Message

From: Hall, Chris [Hall.Christopher@epa.gov]
Sent: 5/2/2017 7:04:50 PM
To: Papp, Michael [Papp.Michael@epa.gov]
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Hi Mike,
This draft memo does not appear to address the situation where there is a valid yet failing 1-pt QC check but where the monitoring agency did not perform any follow-up verification of the analyzer, and yet the agency provides to the RO what it considers to be compelling evidence that the data is valid (and the RO agrees). What would be the process for distinguishing the routine data in AQS is this case?

Chris

From: Papp, Michael
Sent: Sunday, April 30, 2017 4:43 AM
To:
Subject: Re: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Ok here is a second draft based on Thursdays call. I think it captures the general agreements reached

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From: Hence, Kia
Sent: Thursday, April 27, 2017 2:35 PM
To: Papp, Michael; Hall, Chris; Weinstock, Lewis; Payton, Richard; Brown, Ethan; Wells, Benjamin; Naess, Liz; Rice, Joann; Lau, Gavin; Sather, Mark; Curran, Trisha; Williams, Jennifer; CHANG, RANDALL; Vallano, Dena; Mebust, Anna; Kurpius, Meredith; Skinner-Thompson, Jonathan; Plate, Mathew; YOSHIMURA, GWEN; Flagg, MichaelA; Verhalen, Frances; Judge, Robert; Khan, Mazeeda; Chow, Alice; Rinck, Todd; Compher, Michael; Davis, Michael; Fallon, Gail; Ackerman, Laura; Carlson, Albion; Hass, Andrew; Ross, Anthony; Teitz, Avraham; Bedel, Anthony; Qazzaz, Bilal; Hall, Chris; Coughlin, Justin; France, Danny; Crumpler, Dennis; Jager, Doug; Clover, Fletcher; Gaige, Elizabeth; Garver, Daniel; Noah, Greg; YOSHIMURA, GWEN; Harris, Keith; Hoyer, Marion; Jackson, Clarence; Regehr, James; Williams, Jennifer; Rickard, Joshua; Allen, Kara; Biland, Larry; Grooms, Leland; Limaye, Vijay; Sena, Lorenzo; Hyden, Loretta; Lehrman, Loretta; Cuzzupe, Mary Jane; Plate, Mathew; McCarthy, Stephanie; McEvoy, Chad; McGrath, Jesse; Puchalski, Melissa; Kurpius, Meredith; Davis, Michael; Flagg, MichaelA; Crowe, Mike; Miller, Michael; Paguia, Monica; Mustafa, Mustafa; Parker, Cindy; Kahn, Peter R.; Ramkissoon, Reshma; Regehr, James; Guillot, Richard; Payton, Richard; Coats, Robert; Sakamoto, Roseanne; Brown, Ryan; Waterson, Sara; Hamilton, Scott; Ricks, Solomon; Taylor, Catherine; Bui, Thien; Thompson, Alysha; Sharac, Timothy; Curran, Trisha; Tufts, Jenia; Zachary, Adam
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Mike,

I have a request for the memo you plan to send as a follow-up to today's call. For the benefit of those who weren't on the call and/or may of missed your response to R1's question could you define what is meant by the term "valid check". I think it would helpful to provide a definition so that we are all on the same page.

Thanks,
Kia Long
US EPA Region 3

Office of Air Monitoring & Analysis
1650 Arch St.
Philadelphia, PA 19103
(215) 814 - 2111

"We are what we repeatedly do. Excellence then, is not an act, but a habit." - Aristotle

