From: KAUTH Dave
To: WESTERSUND Joe; GARRAHAN Paul; FELDON Leah; DAVIS George; GRUNOW Greg
Cc: PALERMO Jaclyn; JOHNSON Keith; artglass2016
Subject: RE: summary of baghouse leak detection meeting
Date: Tuesday, August 09, 2016 4:48:39 PM

- Currently BE is monitoring drop manually and electronically. I'm not completely sure how records are maintained at this point, but they submit the daily BH records daily (Daily records submittal is not in the permit or MAO, but just an agreement with BE, and may change at any time). They are not likely to shut down in the middle of a melt (roughly 16 hour process), but would idle the furnace at the end of a melt if there were a control device problem. BLDS would not likely speed-up the idling process since it takes a certain amount of time to get to the end of a melt.
- The pressure drop and temperature monitoring are what they are doing to ensure proper operation and not burn up the control device, it is not required by their permit since the permit doesn't include or require the control device.
- Title V cannot approve construction or create any new requirements that are not in rule or construction permits. However, monitoring is a source specific requirement and can be adjusted as needed to ensure compliance. As you state, the rule says monitor "at least daily", that creates a floor, not a ceiling.

From: WESTERSUND Joe
Sent: Tuesday, August 09, 2016 4:16 PM
To: KAUTH Dave; GARRAHAN Paul; FELDON Leah; DAVIS George; GRUNOW Greg
Cc: PALERMO Jaclyn; JOHNSON Keith; artglass2016
Subject: RE: summary of baghouse leak detection meeting

Hi Dave,

That's good info- I didn't know that.

- What kind of system does BE have in place for monitoring / responding to BH pressure drop? Manual vs computerized? Alerts, auto-shutoff?
- Is BE's stepped-up pressure drop monitoring required in their current permit or elsewhere?
  - What I see in the temp rule is the requirement for differential pressure check 'at least daily' [OAR 340-244-9080(2)(a)). I didn't see a mention of pressure drop in the current BE permit.
- My lay person's understanding of Title V is that it can't add new requirements, it just assembles all existing air requirements in one place. Am I incorrect about that- can DEQ add a requirement for increased monitoring, over and above what is required in rule or statute?

-Joe

From: KAUTH Dave
Sent: Tuesday, August 09, 2016 3:27 PM
To: WESTERSUND Joe <WESTERSUND.Joe@deq.state.or.us>; GARRAHAN Paul <Paul.GARRAHAN@state.or.us>; FELDON Leah <FELDON.Leah@deq.state.or.us>; DAVIS George

<DAVIS.George@deq.state.or.us>; GRUNOW Greg <GRUNOW.Greg@deq.state.or.us>
Cc: PALERMO Jaclyn <PALERMO.Jaclyn@deq.state.or.us>; JOHNSON Keith <JOHNSON.Keith@deq.state.or.us>; artglass2016 <artglass2016@deq.state.or.us>
Subject: RE: summary of baghouse leak detection meeting

Joe,
A couple comments/corrections.
Currently only one of the Bullseye furnaces that is being connected to Baghouse west (BHW- currently under construction) may be subject to the 6S emission requirements as a new furnace. This does not address furnaces that are not being connected to BHW, so there may be additional furnaces subject to BLDS requirements under 6S.

Currently Bullseye Glass is monitoring the BH pressure drop multiple times an **hour**, not daily. The permit when it is renewed/converted to Title V could easily require either continuous pressure drop monitoring, or multiple pressure drop checks per day along with visible emission surveys as desired. Reliance on the public notification of visible emissions would not be the trigger for corrective action.

Dave K.

From: WESTERSUND Joe
Sent: Tuesday, August 09, 2016 3:05 PM
To: GARRAHAN Paul; FELDON Leah; DAVIS George; GRUNOW Greg; KAUTH Dave
Cc: PALERMO Jaclyn; JOHNSON Keith; artglass2016
Subject: summary of baghouse leak detection meeting

Hi All,

Thank you for the robust discussion about baghouse leak detection systems (BLDS) today. Since Jaclyn and Keith weren't there, I want to make sure they get a good summary of the pros and cons we came up with. A summary is below- please let me know if I didn't do a good job capturing your key points.

Per Leah, Jaclyn will be the ultimate decider on this issue.

-Joe

Q: Should the art glass rule require baghouse leak detection systems (BLDS)?
Could require for all CAGMs or just for Tier 2. Could allow extra time (1 year?) for install.

Facts:

- NESHAP 6S requires BLDS for new (but not existing) furnaces that are subject to that rule.
- EPA comment recommended we require BLDS
- At decision meeting we decided to require BLDS for Tier 2 CAGMs
- BLDS are faster (response time ~seconds instead of ~day) & more sensitive than current requirement (daily pressure drop check)

- Cost to facility approx. $10k to $25k plus install cost, depending on setup and # of baghouses.
    - Estimate based on response by 1 vendor (Auburn Systems). $2,500 per sensor + $5,000 if no existing data system to plug into. Likely 1-2 sensors per baghouse. Estimate includes hardware + software but not install. I (Joe) requested a cost estimate for install too.
- BLDS calibration does not require a source test

Con:

- BLDS was not included in temp rule or in public notice or fiscal impact analysis
    - Risk: facilities may say they weren't given adequate notice
    - Risk: haven't vetted idea with facilities, it's possible there's some technical incompatibility we don't know about. (We do know NESHAP 6S requires it for larger, new furnaces.)
- Adding BLDS after baghouse constructed may be more expensive than if designing with that in mind. Don't have data though.
- Other Oregon facilities aren't required to have BLDS, do we want to require it for these facilities but no others?
- Has added cost to facilities

Pro:

- Rulemaking process allows DEQ to respond to comments and revise the fiscal impact if needed
- Bullseye has one furnace that is potentially a NESHAP 6S new furnace (depending on whether & how much HAP glass they make in that furnace). So BE may already be required to install BLDS on one of their baghouses.
- CAGMs emit HAPs with short-term health impacts and are located near sensitive populations. Early, better leak detection matters more than in other applications.
    - Risk: bags fail at a Tier 2, emitting a burst of metal HAP into the neighborhood. It isn't caught until neighbors complain of visible emissions or the next daily pressure check. DEQ has to explain why it didn't follow EPA's advice.
- Added cost to facility may be offset since we're simplifying baghouse source test requirement.

Joe Westersund
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Usual Schedule: 8am - 5pm, M-F