

Wednesday, May 21, 2008

Scientist checks dust for radioactivity all over Mid-Columbia

By Annette Cary, Herald staff writer

Marco Kaltofen is spending the week peering behind Mid-Columbia refrigerators and climbing into attics.

In a project with Hanford Challenge and the Yakama Nation, he's collecting dust samples from homes and businesses to see if he can reconstruct the area's radiation exposure history.

He'll be looking for radioactive contamination from past Hanford operations that may have blown off the nuclear reservation and landed in area homes and businesses, said Kaltofen, the director of Boston Chemical Data Corp. He is doing the research as part of his graduate studies at Worcester Polytechnic Institute in Worcester, Mass.

Hanford Challenge, a new group launched by the Government Accountability Project, hopes to use the results as a benchmark, said Tom Carpenter, executive director. He's not aware of any DOE studies that have looked at similar off-site contamination from Hanford operations, although onsite air monitoring is conducted.

Contamination may come from dust that left the Hanford nuclear reservation decades ago when it was still producing plutonium for the nation's nuclear weapons program or it could come from cleanup activities that disturb dust at the site, Kaltofen said.

Tuesday, Kaltofen climbed the stairs that lead to the roof of the Herald's old building in Kennewick, then pulled on a mask and gloves to scoop up a thick layer of dust.

He'll analyze that and about 200 other samples he hopes to collect with a combination of scanning electron microscope, gamma spectroscopy and energy dispersive X-ray analysis. He's looking not only for radioactive material, but other indicators of its origin such as the type of mineral matter in the dust, size of particles and other pollutants.

"What we are really trying to tell is where the radiation came from," he said.

Radioactivity could come from several sources, including Hanford, naturally occurring radon, uranium mining, atomic testing and incidents such as the Chernobyl disaster.

"The way to expand our knowledge on what we need to do for cleanup all starts with proper diagnosis," he said. "That starts with testing."

He plans to write a peer-reviewed report to be completed this fall.

People willing to have their homes or businesses sampled for the study can sign up at the Hanford Challenge booth at the Hanford Health and Safety Expo today at TRAC in Pasco or send an e-mail to lizm@hanfordchallenge.org with name, phone number, full address, e-mail address and times available this week.

Those who miss the first study period still may arrange to mail-in samples. No personal data will be released in the published study.

Scientist Collects Dust in Tri Cities to Examine Radioactive Contamination



Marco Kaltofen collects dust from an air vent at the Washington State University Campus in Richland. He's looking for radioactive contamination in the dust from the Hanford site.

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A Massachusetts scientist is spending this week standing on Tri-Cities area? toilets and peering under refrigerators. An Indian tribe and a Hanford watchdog group hired him to analyze dust. They want to know if lowly dust can tell us whether Mid-Columbia residents have been exposed to radioactive contamination from Hanford. Richland Correspondent Anna King shadowed the scientist on one of his dust collecting missions.

KING: Marco Kaltofen showed up at our studio on the Washington State University campus in Richland. Nearly the first thing he asked me is....

KALTOFEN: Where's the men's room?

KING: Laugh. Well. I think the men's room is right here.

KALTOFEN: Very good. Well let's all go.

KING: To the men's room?

KALTOFEN: Yeah.

KING: OK.... (fade out)

KING: Turns out the men's room is one of Kaltofen's favorite haunts to find good quantities of dust.

KALTOFEN: This is where people come from directly outside. They might have partly contaminated gear. They are washing their hands. They are trying to get rid of all the stuff you don't want on you when you are about to eat your lunch. That's why this is the perfect place to go sampling.

Kaltofen collected dust from an air vent on the ceiling above a men's room stall. The dust analysis is being funded by the Yakama Nation and a Hanford watchdog group called Hanford Challenge. They hope the results of this study will tell them what types of radioactive contamination are lurking in homes and businesses. The State Department of Health samples water, soil, air, plants and animals for radioactive contamination both on Hanford site and in the community. Officials there say they have never found radioactive contamination above acceptable limits off the site. The test results from the watchdog dust sampling should be available in late fall.

I'm Anna King reporting from a men's bathroom in Richland, Washington.