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From: Papp, Michael
Sent: Thursday, April 27, 2017 8:22 AM
To: Hall, Chris <Hall.Christopher@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <Mebust.Anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Ackerman, Laura <Ackerman.Laura@epa.gov>; Carlson, Albion <Carlson.Albion@epa.gov>; Hass, Andrew <hass.andrew@epa.gov>; Ross, Anthony <ross.anthony@epa.gov>; Teitz, Avraham <Teitz.Avraham@epa.gov>; Bedel, Anthony <bedel.anthony@epa.gov>; Qazzaz, Bilal <qazzaz.bilal@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>; Coughlin, Justin <coughlin.justin@epa.gov>; France, Danny <France.Danny@epa.gov>; Crumpler, Dennis <Crumpler.Dennis@epa.gov>; Jager, Doug <Jager.Doug@epa.gov>; Clover, Fletcher <Clover.Fletcher@epa.gov>; Gaige, Elizabeth <Gaige.Elizabeth@epa.gov>; Garver, Daniel <Garver.Daniel@epa.gov>; Noah, Greg <Noah.Greg@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Harris, Keith <Harris.Keith@epa.gov>; Hoyer, Marion <hoyer.marion@epa.gov>; Jackson, Clarence <Jackson.Clarence@epa.gov>; Regehr, James <Regehr.James@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; Rickard, Joshua <Rickard.Joshua@epa.gov>; Allen, Kara <Allen.Kara@epa.gov>; Hence, Kia <hence.kia@epa.gov>; Biland, Larry <Biland.Larry@epa.gov>; Grooms, Leland <Grooms.Leland@epa.gov>; Limaye, Vijay <Limaye.Vijay@epa.gov>; Sena, Lorenzo <Sena.Lorenzo@epa.gov>; Hyden, Loretta <Hyden.Loretta@epa.gov>; Lehrman, Loretta <lehrman.loretta@epa.gov>; Cuzzupe, Mary Jane <Cuzzupe.MaryJane@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>; McCarthy, Stephanie <McCarthy.Stephanie@epa.gov>; McEvoy, Chad <mcevoy.chad@epa.gov>; McGrath, Jesse <mcgrath.jesse@epa.gov>; Puchalski, Melissa <Puchalski.Melissa@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Crowe, Mike <Crowe.Mike@epa.gov>; Miller, Michael <Miller.Michael@epa.gov>; Paguia, Monica <paguia.monica@epa.gov>; Mustafa, Mustafa <Mustafa.Mustafa@epa.gov>; Parker, Cindy <parker.cindy@epa.gov>; Kahn, Peter R. <kahn.peter@epa.gov>; Ramkissoon, Reshma <Ramkissoon.Reshma@epa.gov>; Regehr, James <Regehr.James@epa.gov>; Guillot, Richard <Guillot.Richard@epa.gov>; Payton, Richard <Payton.Richard@epa.gov>; Coats, Robert <Coats.Robert@epa.gov>; Sakamoto, Roseanne <Sakamoto.Roseanne@epa.gov>; Brown, Ryan <Brown.Ryan@epa.gov>; Waterson, Sara <Waterson.Sara@epa.gov>; Hamilton, Scott <hamilton.scott@epa.gov>; Ricks, Solomon <Ricks.Solomon@epa.gov>; Taylor, Catherine <taylor.catherine@epa.gov>; Bui, Thien <Bui.Thien@epa.gov>; Thompson, Alysha <Thompson.Alysha@epa.gov>; Sharac, Timothy <Sharac.Timothy@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Tufts, Jenia <Tufts.Jenia@epa.gov>; Zachary, Adam <zachary.adam@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

I received some additional comments (ATTACHED) on the flagging process yesterday from Stephanie McCarthy (R4) and Gavin Lau (R2)

