From: Reynolds, Ron E.
To: McWade, Tammy
Cc: Galler, Wayne J.; Vest, Margaret M.
Subject: RE: GP Palatka - Drawing of Drum Filter system
Date: Thursday, May 23, 2013 4:48:02 PM

Tammy,

Below is the email provided by the vendor estimating, but not guaranteeing, emissions levels for the drum filter system through the MERV 14 filter stage. We judged the estimates to be overly optimistic for a couple of reasons: 1) they are theoretical efficiencies based on spherical particles and not tissue dust, and 2) actual testing of a similar Osprey drum filter unit at another GP mill which yielded emissions < 0.001 grains/dscf, but not the equivalent 0.00005 grains/dscf that would result from the vendor estimates below. We determined the 0.003 grains/dscf level as a conservative estimate of potential emissions that the system should easily achieve but will still be a reduction from the previous PTE estimate.

Let me know of any questions or concerns.

Thanks,

Ron Reynolds
Office 386-329-0967
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From: Drew White [mailto:Drew.White@ospreyfilters.com]
Sent: Tuesday, April 09, 2013 2:27 PM
To: Galler, Wayne J.; Martin Price
Cc: Todd Dietz; Reynolds, Ron E.; Garris, Gregory S.; Antoine, Melissa K.; Bailey, Scott K. (GP)
Subject: RE: Particulate Matter Emissions Data

Wayne,

-187.5 lbs/hr of total dust ducted to the drum filter systems.
-PM filterable fraction of the total dust entering the drum filtering system is estimated to be 187.5 lbs/hr (particles greater than 10 microns in size)
-PM_{10} filterable fraction of the total dust entering the drum filtering system is estimated to be 10 % of the total PM filterable, or 18.75 lbs/hr
-$PM_{2.5}$ filterable fraction of the total dust entering the drum filtering system is estimated to be 0.6% of the total PM filterable, or 1.125 lbs/hr.

-Three filters operating at 70,000 CFM each
-Each drum filter is three stages, with the last stage being the MERV 14 cassette filter
-ASHRAE 52.2 data used as the efficiency of each filter stage

Our best estimate for filter emissions is as follows:
99.95% removal of the PM filterable fractions of dust entering the drum filter system

99.9% removal of the PM_{10} filterable fractions of dust entering the drum filter system

98.6% removal of the $PM_{2.5}$ filterable fractions of dust entering the drum filter system

This would result in:

0.094 lbs/hr of the filterable PM emissions

0.019 lbs/hr of the filterable PM_{10} emissions

0.016 lbs/hr of filterable $PM_{2.5}$ emissions

This takes into account the combined efficiency of all three filter stages.

Best regards,

Drew White

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