From:	Paul Wade
To:	Tumpane, Kyle
Cc:	Stonesifer, Jeff W.; Munoz-Dyer, Carina G.; joseph@starpaving.com
Subject:	Re: [EXTERNAL] Star Paving 3448 HMASTK Parameter Question
Date:	Wednesday, January 26, 2022 3:28:17 PM
Attachments:	image003.png Astec Baghouse.pdf

Kyle
The correct height is 21.31 feet for the HMA stack and 14 feet for the HMA asphalt heater. The HMA stack velocity (73.49 fps) is based on a stack diameter of 4.1959 feet and a CFM of the baghouse of 60,975 ACFM. I have attached the Astec document that discusses the baghouse. If you need me to email you a corrected CIA NO2 annual and SO2 1 hour models please let me know.

Please let me know if you have any questions or concerns.

Thanks

On Wed, Jan 26, 2022 at 2:14 PM Tumpane, Kyle <ktumpane@cabq.gov> wrote:

> Paul,
>
> I have run into a question that needs to be resolved before I can continue with the modeling review of Star Paving application #3448.
>
> Unit HMASTK has different stack velocity and stack diameter parameters in the CIA annual NO_2 and 1-hour SO_2 models than in the ROI Combust, CIA 1-hour NO_2 and all the PM models. The values in the CIA annual NO_2 and 1-hour SO_2 models also do not match the Stack Parameters Table in the application or the modeling report Table 5.
>
> I noticed this during the preliminary completeness review and had planned to make the simple changes in the CIA annual NO_2 and 1-hour SO_2 models so that the values matched everywhere because it would not take long, however additional thinking and checking in BEEST revealed that it appears impossible to get the stack velocity (73.49 fps) listed in most places for HMASTK with the given stack flow rate (75,000 acfm) and stack diameter (4.196 ft). With the given 75,000 acfm stack flow rate and the 4.61 ft diameter listed in the 1-hour SO_2 and annual NO_2 models, you get 74.89 fps, which is what these two models have for stack velocity. The question is, where did the 75,000 acfm stack flow rate value come from? I could not find it mentioned or calculated anywhere in the application package. And also, what are the correct values for stack flow rate, stack velocity and stack diameter for Unit HMASTK? This may seem like a small difference but we need the values need to be consistent and correct throughout the application documents and modeling files.

> There are also stack height differences of HMASTK and HMAHEAT in the CIA annual NO_2 and 1-hour SO_2 models compared to everywhere else. These two models have 23.19 ft and 9 ft, respectively, as the heights for these two units. In all other places the heights are 21.31 ft and 14 ft, respectively. Can you confirm the correct heights?
>
> Thank you,
>
> Kyle
>
> **KYLE TUMPANE**
>
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