge it is impossible to know with certainty.

That's because no one knows how much beryllium dust constitutes a toxic exposure. Even if someone did, Brush does not monitor the air quality of every worker, every day.

So when workers are diagnosed with beryllium disease – often years after they have left the plant – it is impossible to precisely recreate their exposures and, therefore, impossible to trace their illnesses to specific events.

Mr. Powers, the Brush consultant, says the company's claim that it had traced cases of disease to accidents was based on "reasonable assumptions."

But he acknowledges "it is a dogmatic statement that can't be proved."

"And I would apologize for it now, but at that time we honestly believed that was the situation. We should have been more careful."

■ Brush has said that the historic Xray program in Lorain to look for disease was the product of a "cooperative" effort between Brush and the government.

But in truth, Brush was against the survey and tried to persuade the government not to do it.

Records show that Brush executives had a meeting to discuss the survey with their attorneys, insurance company, and medical consultant.

One possibility raised at the meeting: X-raying the residents under the guise of a tuberculosis survey.

But Ohio State Health Director John Porterfield, who attended the meeting, rejected that notion.

In the end, the Brush group concluded that an X-ray survey would cause more harm than good.

They thought "all it would do would be to uncover such cases as might now exist and also might increase the number of claims that might be made against the insurance company...," then-Brush President Francis Sherwin wrote to the Atomic Energy Commission.

But he said Brush would cooperate if that's what the government wanted.

That's what it wanted.



A parking lot arrow marks the site of the former Lorain beryllium plant (below, in 1948), which was eventually razed. Air pollution from the plant poisoned residents living nearby. Brush has repeatedly made misleading statements about the causes of the illnesses.



A family snapshot captures Stanley Sobocienski and son Stanley Jr., who was 11 years old when his father died in 1946. He recalls watching his father slipping to under 100 pounds before he died.



ROCK NEWS ALLIMOTE PROTO BY ALLIMOTE Leda Denka holds her 1933 wedding photograph. Her husband, Stanley Sobocienski, never worked at the local beryllium plant, but researchers in 1948 concluded he died of the disease.

EADLY ALLIANO

Day 4: Thought control

Brush gives victims the option to 'volunteer'

BY SAM ROE

BLADE SENIOR WRITER

Two years ago, Brush Wellman applied for a top honor given by the local United Way: the Heart of Volunteerism Award.

One of the company's key claims was that it had placed several full-time employees of its Elmore plant in public service posi-

Brush Wellman ended up winning the award - and told the media so in press

But what the company didn't tell the United Way or the public was why these workers were volunteering in the first

They had contracted beryllium disease at the plant and did not want to further expose themselves to the toxic metal. So Brush Wellman required them to become full-time volunteers or lease themselves to other companies instead of working at the Brush plant.

If they refused, they would lose their

One victim is now picking up trash and

cutting grass in a low-income Toledo neigh-

Another is counseling students in Genoa Area Schools.

Another is doing odd jobs for a shooting club at Camp Perry, an Ohio National Guard base.

"It's disgusting," says Dave Norgard, who has beryllium disease and has refused to do volunteer work. "It's a modern-day version of slave labor."

Four workers with beryllium disease, an often-fatal lung illness, are now doing public service work under this program, but some say they are being forced against their will and that Brush is using them as public relations tools.

"They're collecting awards for making people sick and then forcing them to work in jobs they don't necessarily want to do," says one of the workers, who requested anonymity.

Brush Wellman defends its program.

"We didn't do this to win an award or impress the United Way," says Dennis Habrat, Brush's director of occupational health affairs.

The program was created, he says, because an increasing number of workers were being diagnosed with beryllium disease, yet they had no visible symptoms. In the opinion of Brush and its medical director, these employees remained able to

But there was a problem: There was no place in the Elmore plant where victims could work without further exposure to deadly beryllium dust. Yet they were not sick enough to qualify for workers' compensation.

So Brush wanted to find them jobs as opposed to paying them for sitting home, as it had been doing in some cases for years.

What kind of alternative work they do is largely up to them, the company says. "We don't want to sentence somebody for life to some job they hate," Mr. Habrat

Brush officials say they know of no other company with such a program.

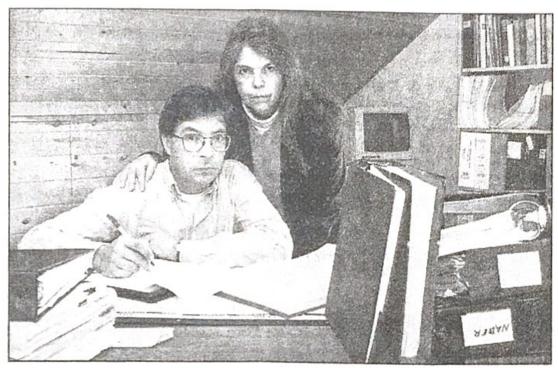
Victims deemed able to work have three options:

- Continue working at the plant and risk further injury.
- Quit working and receive one year's

Accept a job outside of Brush as a contract employee and continue to receive their regular Brush pay.

If workers volunteer for a nonprofit group, Brush receives nothing in return.

But if they work for another business, that company reimburses Brush the amount it would normally pay for that position. There



BLADE PHOTO BY LORI KING

Dave and Theresa Norgard of Manitou Beach, Mich., have criticized Brush's public service program. Mr. Norgard, a beryllium victim, has refused to participate in the program.

is one such case now: A beryllium victim is doing computer work for an Elmore manufacturer.

For those too sick to work, Brush supplements their workers' compensation pay so they earn the same as they did before they became ill. This generally lasts until they retire or die.

Brush began requiring some victims to volunteer or return to work in 1995.

One victim, Mr. Norgard, a 43-year-old from Manitou Beach, Mich., refused. So he has not received a paycheck from Brush in two years, though the company says it still considers him an employee and hopes he will eventually accept a public service job.

Mr. Norgard says he has refused because Brush changed the rules on him midstream: After he was diagnosed with beryllium disease, Brush agreed to pay him even if he didn't work; now it wants him to do public service work.

Plus, he says, "I don't want to be used as a pawn so Brush can win awards."

When Brush applied for the United Way of Greater Toledo's top corporate volunteerism award in 1997, the company had to fill out a form. Brush trumpeted many of its activities, saying that 80 per cent of its employees volunteer. Prominently mentioned was the policy that places workers in community service positions. But Brush did not say that these workers had beryllium disease and that they had been paid to volunteer, records show.

United Way spokeswoman Kim Sidwell says that when the award was given the United Way did not know Brush was using victims as volunteers. She didn't know if that information would have precluded Brush from winning.

"They are great supporters of ours, and this is an issue between the company and their employees," she says.

Many other Brush workers with beryllium disease have chosen to continue working in the Elmore plant and risk further injury.

Scientists do not know for sure if additional exposure aggravates the disease, but they have said for nearly 50 years that prudence dictates victims be removed.

Theresa Norgard, wife of Dave, the beryllium victim, says Brush has had years to find jobs within the company for sick workers.

"My God, you can't come up with a game plan in 50 years? They didn't want to do it. They didn't have to do it. So they didn't do it."

Original tearsheets

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TOLEDO, OHIO, WEDNESDAY, MARCH 31, 1999

FINAL

NATO to expand bomb campaign into Belgrade

U.S., Germany turn down Russian peace proposals

BELGRADE — The United States and its NATO allies yesterday agreed on a expansion of the bombing campaign in Yugoslavia that would target the centre of Belgrade after the failure of diplomatic efforts to end the conflict and continuing reports of brutal ethnic cleansing in the battered province of Kossova.

NATO ambassadors agreed in a mardrown with the battered province of
Kosowo.

NATO ambassadors agreed in a marathon meeting in Brussels last night to
broaden the list of targets in the air war
by about 20 per cent, including sites in
Belgrade, the Yugoslav capital, and
others crucial to the power base of
Vingoslav President Slobedan Midosevic.

Health Sources said Meanwhile, NATO

Canada Sources said Meanwhile, NATO

Russian Prime Minister Yevgeny

Primakov, a strong opponent of the
bombing campaign, went to Belgrade in
an effort to stop it but emerged with illdefined proposals that President Clindefined proposals that President Clin
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the separatus province, but only after the bombing stops.

Mr. Schroeder called this offer "unacceptable" and Mr. Clinton used the same word in a brief statement. "President Missevich began this brutal campaign. "Mr. Clinton added. "It is his suppossibility to bring it to an immediate suppossibility to bring it to an immediate. There is a strong-soc a just peace. There is a strong-soc a just peace. There is a strong-soc a just peace. There is a strong-soc a forward with our military action. As the war continues with mexpected brutality, officials is and the Clinton administration is beginning to envisage a Kosovo that would be independent and but name, protected by an international power — possibly the United Nations, according to senior officials.

