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Chemist Vivian Steadman: What's coming out of those broken pipes? Don't ask.

Questions remain about Atlanta's aging sewer lines

By Julie B. Holston STAFF WRITER

After more than three years of wrangling with the state's Environmental Protection Division (EPD), the city of Atlanta now treats the contaminant-filled water passing through its Combined Sewer Overflows (CSOs). But the city's aging infrastructure still poses a risk to the state's water quality.

The problem is breaks and leakage in Atlanta's antiquated sewer pipes, which annually dump unknown thousands of gallons of raw sewage into area creeks and streams. The 1993 collapse of a major sewer line in midtown killed two people and galvanized public support for improving Atlanta's infrastructure.

But little of the money in the city's 1994 bond package is earmarked to repair

sewer lines such as the one that collapsed. No sewer system is foolproof, but technology to minimize both environmental damage and maintenance expense is available.

Although limited in its options by urban development, Atlanta, despite the magnitude of problems it has experienced with its sewage lines, has no aggressive or high-tech preventive maintenance plans in the works.

Conversely, Fulton County is in the later stages of a \$7.3 million comprehensive sewer network study that has mapped its 2,000 mile course and 40,000 manholes. Once complete, the study not only will detail the condition of Fulton's sewer system, much of which is far newer than Atlanta's, but also will leave behind sensitive computerized monitors that will allow county workers to continuously assess the conditions in sewer pipes countywide and head off problems before they become unmanageable.

"We wanted to leave enough pieces in place that we would be able to collect more data over time," explains Howard Wallenstein, special projects administrator in Fulton County's Department of Public Works. "By spending a little more money up front, we could save a lot of money over the years."

The long-term monitors will cost the county an additional \$1.8 million, but Wallenstein argues the merits of the investment are worth its cost. Fulton County spent about \$5.2 million for maintenance on its sewer system in 1994, according to figures provided by the county public works department.

"The biggest savings is in response time before the public is inconvenienced," Wallenstein says. "It's just good management."

Slower response

By contrast, several complaints on file at EPD indicate the city of Atlanta takes a somewhat different approach to maintenance on its 2,300 miles of sewer lines and 80,960 manholes. An April 8, 1994, letter to James Walker, Atlanta division chief of sewer operations, from Marge Coffing details ongoing, year-old sewer problems that caused raw sewage to flood Coffing's yard and enter Peachtree Creek.

Vivian L. Steadman, a chemist who has monitored water quality in city streams for more than two years, has complained repeatedly to both city officials and EPD regarding unrepaired sewers. In some cases her complaints sparked remedial efforts by city crews, but, Steadman maintains, not soon enough to prevent contamination of nearby waters.

Last July, for example, Steadman led a group of students on a water-monitoring project in the Utoy Creek area. Their samples showed extremely high fecal coliform counts, indicating the stream was polluted with sewage. After searching for the source, the team located a broken sewer pipe.

"The [Atlanta] Department of Public Works was well aware of this and did nothing about it," she says.

Eventually, Steadman and her team located two "major breaks" that appeared to have existed for some time. One,

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Although the city's maintenance and repair records in 1994 are an improvement over previous years, Atlanta's record on sewer maintenance is far from spottless. Between November 1993 and December 1994, EPD received more than 25 reports of sewage contamination in state waters from breaks, leaks or system malfunctions in Atlanta. The city spent \$20 million on sewer maintenance in 1994, according to figures supplied by Atlanta Public Works Commissioner Douglas R. Hooker. Neither Hooker nor Walker were available for interviews at press time.

problems like Steadman's is lower than in previous years, says James A. Sommerville, a compliance manager with EPD's Water Protection Branch. Several penalties assessed by EPD against the city between 1991 and 1993, particularly one involving an unrepaired sewer line on Nancy Creek, have pushed Atlanta officials to respond more quickly to complaints, Sommerville says.

"We want them to be pro-active," Sommerville explains. "The way we would like it to work is that a citizen calls up and says, 'There's a sewer break on such and such a street,' and they send a crew out and fix it. Then, they call us and say, 'We want to report a problem.'"

Pro-active, in Sommerville's lexicon, is a system of monitoring and inspection

Sewers

Continued from Page 8A

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If flowing at full capacity, which sewers usually only do after a heavy rainfall, a large sewer pipe will handle about 25 million gallons of sewage per day, according to Steadman.

In the past year, the number of complaints filed with EPD regarding sewer

TO U.S. N.R.C.

For the record: DOCKET NO: 50-160, NEEHY NUCLEAR REACTOR, ATLANTA UNDER MY 2,206 POUNDS.

Thank-you

Pamela Blockey-O'Brien



P. BLOCKEY-OBRIEN

1222 Golden Valley, Douglasville, GA 30104 USA



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► See SEWERS, Page 33A

Sewers

Continued from Page 8A

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TO U.S. ORC
50-160, NEELY NUCLEAR RESEARCH REACTOR, ATLANTA
UNDER MY 2.206 PETITION.

