

# The Orange-Fog Peril

By DANIELLE FLOOD

## PEDRICKTOWN

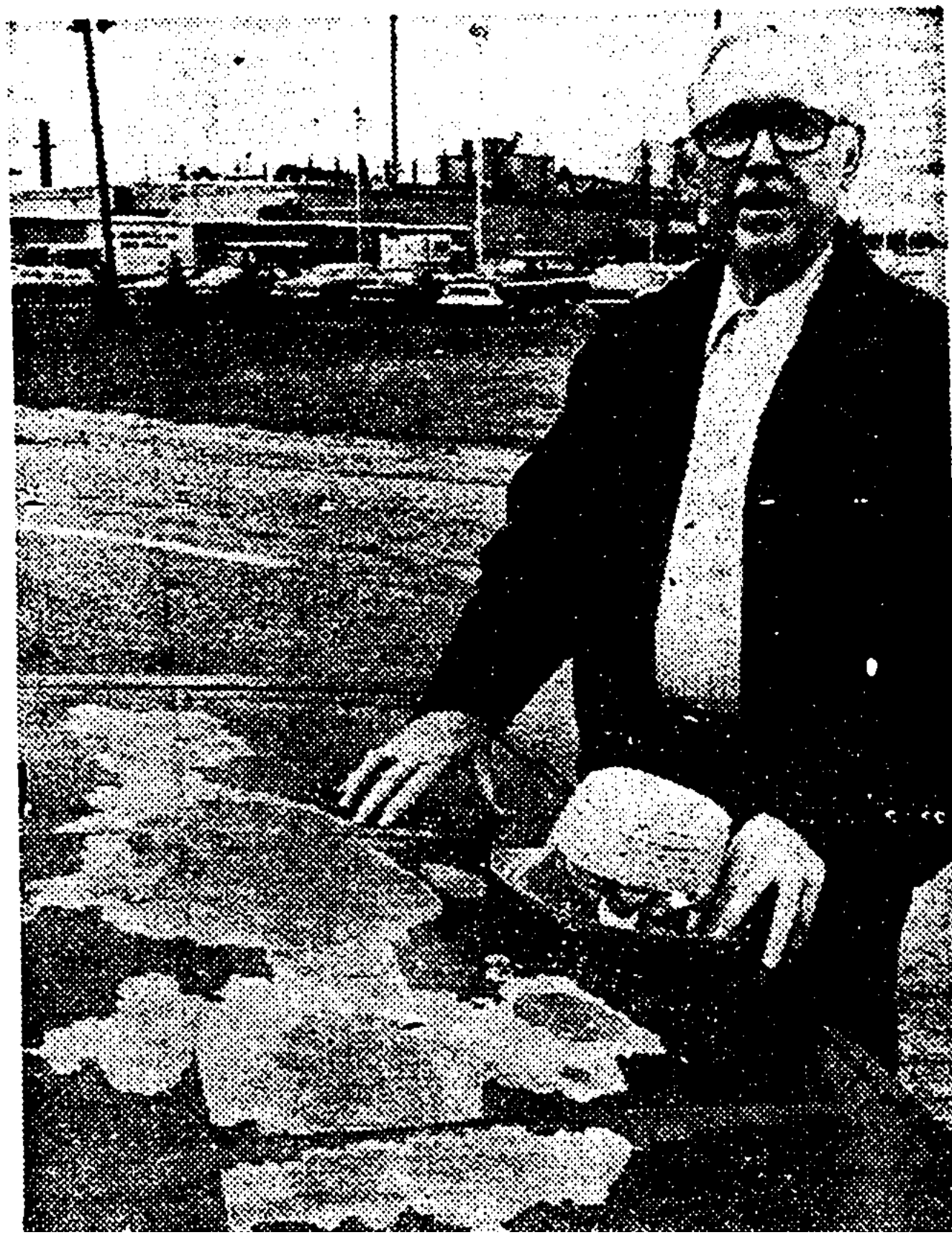
**T**HERE is an orange fog that envelops various neighborhoods here from time to time. In recent months, it has come almost weekly. Now it has the "high towners" riled.

"And when you've got us riled," said Sam Pickens, a high towners, or elder of an old Pedricktown family, "something's gotta give."

Residents in this Salem County community of 2,000 about 15 miles east of Wilmington say the mist "looks like the glow around a candle" and comes from the smoke stacks of an NL Industries plant here that recovers lead from used car batteries. And they say the fog leaves a substance that has damaged their property—from eating pinholes in aluminum siding to "burning" blossoms on some trees.

Air-pollution enforcement officials of the state's Department of Environmental Protection "speculate" that the fog contains lead oxide particles that act as a base for sulfur dioxide, which when mixed with water vapor becomes sulfuric acid, a strong corrosive.

Lee Geist, a spokesman for NL Industries, a multinational corporation that owns Dutch Boy Paints, said, "It



The New York Times/Keith Meyers

## Roy Griffin shows peeled auto paint

is possible that something is being emitted and combining with something else in the local atmosphere under certain conditions that is causing the problem.

"But it has not been shown that NL is the source of the problem. Whatever it is, it is not any recognized health hazard."

The key words are "shown" and "recognized"; they summarize in several ways the problems residents here have in dealing with the "orange fog" dilemma.

"Shown." Residents complain that the orange fog did not exist in Pedricktown before the NL plant began full-time operations about three years ago. Others say they have seen the fog come from plant stacks.

"When it comes out of the tall stacks," said Maxine Catts, who lives across the street from the plant, "it looks brownish against the sky. It doesn't move fast. It lays in the air, just hangs. And then you wake up in the morning and it's all over the place . . . orange and brown spots and they don't wash off."

But state air pollution enforcement officials, who say they have been aware of the problem for two years, claim they must view such an emission from its source before they can do anything to stop it. They said they had not been able to view the fog because it usually formed at night, for about an hour and a half, and no enforcement officials lived close enough to Pedricktown to get there before the fog dissipated.

"Recognized." "It burns your eyes if you go out into it. Sometimes the odor is so strong it'll take our breath away," said Josephine Cogdill, who lives nearly a half mile from the plant.

Several residents say they wake up with headaches after the fog has visited their neighborhood the night before. "If it's taking the paint off our houses and cars, what's it doing to our lungs?" is a frequent question asked by residents when discussing the fog.

But as Meyer Scolnick, director of the Enforcement Division, Region 2, of the United States Environmental Protection Agency, said, it is generally more difficult to show that a particular pollution emission is harmful to a person's health than it is to property because the effects of pollution on property are usually "immediate" whereas the harmful effects on humans "may not be detectable for a period of years."

Nevertheless, the NL spokesman said, "Since NL has made and continues to make every effort to be a good neighbor in the area, we have taken certain actions although we had no obligation to do so."

The NL "good-neighbor" policy has included covering the cost of:

☛Washing houses and cars by professional cleaners.

☛Replacing aluminum siding on at least three houses, windows in at least two houses, and glass doors and trim around one house.

☛Installing a water pipe (estimated cost \$39,000) so at least half a dozen families who live within 1,000 feet of the plant no longer have to drink their well water.

☛Providing \$1,000 worth of bottled water in the last year for two of these families, a practice NL said would continue until the water pipe was installed.

Last year, the Salem County Health Department found that five of seven water samples taken from the wells of residents who live within 1,000 feet of the plant contained lead. Two of these samples had levels well above—about three times—the New Jersey recommended maximum lead level in water of five-hundredths parts per million. NL is providing bottled

water to the two families whose well water was found to have the highest lead levels of the seven samples.

Between mid-October and mid-December 1975, Maurice Madden, principal of the Oldmans Middle School, Pedricktown, had the drinking water for the 120 students in his school shut off.

He noted the water was again turned on because the Salem County Health Department took samples in December and January that showed the water's lead content to be lower than the state recommended maximum lead level.

Lawrence Devlin, Salem County health officer, said his agency would monitor the school water with tests every three months.

Mr. Devlin said he did not know how lead got into certain wells in Pedricktown.

A former official of NL Industries, who asked not to be identified, said he saw several ways that the Pedricktown plant could be responsible for lead seeping into the ground and air:

☛Used car batteries to be recycled are kept in a dump behind the plant. "They're piled there and when it rains on them, I'm sure much lead and sulfuric acid is leaked into the ground."

☛The company has in the past dumped hot slag and wastes from its process in a trench, about 16 to 20 feet deep, behind the plant. Wells within 1,000 feet of the plant that were tested last year and found to contain high lead levels are shallow, about 16 feet deep. Residents explained that these wells gained from a water table that is about the same depth.

☛From time to time, the plant's pollution-control devices, called sanitary exhaust bag houses, containing about 1,600 bags that catch lead dust, break down and allow uncontrolled amounts of lead dust into the air.

The former official said the process used at the plant, desulfating battery muds, is a new process and should have been designed differently.

An NL spokesman would not comment on these statements by the former official of the company, except to say that "we think our design is fine. Our whole system was designed to eliminate environmental problems, not cause them."

Donald Masten, solicitor of Oldmans Township—which includes Pedricktown and Auburn—said "National Lead definitely has not been a good neighbor." (Some residents here still call NL by its former name, National Lead Corporation.)