The U.S. view is that the Serbs have

officials.

The U.S. view is that the Serbs have forfeited their right to rule Kosson by their actions in their officials, and the Kosson she their actions in their officials; and the Kosson's have been so radicalized that they will never agree to live under Serb rule.

NATO's sense of urgency has increased as the tales of horror emerging from Kosson have multiplied and neighform Kosson have multiplied and neighform Kosson have multiplied and neighform Kosson have multiplied staggering under the weight of half a



SPECIAL REPORT: DAY

The daughter and widow of Stanley Sobocienski visit his grave. Researchers in the 1940s traced his death — and others in Lorain, O. — to air poliution from a beryllium plant. But plant owner Brush has spread a different story.

STORIES BY SAM ROE . BLADE SENIOR WRITER

DEADLY

Brush devised strategy to shape knowledge

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See KNOWLEDGE, Page 5

Firm rewrote its role in Lorain tragedy

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See LORAIN, Page 5

Agencies say they had no reason to shut fireworks plant

BY KELLY LECKER AND DEE DRUMMOND

OSSEO, Mich. — A state agency that could have shu down a fireworks factory after seven of the state of the st

lead on this from the ATF."

William Richardson, the factory founder who lives on the fireacriss company property, told investigators yesterday that no more fireworks will be manufactured at the plant, it was reported early today.

"He told us he'd lost his best friend,"

Division.

Ms. Campbell would not comment on whether MIOSHA felt workers at the fireworks factory had any reason to worry about their safety. Vesterday, investigators were on the scene of independence Professional Fireworks to examine the company's latest trayedy, an explosion Monday morning that killed five people, including owner Robert Slayton and his wife, Pat.

Pat.
Also killed in the explosion were Leah
Dunning, 34, of Pittsford, Scott Blurton,
32, and Richard Wiggins, 30, of North
Adams. Mr. Slayton died later in the
night in a Bronsen hospital. The rest were found dread in the burned building.

Agents from the Bareau of Alcohol.

Tobacco, and Firearms, which issues
the fireworks license and regulates the
storage of explosives, said they cannot
revoke a license right after an explosion.

See FIREWORKS, Page 9 ▶

A LOOK AT THE SERIES

risked the lives of thousands of work- leading beryllium producer, has misers by knowingly allowing them to be led workers, federal regulators, and the exposed to unsafe levels of beryllium.
public about the dangers of the metal.
a local beryllium plant.

government and industry officials twists systematically and aggressively tried to a plan to protect beryllium workers into control how doctors, scientists, and a deal protecting themselves.

Sunday: The U.S. government has Yesterday: Brush Wellman, America's Tomorrow: The final days of Marilyn

Monday: A secret bargain between | TODAY: Brush Wellman has the public view beryllium.

Miller, who contracted beryllium disease while working as a secretary in

Friday: Public officials are quick to give Brush Wellman millions of dollars in tax breaks and public money but slow to raise health concerns.

INSIDE

WEATHER REPORT



mostly sunny; high 72. Clear to partly cloudy to-night; low 48.

Full report, Page 38



The EIS Group chose quality commitment, service, and a lower price. The EIS Group chose Buckeye Selectystem. We go beyond a

UT shifts grants to help it recruit average students

BY TOM TROY

Tuledo-area high school graduates with at least a B- average will get \$2,000 toward their first year's tuition at the University of Tubedo this fall, university deficials said yesterday. The program, called the UT2000 Award, will shift some UT schodarship money from programs aimed at recruiting a few academically elite students to help recruit a larger number of more average high school graduates, officials said.
It should boost UT's freshman class,

officials said.

It should boost UT's freshman class, said Dr. Robert Abella, vice president for enrollment and placement service.

"What we want to do is support the

See RECRUIT, Page 9 ▶

Hearings on beryllium proposed

Congressman questions U.S. role in industry

BY SAM ROE

A Pennsylvania congressman called yesterday for congressional hearings into the U.S. government's involvement in the beryllium industry. U.S. Rep. Paul Kanjerski said that he is concerned that workers continue to become ill from the tonic metals.

"It's clearly an obligation of the government to remediate the problem," he said.

The Democrat said of the government and interest the problem of the provenment to remediate the problem, be said.

The Democrat said series "Deadly Alliance," which is describing how government and incoming the provide beryllium industry to be exposed to unsafe levels of the metal.

