



## Water plant in St. Elmo shut down

**Officials reveal year-long contamination of water ingested by system's 3,000 customers**

Wednesday, February 23, 2005

**By RUSS HENDERSON**  
Staff Reporter

St. Elmo-Irvington Water Authority officials say they shut down one of five water treatment plants last month -- a year after tests first found a potentially cancer-causing fuel additive and pesticide at five times the acceptable federal limit.

Though many of the system's more than 3,000 customers likely ingested the contaminated water throughout 2004, officials with the Alabama Department of Environmental Management said those people are unlikely to suffer ill health effects because the chemical is generally dangerous in higher concentrations or when consumed regularly over a much longer period of time.

"The plant is shut down now and the well is disconnected from the system. Our main task now is to get the contaminant out of that well," said Tony Long, the system's superintendent.

Between January and December 2004, workers found consistently over-the-limit levels of ethylene dibromide in the water being pumped out of one of its five plants.

On Jan. 7, 2005, after a year of above-limit tests, that plant was shut down. The system's four other plants have been making up for the lost water pressure, Long said.

Ethylene dibromide was used as an additive in leaded gasoline, but now is primarily used to treat felled logs for beetles and termites, according to the Environmental Protection Agency.

Prolonged exposure to the chemical is suspected to cause toxic effects in the liver and kidneys and to cause reproductive troubles by damaging sperm in the testicles. The EPA also classifies it as a probable human carcinogen.

The EPA requires that no more than .00005 parts per million of ethylene dibromide be allowed in public drinking water. Over the past year, the St. Elmo plant's water averaged .00027 parts per million -- five times the allowed amount.

January 2004 was the first time ethylene dibromide was discovered in the water system since workers began monitoring for it in 1992, Long said.

According to the EPA, a person would have to drink 2 liters of water contaminated at .00005 parts per million every day for a lifetime to have a one-in-a-million chance of developing cancer.

Long said the system's engineer and geologist are trying to determine where the contaminant came from by testing the water drawn from the plant's 100-foot-deep well and mapping out the local geography.

A cursory search of Toxics Release Inventory records by the Mobile Register found no chemical

plant in south Mobile County that manufactures ethylene dibromide. The chemical is also a byproduct of petroleum refinement and is used as an intermediate for dyes, resins, waxes and gums.

None of these are likely sources in this case, though, Long said.

"We've looked into it, and we don't have any petroleum refineries anywhere near us, and we don't have chemical plants nearby that would use it," Long said.

"That particular plant is next to a farm field. We're thinking that this is probably from a spill of pesticides in a field or leaky tanks at a gas station" on U.S. 90 that's been closed for the better part of a decade, Long said. "We think this spill happened years ago."

If that's the case, the chemical will simply continue to sink deeper in the earth, forced by rain, the natural movement of soil and the force of gravity. The contamination will eventually leave the water table, he said.

According to the plant's records, the amount of the chemical in the water has dropped consistently, from a peak of .00034 per million in January to the .00024 found in December.

If it continues to drop, "we may just have to wait" for the chemical to pass deeper than the underwater stream from which the well draws its water, Long said. If not, workers will likely install a "packed tower" system to aerate the water, Long said. The chemical evaporates when exposed to the air.

Copyright 2005 al.com. All Rights Reserved.