From: LUDWICZAK Mark
To: EISELE Michael; MONRO David; FELDON Leah; BOLING Brian; DAVIS George; INAHARA Jill
Subject: RE: Bullseye Glass Testing
Date: Monday, March 28, 2016 11:01:40

Hi! I agree with the group that we should push for performing three replicate tests (at the worst case operating condition). Our Source Test Manual does allow for acceptance of two tests in certain situations, but this is reserved for cases that are 'beyond the control of the permittee'….for example, a sample bottle is broken in shipment or extreme weather conditions. We accept two tests when one of the three tests is invalidated and can't be repeated.

We don't allow for two tests (only) during the planning stage of a test program. Of course, the manual applies to compliance testing projects. For 'engineering' or 'informational' testing (as this might be considered), we could probably rationalize an exception.

I went through this exercise (accepting two vs three tests) with the EPA on a PCWP MACT Rule (Federal) test a few years ago. Again, this situation (one sample invalidated) arose 1-2 weeks after the testing was completed. The MACT Rule spelled out specifically 'when thou shall allow 'less than three' tests'. I talked with an EPA Region X rep about this case. He said that in practice, the EPA generally defers to the judgment of the local (ODEQ) governing body. They could certainly overturn our decision, but that would be very unusual .

I accepted the two tests and it has not been challenged.

This is the MACT Rule language:

> Unless otherwise specified in a relevant standard or test method, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that—
>
> (i) A sample is accidentally lost after the testing team leaves the site; or
>
> (ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or
>
> (iii) Extreme meteorological conditions occur; or
>
> (iv) Other circumstances occur that are beyond the owner or operator's control.

Again, this was for an EPA-mandated compliance test. The DEQ 'rule' on this allows a little more 'wiggle' room:

(Section 2.5) Unless otherwise specified by permit, State rule, federal regulation, or Department letter, each

source test must consist of at least three (3) test runs and the emission results reported as the

arithmetic average of all valid test runs. If for reasons beyond the control of the permittee (e.g.,

forced shutdown, extreme meteorological conditions, failure of an irreplaceable portion of the

sample train) a test run is invalidated and cannot be replaced by a valid test run, DEQ may

consider accepting two (2) test runs for demonstrating compliance with the emission limit or

standard. However, all test runs, including those deemed invalid, are to be included in the test

report.

--Mark

-----Original Appointment-----
From: EISELE Michael
Sent: Friday, March 25, 2016 4:18 PM
To: MONRO David; FELDON Leah; BOLING Brian; DAVIS George; INAHARA Jill; LUDWICZAK Mark
Subject: Bullseye Glass Testing
When: Monday, March 28, 2016 9:00 AM-9:30 AM (UTC-08:00) Pacific Time (US & Canada).
Where: Call In Number: 888-398-2342 Particpate Code: 784770

Agenda:

*Bullseye has proposed to test one run over the duration of a batch cycle which will be approximately 16hrs. Testing will be for PM and total Cr & Cr+6 at both the inlet to and the exhaust of the baghouse.

Is this enough? We typically require 3 test runs.

*Bullseye is proposing to test a batch with the highest concentration of Cr they use. To make the glass they will be using a reducing flame (rich burn).

Do we agree this is the worst case scenario or would a batch with less Cr, but with an oxidizing flame (lean burn) be the worst case scenario?

*When will testing be.

*Difficult testing conditions.

Interesting fact:

Cr turns the glass green with a reducing flame or yellow with an oxidizing flame.