

## **EXHIBIT 2**

## Romaine, Chris

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From: Will, Matt  
Sent: Wednesday, December 29, 2010 4:56 PM  
To: Romaine, Chris  
Subject: Responses to Mississippi Lime Comments Part II

Responses Sierra Club's comments

### 1. Modeling ownership

LEPA audits modeling provided by the environmental consultant. It doesn't provide the modeling or originate the air quality analysis.

### 2. Emission Rates

For each kiln, this is the rate that was modeled for the NAAQS modeling.

NOx = 175lb/hr, 22.05 g/s

SO2 = 32.35lb/hr, 4.076 g/s

PM2.5 = 8.75 lb/hr, 1.10 g/s

For start-up, a variety of emission rates for each pollutant were used and confirmed from the documentation in the text of the report that accompanied the modeling files.

### 3. Confusion with documentation

In June preliminary results were submitted, however, one hour NO2 and SO2 final results were submitted on July 2<sup>nd</sup> and 26<sup>th</sup>, for NO2 and SO2 respectively.

### 4. Start-up issues

The commenter states that only one kiln at a time was considered for modeling start-up. It was assumed that only one kiln could be started up at a time and that two kilns being started up simultaneously would not be possible. Characteristically, modeling for this kind of scenario considers impacts caused by PSD permit source by itself since impacts will be in immediate proximity to the source.

## 5. Significant Impact Level (SIL)

It was agreed that 9 ug/m<sup>3</sup> would be the SIL for NO<sub>2</sub> before the SIL was set at 7.52 ug/m<sup>3</sup> by USEPA on June 29<sup>th</sup>, 2010. This value was extrapolated from the significant impact level used typically for time 24 hour averaging time for pollutants having 5ug/m<sup>3</sup> as their level. Similarly, the significant impact level for one hour SO<sub>2</sub> was derived that way. Audit runs for the culpability analysis for NO<sub>2</sub> indicate that exceedances of the one hour NAAQS for NO<sub>2</sub>, do not occur where the contributions of NO<sub>2</sub> from the Mississippi Lime kilns make a significant impact under the new NO<sub>2</sub> SIL of 7.52 ug/m<sup>3</sup>.

I don't know where the 3 ug/m<sup>3</sup> for SO<sub>2</sub> that the Sierra Club cites comes from but 7.85 ug/m<sup>3</sup> was for the SIL for SO<sub>2</sub> was set on August 23, 2010, after the modeling for SO<sub>2</sub> had been submitted. The 3 ug/m<sup>3</sup> might be confused with 3ppb which is equivalent to 7.85 ug/m<sup>3</sup>. Previous to August 23<sup>rd</sup>, the SIL had not been officially set for SO<sub>2</sub> and the consultant assumed all receptors were significant in the modeling for SO<sub>2</sub>. Audit runs for the culpability analysis for SO<sub>2</sub> indicate that exceedances of the one hour NAAQS for SO<sub>2</sub>, do not occur where the contributions of SO<sub>2</sub> from the Mississippi Lime Kilns make a significant impact under the new SO<sub>2</sub> SIL of 7.85 ug/m<sup>3</sup>.

## 5. Malfunction

The consultant used stack parameters consistent with a malfunction scenario for malfunction/breakdown modeling. Using SCREEN3 the impacts were not as great as with the normal operation scenario for SO<sub>2</sub> using normal stack parameters with AERMOD. I don't see any inconsistencies with this observation. SCREEN3 gives more conservative results than AERMOD. Emissions from the kilns were also lower during malfunction.