From: Papp, Michael
Sent: Wednesday, April 26, 2017 2:13 PM
To: Hall, Chris <Hall.Christopher@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <mebust.anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Ackerman, Laura <Ackerman.Laura@epa.gov>; Albion Carlson <Carlson.Albion@epa.gov>; Andrew Hass <Hass.Andrew@epa.gov>; Anthony Ross <Ross.Anthony@epa.gov>; Avraham Teitz <Teitz.Avraham@epa.gov>; Bedel, Anthony <bedel.anthony@epa.gov>; Bilal Qazzaz <Qazzaz.Bilal@epa.gov>; Christopher Hall <Hall.Christopher@epa.gov>; Coughlin, Justin <coughlin.justin@epa.gov>; Danny France <France.Danny@epa.gov>; Dennis Crumpler <Crumpler.Dennis@epa.gov>; Doug Jager <Jager.Doug@epa.gov>; Fletcher Clover (Clover.Fletcher@epa.gov) <Clover.Fletcher@epa.gov>; Gaige, Elizabeth <Gaige.Elizabeth@epa.gov>; Garver, Daniel <Garver.Daniel@epa.gov>; greg noah <noah.greg@epa.gov>; Gwen Yoshimura <Yoshimura.Gwen@epa.gov>; Harris, Keith <Harris.Keith@epa.gov>; Hoyer, Marion <hoyer.marion@epa.gov>; Jackson, Clarence <Jackson.Clarence@epa.gov>; James Regehr <Regehr.James@epa.gov>; jennifer williams <williams.jennifer@epa.gov>; Joshua Rickard <rickard.joshua@epa.gov>; Kara Allen <Allen.Kara@epa.gov>; Kia Hence <Hence.Kia@epa.gov>; Larry Biland <biland.larry@epa.gov>; Leland Grooms <Grooms.Leland@epa.gov>; Limaye, Vijay <Limaye.Vijay@epa.gov>; Lorenzo Sena <Sena.Lorenzo@epa.gov>; Loretta Hyden <Hyden.Loretta@epa.gov>; Loretta Lehrman <Lehrman.Loretta@epa.gov>; MaryJane Cuzzupe <Cuzzupe.MaryJane@epa.gov>; Mathew Plate <Plate.Mathew@epa.gov>; McCarthy, Stephanie <McCarthy.Stephanie@epa.gov>; McEvoy, Chad <mcevoy.chad@epa.gov>; McGrath, Jesse <mcgrath.jesse@epa.gov>; Melissa Puchalski (Puchalski.Melissa@epa.gov) <Puchalski.Melissa@epa.gov>; Meredith Kurpius <Kurpius.Meredith@epa.gov>; Michael Davis <Davis.Michael@epa.gov>; MichaelA Flagg <Flagg.MichaelA@epa.gov>; Mike Crowe <Crowe.Mike@epa.gov>; Miller, Michael <Miller.Michael@epa.gov>; Monica Paguia <Paguia.Monica@epa.gov>; Mustafa Mustafa <Mustafa.Mustafa@epa.gov>; Parker, Cindy <parker.cindy@epa.gov>; Peter Kahn <kahn.peter@epa.gov>; Ramkissoon, Reshma <Ramkissoon.Reshma@epa.gov>; Regehr, James <Regehr.James@epa.gov>; Richard Guillot <Guillot.Richard@epa.gov>; Richard Payton <Payton.Richard@epa.gov>; Robert Coats <Coats.Robert@epa.gov>; Roseanne Sakamoto <Sakamoto.Roseanne@epa.gov>; Ryan Brown (Brown.Ryan@epa.gov) <Brown.Ryan@epa.gov>; Sara Waterson (Waterson.Sara@epa.gov) <Waterson.Sara@epa.gov>; Scott Hamilton <Hamilton.Scott@epa.gov>; Solomon Ricks <Ricks.Solomon@epa.gov>; Taylor, Catherine <taylor.catherine@epa.gov>; Thien Bui <Bui.Thien@epa.gov>; Thompson, Alysha <Thompson.Alysha@epa.gov>; Timothy Sharac <Sharac.Timothy@epa.gov>; Trisha Curran <Curran.Trisha@epa.gov>; Tufts, Jenia <Tufts.Jenia@epa.gov>; Zachary, Adam <zachary.adam@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Hey All :

Attached is a consolidated file of comments we have received on the document "Steps to accept data not meeting critical criteria but considered valid" which is attached also.

We hope that all Regions will participate tomorrow but if you can't please provide me some comments.

Thanks.