For the record: DOCKET NO:
2.206 PETITION.

Thank-you

Pamela Blockey-O'Brien



P. BLOCKEY-O'BRIEN

623 Golden Valley, Douglasville, GA 30134 USA

Feb. 23rd, 1995

Rec'd
2005
5/6/1

Memorandum to the Executive Director, US NRC, Washington DC 20555-0001. Re: Extra information to be added to my 2:206 Petition, Neely Nuclear Research Reactor, Atlanta, Docket 50-160.

Feb. 22nd, 1995

This is with regard to Dr. Karam's letter to Mr. Stohr of the Atlanta NRC office, Jan. 10th 1995 and the letter to Dr. Karam from Lowell Chambers, Chief Engineer of the City of Atlanta of Jan. 9th '95 regarding the sewer line (72 inch storm sewer).

I spoke to Mr. Chambers today about his letter. The "natural drainage area" was a stream, a creek, originally. The granite blocks are sort of square, and connected with no mortar, as when this sort of work was done, eons ago, the craftsmanship was very good. However, of course there is a small amount of water that infiltrates into these granite block spaces between each block. What was going on, was that a broken pipe above the granite pipe was sort of above the granite pipe, and THAT pipe was leaking into the granite pipe through a joint in the granite, so they repaired that pipe. The granite block pipe section is 60 inches. The assumption is (as stated in Mr. Chambers letter) that the granite portions were constructed with the original streets where they crossed a natural drainage area, i.e. the creek. A problem could be as follows: the granite portion was not repaired (this type of amazing construction is not used anymore, apart from the fact that it would cost a fortune and be very difficult to do, and you have that problem with where the joints meet between blocks) and because of all the construction and the fact that the reactor and facility was put in the stupid location it was put in, the granite part now runs through groundwater deep below the ground and Mr. Chambers said they have no data on whether or not it has settled, i.e. is sinking. Each time it rains, as soil tests around the reactor area done by EPD show contamination, that contamination will be in the groundwater and will have infiltrated via the tiny cracks between the granite blocks also. Plus, when there is major backflooding (like in the report done for Tech stated - and remember, the author of that report Mr. Jackson told me he had not known of the reactor) since water can infiltrate into the pipe, under high back-flood pressure, it could escape out the granite pipe between those tiny cracks.

Mr. Chambers letter clearly states: "This sewer was not constructed by the City of Atlanta. It is considered to be a "private" sewer and is not part of the "City system". Consequently our records are limited." He then goes on to explain that by inspection they know that the major portion is constructed of pre-cast RCP pipe and that "two short sections, 103 feet under State St. and 83 feet under Atlantic drive, are constructed of granite blocks. We assume that the granite portions were constructed with the original streets where they crossed a natural drainage area." (i.e. the creek)

The reactor almost sits in a "bowl", with fairly steep hills surrounding most of it, which is of course probably one of the reasons there was a creek there that was sort of blocked and diverted to the side somewhat. However, obviously large amounts of water are still going to make their way into that "bowl" as water drains off the hills above and below ground. The soil is probably seriously eroded below-ground both under the reactor area and around the sewer lines, which was probably why there was that sinkhole next to the reactor years ago that got filled in.

Feb. 23rd, 1995 Georgia EPD, Radiation Divisions Mr. Hill told me today that Georgia Tech "owns the Cobalt-60", so it would appear that if it is not removed (and the cesium-137) like I asked for, they would be willing to risk the health, safety and lives of the students on campus and the entire city by having it in such a location. This would indeed be appalling, sort of like having the Sword of Damocles hanging over (and perhaps ready to slice under) the City and the Olympics. Of course one can always hope that Georgia Tech and The Atlanta Committee for the Olympic Games will suddenly realize this entire situation is awful (perhaps because of my petition, and GANE's separate petition against giving out another license for that old dump of a reactor) and decide to be good citizens and get moving on what I ask under my petition, (hope springs eternal as they say) then all Acog has to worry about (and NRC too) are all the nuclear plants in and around Georgia and the DOE's Savannah River Nuclear facility - that 300 square mile catastrophe - just up river from the yachting in Savannah, and pray there is no earthquake, and that all the world's terrorists go to sleep for a couple of weeks. Georgia Power Company should have gone into solar and wind energy instead of nuclear energy, but trying to tell them not to build nuclear plants was a bit like trying trying to part the Pacific Ocean by scooping a road through it with a teaspoon....the difference being one would have had more of a chance scooping the Pacific.

Please grant my petition, it is the only sensible and moral thing to do.

Parula Blockey-O'Brien Parula Blockey-O'Brien

Enclosed: Article on
Atlanta's collapsing
sewers, ATLANTA BUSINESS CHRONICLE
Feb. 10-16, 1995, PAGE 8A: "QUESTIONS
TO BE PUT IN THE RECORD ALSO."

4003 0/1

REMAIN ABOUT ATLANTA'S AGING SEWER LINES

P. BLOCKEY-O'BRIEN
D23 Golden Valley, Douglasville, GA 30134 USA



From: