RADIATION POISONING

NIH Case Ends With Mysteries Unsolved

When they surfaced 2 years ago, the allegations were explosive: A pregnant scientist in a lab at the National Institutes of Health (NIH) said she had been poisoned by a radioactive isotope, and 26 of her co-workers were subsequently found to have been contaminated as well. Last week, an investigation into this bizarre affair drew to a close, leaving many questions unanswered. In a decision issued on 17 September, the Nuclear Regulatory Commission (NRC) concluded that the radiation exposure of the scientist, Maryann Wenli Ma, and others was "deliberate." But it could not identify the perpetrator and offered no motive.

Family exposure. Ma, Zheng, and healthy son, born 5 months after incident.

NRC did, however, absolve NIH of blame and denied Ma's and her husband's request that NIH be stripped of its license to use radioactive materials. Ma's attorneys say they may ask the NRC or Congress to review the decision. "Obviously, we're very distressed by this decision," says Debra Katz of the Washington law firm Bernabei and Katz, which represented Ma and her husband, Bill Wenling Zheng, who worked in the same lab as Ma.

It was Zheng who first discovered, during a routine check on 29 June 1995, that Ma had been exposed to phosphorus-32 (P-32)—a tracer widely used in biomedical labs. She was eventually found to have been exposed to between 8 and 12.7 rems—well above the NRC annual limit of 5 rems—and her 17-week-old fetus to 5.1 to 8.1 rems. Ma said she believed the source was a lunch of Chinese food leftovers stored in a lab refrigerator. A subsequent investigation found that 26 others, including Zheng, had received much smaller exposures when they drank from a water cooler apparently spiked with P-32 (*Science*, 28 July 1995, p. 483).

In October 1995, Ma and Zheng filed a petition charging NIH with lax safety procedures, claiming that Ma had been given inadequate medical care, and calling for the suspension or revocation of NIH's license to use radioisotopes. The petition also claimed that before the contamination occurred, the couple's lab chief, molecular pharmacologist John Weinstein, had wanted Ma to abort her fetus so that having a child wouldn't interfere with her research.

The NRC investigation, conducted jointly with the Federal Bureau of Investigation, the NIH police, and the inspector general of the Department of Health and Human Services, concludes that there were two "very significant" violations, according to a cover letter to NIH: Ma's contamination and that of one other employee who received up to 2.5 times the recommended dose for the public. The NRC director's decision also found that Ma and the 26 other employees were "deliberately contaminated with P-32," and it "presumes" the poisoning was done by an NIH employee with NIH materials. The investigation could not determine how Ma was poisoned, however; tests indicated that the Chinese leftovers were not the source. The investigators also found that the evidence did not support, and in many instances contradicted, Ma's and Zheng's allegations against Weinstein.

As for NIH, the decision says that although it broke several rules—such as failing to report Ma's exposure within 30 days—its actions did not contribute to the poisoning and could not have prevented it. NIH did get its wrist slapped last year when NRC fined it $2500 for inadequate radiation security, but the lapses weren't connected to the Ma case. The letter to NIH says the agency has since "made significant efforts" to improve its safety procedures, so no further sanctions are needed.

–Jocelyn Kaiser

NASA

Station Costs Pinch Other Programs

Last week, in a room jammed with reporters, lights, and cameras, House lawmakers argued over the safety of U.S. astronauts working aboard the cramped and ailing Mir space station. A few hours later, on the other side of the Capitol, a drama involving another space station—the international platform slated for its first launch next June—held the attention of a different set of legislators. The second hearing received little media coverage, but its subject matter could be much more significant for researchers than the fate of Mir.

The hearing focused on a growing overrun in the cost of building the space station, combined with a continued threat that Russia may not be able to meet its commitment to provide substantial hardware for the new station. The overruns, encountered by Boeing Co. in its role as general contractor, mean that NASA will need $330 million more in next year's budget to keep the program on track, NASA Administrator Dan Goldin told the science, technology, and space panel of the Senate Commerce Committee on 18 September. That's not counting $100 million extra the agency must spend to be ready in case Russia were to drop out. But Congress is unlikely to raise NASA's current budget of $13.7 billion when it finalizes the agency's 1998 budget this month.

That political fact of life, says one NASA official, means that "we will have to absorb the vast majority" of the overrun. The only alternative, says Goldin, is to delay space station construction. But any extension would mean retaining the workforce for a longer period of time, an even more expensive proposition.

Agency officials are working on a plan that would spread the pain and keep Goldin's promise to Senator Jay Rockefeller (D–WV) to avoid "serious damage" to science. Most of the money, which would supplement the station's annual $2.1 billion budget, would come from civil service salaries, construction of facilities, travel, and safety and reliability accounts that benefit all NASA programs, including science. The $2.5 billion account—called mission support—can be pared down, Goldin says, without damaging the quality of agency programs. "It's a place where I love to turn the screws tighter and tighter," he adds. And he promised a skeptical panel that Boeing has the overruns under control.

Other NASA officials say other strategies include altering the agency's grant cycle to push some payments into the next fiscal year. They say the administrative changes—which would be for 1 year only—should not affect space and earth science research already under way, although they might impose some additional paperwork burdens. The boom likely will fall harder on life and microgravity scientists, who depend directly on the station budget for construction of the facilities they need to do research.

The details of the plan will not be made public until late next month, after Congress has completed work on the 1998 budget. But the $430 million increase puts further pressure on the agency's strained budget, which already is on the decline. In February, Goldin warned that the budget could drop to $13.4 billion in 1999—$300 million less than the 1997 level—and $13.2 billion for 2000 and beyond, in keeping with the Administration's pledge to erase the deficit by 2002. That means the fiscal pressure isn't likely to ease until long after Mir is a distant memory.

–Andrew Lawler