
From: Cook, Pat (DEQ)
Sent: Wednesday, June 25, 2014 1:08 PM
To: Prysby, Mike (DEQ)
Cc: Gotham, Daryl (DEQ); Busch, Stephen (DEQ); Bloemker, Jon (DEQ)
Subject: RE: Contract S-4002 100% and S-4003 90% Submittals - MDEQ comments

Hi Mike,

As I mentioned earlier today during our phone conversation, I have no objections with KWA wanting to use a more conservative leakage formula for the pipeline rather than what is in AWWA 604. If they want to hold their contractors to a higher criteria, I'm not going to stop 'em.

Regarding the welded joints, I don't think they need to included them in the formula as long as the welds are tested by some other acceptable means such as radiography, sonograms, or magnetic particle testing. Also, by not including the welded joints in the below formula, it will result in an even lower allowable leakage than if they used them.

pat

From: Prysby, Mike (DEQ)
Sent: Wednesday, June 25, 2014 8:33 AM
To: Cook, Pat (DEQ)
Cc: Gotham, Daryl (DEQ); Busch, Stephen (DEQ); Bloemker, Jon (DEQ)
Subject: FW: Contract S-4002 100% and S-4003 90% Submittals - MDEQ comments

Pat,

The leakage calculation has surfaced again with respect to the KWA pipeline project. Initially, Genesee County was agreeable to using the AWWA C-604 leakage formula; however, after making further calculations they feel that the formula which uses the number of joints ($L (g/hr) = JD \sqrt{P/7400}$) is far more conservative than the allowable leaking from C-604 and they wish to hold their contractors to that. On the surface, the joint formula appears more conservative; however, they base it on the assumption that the welded joints do not count. If we include all of the welded joints, the allowable leakage is rather close between each formula – depending on pipe length. I will verify the allowable leakage based on actual pipe length and all joints (welded and appurtenances) for comparison. Daryl and I would like to confirm the validity of their assumption.

Michael Prysby, P.E.
 District Engineer
 Office of Drinking Water and Municipal Assistance
 517 290-8817

From: Matt Raysin [mailto:M_RAYSIN@gcdcwws.com]
Sent: Tuesday, June 24, 2014 6:05 PM
To: Gotham, Daryl (DEQ); Prysby, Mike (DEQ)

Cc: Bloemker, Jon (DEQ); Busch, Stephen (DEQ); Osborn, Larry (LOSBORN@wadetrim.com); John O'Malia; Elgar Brown (cbrownbear@broadstripe.net); Mike Winegard; Ed Tharp (Ed.Tharp@aecom.com)

Subject: RE: Contract S-4002 100% and S-4003 90% Submittals - MDEQ comments

I would like to revisit the conversation this morning regarding the pressure test. The new leakage method based on AWWA 604-11 the 66" pipe would allow 55 gal/mile leakage in a 2 hour period. The current specified method in section 02315 would allow roughly 0.2 gal/mile leakage in a 2 hour period depending on the pressure (150 to 350 psi) and the (J) number of joints 1 per mile to 12 per mile (welded joints do not count so only the valves count on the 66" line, but if you count the hydrants, and air release valves, which are not normally counted, it could be 6-12 per mile depending on the section). Note that you would have to have about 165 joints per mile (an average of 1 joint every 32 feet) @ 350 psi to equal the 55 gal per 2 hours allowed by the new formula. For 150 psi, it would have to have the equivalent of 252 joints per mile to get the 55 gal leakage in 2 hours that is allowed by the new method. The current specification indicates to test at the pressure equal to the pressure class listed on the drawings, where the new version would say test at no more than 125% of the working pressured. The working pressure is not defined anywhere so is that the pressure class of the pipe, or the pressure within the pipe that is expected during operation?

The 60" would be somewhat similar to the 66", except the pressures would be lower on the 60" pipe.

With that being said will the MDEQ allow the current specifications to remain or do we need to still reference AWWA 604-11 for testing even though the allowable leakage is well above what we are allowing.

From: Gotham, Daryl (DEQ) [<mailto:GOTHAMD@michigan.gov>]

Sent: Thursday, June 19, 2014 3:34 PM

To: Prysby, Mike (DEQ); Osborn, Larry (LOSBORN@wadetrim.com); John O'Malia; Elgar Brown (cbrownbear@broadstripe.net); Matt Raysin

Cc: Bloemker, Jon (DEQ); Busch, Stephen (DEQ)

Subject: Contract S-4002 100% and S-4003 90% Submittals - MDEQ comments

We've completed the review of both projects and the only significant issues that resulted were the Leakage Test formulas that Mike Prysby identified in his review of S-4005. When the corrected specs are received, I am prepared to issue the permit for S-4002. If I have them by early afternoon on Monday, June 23rd, I can bring the permitted plans and specifications to the June 24th meeting. I'm willing to replace the corrected section of the spec into the previously submitted specs if that is easier. Emailing them to me would be fine.

Thanks,

Daryl J. Gotham, P.E.
Michigan Department of Environmental Quality
Office of Drinking Water & Municipal Assistance
Saginaw-Bay District Office
401 Ketchum Street, Suite B
Bay City, MI 48708
989-450-8146 (Phone)
989-891-9213 (Fax)