



April 26, 2005

To: Municipal Utility Districts in West Harris County
Regional Water Authority (“MUDs”) and City of Katy;
their attorneys, operators and engineers
From: West Harris County Regional Water Authority
RE: Disinfection Conversion

Dan Sallee,
President

G. L. “Skipper” Rush, Jr.,
Vice President

Stacey Lee Burnett,
Assistant Vice President

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Secretary

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Karla Cannon,
Director

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Director

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Director

In mid-2005, the West Harris County Regional Water Authority (“Authority”) will begin receiving surface water from the City of Houston (“COH”) for distribution to several MUDs within the Authority. This surface water to be delivered to the Authority’s system will already be disinfected with chloramines by the COH.

The COH uses chloramines for several reasons, including:

- to reduce formation of disinfection byproducts (DBPs) which occur when free chlorine reacts with organic matter; and
- because chloramines provide a longer lasting disinfection residual.

Mixing surface water that has been disinfected with chloramines with ground water that has been disinfected with chlorine is problematic, and has the potential to raise concerns relating to taste, odor and health problems. The Authority will **require** — as a prerequisite to a MUD connecting to the Authority’s surface water transmission system — that the MUD must first convert to chloramine disinfection. This requirement is outlined in Section 5.07 of the Authority’s Amended Rate Order, dated April 13, 2005 (online at www.whcrwa.com).

The following MUDs will be connecting to the Authority’s water transmission system in the next several months and are currently in the process of installing chloramine disinfection systems:

Harris County MUD No. 130
Harris County MUD No. 155
Harris County MUD No. 162
Harris County MUD No. 163
Harris County MUD No. 179
Harris County MUD No. 186
Harris County MUD No. 188
Harris County MUD No. 208
Horsepen Bayou MUD
Spencer Road PUD

Additional MUDs will be connected to the Authority's system in the near future. Because there are numerous water interconnects between MUDs within the WHCRWA boundaries, the Authority is providing notice of chloramine conversion to **all** MUDs via this memorandum.

TCEQ Rules require MUDs to, among other things, notify:

- the TCEQ prior to modifications to their disinfection systems; and
- MUD customers about specific information pertaining to conversion to chloramines.

For additional clarification, a copy of the "*Use of Chloramines*" *Public Drinking Water staff guidance* document is attached, and may also be accessed online at:

www.tnrcc.state.tx.us/permitting/waterperm/pdw/49.pdf.

All MUDs should be aware that change to *chloramines can cause problems to **persons dependent on dialysis machines***. A condition known as *hemolytic anemia* can occur if the disinfectant is not completely removed from the water that is used for the dialysate. Consequently, the pretreatment scheme used for the dialysis units must include some means, such as a charcoal filter, for removing the chloramines prior to the date of chloramine conversion. **Medical facilities** should also determine if additional precautions are required for other medical equipment.

In addition, chloraminated water **may be toxic to fish**. MUD customers with fish tanks should make sure that the chemicals or filters that they are using are designed for use in water that has been treated with chloramines. MUD customers may also need to change the type of filter that they use for the fish tank.

The Authority reminds the MUDs being converted to surface water — *as well as those obtaining water from the above listed MUDs being converted, or those otherwise receiving (directly or indirectly) water through interconnects with MUDs being converted* — that they must:

- take any necessary action with respect to their water disinfection systems; and
- notify their customers of the conversion to chloramine disinfection pursuant to TCEQ Rules.

Each MUD may want to consult with their attorney, engineer and operator concerning the appropriate steps, procedures and notices that the MUD should undertake.

In light of the potential health issues, the Authority recommends that MUDs also take any further action determined appropriate by the MUD (in addition to the notice to customers required by TCEQ Rules) in order to adequately notify MUD customers about chloramines disinfection. The Authority will not be responsible to notify MUD customers regarding chloramines disinfection.

We appreciate your consideration and assistance in helping the Authority accomplish the conversion to surface water.

If you have any questions, please call the Authority's Engineer, Wayne G. Ahrens, P.E., at (713) 527-6378.

Sincerely yours,



Dan Sallee, President
WEST HARRIS COUNTY REGIONAL WATER AUTHORITY