Mr. Kanjorski's district includes Hazleton, Pa.

Kanjorski: Several workers at a plant that used to be in his district have beryllium disease.

Mr. Kanjorski: district includes Hazleton, Pa., Mr. Kanjorski: district includes Hazleton, Pa., di.zen former workers of the Hazleton plant have

developed beryllium disease, a lung illness caused by inhaling the metal's dust.

caused by inhaling the metal's dust. In a letter late yesterday, Mr Kanjorski asked U.S. Bep. Christopher Shaya (R. Conn.), chair-man of the subcommittee on national security yeterans affairs, and international relations, to have its panel, hold hearings on the beryllium issue in May.

issue in May.

The Blade articles, Mr. Kanjorski wrote, "raise important questions about the U.S. government's important questions about the U.S. government's He called the berylium problem "one of the sad postscripts to the Cold War".

The hearings, he told Mr. Shays, "would increase swarps as of the cause and effects the close to the cold to the disease, the current medical diagnosis and treatment, the extent of the affected population, and the importance of taking measures to remedy

See HEAHINGS, Page 9 >

Day 4: Thought control

KNOWLEDGE

Continued from PAGE 1

will do to protect its phoduct.

In this case, Brush devised a detailed, year-by-year strategy to take greater control of how scientists, doctors, students, and the public viewed beryfilm.

This included spending more than \$1 milion on its science group and pushing for medical papers to discredit research that had found beryfilm extremely hazardoux, company records disclosed in recent lawaits show.

Brush's actions have far reaching effects,

low. h's actions have far-reaching effects, because the Cleveland-based company rica's leading producer of beryllium.



it's an industry-funded group of doctors who are hired to provide specific information that the companies can use for ammunition for public relations.

attorney James Hechbert commenting on the Brush-funded science group

beryllium was extremely hazardous – stud-ies Brush thought were inaccurate and "very

beryllium was extremely hazardous -studies Brush thought were inacurate and "very damaging,"

"These actions should be systematically approached over the next two years," one Brush document says.

Brush document says.

The opposition of the systematically approached over the next two years," one Brush document says.

The company proposed writing its own texbook and several medical papers. One company document names which Brush officials should write the papers, where they should be published – even what they should be better the papers where they should be published – even what they should be beryllium and lung cancer.

"Preferably," a Brush document states, "the primary authors should be Drs. MacMahon and Roth," two company consultants. "However, must of the work on this paper would have to be done by Brush Wellman," the requirely, and so they could be used as references for its texthook.

The texthook was published in 1991 and titled Beryllium: Biomedical and Environmental Appects. Brush paid for it and sent copies.

The textbook was possibled in 1991 and taked Bergillium. Shomedical and Eurorismine-tal Aspects. Brush pasd for it and sent copies to hundreds of medical schools, businesses, and libraries across the country. It's on the shelves of many of America's top medical schools, such as Harvard Medical School and the Washington University School of Medicine in St. Louis, as well as at the

See KNOWLEDGE, Page 6



A parking lot arrow marks the site of the former Lorain beryfilium plant (below, in 1948), which was eventually razed. Air pollution from the plant poisoned residents living nearby. Brush has repeatedly made misleading statements about the causes of the illnesses. Lorain: Brush disputed air pollution link

Continued from PAGE 1

A Blade investigation suggests this is one of several coamples of Brush Welman reserting history without the facts to back it up.

US gavernment and inclustry records show that Brush has repeatedly made misleading or unsupportable statements about past events relating to the dangers of beryllium.

At times, these statements were made to federal regulators or international scientists trying to stop beryllium disease.

In the Lorain tragedy, Brush officials cannot produce any evidence supporting their claim that air polition didn't poison those 10 residents.

They have no study, no government report, and no retraction from the scientists who did the original investigation.

In fact, the US government scientist

tion.
In fact, the U.S. government scientist In fact, the U.S. government occurate who led the inquiry 51 years ago, Mer-ril Eisenbud, criticized Brush's version of the tragedy shortly before he died in 1997.

"I think it's a very poor quality reporting of the facts.... I'm just trying to put it kindly." Mr. Eisenbud, the former health dispect of the 11 S. Atomic Peer.

"I think it's a very "I think it's a very ing of the facts... I'm just a just it kindly." Mr. Elsenbud, the former health director of the U.S. Atomic Energence Commission, testified in a court gy Commission, testines as deposition.
His study in 1948 found 11 victims in



the Lorain neighborhood – 19 who had contracted the disease solely because of air pollution, another case was attrib-uted to handling dusty work clothes. The number of recognized neigh-borhood cases would eventually exceed 20, with researchers attributing some illnesses to air polition and some to con-taminated clothing.

