

FAQ: Citizens Monitoring of Columbia River Radionuclide

June 15, 2005 - Hanford, WA

Report Authors:

Marco Kaltofen, P.E. – Boston Chemical Data Corp. (BCDC)

Tom Carpenter, Nuclear Oversight Campaign Director, Government Accountability Project (GAP)

What new information does the study show?

The study shows that the area affected by Hanford's plutonium processing era is larger than currently recognized. Contamination levels discovered at upstream sites and in Richland attic dust demonstrate that radioactive materials have been spread by the winds and wildlife.

The study also found significantly higher concentrations of radioactive elements in some plant, animal, and geologic samples than DOE funded monitoring programs have reported. Furthermore, the study discovered high levels of plutonium in freshwater clams, a useful indicator species that currently remains unexamined by DOE monitoring.

Are these chemical and radioactivity levels of concern to public health?

Definitely. The concentrations found in mulberries, animal scat, and fish indicate that levels of increased radioactive concentration in higher organisms. Some fish sampled in the Columbia River exceeded the USFDA's acceptable mercury limits. Such contamination is particularly harmful to people in regional indigenous tribes, who often consume considerably more fish than other members of the population. Furthermore, the elevated levels of radioactivity found in Richland dust samples call for more research on how Hanford airborne contamination has spread and who it may have affected.

If contamination has spread further and the health risks are greater than previously realize, don't we just need to continue our Hanford cleanup?

No. We need *better* cleanup, not just more cleanup activity. *Better* cleanup means that the DOE must base its efforts on the most accurate picture of the spread of Hanford's contamination. DOE must honor its responsibility to the people of the Columbia River region by invoking the most stringent standards of protecting public health.

This study indicates that the Hanford environmental remediation efforts by the DOE are based on science that is incomplete at best. If federal environmental monitoring doesn't accurately reflect the degree of Hanford's toxic, radioactive contamination, then the DOE

will never provide justice to the people of the Northwest that live in this dangerous area.

What actions does this study indicate we should take?

The results of the BCD and GAP study call for an independent investigation on environmental contamination of the Hanford region. The DOE-run monitoring programs are not trustworthy estimates of the damage done during Hanford's nuclear era. The federal government needs to authorize an adequately funded, thoroughly performed environmental investigation that is independent of the DOE.

Are these study results scientifically defensible?

Yes. Mr. Kaltofen is a Registered Professional Engineer (Civil, Massachusetts) and an environmental scientist with more than 19 years experience in environmental, workplace and product safety investigations in North America and Eastern Europe. He is the president of Boston Chemical Data (<http://labs.pro>), a corporation highly experienced in environmental investigations and analytical design. The samples were analyzed by Pace Analytical Services, Inc. of Madison, PA using methods which meet quality assurances practices according to Chapter 5 of the National Environmental Laboratory Accreditation Program standards and PASC/Maxxam of Burlington, Ontario, Canada – laboratories that have a proven track record for accuracy. The study was peer-reviewed by a retired Hanford scientist, and reviewed by the State of Oregon's Department of Energy. In addition, Mr. Kaltofen has made the research data available for public scrutiny on the web:

Raw data:

<http://labs.pro/hanford/columbia1.tif>

<http://labs.pro/hanford/columbia2.tif>

<http://labs.pro/hanford/columbia3.pdf>

<http://labs.pro/hanford/columbia4.tif>

<http://labs.pro/hanford/columbia5.tif>

<http://labs.pro/hanford/columbia6.tif>

Data summary:

<http://labs.pro/hanford/data.xls>