

*For internal use only*

August 1, 2011

## Paper Mill - Bleach Plant

<b>Location:</b>	<i>Boise Paper Mill Wallula, Washington - USA</i>	<b>Date of First Inspection:</b>	<i>July 18, 2011</i>
<b>Application:</b>	<i>Inlet to E1 shower unit</i>	<b>Date of Second Inspection:</b>	<i>October 11, 2011 (not needed)</i>
<b>Purpose of Installation:</b>	<i>Decrease new limescale accumulation inside pipes and nozzles of E1 unit</i>		
<b>Installation Date:</b>	<i>May 4, 2011</i>		

### Installation Details

Model of Water conditioner	Custom C8"
Pipe Diameter (OD)	8.625"
Pipe Material	Metal
Installation location (before/after pump)	Bleach Plant Mezzanine Floor - 30' before the E1 unit

## Overview

### 1. General

The bleach plant has multiple shower units which suffer from severe limescale accumulation. Shower nozzles need to either be hydro-blasted or replaced periodically.

### 2. Trial method

The trial will start with clean or new nozzles with zero limescale buildup. Shower units to be examined after 11 weeks - the treated E1 unit will be compared to the untreated D1 unit. If needed, a third inspection will take place on October 11, 2011.

### 3. Expected results

New scale deposits in the E1 unit to be less labor intensive to clean.

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## Pictures of application



*Untreated D1 unit*

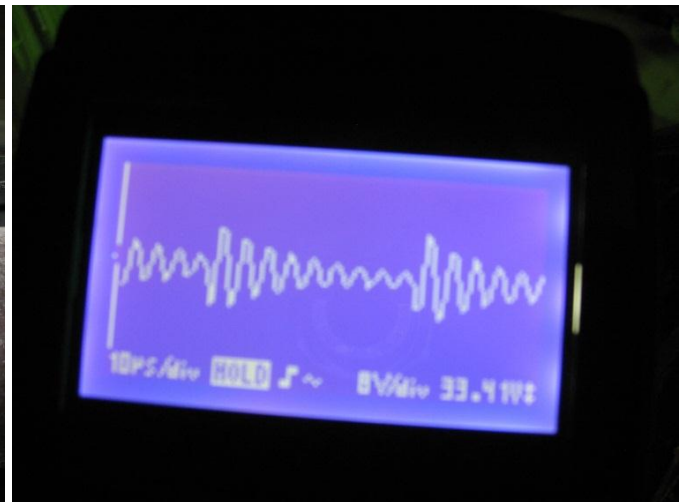


*Treated E1 unit*

## Installation point



*30' before the E1 shower nozzles*



*Scope reading of 33~37 peak-to-peak voltage*

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## Comparison pictures



*Untreated D1 unit*



*Treated E1 unit*



*Untreated D1 nozzle – close up*



*Treated E1 nozzle – close up*



*Untreated D1 nozzle – 30' down the line*



*Treated E1 nozzle – 30' down the line*

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## Results

The D1/E1 comparison pictures speak for themselves...

## Conclusion

*HydroPath Technology can be recommended as a chemical-free method of treating limescale related problems at a paper mill bleach plant.*

## Referral

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