

Direct Potable Water Reuse Standard Operating Procedure

Wichita Falls, Texas

RO Permeate Tank Operation Procedure

This SOP supersedes any previous SOP on this topic.

INTRODUCTION

The RO permeate tanks are located at the East end of the microfiltration/RO building. Both tanks are filled at the bottom with the RO permeate produced by any RO train(s) treating water. The permeate fills the tank and overflows to the permeate line that fills the holding lagoon, prior to being blended with raw surface water at the splitter box.

OBJECTIVE

To ensure proper levels and adequate chemical being added. The Permeate Tank is where all of the filtered water from the RO trains is collected and dosed with sodium hydroxide, prior to being sent to the holding lagoon.

PROCEDURE

The level must be at 14.0 ft or slightly above to have water overflowing into the discharge line to the holding lagoon.

The tank will overflow onto the ground behind the sludge pump station at 16.0 ft.

Sodium Hydroxide is pumped into the #1 permeate tanks' effluent line (if needed) in order to raise the pH of the water before it is discharged to the holding lagoon.

The permeate water is also used to:

- Flush trains
- Fill the RO CIP tank
- Fill the MF Acid CIP tank

Attention to the permeate tank level is most useful when the trains are off-line and not producing any water. Since the permeate tanks provide water for train flushing and CIP's, a minimum level of 4 feet must be maintained. If the level approaches the minimum, a train will need to be started in order to add water to the permeate tank (See RO Start-up SOP).

See Associated SOP's:

RO Start-up SOP

Prepared by: [Signature] Date: 6/16/14
Approved by: [Signature] Date: 6-16-14

*This SOP is considered effective on the date it is approved. SOP's are to be reviewed and/or updated annually or any time this process has changed.

Reviewed by: _____ Date: _____
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Reviewed by: _____ Date: _____

Sign below and date that you have read this SOP. By signing you are stating that you understand and will defer to this SOP when applicable.

Printed Name	Signature	Date	Printed Name	Signature	Date
Brandon Davis	[Signature]	6-19-14	Bruce Briesemanter	[Signature]	6/20/14
Steve Ranbel	[Signature]	6-19-14	Jonathan Richardson	[Signature]	6/20/14
Thomas Newell	[Signature]	6-20-14	Patrick Brimmer	[Signature]	6/20/14
Gerald [Signature]	[Signature]	6-20-14	Gayland Bragg	[Signature]	6-23-14
Eustacio Ruelas	[Signature]	6-20-14	Nolan Whitford	[Signature]	6-23-14
Michael Miller	[Signature]	6-20-14	Steve Forbes	[Signature]	6-23-14
Charles Cupp	[Signature]	6-20-14	Joseph Hurt	[Signature]	6/24/14
Kalim Gadeer	[Signature]	6-20-14	Jack Clark	[Signature]	6-24-14
Ron Kazmierczak	[Signature]	6-20-14			
Daniel Matt	[Signature]	6-20-14			