But Brush Wellman continued to

But Brüßh Weilman continued to say air pollution was not to blame. For Brush, there is a motivation to dis-pel the belief that air pollution from its Lorain plant had caused berylium disease, company records indicate. One Brush document, stamped "com-pany confidential" but recently dis-closed in an Arizona court case, states

ernment to reverse its position that pollution had harmed citizens, "we might be able to eliminate beryllium as an air pollutant (from the official list of pollutants)."

And that would mean Brush would no

pollutants.)*
And that would mean Brush would no longer be required to maintain expensive pollution controls.
In addition, the Lorain residents were Sund to have gotten sick at exposure levels far below what is currenty considered safe for workers inside berylliam plants - a finding that has serious safety and legal implications.
Brush Wellman demies it has ever rired to deceive anyone or rewrite history to suit its needs.
Martin Powers, a former Brush executive who for 26 years was largely responsible for what the firm publicly said about berylliam disease, acknowledges that some Brush officials have claimed air pollution was not a major factor in the Lorain tilinesses.
But be says they were expressing heir personal opinions, not speaking for the company.
"We at Brush have never officially taken a position one way or the other regarding whether pollution from the plant burt residents, asys Mr. Powers, now a Brush consultant.

See LORAIN, Page 6

Day 4: Thought control



Leda Denka holds her 1933 wedding photograph. Her husband, Stanley Sobocienski, never worked at the local beryllium plant, but researchers in 1948 concluded he died of the disease

Lorain: Brush doctor claimed a 'detective-style investigation'

But that is not the truth In 1860, Ac Powers, harmood wrote to the In 1860, Ac Powers, harmood wrote to Consumer Proceeding and Europeannessal Health Service, as office of what was then the U.S. Department of Health Education and Welfare, soying air pol-lation was not to claims for the Lorian beautiful to theme for the Lorian to the Consumer of the Consumer the officers who control to the case and of them was home companions and case and of them was home companions and nase got it from washing contaminated siothes or other direct contact with the

pountion caused the limesses: "was an erroneous one."

And when Brush was fighting against tougher feederal safety standards in the 1970s, it told U.S. regulators in a report that: "yrtually" all of the community cases had been traced to causes other

cases had been traved to causes other than are politics was based on what British once called a "detective-style investigation." The person who used those words was former British Medical Investigation. The person who used those been to the first the person of the section of the beautiful of the person who was a first that a reverse deposition, he acknowledges he has beever investigated the colorant illustrate. has never interviewed they work that the process the original U.S. government.

prives: the originate U.S. governments study.

In: Frense is now retured and living in Artrona. Through a Brust appacement, to declined to comment.

The oil Loran paint, or 1st Street or the bastic of Lain Ern, thosed in 1981 and was lainer turn from The 1990 to now a was later turn fower. The 1990 to now a was later turn fower. The 1990 to now a was later turn fower. The 1990 to now a long living fower for the 1990 to fower. The 1990 to now a was later turn fower. The 1990 to fower for fower for the 1990 to fower fower for the 1990 to fower fower.

In the 1990 to fower for the 1990 to fower f

"They have never wrote, called or anything," says Mr. Gorka, now its and hymothesis and the state of the control of the contro

In fact, they acknowledge it is impossible to know with certainty. That's because no one knows how much beryflum dist constitutes a touc exposure. Even if someone did, Brush does not monitor the air quality of every with the second of the second of the second of the beryflum disease - often years after they have left the plant - it is impossible to precisely recreate their exposures and, therefore, impossible to trace their linesses to specific events.

Mr. Powers, the Brush consultant, says the company's claim that it had traced cases of disease to accidents was based on "reasonable assumptions."

But he acknowledges "It is a dogmatic statement that can't be proved."

"And I would apologue for it now, but it that time we honestly believed that was the sination. We should have been more than the second of the second to the second of the second

Records show that Brush executives

had a meeting to discuss the survey with their attorneys, insurance compa-ny, and medical consultant.

One possibility raised at the meeting: X-raying the residents under the guise of a tuberculosis survey. But Ohio State Health Director John

Porterfield, who attended the meeting.

Forterfield, who attended the meeting, rejected that notion.

