

## DOCKETED

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**From:** [Fletcher, Nancy@Energy](mailto:Fletcher.Nancy@Energy)  
**To:** [Rundquist, Dale@Energy](mailto:Rundquist.Dale@Energy)  
**Subject:** FW: Magnolia Amendments  
**Date:** Thursday, April 20, 2017 11:23:17 AM  
**Attachments:** [image001.gif](#)

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To Docket

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**From:** Chris Perri [<mailto:CPerri@aqmd.gov>]  
**Sent:** Tuesday, October 18, 2016 10:42 AM  
**To:** Fletcher, Nancy@Energy  
**Subject:** RE: Magnolia Amendments

Hi Nancy,

See below for my responses.

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**From:** Fletcher, Nancy@Energy [<mailto:Nancy.Fletcher@energy.ca.gov>]  
**Sent:** Tuesday, October 18, 2016 9:31 AM  
**To:** Chris Perri <[CPerri@aqmd.gov](mailto:CPerri@aqmd.gov)>  
**Subject:** Magnolia Amendments

Hello Chris,

Thank you for discussing some of the question I had regarding the Magnolia amendment. To recap:

What is the basis of the revised emission rates for startups? The NOx increased quite a bit. The CO looks as if 4 hours of start time was still assumed, but the VOC is only around 3 hours. The 2007 evaluation discusses the longer time needed to reach BACT limit but I did not see details on any NOx rate increase or changes to the VOC rate. I had the following in the decision:

<b>Decision</b>	<b>NOx</b>	<b>CO</b>	<b>VOC</b>	<b>SOx</b>	<b>PM10</b>
Cold Start (lbs/hr)	36.25	125.0	10.0	<b>1.31</b>	12.0
Warm Start (lbs/hr)	42.86	142.86	9.52	<b>1.31</b>	12.0
Hot Start (lbs/hr)	33.33	190.0	13.33	<b>1.31</b>	12.0

And the 2007 amendment used the following:

<b>Turbine Startup</b>	<b>NOx</b>	<b>CO</b>	<b>VOC</b>	<b>SOx</b>	<b>PM10</b>
Turbine Start (lbs/event) <sup>a</sup>	440	500	30.0	1.28 * 6	11.79 * 6

<sup>a</sup> SCAQMD 2007 assumed 6 hour per startup event

The applicant provided data on 11 start up events, including duration and emissions. They then took a subset of these 11 starts and came up with average NOx (440 lbs), average CO (486 lbs), and average duration (6.67 hours). We agreed to give them a permit limit of NOx 440 lbs/start, and a start up duration of 6 hours/start and used CO 500 lbs/start in our calculations. They also calculated a VOC emission factor from the data, but it's not clear how they came up with the 30 lbs/event for VOC from the data, and our evaluation does not explain it either. Their spreadsheet is attached (A/N 464716 page 177).

Also the 2007 amendment included the following emission calculations. The NOx 30-day average in the evaluation does not make sense to me. Could you please explain?

<b>SCAQMD 2007</b>	<b>NOx</b>	<b>CO</b>	<b>VOC</b>	<b>SOx</b>	<b>PM10</b>
Gas Turbine (lbs/hr)	13.18	8.02	4.58	1.28	11.79
Duct Burner (lbs/hr)	4.30	2.62	1.50	0.42	4.43
30-Day Average Original	1,940(?)	266	<b>121</b>	35	336
30-Day Average Proposed	383	266.7	121.7	34	312
Monthly Pre-2007 (lbs/month)	10,454 <sup>a</sup>	<b>7,988</b>	<b>3,636</b>	1,039	10,080
Monthly 2007 (lbs/month)	11,484	8,001	3,650	<b>1,006</b>	<b>9,375</b>
Annual (lbs/year)	137,808	96,012	43,800	12,072	112,500

It looks like the 1,940 number is a mistake. Although technically we don't calculate a 30 day average for NOx, since it is a RECLAIM pollutant and offsets are based on annual emissions, I was able to find a 30 day average calculation in the original application which shows an emission rate of about 391 lbs/day. The spreadsheet is attached (A/N 386305 page 265).

Could I also get the full 2016 evaluation? I am missing some pages of the evaluation and I need to understand the change in RECLAIM requirements, the PTE used for offset calculations for VOC and the pre-modification annual emissions.

The file is attached.

Thank you!

No problem. Let me know if you have any further questions,

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