



From: Norm Buske <search@igc.org>

November 23, 2006

To: Maria Galanti <maria.galanti@epa.state.oh.us>
State of Ohio Environmental Protection Agency (OhioEPA)
Division of Surface Water
Lazarus Government Center
122 South Front Street
Columbus, Ohio 43215

Subject: Re: Water Quality Study-PORTS

Thankyou Maria,

The new OhioEPA report, "Biological and Water Quality Study of the Portsmouth Gaseous Diffusion Plant Streams," dated November 17, provides an answer to a long-standing question of public concern: Is Radium-226 (Ra-226) leaking out of the Plant? The answer is Yes: **OhioEPA data confirms Ra-226 leaking from the Plant.**

That confirmation is **5.93 pCi/L** of gross alpha radioactivity in creek water in West Ditch at RM 1.2. [See Ref. 1: the little circle at the top of Fig. 8 on Page 26 of the new OhioEPA report and Appendix Table 4 for the numerical value.]

Public interest in this radioactivity stems from citizens sampling foam on water in West Ditch and in Big Run creek in November 2003 and follow-up sampling on December 2, 2003 by USEC with representatives of OhioEPA observing.

Based on the citizens' and USEC results, I identified the source of the measured radioactivity in the foam as an alpha-emitting radionuclide, Ra-226.

When OhioEPA was preparing to collect follow-up samples in 2005, we discussed and concurred that gross alpha measurements above background at the two sampling sites would confirm Ra-226. I published an estimate of gross alpha activity of Ra-226 in the two creek waters before OhioEPA's samples had been analyzed:

3.5 to 7.8 pCi/L above background.

Your results would subsequently either confirm or not-confirm that prediction. [See Table 3 of Ref. 2, "Radium-226 in Creek Foam / Water from the Portsmouth Gaseous Diffusion Plant", September 2005.]

From the new OhioEPA results, I estimate background gross alpha as the mean of gross alpha activities in Little Beaver Creek at RM 0.1 (2.85 pCi/L) and in Big Beaver Creek at RM 5.6 (2.48 pCi/L) and at RM 2.3 (1.44 pCi/L): 2.25 pCi/L. The West Ditch gross alpha sample is thus

$$5.93 - 2.25 = \mathbf{3.68 \text{ pCi/L above background.}}$$

Therefore, the OhioEPA result for water from West Ditch confirms my prediction for that sampling location.

If the 5.93 pCi/L of gross alpha activity in West Ditch water is attributable to Ra-226, that radioactivity exceeds the U.S. EPA enforceable limit of 5 pCi/L for drinking water. I hope OhioEPA will promptly follow-up this confirmation of Ra-226 in West Ditch water by re-sampling, and by analyzing the water samples directly for Ra-226 in parallel with gross alpha counts.

Considering the public interest in the citizens' samples from 2003 and the long wait for OhioEPA's follow-up results, I wonder: Why didn't OhioEPA mention the controversy over Ra-226 in West Ditch and Big Run in the Introduction to the new report? Why not call public attention to OhioEPA's confirmation of citizens' monitoring results from West Ditch?

OhioEPA's samples of creek water from Big Run tested below your laboratory detection limits for gross alpha. Therefore, the OhioEPA data do not confirm my prediction of Ra-226 above background for the Big Run sample location.

Maybe Ra-226 leaking from the Plant into Big Run, and detected by citizens in 2003, was a problem that had been fixed before OhioEPA sampled in 2005. Monitoring itself is sometimes protective of public health and the environment.

I look forward to learning what OhioEPA will do to define this Ra-226 problem.

With my thanks for your consideration,
Norm Buske
Director, The RadioActivist Campaign (TRAC)
www.radioactivist.org 360.275.1351

References

1. <http://www.epa.state.oh.us/dsw/documents/PortsmouthTDS2006.pdf>
2. http://www.radioactivist.org/Ra226_0.pdf

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Date: Mon, 20 Nov 2006 12:47:28 -0500

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Subject: Water Quality Study-PORTS

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> Please see attached document. The final report came out on Friday. If you have any questions, please do not hesitate to call. A copy of the report can also be found of the Ohio EPA Division of Surface Water web page. Maria Galanti

>Ohio EPA-DERR

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>Attachment converted: iBook:PORTS TSD Final.pdf (PDF /CARO) (000386FE)

>Attachment converted: iBook:Maria Galanti.vcf (TEXT/MSIE) (000386FF)