



WATER ENVIRONMENT ASSOCIATION OF TEXAS

Preserving & Enhancing the Water Environment of Texas

WEAT ▪ 2619 Jones Road, Suite C ▪ Austin, Texas 78745 ▪ 866-406-WEAT

April 11, 2008

Ms. Kristin Smith
Texas Register Team, MC 205
Office of Legal Services
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: Rule Project Number 2006-044-217-PR.

Dear Ms. Smith:

On behalf of the Water Environment Association of Texas, I am pleased to submit comments on the proposed CHAPTER 217. DESIGN CRITERIA FOR DOMESTIC WASTEWATER SYSTEMS.

The Water Environment Association of Texas (WEAT) is a professional association of engineers, municipal officials, environmental scientists, and others who are involved in wastewater treatment and water quality management. We are a member association of the Water Environment Federation and we are dedicated to promoting scientifically sound environmental policy and regulations.

We appreciate the staff's work on these rules and the numerous opportunities that have been provided for stakeholder input. We are writing today to support adoption of these rules by the TCEQ and to provide the following comments from WEAT's Biosolids Committee and Collection Systems Committee:

217.248 Sludge Thickening

- 217.248 (a) (1) This section notes that a sludge thickener must be capable of operating at the peak flow rate. The preamble specifies that this requirement reflects the peak 2-hr flow and that it is intended to provide consistency with clarifier and disinfection design requirements. For the following reasons, we suggest that the design basis for thickeners be changed to the maximum month sludge production:

- ◆ *Treatment objectives for thickeners and disinfection/clarification are not analogous.* Disinfection and clarification criteria are intended to ensure that a facility meets its peak discharge permit requirements. In most cases, an overloaded thickener may (or may not) impact operational flexibility, but would not cause violations. Consequently, choosing the peak 2-hr flow as a design basis to be consistent with wastewater process criteria may not be appropriate.
- ◆ *Peak sludge flows do not necessarily correlate to peak wastewater treatment flows.* Peak sludge flows are more a function of waste sludge rates, which may or may not change during peak 2-hr flows to the plant.
- ◆ *Designing thickeners for peak 2-hr flows is not an industry standard.* Thickeners are typically sized to meet performance criteria at maximum month solids production. We do acknowledge that the 217 criteria only specify that the thickener should “operate” at peak 2-hr flows, not actually meet performance objectives, but we are concerned that in the future, the rule as written may be interpreted to mean that the thickener should meet performance objectives at peak 2-hr flows.
- ◆ *Unlike clarifiers and disinfection facilities, many thickeners do not accept (and process flow) continuously.* For many smaller facilities, in fact, thickening facilities operate intermittently. Proposed requirements for redundancy will likely provide a further buffer for peak flow processing. Consequently, the requirement that thickening facilities be capable of processing peak 2-hr flows does not seem warranted.

217.250 Sludge Dewatering

- Chapter 217.250(e)(7) The draft regulations specify that a duplicate belt press must be provided if a single unit operates for more than 60 hours in a 5 day period. This requirement may apply to small plants, but may be less applicable to larger plants with multiple dewatering units. We suggest that this requirement be deleted, as the requirements set forth in Section 217.250 (c) (3) (B) adequately address redundancy needs for all dewatering facilities. Section 217.250 (c) (3) (B) requirements that mechanical dewatering units be able to dewater the average daily sludge flow with one unit hour of service (when performance reliability and sludge management are dependent on dewatering operations) are flexible, practical and meet the redundancy needs of Texas facilities of all sizes.

General Comments on Collection Systems:

The continuous reference throughout the document to a 50 year projection of a collection system's performance is not feasible. There is no scientific means to predict how infrastructure materials will perform in 50 years. 10,000 hour testing has been performed on various new materials, only to result in inconclusive results that are not legally defensible. The performance of any material installed in a wastewater collection system is the result of material manufacturing, construction practices and operation and maintenance of the installed infrastructure. Preventative measures to prevent the application of materials subject to corrosion and subsequent deterioration should be applied. Collection Systems are dynamic, continuously changing to accommodate changing development of an area.

TCEQ continues to apply terminology such as "no surcharge." Surcharge conditions in a wastewater collection system are not always predictable. The cause of surcharge should be clarified to include preventable occurrences such as dry weather surcharge conditions in which the system has reached its design capacity.

The construction of wastewater infrastructure in rivers, creeks, fields/easements will always be required and especially common when utility infrastructure is constructed in advance of development. The accumulation of extraneous water around an infrastructure access point (manhole) or "ponding" is common in both street and non-street conditions. Ponding in a low point of an asphalt constructed street is very common and documented to enable extraneous water to enter the collection system.

§217.2 Definitions. (27) Lift Stations

The reference to the term lift station is not correct. The static head at a lift station doesn't always exceed frictional headlosses. It depends on topography and length/size of force mains.

§217.53. Pipe Design, (j) Capacity Analysis, (3)

The calculation for expected peak flow in a pipe should be referenced here.

§217.53. Pipe Design, (j) Capacity Analysis, (7) New Collection Systems (B)

The daily average sewer flow and the expected peak flow should be applied here.

§217.11. Construction of an Approved Facility. (a)

Has the TCEQ considered how this will be applied in Design-Build Projects?

§217.53. Pipe Design, (d) (i)

Have other pipe materials been considered such as Fiberglass Reinforced Plastic (FRP) or High Density Polyethylene (HDPE)? Cast Iron is not a commonly used material in new wastewater construction and HDPE can be installed fused and jointless, resulting in a water tight installation.

§217.56. Trenchless Pipe Installation, (a)

There are other more current Trenchless Technologies that should be included:
Horizontal Auger Boring, Pipe Jacking, and Horizontal Directional Drilling (HDD).

Thank you for the opportunity to provide comments on these important rules. If you have any questions or need any clarifications, please feel free to contact Ms. Lynne Moss (Biosolids) at 512-346-1100, Ms. Leigh Cerda (Collection Systems) at 512-306-9266 ext. 71, or me at 512-924-2102.

Sincerely,

Carol Batterton
Executive Director

cc: Louis Herrin, P. E., Texas Commission on Environmental Quality
Ms. Lynne Moss, P.E.
Ms. Leigh Cerda, P.E.