From: Papp, Michael
Sent: Tuesday, April 25, 2017 11:39 AM
To: Hall, Chris <Hall.Christopher@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Payton, Richard

<Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <mebust.anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Ackerman, Laura <Ackerman.Laura@epa.gov>; Albion Carlson <Carlson.Albion@epa.gov>; Andrew Hass <Hass.Andrew@epa.gov>; Anthony Ross <Ross.Anthony@epa.gov>; Avraham Teitz <Teitz.Avraham@epa.gov>; Bedel, Anthony <bedel.anthony@epa.gov>; Bilal Qazzaz <Qazzaz.Bilal@epa.gov>; Christopher Hall <Hall.Christopher@epa.gov>; Coughlin, Justin <coughlin.justin@epa.gov>; Danny France <France.Danny@epa.gov>; Dennis Crumpler <Crumpler.Dennis@epa.gov>; Doug Jager <Jager.Doug@epa.gov>; Fletcher Clover (Clover.Fletcher@epa.gov) <Clover.Fletcher@epa.gov>; Gaige, Elizabeth <Gaige.Elizabeth@epa.gov>; Garver, Daniel <Garver.Daniel@epa.gov>; greg noah <noah.greg@epa.gov>; Gwen Yoshimura <Yoshimura.Gwen@epa.gov>; Harris, Keith <Harris.Keith@epa.gov>; Hoyer, Marion <hoyer.marion@epa.gov>; Jackson, Clarence <Jackson.Clarence@epa.gov>; James Regehr <Regehr.James@epa.gov>; jennifer williams <williams.jennifer@epa.gov>; Joshua Rickard <rickard.joshua@epa.gov>; Kara Allen <Allen.Kara@epa.gov>; Kia Hence <Hence.Kia@epa.gov>; Larry Biland <biland.larry@epa.gov>; Leland Grooms <Grooms.Leland@epa.gov>; Limaye, Vijay <Limaye.Vijay@epa.gov>; Lorenzo Sena <Sena.Lorenzo@epa.gov>; Loretta Hyden <Hyden.Loretta@epa.gov>; Loretta Lehrman <Lehrman.Loretta@epa.gov>; MaryJane Cuzzupe <Cuzzupe.MaryJane@epa.gov>; Mathew Plate <Plate.Mathew@epa.gov>; McCarthy, Stephanie <McCarthy.Stephanie@epa.gov>; McEvoy, Chad <mcevoy.chad@epa.gov>; McGrath, Jesse <mcgrath.jesse@epa.gov>; Melissa Puchalski (Puchalski.Melissa@epa.gov) <Puchalski.Melissa@epa.gov>; Meredith Kurpius <Kurpius.Meredith@epa.gov>; Michael Davis <Davis.Michael@epa.gov>; MichaelA Flagg <Flagg.MichaelA@epa.gov>; Mike Crowe <Crowe.Mike@epa.gov>; Miller, Michael <Miller.Michael@epa.gov>; Monica Paguia <Paguia.Monica@epa.gov>; Mustafa Mustafa <Mustafa.Mustafa@epa.gov>; Parker, Cindy <parker.cindy@epa.gov>; Peter Kahn <kahn.peter@epa.gov>; Ramkissoon, Reshma <Ramkissoon.Reshma@epa.gov>; Regehr, James <Regehr.James@epa.gov>; Richard Guillot <Guillot.Richard@epa.gov>; Richard Payton <Payton.Richard@epa.gov>; Robert Coats <Coats.Robert@epa.gov>; Roseanne Sakamoto <Sakamoto.Roseanne@epa.gov>; Ryan Brown (Brown.Ryan@epa.gov) <Brown.Ryan@epa.gov>; Sara Waterson (Waterson.Sara@epa.gov) <Waterson.Sara@epa.gov>; Scott Hamilton <Hamilton.Scott@epa.gov>; Solomon Ricks <Ricks.Solomon@epa.gov>; Taylor, Catherine <taylor.catherine@epa.gov>; Thien Bui <Bui.Thien@epa.gov>; Thompson, Alysha <Thompson.Alysha@epa.gov>; Timothy Sharac <Sharac.Timothy@epa.gov>; Trisha Curran <Curran.Trisha@epa.gov>; Tufts, Jenia <Tufts.Jenia@epa.gov>; Zachary, Adam <zachary.adam@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

OK

I've received a number of issues/concerns as well as positive responses concerning the memo I put out on Friday. I've just set up a call this Thursday to have a discussion on this.

NOTE- Initial correspondence on a number of these memos have gone out to the original listing Lew Weinstock and Liz Naess had on their 4/13 email. This has had an effect of disrupting QA communication to some of you that are on the Regional QA Contacts list. In order to better communicate with all that might be involved in these issues, I have included the Regional QA Contacts on this email. The Thursday call has been set up for the personnel on the listing of Chris Halls email below but others are welcome to join. (Thursday 11:00 Eastern 919-541-4154)

First. I had not planned to introduce this flagging /concurrence process at this time but based on some comments from the monitoring organizations on the NACAA call and their interest in the idea, I thought I'd send it out as a concept. My idea was to work with the Regions and adopt something for the future. We are going to have to address critical criteria

compelling evidence in a consistent manner. Just as we've come up with a consistent certification process in AQS, I think we need to use AQS to help document a consistent data validity process if critical criteria fail.

Some have concerns about implementation of this process for the current design value period. **We were not expecting that we'd try to implement this process for this time period**. We are starting to get documentation in from States who are moving forward with data invalidations as well as providing compelling reason to keep valid data. R6 and Oklahoma have done a great job of documenting there data quality issues. They had failures and admitted them and invalidated data and they had compelling evidence to keep some data. I've posted this information to the QA SharePoint as well as the R10 information from Alaska. I'll be posting Region 6 response when it is official.

I think for this process we just need documentation from each Region (on the Phase 1 sites) on whether or not they concur with what was invalidated and what is considered valid (based on compelling evidence) form each state that has some issues.

For the call Thursday- I was out yesterday so I'm catching up on emails and I'll try to summarize what I've seen so far. I'd like to get all regions to respond to the process and then take it from there on the call. If someone from you Region can't make the call please try to respond by an email with a consolidated response. We are going to have to respond to the OIG with some form of corrective action on this issue and I think the flagging is a viable option.

Lastly … just cause I can't stop, below comes from the 1985 Redbook. Back then we (I was not there but the big we) did not have precision check but the data for a failure of a zero and span was invalidated. This is common sense QA and it's been institutionalized (at least since 1985). Our guidance moves from a DQO to MQO and we all know that good monitoring organizations check their zero/spans/precision checks after they are run and take swift corrective action when needed. Thats why 72% of the monitoring agencies did not fail a QC check over a 3 year period and another 21% only had 1-3 failures in that time period. So while we are concerned over the data represented by less than 1% of the checks that are over 7%, we should all remember we have a system that works and that this acceptance limit can be achieved if folks pay attention to the data.

