## Gallarzo, Wednesday R

**From:** Garcia, Daniela

**Sent:** Monday, August 14, 2017 1:15 PM

**To:** Gallarzo, Wednesday R

**Subject:** FW: [EXTERNAL] Re: Tub Spout Diverters - Draft Test Plan **Attachments:** 2 Taitem Engineering, PC, 2011. "Leaking Shower Diverters.".pdf

**From:** Bo White [mailto:bo@negawattconsult.com]

Sent: Tuesday, July 25, 2017 1:33 PM

To: Barbour, John L < JBarbour@semprautilities.com>

**Cc:** Osann, Ed <eosann@nrdc.org>; Garcia, Daniela <DGarcia3@semprautilities.com>; Charles Kim

<Charles.Kim@sce.com>; Anderson, Mary <M3AK@pge.com>; Jessica.Lopez@energy.ca.gov; Marc Esser

<marc@negawattconsult.com>; Reefe, Jeremy <JMReefe@semprautilities.com>; Zeng, Kate

<KZeng@semprautilities.com>

Subject: [EXTERNAL] Re: Tub Spout Diverters - Draft Test Plan

Hi John,

The attached study, which was referenced in the WaterSense NOI, addresses this issue. They concluded that the average "savings factor" is 70%. However, "savings factor" is higher when tub spout leakage rates are low. Unfortunately, they didn't measure "savings factor" at tub spout leakage rates below 0.05 gpm, but perhaps the data can be extrapolated.

In addition, the ASME test procedure requires a certain flowing pressure instead of a certain shower head flow rate. This makes the test results more comparable.

Thanks,

Во

On Tue, Jul 25, 2017 at 1:26 PM, Barbour, John L < <u>JBarbour@semprautilities.com</u>> wrote:

Daniela/et al.,

I was thinking about tub spout diverters (TSD), and on the surface, testing for a leaky tub spout diverter seems like a brilliant idea, given all leaks are not good and stopping/reducing them will save water and energy, right?

Well, tub spout diverters are only piece of a system, which includes the showerhead, and just because you stop/reduce a leaky TSD does not necessarily translate into saved water/energy unless the system uses less water (most tub/shower plumbing combos do not have flow control adjustments). So, shouldn't the test procedures include the shower head also, because if the decrease in water through the TSD just goes through the showerhead, then there are no savings (or if part of the decrease through the TSD goes through the showerhead, then there would be less savings). And I think it may be difficult to find a differential in water usage for the system? Has this been given consideration, since I don't think the flow from a Low Flow Shower head is constant across all pressures (a slight increase in flow/pressure to the showerhead would be seen with less TSD leakage?). Or am I wrong?

I just want to make sure we are testing for result that will give real world numbers, and that can be supported, and not challenged by folks opposing the standard.
What say ye?
Thanks,
John Barbour
(858) 654-1110 office (916) 893-4591 cell
From: Osann, Ed [mailto:eosann@nrdc.org]  Sent: Tuesday, July 25, 2017 11:05 AM  To: Garcia, Daniela <dgarcia3@semprautilities.com>; Charles Kim <charles.kim@sce.com>; Anderson, Mary <m3ak@pge.com>; Jessica.Lopez@energy.ca.gov; Barbour, John L <jbarbour@semprautilities.com> Cc: Marc Esser <marc@negawattconsult.com>; Bo White <bo@negawattconsult.com> Subject: [EXTERNAL] RE: Tub Spout Diverters - Draft Test Plan</bo@negawattconsult.com></marc@negawattconsult.com></jbarbour@semprautilities.com></m3ak@pge.com></charles.kim@sce.com></dgarcia3@semprautilities.com>
Thanks Daniela. I can have a few initial comments, probably Thursday, but will need a bit more time to consult with professional colleagues and refine some recommendations. I'm aiming for Wednesday, Aug. 2.
Ed

From: Garcia, Daniela [mailto:DGarcia3@semprautilities.com]

Sent: Friday, July 21, 2017 4:52 PM

To: Charles Kim < Charles.Kim@sce.com >; Anderson, Mary < M3AK@pge.com >;

<u>Jessica.Lopez@energy.ca.gov</u>; Barbour, John L < <u>JBarbour@semprautilities.com</u>>; Osann, Ed

<<u>eosann@nrdc.org</u>>

Cc: Marc Esser < marc@negawattconsult.com >; Bo White < bo@negawattconsult.com >

Subject: RE: Tub Spout Diverters - Draft Test Plan

If we could please have any comments by Friday, July 28th.

Thank You,

## Daniela Garcia

SoCalGas Customer Programs

Project Manager – Building Codes and Appliance Standards

555 W. 5th Street, Los Angeles, CA 90013 | ML: GT19A6

Office: <u>213-244-4361</u> | Mobile: <u>951-847-1022</u>

DGarcia3@semprautilities.com

From: Garcia, Daniela

**Sent:** Friday, July 21, 2017 1:24 PM

**To:** 'Charles Kim' < <u>Charles.Kim@sce.com</u>>; 'Anderson, Mary' < <u>M3AK@pge.com</u>>; 'Jessica.Lopez@energy.ca.gov' < Jessica.Lopez@energy.ca.gov>; Barbour, John L

<JBarbour@semprautilities.com>; 'Osann, Ed' <eosann@nrdc.org>

Cc: 'Marc Esser' < marc@negawattconsult.com'>; Bo White < bo@negawattconsult.com'>

Subject: Tub Spout Diverters - Draft Test Plan

All,

Attached please find the Tub Spout Diverters Draft Test plan for your input and comments.

Thank You,

## Daniela Garcia

SoCalGas Customer Programs

Project Manager – Building Codes and Appliance Standards

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DGarcia3@semprautilities.com

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Thank you,

Bo White, PE NegaWatt Consulting, Inc. (619) 309-4191 www.negawattconsult.com

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