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August 26, 2016

Ms. Lori Simmons Arkansas Department of Health 4815 West Markham Street Little Rock, Arkansas 72205 Via email Lori.Simmons@arkansas.gov

## Re: Georgia-Pacific, Crossett Mill - Biweekly Air Monitoring Report for Hydrogen Sulfide

Dear Ms. Simmons,

Following is the biweekly data summary for the Georgia-Pacific (GP) hydrogen sulfide (H<sub>2</sub>S) and meteorological monitoring program, at the GP Crossett mill, covering the calendar period of June 15<sup>th</sup> through June 28<sup>th</sup>. Please note, this is a revised report, superseding the report originally issued on July 7, 2016. Ambient H<sub>2</sub>S concentrations in this report have been revised for zero-drift of the analyzer. Correction for drift ranged from 1.0 to 2.6 ppb. Weekly zero checks drifted upwards beginning in late May. The instrument was operating within EPA guidelines, and this adjustment does not significantly impact results previously reported. TRC feels that this adjustment was necessary to report data as accurately as possible as this is an important monitoring program.

## **Summary of Results**

Included in this report are three plots presenting H<sub>2</sub>S concentrations calculated with varied rolling average periods (30-minute, 8-hour, and 24-hour). Please note, observed H<sub>2</sub>S concentrations were elevated on June 26<sup>th</sup>. The highest recorded 30-min and 8-hour rolling average concentrations on the 26<sup>th</sup> were 83.6 ppb and 33.3 ppb, respectively.

Also included in this report is a summary of results from the daily 1-point QC checks performed during this biweekly period. The QAPP establishes goals for precision and bias as a coefficient of variation (CV) <10% and  $\pm$  10%, respectively. Precision and bias are calculated in accordance with 40 CFR Part 58 Appendix A, Section 4.1.

There were no occurrences of data loss during this two week period, other than those resulting from automated daily 1-point QC and weekly calibration checks. Results for all available automated daily 1-point QC checks fall within the acceptable range, indicating the H<sub>2</sub>S monitor was operating in accordance with the QAPP.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the



final table. All met parameters have 100% data capture for this report period.

Please feel free to contact me if you have any questions or need any additional data.

Sincerely,

Jonathan Bowser

2 Pomes

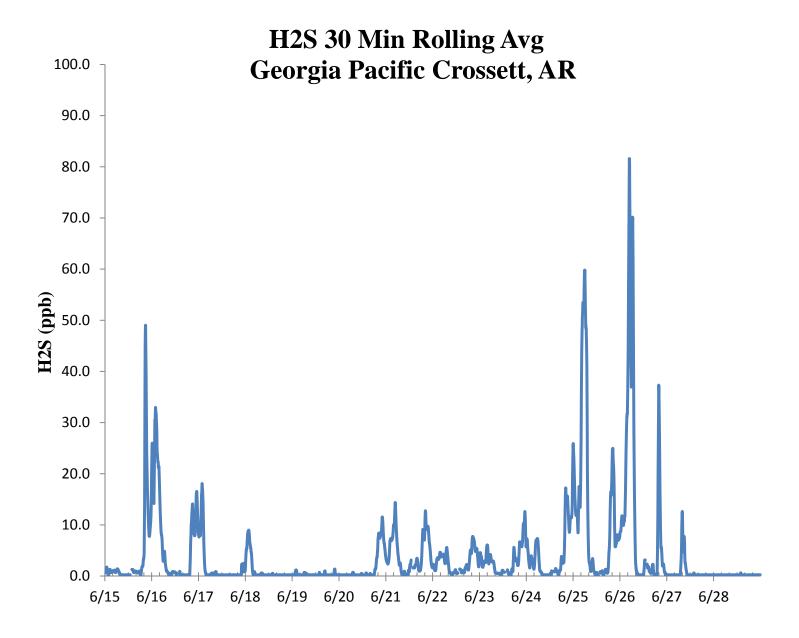
Manager, Air Quality and Meteorological Monitoring

Air Measurements – Gainesville Office 6312 NW 18th Drive, Suite 100 Gainesville, Florida 32653 (352) 260-1162

