

EXTERNAL GUIDANCE for the Water Supply Division (WSD)—Plan and Technical Review (PTR) Section

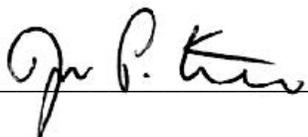
Title: Restriction on the Use of Bentonite in Public Water Supply Wells Submittal Guidance

Responsible Team/Section/Program: Plan Review Team/PTR Section

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Joel Klumpp:  Date: September 20, 2019
Section Manager

Restriction on the Use of Bentonite in Public Water Supply Wells Submittal Guidance

Acronyms and Definitions

Term	Definition
PWS	Public Water System
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
WSD	Water Supply Division

Regulatory Reference

Title 30 TAC §290.41(c)(3)(C)

TCEQ Contact Information

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Guidance

A risk of water source contamination is associated with improper use of bentonite mixtures in unsaturated or semisaturated zones where the moisture content of the mixture fluctuates. Under such conditions, the bentonite mixture may crack, or otherwise degrade, and not provide an adequate barrier to contaminants. Therefore, bentonite may be used only in the following application:

A bentonite plug may be used in a water saturated zone¹ to seal the annular space above the packer. The plug may not exceed ten feet in height and the entire plug shall be below the water table at all times. The placement of the plug and the grout seal shall be a continuous operation to minimize the possibility of voids in the seal.

¹Water Saturated Zone – a water saturated zone is a layer below the water table where the interstices are completely filled with water at all times.