

# "Spy Dust" Irritates Diplomats

On the evening of 21 August, U.S. diplomats in Moscow and their families were called to a special meeting at the embassy to learn that some of them might have been exposed to a "spy dust" used by the Soviet police. Charles Brodine, a State Department medical officer, had flown in from Washington to let them know that this powder, which contains 5-(4-nitrophenyl)-2,4-pentadienal (NPPD), proved to be a mutagen in the Ames test and was possibly a carcinogen. He had little else to report, except that some preliminary data showed the health risk to be "fairly low."

As U.S. diplomatic families received this warning in private, the State Department went public at the same time with a press briefing in Washington. Immediately, the news went out that Americans were being threatened with cancer because of the KGB's practice of dusting steering wheels, doorknobs, and appliances with NPPD-laced powder. A few senators clamored for retaliation. Strom Thurmond (R-S.C.) led the bidding, saying the embassy in Moscow should be closed.

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Meanwhile, Soviet officials flatly denied the accusation, calling it "absurd," a "provocation," and reminiscent of a "cheap detective story." Adjectives flew in all directions, but facts were few and hard to find.

Tracking powder was designed as an aid to police surveillance. American banks and robbery detectives employ a similar method for marking and tracking stolen money. But in the United States a different (also toxic) chemical is used—zinc sulfide. In the Soviet Union, according to the State Department, the powder was used to verify meetings between foreigners and Soviet citizens, among other purposes. The Soviet chemical NPPD is said to be very persistent and detectable in minute quantities with analytical methods which the department would not discuss. It's not known whether these include scanning for fluorescence under an ultraviolet light, a common approach in the United States.

Scientists at federal agencies reported that they could find no listing of NPPD in the registers that name tens of thousands of toxic compounds. The Aldrich Chemical Company of Milwaukee, a major producer of organic chemicals, had no information on NPPD. Peter Andrews of the American Chemical Society made a search of chemical journal abstracts and found only seven articles on NPPD and related compounds. Six were by Soviet scientists; one was by Australians.

The timing of the announcement aroused skepticism, in part because the government conceded it had known about the Soviets' use of spy powder for nearly a decade before alerting employees. Thus the press briefing on NPPD came at a bad moment, in the same week the White House had announced that it would permit an antisatellite weapon test to go forward, despite the strain this would put on U.S.

Soviet relations. A summit meeting is scheduled for November. Reporters asked whether the Administration was trying to undermine the meeting. State Department spokesman Charles Redman replied: "There is absolutely no U.S. attempt in any way to sabotage prospects for the Geneva meeting." He added, "The timing of this whole issue was driven by the humanitarian concerns for our personnel in Moscow."

A State Department official said the government had known "since the 1970's" that the KGB was using the powder. But the Soviets' use of NPPD was "sporadic" and "infrequent," according to State, until recently. In the spring and summer of this year there was a "resurgence of more widespread appearance." Although the government had run some tests on NPPD in 1984, it decided not to sound the alarm then because it believed exposure levels were low. "Exposure is the key word here," the State Department briefer said. In "the last few weeks only" the use has been significant enough to warrant a public alarm and protest. He would not describe the levels of exposure other than to say they were at least "an order of magnitude greater than" they had been in the 1970's when the spy dust was first noticed.

Officials at the Environmental Protection Agency and the National Institutes of Health say they have been instructed to refer all calls to the State Department's press office. As a key EPA staffer said: "They're trying to make sure everything funnels through one source to make sure you don't get inconsistent answers." State's press office declined to give out detailed information on NPPD's toxicity tests, saying the data are either "too tentative" or deal with classified "operational" matters.

Most mutagens are carcinogens, and that in itself raises a concern about exposure to NPPD. However, Bruce Ames, the Berkeley biochemist who invented the Ames test, has written that many natural foods—including coffee—are mutagenic and that the range of potency for carcinogens is enormous. One must know about the potency and the level of exposure before it is possible to make a good guess about the threat to public health. Ames said the cancer risk is likely to be small, and he pointed out that "Every meal is full of natural carcinogens."

Until better data come along, not many will take issue with the State Department's decision to sound the alarm. Philip Landrigan, director of the Environmental Sciences Laboratory at Mount Sinai Hospital in New York, found it "perfectly reasonable" to warn people that they have been exposed to a mutagen. He saw this as fitting in with recent legislation that requires manufacturers to advise employees of chemical hazards in the workplace. But Landrigan said that unless exposure levels have been high, there probably is not much to worry about.

If the chemical under investigation is obscure, the same can be said about its investigators. However, it is known that Robert Goyer, deputy director of the National Institute of Environmental Health Sciences, will coordinate work by Public Health Service scientists, and that the EPA's office of pesticides and toxic substances will be sending people to Moscow as well. The White House science adviser has not been involved.

—ELIOT MARSHALL