

Final Inspection For Grand Ronde's New Chlorination System

■ The potential danger of an accidental release of chlorine gas is finally resolved.

By Ron Karten

Tribal Engineer Eric Scott had been having some extremely bad dreams. They came in the form of a cloud of chlorine gas, heavier than air, floating off from the Tribe's dated chlorination system behind the post office in Grand Ronde, across the field to the middle school a couple hundred yards away and to the Tribal housing units a couple hundred yards from there.

"Chlorine gas, in the concentration that would come from the system, would kill everything in its path," said Scott. Since 1994, when Scott was working for the Tribe as a consultant, he could not get that image out of his mind.

On Monday, February 26, a new system, using a liquid derivative of chlorine gas called sodium hypochlorite, was installed to purify Tribal and community wastewater before flushing it into the Yamhill River. All that was left of the project was the final inspection by the Independence-based design firm Whitaker Engineering Inc. and by the Indian Health Service (IHS) that funded about half of the \$140,000 project.

The Tribe provided a \$30,000 match and the Grand Ronde Sanitary District provided \$40,000 for the project.

"Good job," said David A. Engelstad, P.E., District Engineer for the Indian Health Service based in Bremerton, Washington. "Nice simple design."

The system treats all of the waste water from Grand Ronde with the exception of the new housing development which has its own plan for treating wastewater.

During the winter, the system will continually discharge cleaned water into the Yamhill at the rate of 120,000 gallons a day, but the summer, much of the water will be reused for irrigation and other "gray water" uses rather than being dumped into the river.

Although the new treatment is a safer alternative to pure chlorine gas, the Department of Environmental Quality (DEQ) recommended a second process be included to strip the chlorine from the purified water before sending it into the river.

In 2001, according to Scott, the Tribe was awarded a grant from the IHS for the design and construction of repairs and improvements to the Grand Ronde Sanitary System. Along with repairs to the collection system, one of the primary goals of the grant was to replace the gas chlorination system. IHS pledged \$30,000 towards the chlorination system



Photo by Ron Karten

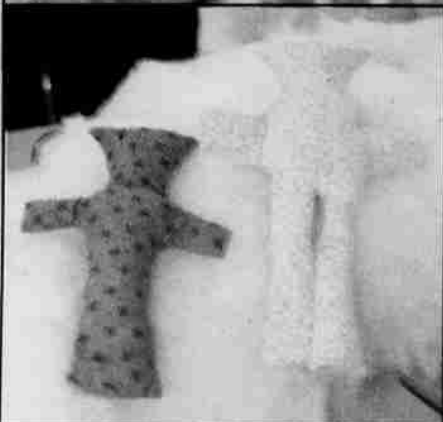
Discussing the project in front of the completed chlorination facility are from left, Brian A. Vinson, P.E., Project Engineer for Whitaker Engineering Inc., Todd B. Whitaker, P.E., President of the company, Tribal Engineer Eric Scott and at right, David A. Engelstad, P.E., District Engineer for the Indian Health Service.

upgrades. Multiple projects to repair the collection system were completed, but the disinfection system improvements were stalled because DEQ insisted that the Grand Ronde Sanitary District construct dechlorination facilities to eliminate chlorine toxicity in the

discharge.

Polk County finally agreed to consider making these improvements, Scott reported.

"It's a big achievement for a cooperative agreement with us, the county and the Indian Health Service," said Scott. ■



On Tuesday, March 6, a group of Tribal Elders including Pearl Lyon (above) and Cherie Butler gathered in the Tribal Community Center to make "Damn-It" Dolls for an upcoming Elder celebration.

Photos by Toby McClary