In the end, the Brush group concluded that an X-ray survey would cause more harm than good.

They thought 'all it would do would be to uncover such cases as might now exist and also might increase the number of claims that might be made against the insurance company..." then-Brush President Pracis Shervis work to the Atomic Energy Commission.

But he said Brush would concerne if

But he said Brush would cooperate if that's what the government wanted. That's what it wanted.



A family snapshot captures Stanley Sobocienski and son Stanley Jr., who was 11 years old when his father died in 1946. He recalls watching his father slipping to under 100 pounds before he died.

KNOWLEDGE

Continued from PAGE 5

miers for Disease Control and Pre-

Centers for Disease Control and Pre-vention in Atlanti.

Localis if s at the Metheal Codinge of One, the Investing of Diseas, and the Tole-do-Lineas County Public Library.

It is ethed by two harmer brush officials and a Penniyabana physician who has received research money from the beryl-him industry. Many chapters were writ-lest by Brush's executives, doctors, and lawyers.

awyers.
"What that book is is the company.

ine." says James Heckbert, a Colorado attorney for about 50 workers with beryl-lium disease who are sump Brauh. The chapter on beryllium's health risks is written by ID (100 Preuss, a for-mer Brush medical director and one of the book's editor. He states a long-held posi-tion of the company. No worker has ever gotten sick when exposed to levels of beryllium dust below the federal safety land.

limit.

He states this as fact, discounting studies that have found otherwise. Dr. Preuss does not claborate, but a footnote gives the source for why these studies should be discounted. His own letter to the edition of the British Journal of

Industrial Medicine.

Mr Powers, the former Brush official and one of the texthook's editors, says the book is fair.

But he acknowledges that there are "some statements in there that I think are too dogmatic" opinions, he says, that are stated as facts.

In addition to the book, Brush has:

Mranged graduate-level seminars at universities. One Brush document states:

We need to actively educate the university professors on our materials and health issues in order to train the next generation of engineers on the truths and myths about beryfilum-containing materials."

■ Helped create the Bervilia Ceramic ■ Helped cruate the Beryllia Ceramic Development Association, an industry group in Washington Brush says it was formed, in part, 'to combat erroneous health and safety information being dis-seminated' about beryllium products. ■ Helped establish the Beryllium Indus-try Scientific Advisory Committee, con-sisting of Brush's company dother and se-eral scientists from noted universities, such as Harvard. The science group is particularly con-troversital.

troversial.

It is funded entirely by the beryllium industry, with Brush picking up most of the costs. Records show that Brush has contributed more than \$1 million to the group. ind

since it was formed in 1990.

Mr. Powers, the group's executive director has received more than \$230,000 for his time and expenses.

He says he and a Brush consultant picked the original members. Since then, the group has picked its own members. The group meets a copple of times a year, and members are paid \$1,000 a day, plus travel expenses.

Mr. Powers says the group was created to finance worthwhile research. One current study is trying to determine whether there is a genetic predisposition for getting berythium disease.

Day 4: Thought control

Knowledge:

Industry group fought cancer connection

Continued from PAGE 6

Still, others see the science group differently.

"It's an industry-funded group of doctors who are hired to provide specific information that the companies can use for arminutain for public relations," says Mr. Hockbert, the attorney for the beryllium victims.

Industry documents turned over in recent court cases how that the group is not just interested in science.

show that the group is not just interested in science.

Its charter sage its purpose is, in part, to "develop
and implement a strategy to address...the perception
of berylliam as a human cartivrogen."

Brush has long fought the notion that beryllium cause
cancer, and one company document states that the science group "wall provide the scientific basis for our caners strategy."

At a meeting in 1992, the science group discussed how cancer was not just a medical issue but a "public relations and marketing problem" as well, according to minutes of the meeting.

e meeting. The scientists wanted a lawyer "familiar with these kind bread strategy considerations," so they asked Breash after yoldn Newman to address the group. He did, warning the scientists that "if beryllium is recreated as causing lung cancer, regardless how scientists that provide the scientists was considerable to the scientists and the scientists are scientists and the scientists and the scientists are scientists.

The Brush attorney then advised the scientists how best to deal with that threat.

to deal with that threat.

A few months later, in 1993, the International Agency for Research on Cancer, an arm of the World Health Organization, was deciding whether to classify beryflum as a human carcinogen. The beryflum science group sent member Dr. Paul Kotin to the meeting in Lyon, France, to argue that the metal did not cause cancer, industry records indicate.