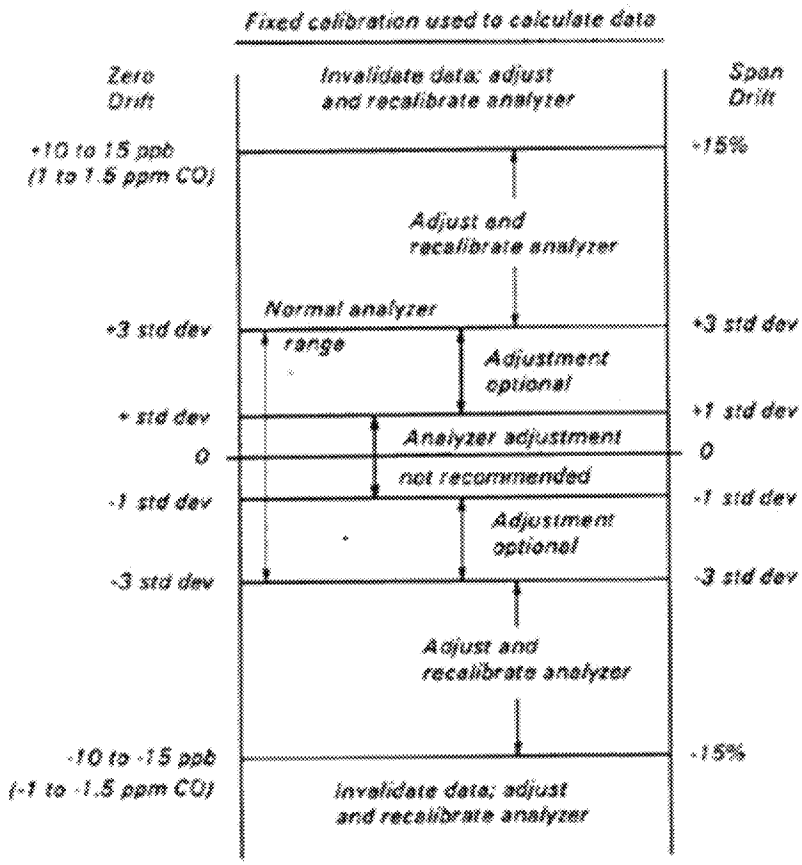

Figure 3-2. Suggested zero and span drift limits when the calibration used to calculate measurements is updated at each zero/span calibration (upper) and when a fixed calibration is used to calculate measurements (lower).

From: Hall, Chris
Sent: Monday, April 24, 2017 1:28 PM
To: Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <Mebust.Anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Mike/Lew,
I would like to echo the concerns and comments from both Michael and Gwen in R9. Though I do like the idea of monitoring agencies providing brief documentation in AQS for data which is tied to a failing QC check but which the monitoring agency believes should still be kept, I agree with Gwen that it would be more appropriate and less burdensome to have steps 3 and 4 tied to the annual data

certification process rather than it be a separate stand-alone process. We are performing QC review and approving data on a monitor-by-monitor basis every May and this can easily be folded into the process (if it is not already inherent to it now).

And as with Michael/R9 I am not comfortable with enforcing guidance unless it has been incorporated into a monitoring agencies QAPP and/or SOPs.

Chris

From: YOSHIMURA, GWEN
Sent: Friday, April 21, 2017 1:44 PM
To: Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <Mebust.Anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>
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To just add briefly to Michael's comments –

I think most of our agencies really appreciate AQS flagging guidance, so we might get a very positive response to having steps 1 and 2 as recommendations. Allowing states the opportunity to comment and discuss process/timing seems important as well, as Michael suggests.

Step 3 seems more appropriately handled outside of AQS (for example, seems appropriate for any such flags to be discussed in the annual data certification letter). Step 4 also seems like it is already inherently a part of data certification and that a separate EPA regional concurrence is unnecessary (a resource burden for us, and something the states may take issue with).

Thanks,
Gwen

Gwen M. Yoshimura
Air Quality Analysis Office
Environmental Protection Agency, Region 9
Phone: 415.947.4134
Email: yoshimura.gwen@epa.gov

mailing address:
U.S. Environmental Protection Agency
Air Quality Analysis Office (AIR-7)
75 Hawthorne Street
San Francisco, CA 94105

From: Flagg, MichaelA
Sent: Friday, April 21, 2017 1:01 PM

To: Verhalen, Frances <verhalen.frances@epa.gov>; Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>; YOSHIMURA, GWEN <Yoshimura.Gwen@epa.gov>; Williams, Jennifer <Williams.Jennifer@epa.gov>; CHANG, RANDALL <Chang.Randall@epa.gov>; Vallano, Dena <Vallano.Dena@epa.gov>; Mebust, Anna <Mebust.Anna@epa.gov>; Kurpius, Meredith <Kurpius.Meredith@epa.gov>; Skinner-Thompson, Jonathan <Skinner-Thompson.Jonathan@epa.gov>; Plate, Mathew <Plate.Mathew@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Mike – a few concerns some process questions.

