## APPENDIX B

Mr. Cordes,

Louisville Gas & Electric (LG&E) Trimble County Generating Station's variation in $SO_2$ emissions is largely attributed to an increase in utilization. Due to retirements of units in the LG&E and KU Energy (LKE) fleet, we are shifting our generation to newer units within our fleet. Individual unit utilization varies annually based on electricity usage rates, fuel costs, planned outages, etc. Planned outages for compliance with new or revised regulations requiring installation of new equipment such as emission controls and dry ash handling systems has increased utilization to displace the loss of generation from other units within the fleet during this time period. Trimble County Unit 1 has seen the largest increase in utilization since Trimble County Unit 2 is historically a base load unit.

In addition, the submitted modeling results also included contributions from the LKE Ghent Generating Station. In the time periods specified below, the Ghent $SO_2$ emissions decreased by 28.8%. Combining emissions from both LKE sources, data shows there is a 19.34% decrease in $SO_2$ emissions from the LKE sources when comparing the 2012-2014 modeled time period to the 2017-2019 time period. Thus, further validating the modeled results in demonstrating attainment with the 1 hr $SO_2$ NAAQS.

| Source | Modeled Years (tpy) | | | Subsequent Years (tpy) | | |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2017 | 2018 | 2019 |
| KU - Ghent | 10772.4 | 13421.9 | 14851.2 | 8633.6 | 10620.9 | 8544.8 |

| Source | Average 2012-2014 (tpy) | Average 2017-2019 (tpy) | Average Percent Change |
|---|---|---|---|
| KU – Ghent | 13015.17 | 9266.43 | -28.80% |

| Source | Modeled Years (tpy) | | | Subsequent Years (tpy) | | |
|---|---|---|---|---|---|---|
| | 2012 | 2013 | 2014 | 2017 | 2018 | 2019 |
| Ghent & Trimble | 13668.23 | 16943.29 | 17907.4 | 11995.75 | 14629.25 | 12511.69 |

| Source | Average 2012-2014 (tpy) | Average 2017-2019 (tpy) | Average Percent Change |
|---|---|---|---|
| Ghent & Trimble | 16172.97 | 13045.56 | -19.34% |

**Brandan Burfict**