

**From:** Keith.McGregor@CH2M.com

**Sent:** Wednesday, September 30, 2009 5:32 PM

**To:** Madhav Patil

**Cc:** b.buchynsky@dgc-us.com; Jerry.Salamy@CH2M.com; Doug.Urry@CH2M.com

**Subject:** MEP: Requested Startup Info

Hello Madhav,

Attached are the startup and shutdown curves used to estimate the emissions for the Mariposa Energy Project. The emission calculation methodology used to calculate the event totals is as follows (NOx is used as an example but the other pollutants would use a similar approach):

NOx:  $3.5 \text{ lb/start} + (20 \text{ minutes of warm up period for the SCR/Ox Cat after turbine startup} * 0.733 \text{ lb/min emission rate of NOx without SCR}) = 18.2 \text{ lb/event}$ . As discussed, this will result in a conservative estimate of the startup emissions because the control efficiency of the SCR and Ox Cat will likely be increasing during the 20 minutes of warm-up. This approach was chosen to develop an envelope that would allow for some operating flexibility during the startup and shutdown periods and also provides a conservative estimate of the ambient air quality impacts associated with the project.

Please let me if there are any additional questions regarding the calculation approach for the startup and shutdown emissions.

Thank you  
Keith

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**From:** Madhav Patil [mailto:MPatil@baaqmd.gov]

**Sent:** Tuesday, September 29, 2009 2:08 PM

**To:** McGregor, Keith/SAC

**Subject:** RE: Startup Info

Hi Keith,

I think I would also like to touch the basis for the startup and shutdown time. You are suggesting that its base on the client data from existing LM 6000 plant. So could you please forward that plant data so I can take look at those too. Also I like to know where you got this NOx CO and VOC numbers 18.2 lb/event, 25.3 lb/event and 2.2 lb/event respectively on startup and shut down calculations.

Madhav