I think we echo the workload concern expressed by R6 and have issues with steps 3 and 4.

Generally, I think we agree that keeping in the "failed" checks and flagging the data in some way is a good ***recommendation***, but using these flags and EPA concurrence to dictate whether a dataset is "valid for regulatory use" fundamentally changes the way our states validate data and alters EPA's role in the data collection process and how we judge whether data is acceptable for regulatory use.

Again, the concern is that these decisions are driven by guidance and not grounded in regulation. A single failed check does NOT mean the data are "bad" or can't be used for NAAQS decisions… this is firmly grounded in the CFR. This process implies that if data not meeting guidance criteria are not flagged in AQS appropriately and not concurred on by EPA, the data can't be used? This oddly shifts the decision to use or not use data to whether or not a procedural (non-technical) recommendation has been met.

Also, this is an extremely slippery slope that suggests data validation should now be handled in AQS to accommodate concerns about not meeting criteria in EPA guidance documents. Also by moving "final" validation or concurrence to EPA reverses long standing roles on who is responsible for the quality of the data. EPA is not well positioned to judge the validity of the data on a description in AQS (or otherwise). This is exactly why the states are responsible for validation, have a QA system, or a QA officer.

On a high level, shifting ultimate decision making to AQS/EPA for ALL 1-point check validity has the potential to undermine the entire QA system.

We already have CFR requirements for appropriate oversight mechanisms (ANPs, QAPPs, and TSAs) used to determine whether agencies are meeting CFR requirements and following EPA guidance. This seems to be adding unnecessary and burdensome steps to the state's and EPA's responsibilities.

Final process question. I imagine our states would like a chance to comment on this, as it has policy, process, and workload implications for them…

Is there a plan to share this in draft form with the states?

From: Verhalen, Frances
Sent: Friday, April 21, 2017 12:03 PM
To: Papp, Michael <Papp.Michael@epa.gov>; Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd

<Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>; Lau, Gavin <Lau.Gavin@epa.gov>; Sather, Mark <sather.mark@epa.gov>; Curran, Trisha <Curran.Trisha@epa.gov>
Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Mike, the memo looks good.

R6 has one concern for item #4 in that we anticipate an added workload for regional staff on the concurrence flagging for the 1/V flags.

Frances Verhalen, P.E., Chief
Air Monitoring/Grants Section
US Environmental Protection Agency
1445 Ross Avenue (MC 6MM-AM)
Dallas, TX 75202
214-665-2172
verhalen.frances@epa.gov

From: Papp, Michael
Sent: Friday, April 21, 2017 12:17 PM
To: Weinstock, Lewis <Weinstock.Lewis@epa.gov>; Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
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Subject: RE: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues-

Yesterday Lew Weinstock, Liz Naess and I presented the OIG issues on the NACAA call. We had some push back on the call but I thought Lew did a great job of making the monitoring organizations understand the issue. During the call there was a discussion of how to validate some data in which a check failed but the monitoring organization went out and did some "as is" QC check or multi-point verification which proved that the analyzer was operating properly. I mentioned on the call that I had started developing a flagging technique that I initially thought would be something that we would start implementing after we got through this current validation process but it sounded like it might be helpful now for those that might want to use it. The document is attached.

The difference in this procedure is now it seems prudent to allow failed 1-point QC checks to be reported to AQS. This is reversal on my past position that the checks should not be included if the data is also invalidated but we can make AQS disregard these points for assessments with the correct flagging technique while still reporting them.

Please let me know you what you think about the approach. I ran this past Robert Coats and it's doable. I think minimally if some Regions felt they could use it, the data flagged as "V1" by the monitoring orgs would have to have compelling reason documented and concurred with by the Region through either and email or formal memo back to the Regions and archived here. Region 6 received a formal letter by ODEQ which showed what

data they would invalidate and where they had a compelling reason to keep the data. Until we had the full system in AQS working, where you could concur with the AQS data, this would seem acceptable to us.

