Good News

Metro/State

Radioactive materials found in water

By Beau Halton
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Radioactive materials are in shallow groundwater near waste-treatment and disposal areas at two Jacksonville Navy bases, state environmental tests show.

The state Department of Environmental Regulation is taking more water samples from test wells dug at Jacksonville Naval Air Station and Mayport Naval Station to determine the extent of contamination and whether the materials are harmful, a DER official said yesterday.

Although the radioactive levels found are below state and federal minimum standards, any amount of radioactive material in drinking water is reason for concern, an engineer for the DER drinking water program in Tallahassee said yesterday.

Samples from three wells near a landfill at the Mayport base showed readings of 47, 40 and 28 parts per quadrillion (ppq) of the radioactive matter known as "gross beta." The wells are near Patrol Road and a tributary of the Intracoastal Waterway.

Shallow water in a well near a wastewater treatment plant at Jacksonville NAS contained 17 ppq.

At Cecil Field Naval Air Station, volatile compounds were detected next to a grease-disposal pit at the base's western border and in waters from the Sal Taylor Creek near two landfills.

But state and federal officials cannot cite violations when gross beta is measured at a level below 50 ppq, according to U.S. Environmental Protection Agency regulations and the Florida Administrative Code.

"We can't say that this level [50 ppq] is a safe level," said Nate Finney, the DER engineer. "But we don't expect any adverse reaction from anything below this level. But we can't say that radioactivity is safe at any level. Of course, it's only really safe if there is none."

And several volatile organic compounds — such as chloroethane, methylene chloride and trichloromethane — were found in the gro water and surface water at all three local N bases.

The tests also showed levels of arsenic, ride, sulfate and other materials exceeding levels at the three bases.

The findings are the first laboratory re returned after test wells were dug recenti 38 sites at Jacksonville NAS, where potent hazardous wastes have been dumped s World War II.

Similar wells are being dug at Mayport val Station and Cecil Field, and those re

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are expected next July.

The DER had asked that test wells for groundwater samples be dug now near the areas of highest concern at Mayport and Cecil Field — at lagoons, holding ponds and other solid-waste disposal areas.

"The department is not concerned at this point," said Catherine Farmer, DER environmental specialist in Jacksonville. "We need to take further tests before we know for sure whether there is any threat."

The gross beta was found in shallow groundwater, not in deeper wells used for drinking water, Ms. Farmer said. In one well at Mayport, gross alpha, another form of radioactive material, also was found.

Although the findings in shallow wells reduce the chance of threats to human health, Ms. Farmer said, it is possible that — with certain land slopes — the shallow water could flow into deeper groundwater.

As an example, one well on Patrol Road at Mayport showed 47 ppq of gross beta; 0.072 parts per million of arsenic, compared with the 0.05 minimum standard; 18,190 ppm of chloride, while the standard is 250; and 33,990 ppm of total dissolved solids compared with a 500 standard.

A test well at Cecil Field showed 0.8 parts per billion of the volatile compound chloroethane, 1.8 ppb of methylene chloride and 1 ppb dichloroethene. Any amount of these substances may threaten human health, Ms. Farmer said.

State officials take more tests after high levels of potentially harmful materials are found in the groundwater to ensure that the first readings are accurate.

"All we're doing now is raising the red flag," she said. "We won't know until later how much of a threat we really have."

Because the wells are so close to the St. Johns River, she said, the high levels of radioactive materials may have been caused by saltwater intrusion, which would pose little or no threat to human health.

But if the levels are the result of man-made materials, human health could be threatened.