But the canner operators.

But the cancer organization still ruled that beryllium

was a human carcinogen.

De Kotin is now chairman of the beryflium science group.

The \$2 year old retured cancer researcher says his visit to France had 'an element of industry advocacy.'

But he says he did not go to missinform anybody; rather, he wanted to present the industry's data so others could make informed decisions.

make informed decisions.

Dr. Kotin has never published a paper on berylliam, but he has had nearly 50 years' experience in environmental health. He has taught medicine at several universities and was a senior officer at Johns-Manville Corp. in the 1970s when the asbestos-maker was facing scores of civil suits over asbestos-related disorders and death.

He says the beryllium science group is honest and worth-

"I have been on advisory committees for many, many industries and many, many unions. This is as good as I've ever been on."

Brush's Strategy

Documents turned over by Brush Wellman in recent lawsuits show that the company has tried to take greater control of what doctors, regulators, and the public know about the dangers of beryllium. Here is an excerpt from a Jan. 23, 1987, memorandum from retared Brush vice president Martin Powers and company medical director Dr. Otto Preuss to Brush executive James Gulick:

SUBJECT: PROPOSED PROGRAM OF FILLING NEED FOR NEW AND ACCURATE BERYLLIUM HEALTH AND SAFETY LITERATURE

The medical and industrial hygiene information on beryllium is largely obsolete and inaccurate. With the exception of a relatively few documents such as Eisenbud's 1984 paper on the Beryllium Registry, the literature on beryllium published in the last twenty years has been very damaging.

The literature is constantly being cited, either to our doctors at medical meetings in rebuttal of the Brush experience, or by potential customers as the cause of their unwillingness to use our products. Federal Government regulatory agencies such as OSHA and EPA publish much of this material and then in the absence of good data, cite these erroneous documents to support regulatory activities that are harmful and expensive to Brush.

What is needed to combat this situation is a complete, accurate and well written textbook on beryllium health and safety. It will have to be financed by Brush (or Brush and NGK?) and the bulk of the work done by Marty Powers and Otto Preuss. To be fully accepted and credible, however, it will have to be published under the auspices of some not-for-profit organization such as a university or medical group. We estimate the project would cost about \$50,000 and take two years to complete.

In addition to the book, we should have a number of medical papers published in prestigious medical books. In order to have these papers published timely enough to be used as up-to-date references for the book, one would have to begin their preparation without further delay. This is also important because several papers should be written in coauthorship with reknowned secondary authors who, in general, require additional time for their review and approval.

Brush gives victims the option to 'volunteer'

BY SAM ROE

Two years ago, Brush Weilman applied for a top honor given by the local United Way: the Heart of Volunteerism Award. One of the company's key claims was that it had placed several full-time employees of its Elmore plant in public service posi-

releases.

But what the company didn't tell the
United Way or the public was why these
workers were volunteering in the first

place.
They had contracted beryllium disease at the plant and did not want to further expose themselves to the toxic metal. So Brush Wellman required them to become full-time volunteers or lease themselves to other companies instead of working at the Brush plant.
If they refused, they would lose their

pay. One victim is now picking up trash and cutting grass in a low-income Toledo neighborhood.

Another is counseling students in Genoa

Area Schools. Another is doing odd jobs for a shooting

club at Camp Perry, an Ohio National

Guard base.
"It's disansting," says Dave Norgard, who
has beryllium disease and has refused to
do volunteer work. "It's a modern-day
version of slave labor."

version of slave labor."
Four workers with beryllium disease, an often-fatal laugilitiess, are now doing public service work under this program, but some say they are being forced against their will and that Brush is using them as public relations tools.
"They'ne collection

"They're collecting awards for making people sick and then forcing them to work in jobs they don't necessarily want to do," says one of the workers, who requested

nonymity. Brush Wellman defends its program.

Brush Wellman defends its program. We didn't ob this tow in an award or impress the United Way," says Dennis Habrat, Brush's director of occupational health affairs.

The program was created, he says, because an increasing number of workers were being disposed with beryllium disease, yet they had no visible symptoms. In the opinion of Brush and its medical director, these employees remained able to work.

But there was a problem: There was o place in the Elmore plant where victims no place in the Elmore plant where victims could work without further exposure to deadly berylium dust. Yet they were not sick enough to qualify for workers' compen-

sation.

