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Oswego first with radium filter

Water treatment: System will prove cheaper than others

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OSWEGO — By the end of July, Oswego's water should be radium free, thanks to a new filtration system the village is the first in the nation to use.

The new technology — cheaper and cleaner than anything else available — is contained in giant tanks of what looks like lime green kitty litter.

Called Zeolite, the green dust is a bit more high tech than kitty litter, but works the same way, said Oswego Public Works Director Jerry Weaver.

As the village's water rushes through the tanks, individual particles of radium stick to the Zeolite and the water exits radium-free.

Once the Zeolite gets "clumpy" enough, it will be hauled off to a special dump for mildly radioactive waste in Washington state, and fresh Zeolite will be added to Oswego's tanks.

Unlike a cat box, this litter only needs changing every three years or so.

The simplicity of the process makes it highly economical.

The other technologies on the market would have cost Oswego more than double the \$4 million it spent to install the tanks on all five of the village wells.

The village also expects to pay about \$300,000 per year in operating costs, again cheaper than other systems.

"(Other systems) are much more manpower-intensive," Weaver said. "They need a guy or two to run them

each day." Besides occasional testing, the Zeolite system is virtually maintenance free.

By providing for the proper disposal of the radioactive material, the Zeolite system also avoids the great irony of standard radium-removal technologies, which usually drain back into the local environment.

"It's a total elimination of the radium. It doesn't end up on some farmer's field as sludge, it doesn't get flushed into the sewers," Weaver said.

Oswego officials were so impressed with the potential of the Zeolite system, they agreed to be the first in the nation to give it a try.

Oswego had begun searching for a way to reduce the radium in its water in 2000, when the Illinois Environmental Protection Agency ordered the village and 130 others throughout the state, to start complying with federal requirements.

Untreated, Oswego's water has more than double the amount of radium allowed under federal drinking-water standards.

Most other towns' wells in the area have similar or higher concentrations, and most will implement filtering systems.

Towns like Yorkville, North Aurora and Batavia have already begun work on multimillion-dollar radium-removal systems. Aurora's water meets radium standards by blending river and well water.

Elburn is the only town in the area

planning to use the same Zeolite system as Oswego, which is offered by the Denver-based Water Remediation Technology company.

Oswego has spent the last three years constructing and testing the new system, which has consistently performed as well as promised.

Oswego expanded its wellhouses last year to accommodate the 29-foot Zeolite tanks, all of which should be functioning by the end of July, Weaver said.

He added that residents do not need to be worried about being exposed to radiation from the tanks, as the stored radium is too weak to emit harmful rays beyond tiny distances.

In fact, the whole concept of radium as a dangerous substance is a bit tenuous.

Although the EPA rulings say drinking water with more than five picocuries per liter can increase the risk of cancer, supportive scientific evidence is limited.

A handful of municipalities across the country have filed lawsuits to have the standards eased, rather than pay millions to filter out a substance that has not been confirmed as harmful in reasonable doses.

Most local governments, however, have moved to comply with the strict current rules.

"It's federally mandated, so what are you going to do?" Weaver said. "You've got to find some way to do it."