Arsenic in playground soil triggers more testing

By SALLY ACHARYA

New tests found higher than expected levels of arsenic in the playground at AU’s day-care center, prompting the immediate relocation of the center and a flurry of other initiatives, including plans for voluntary testing of children and grounds workers to see if they ingested tainted soil.

Within hours of receiving the test results, AU officials called day-care parents to tell them about the next day's relocation. AU also hired environmental and occupational health consultant Paul Chrostowski to help interpret results and insure that the U.S. Army Corps of Engineers is doing everything possible to find and remove any remaining trouble spots.

The Child Development Center (CDC) will be relocated indefinitely to Leonard Hall during further testing and eventual replacement of the soil, apparently contaminated by the Army in World War I experiments.

A test to learn if children have been exposed to arsenic within the past six months to a year is being arranged this Thursday and Friday through the Agency for Toxic Substances and Disease Registry (ATSDR) and the D.C. Department of Health. Arsenic exposure can be determined by clipping and testing hair, which retains it, according to an ATSDR fact sheet. Unlike some environmental toxins, such as DDT and PCBs, arsenic is quickly flushed from the body and does not build up to create a long-term danger, said Chrostowski, a toxicologist who has met with parents, grounds workers, and faculty and staff from the Hamilton, Kreeger, and Watkins buildings near the site of the World War I laboratories.
"To be honest, I'm not that worried," said CDC parent Stacy Marien, University Library. "I trust the public health officials. The university has hired an independent consultant. I trust when they tell me that a child would need to ingest an enormous amount of dirt over a very extended period of time before they got exposed.

Parents, mostly AU staff, faculty, and students, sent a letter Friday to AU President Benjamin Ladner requesting analysis for contaminants besides arsenic in the playground soil, and analysis of loose dirt inside the center. The university had already requested such tests, which will take place in the coming weeks. The Army Corps will also test soil in the amphitheater, where children are playing now.

In addition, tests are being arranged for grounds workers and any others who might have had prolonged contact with soil. But, says Chrostowski, "There's no need for 95 percent of the campus community to even consider going for testing."

Results from an initial sampling of the rest of areas of the south campus besides the CDC came back last Thursday, and while none of the samples exceeded the EPA's safety level, six were above the background level, determined to be naturally occurring levels of arsenic, and will trigger additional tests. The highest readings came from the intramural fields, which will be closed until further results come in.

Concern about chemical residue in AU's soil emerged in 1993, after a backhoe unearthed a World War I shell at a construction site in the residential neighborhood bordering AU. During World War I the university was occupied by the Army who tested mustard gas and lewisite, a chemical weapon, on the grounds. Arsenic is associated with lewisite production.

In 1993 and 1994, the U.S. Army Corps of Engineers sampled the area near the athletics field and Watkins for contaminants and found no elevated chemical levels. No sampling was done around the CDC, according to Maj. Brian Plaisted of the Corps, which is charged with cleaning up formerly used defense sites.
(FUDS), and attention was directed to the highly contaminated yard of the South Korean ambassador, an AU neighbor.

As tainted soil was removed from the ambassador's yard this fall, the Corps began further sampling on campus. Initial testing at the CDC was done on Nov. 27, at the same time as other campus testing, but results were rushed because of the presence of children, who not only play in the dirt but might ingest it.

Following standard protocol of the Environmental Protection Agency (EPA), the first test was a composite mix of six locations. Results came back on Dec. 6 within the EPA's level of safety, 43 parts per million, but at 31 parts per million, they were elevated over the background level of 13 parts per million. More detailed samples taken every 10 feet, at 0 to 6 inches depth, followed on Jan. 4 and 5. These tests, also rushed, came back Jan. 17 with far higher levels than predicted. AU officials called parents at home, informed them in general terms about the findings, and told about the relocation.

Parents have since expressed their feelings that AU could have acted more quickly to give them specific information and spared them the anxiety of reading about it in Tuesday's Washington Post. "[AU officials] are doing the best they can," says Marien. "I don't think they're being malicious or trying to hide anything. But I think it just steamrolled."

Chrostowski was scheduled to meet with parents on Tuesday, the same day as a scheduled meeting with the Washington Post. The newspaper, however, broke the news a day early, reporting one arsenic level as high as 498 parts per million and the D.C. Department of Public Health recommendation that the CDC children be tested for arsenic.

Prolonged ingestion of arsenic can cause skin conditions, nausea, tingling in the limbs, and a treatable form of skin cancer, according to the ATSDR. Levels that cause medical problems tend to be in the thousands of parts per million, in cases where workers in wood-treatment and semi-conductor plants are handling raw arsenic. Chrostowski notes that arsenic-related nausea or rash is distinguished by its
persistence.

The primary area of focus for testing remains the southern portion of campus, where scientists conducted experiments more than 80 years ago. President Ladner has decided to have the rest of campus tested as well. "We're pushing them to do additional sampling work, more testing, to make sure areas they think are clean are actually clean," Chrostowski said. "You're going to be seeing a lot more sampling activity from the Army on campus."

"At this point, the Corps doesn't think [there's much contamination left]," said Willy Suter, director of Physical Plant Operations, at a meeting for grounds personnel. "But our point is to make sure when they leave, they're saying more than 'we don't think so.'"