We may want to have a quick call conference call with the Regions on this technique.

Please send any comment to Lew and I ASAP. If we find this acceptable we could get this out to the monitoring orgs ASAP since they were interested in seeing it.

Thanks and have a good weekend

-----Original Message-----
From: Weinstock, Lewis
Sent: Thursday, April 13, 2017 8:44 AM
To: Judge, Robert <Judge.Robert@epa.gov>; Khan, Mazeeda <Khan.Mazeeda@epa.gov>; Chow, Alice <chow.alice@epa.gov>; Rinck, Todd <Rinck.Todd@epa.gov>; Compher, Michael <compher.michael@epa.gov>; Verhalen, Frances <verhalen.frances@epa.gov>; Davis, Michael <Davis.Michael@epa.gov>; Fallon, Gail <fallon.gail@epa.gov>; Flagg, MichaelA <Flagg.MichaelA@epa.gov>; Hall, Chris <Hall.Christopher@epa.gov>
Cc: Payton, Richard <Payton.Richard@epa.gov>; Brown, Ethan <Brown.Ethan@epa.gov>; Papp, Michael <Papp.Michael@epa.gov>; Wells, Benjamin <Wells.Benjamin@epa.gov>; Naess, Liz <Naess.Liz@epa.gov>; Rice, Joann <Rice.Joann@epa.gov>
Subject: URGENT ACTION – Invalidation of Ozone data in AQS due to QC issues
Importance: High

Good morning:

As you all are aware by now, we have recently identified ambient ozone data in AQS that was reported during periods of time when 1-point QC checks were outside the critical criteria in the QA Handbook and contained in approved monitoring organization QAPP's. We are currently in the middle of the ozone designations process and it is important that we maintain the integrity of that process. It is critical that we base our designations decisions on defensible data for areas both attaining and not attaining the standard. To this end, we believe that the data identified as outside these critical criteria be null coded in AQS so that the underlying design values supporting the designations process are based on valid data. We understand that there is limited time to complete this work due to the tight timelines for designations. Therefore, this process has been divided into two phases as explained below:

Phase 1:
These are high priority monitors whose 2014-2016 design value would change or become incomplete due to the data invalidations. Attached to this message is an Excel table that explicitly lists the monitors and periods of time for when ozone data should be null coded (coded as Phase 1). We ask that you communicate with the affected monitoring organizations to ensure that these data are invalidated in AQS no later than May 1, 2017 (we will be doing our design value pull from AQS on the morning of May 2). Luckily this first phase only affects about 80 monitors, as some states have already begun invalidating their data.

Phase 2:
The list of the remaining monitors that will have similar data invalidation actions are coded as Phase 2 in the Excel table. These monitors have a less immediate impact on designations so are being included in the Phase 2 action. We recognize that this phase affects a larger number of monitors, therefore we are providing more time to invalidate this data. Please work with your monitoring organizations to complete this exercise by August 1, 2017.

Additional details on the Excel table: The attachment contains three tabs: (1) Data Invalidations – which contains specific information for the data invalidation, (2) 2014-2016 Design Values – design values before and after ("a" added to column heading) data invalidations, and (3) Failed QC Checks – details on the actual QC checks. Please contact Liz Naess

(Ben Wells is out of the office until 4/24/17) or Mike Papp with questions on the data retrieval (Liz/Ben) or associated QA issues (Mike).

For additional background information on this quality assurance issue, please refer to the attached memo entitled "Ozone 1-point QC Check Data Quality Evaluation and Next Steps".

We will be checking in periodically during our monthly conference calls to answer any questions and assess progress on this action. Thank you for your prompt attention to this matter.

Lewis Weinstock (Ambient Air Monitoring Group and Liz Naess (Air Quality Analysis Group)

Air Quality Assessment Division - Mail Code C304-06 | Office of Air Quality Planning & Standards | U.S. Environmental Protection Agency | Research Triangle Park, NC 27711 |