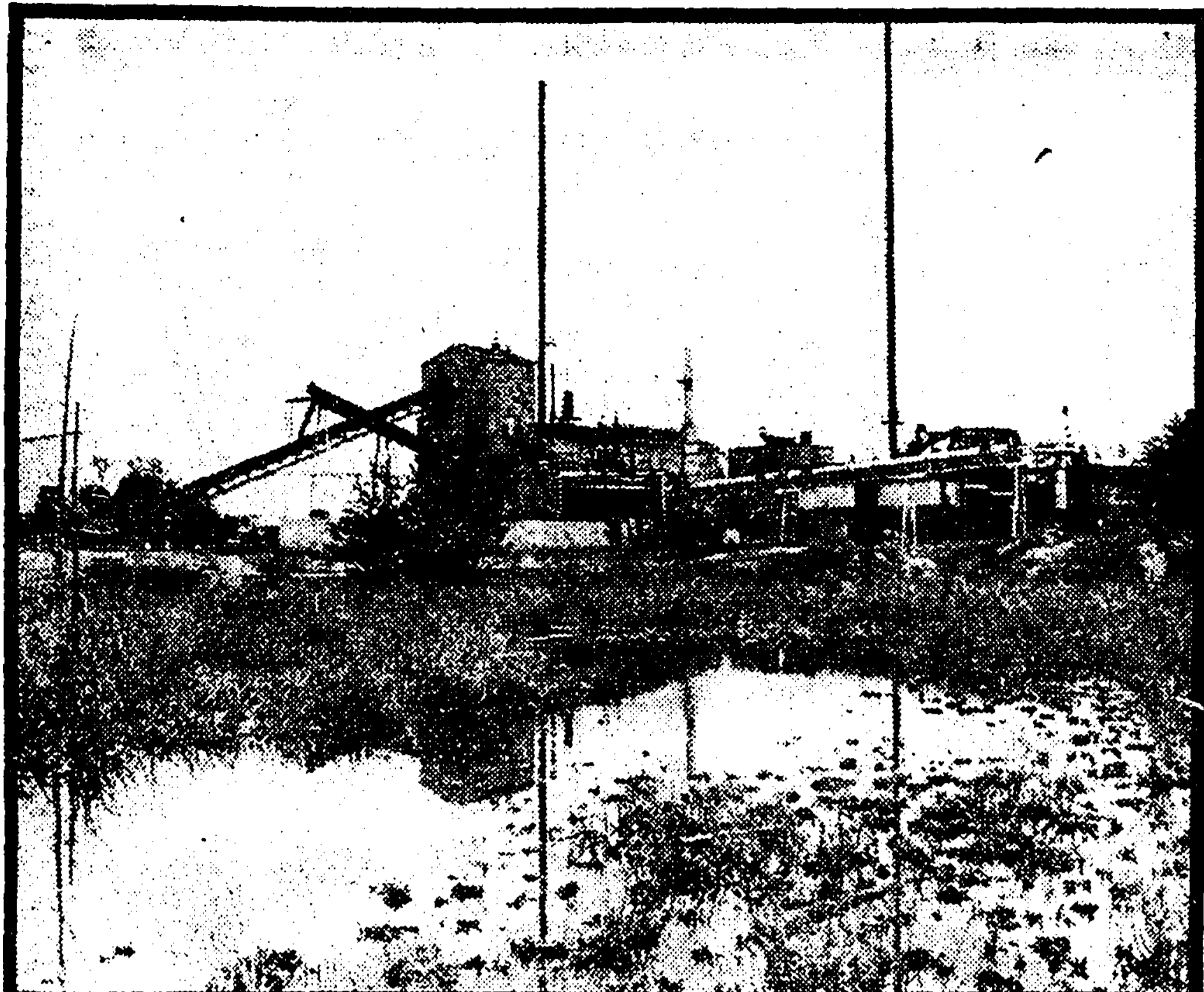
In an Oct. 16, 1974, letter to the state's Department of Environmental Protection, Mr. Masten wrote: "In July 1974, all of Pedricktown was alerted to large columns of smoke arising out of the NL industries plant on the opposite of the railroad tracks in an area that the public had no knowledge was being used by NL Industries. An inspection revealed an open dump burning of slag and other materials."

A complaint was filed in Oldmans Township Municipal Court. NL pleaded not guilty to charges that it violated various township ordinances. The court found NL guilty and fined the corporation \$1,100.

Byron Sullivan, supervisor of the southern field office of the state's Bureau of Air Pollution-Control, answered Mr. Masten's letter. Mr. Sullivan said he investigated the matter and that "plant management explained the episode by stating that the fire, which occurred on the company's landfill site and is operated by an outside contractor, was started by the dumping of hot slag on waste battery casings."

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## NL Industries plant—source of mysterious mist?

Mr. Sullivan said his unit had been taking affidavits from Pedricktown residents who have found the orange fog has visited their homes in the night.

When asked if there was another plant in the area that could be emitting the orange fog, Mr. Sullivan replied, "We can eliminate other possible sources."

Mr. Sullivan said that no employees in his unit were atmospheric chemists and that the department was "more interested in what it can do to stop the problem."

He said the department was reviewing the case for possible referral to the State Attorney General's office.

Mr. Geist, the NL spokesman, said, "We are trying very hard to discover the causes [of the orange fog] and have brought in technical teams from our research laboratories and others to assist us."

On April 15, NL shut down one unit of its plant here. Mr. Geist said: "We are repairing one unit (a reverberatory furnace) which may or may not be the cause of the problem." He added that when the unit went back into operation, scheduled for tomorrow, the company "will do extensive testing. We will have some idea after that as to whether the cause is coming from our plant or not."

After a meeting April 22 between the Department of Environmental Protection and NL representatives, Mr. Sullivan said that his agency had decided to conduct tests to determine what the orange substance was. He declared that at the meeting the NL representatives had said it was possible the substance was ferric chloride—a combination of iron and salt. ■

*Danielle Flood is a freelance writer.*