

**From:** Keith.McGregor@CH2M.com  
**Sent:** Monday, April 26, 2010 9:26 AM  
**To:** Madhav Patil  
**Cc:** Jerry.Salamy@CH2M.com  
**Subject:** RE: Startup/Shutdown Emissions  
Good Morning Madhav,

- 1.) The startup and shutdown lb/event values are based on a combination of the attached GE startup curves and engineering estimates for the amount of time it would take for the SCR/oxidation catalyst to achieve optimal performance. (see attached - LM6000 PC Sprint Startup Curve.pdf and LM6000 PC Sprint Shutdown Curve.pdf)
- 2.) The maximum startup and shutdown are based on calculations and assumptions described in the January 2010 submittal (see attached - MEP Startup Shutdown Assumptions 01 27-2010.pdf).
- 3.) The project will have startup and shutdown SO<sub>2</sub> and PM<sub>10</sub> emissions. The SO<sub>2</sub>/PM<sub>10</sub> startup/shutdown emission rates would not exceed the maximum emission rate proposed for the normal operating mode at 100% load . (Note: the annual and daily SO<sub>2</sub> and PM<sub>10</sub> emission totals included in the January 2010 submittal also include the startup/shutdown emission estimates) .
- 4.) The maximum emission rates would match the BACT levels established for SO<sub>2</sub> and PM<sub>10</sub>. For periods less than an hour (e.g., for a 30 minute startup event), the emission rates would be adjusted linearly (i.e., 30 minutes would equal 50% of the hourly emission rate.)

Please let me know if you have additional questions.

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**From:** Madhav Patil [mailto:MPatil@baaqmd.gov]  
**Sent:** Friday, April 23, 2010 10:37 AM  
**To:** McGregor, Keith/SAC  
**Subject:** Startup/Shutdown Emissions

Hi Keith Good Morning,

I would like to know about the startup and shut down emissions.

- 1) How you got those numbers for Start up and Shut down in lb/event/turbine and in lb/hr/turbine are those numbers from Vendor?
- 2) And how you got those Maximum Hourly Startup/Shutdown Emissions are those from Vendor too?
- 3) Why project don't have Startup/Shutdown SO<sub>2</sub> and PM<sub>10</sub> lb/event/turbine emissions?

4) If they are calculated than please send me the calculations

Thanks,

Madhav