So Brush wanted to find them jobs as opposed to paying them for sitting home, as it had been doing in some cases for

what kind of alternative work they do is targely up to them, the company says.
"We don't want to sentence somebody for life to some job they hate," Mr. Habrat

says.

Brush officials say they know of no other company with such a program.

Victims deemed able to work have three

Continue working at the plant and risk further injury.

Quit working and receive one year's

■ Quit working and second pay.

■ Accept a job outside of Brush as a contract employee and continue to receive their regular Brush pay.

If workers volunteer for a nonprofit group, Brush receives nothing in return. But if they work for another basiness, that company reimbarses Brush the amount it would normally pay for that position. There



Dave and Theresa Norgard of Manitou Beach, Mich., have criticized Brush's public service program. Mr. Norgard, a beryllium victim, has refused to participate in the program.

is one such case now: A beryllium victim is doing computer work for an Elmore manufacturer. For those too sick to work, Brush sup-

For those too sick to work, Brush sup-plements their workers' compensation pay so they earn the same as they did before they became ill. This generally lasts until they retire or die. Brush began requiring some victims to volunteer or return to work in 1995. One victim, Mr. Norgard, a 43 year-old from Manitou Beach, Mich, refused. So be has not received a paycheck from Brush in two years, though the company says it still considers him an employee and hopes he will eventually accept a public service job.

Mr. Norgard says he has refused because Brush changed the rules on him mid-stream: After he was diagnosed with beryl-llum discase, Brush agreed to pay him even if he didn't work; now it wants him to do nubble sension work.

even if he didn't work; now it wants him to do public service work. Plus, he says, "I don't want to be used as a pawn so Brush can win awards." When Brush applied for the United Will of Greater Theodo's tee proporate volun-tierism award in 1997, the company had to file activities, along that 80 per cent of its employees volunteer.

Prominently mentioned was the policy that places workers in community service positions. But Brush did not say that these workers had bery likem disease and that they had been paid to volunteer, records show.

United Way spokeswoman Kim Sidwell says that when the award was given the United Way did not know Brush was using victims as volunteers. She didn't know if that information would have precluded Brush from winning.

from winning.

"They are great supporters of ours, and this is an issue between the company and their employees," she says.

Many other Brush workers with berytlium disease have chosen to continue working in the Elmore plant and risk further injury.

Scientists do not know for sure if additional exposure againvales the disease, but they have said for nearly 30 years that prudence dictates victims be removed.

Theress Norgard, wife of Dave, the beryllium victim, says Brush has had years to find jobs within the company for sick workers.

"My God, you can't come up with a game."

"My God, you can't come up with a game plan in 50 years? They didn't want to do it They didn't have to do it. So they didn't do it."

ABOUT THE SERIES

'Deadly Alliance' is based on a 22-Deadly Alliance' is based on a 22-month investigation by The Blade. Thousands of court, industry, and recently declassified U.S. government documents were reviewed, and dozen of government officials, industry lead-ers, and victims were interviewed.

About beryllium: Beryllium is a About Deryntum: Beryntum is a hard, lightweight, gray metallic element. It does not occur in nature as a pure metal; it is extracted from minerals, chiefly bertrandite and beryi, and



produced through a series of chemical processes.

of chemical processes.

Beryllium is used in nuclear weapons, missiles, and jet fighters. Small amounts are added to other metals, such as copper, and used in computer cunnectors, household appliances, and car ignitions. Beryllium's atomic number is 4 and chemical symbol Be.



About the disease: Feople exposed to beryllium dust often develop a long illness called chronic beryllium called chrome beyonam disease, also known as berylfiosis. It is caused by the dust lodging deep in the lungs. Symptoms include coughing and shortness of

breath, which may not appear until many years after the last exposure to

beryflium. The disease is often fatal, and there is no cure. Scientists believe some people have a genetic predisposition to the disease. The federal exposure limit for workers is 2 micrograms of beryllium dest per cubic meter of air – equivalent to the amount of dast the size of a peaci, tip spread throughout a 6-foot-high box the size of a football field.

About the victims: Researchers estimate 1,200 Americans have contracted beeylilmin dissense, and hundreds have died, making it the No. 1 illness directly caused by America's Cold Warbuildup, Many cases have occurred in Obio, Pennsylvania, Arizona, Colorado, and Tennessee, hone of beryllium or nuclear weapons plants. Fifty current or former workers at the Elimore plant have the disease. Twenty-six others have an abnormal blood test—a sign they may very well develop the illness. About the victims: Researchers estithey may very well develop the illness.



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