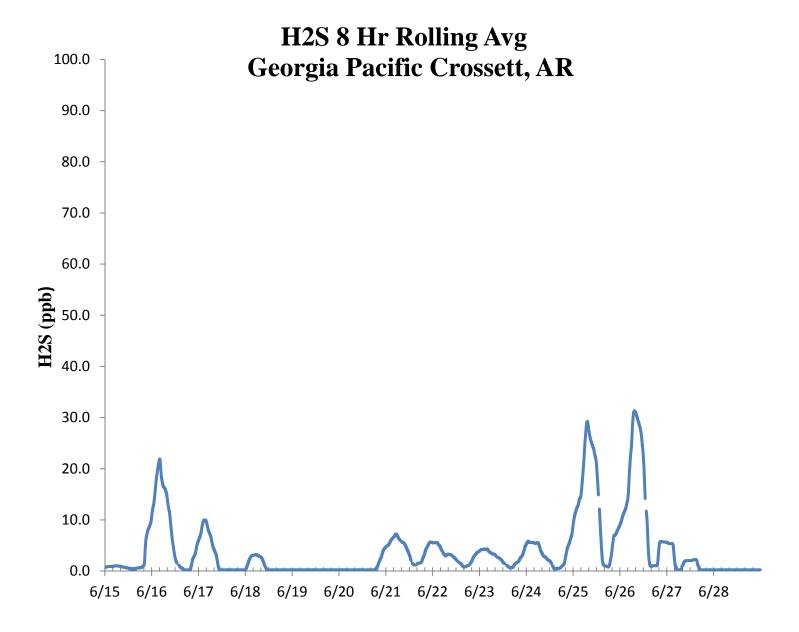
Email: jbowser@trcsolutions.com

CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us Kara Allen, Environmental Engineer, USEPA Region 6 via email <u>Allen.Kara@epa.gov</u>

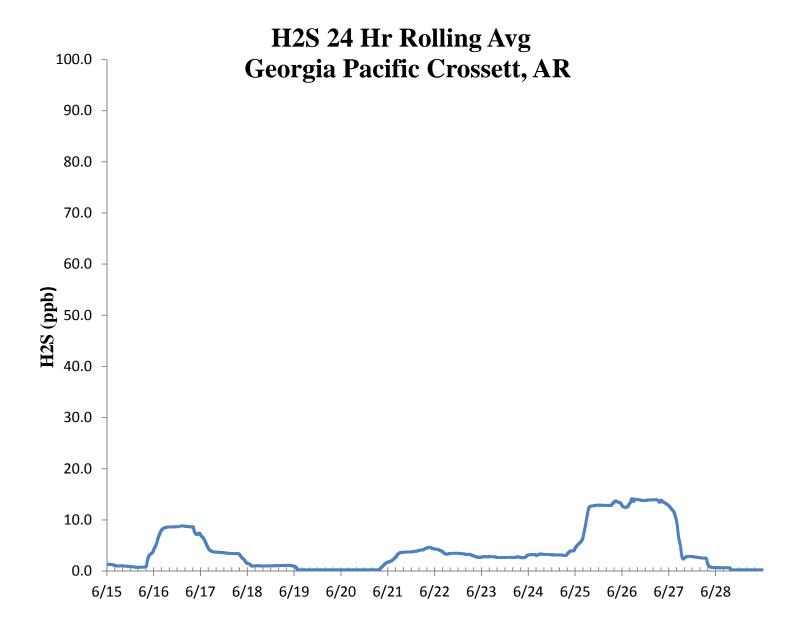














|                 |                |               |                                  |                 | $H_2S$ | Asse  | ssment              | ;   |                      |                 |                       |                    |
|-----------------|----------------|---------------|----------------------------------|-----------------|--------|-------|---------------------|-----|----------------------|-----------------|-----------------------|--------------------|
| GF              | - Crossett, AR |               | Pollutant type: H <sub>2</sub> S |                 |        |       |                     |     | CV <sub>ub</sub> (%) |                 | Bias (%)              |                    |
| Date            | Meas Val (Y)   | Audit Val (X) | d (Eqn. 1)                       | 25th Percentile | d²     | d     | d  <sup>2</sup>     |     |                      |                 |                       |                    |
| 6/15/2016 13:00 | 71.0           | 70.0          | 1.4                              | 1.786           | 2.041  | 1.429 | 2.041               |     |                      |                 |                       |                    |
| 6/16/2016 13:00 | 71.2           | 70.0          | 1.7                              | 75th Percentile | 2.939  | 1.714 | 2.939               | n   | S <sub>d</sub>       | S <sub>d2</sub> | ∑ d                   | "AB" (Eqn 4)       |
| 6/17/2016 13:00 | 70.9           | 70.0          | 1.3                              | 2.536           | 1.653  | 1.286 | 1.653               | 14  | 0.474                | 1.943           | 29.429                | 2.1                |
| 6/18/2016 13:00 | 71.6           | 70.0          | 2.3                              |                 | 5.224  | 2.286 | 5.224               | n-1 | ∑d                   | $\sum d^2$      | $\sum  \mathbf{d} ^2$ | "AS" (Eqn 5)       |
| 5/19/2016 13:00 | 71.4           | 70.0          | 2.0                              |                 | 4.000  | 2.000 | 4.000               | 13  | 29.429               | 64.776          | 64.776                | 0.4                |
| 6/20/2016 13:00 | 71.1           | 70.0          | 1.6                              |                 | 2.469  | 1.571 | 2.469               |     |                      |                 |                       |                    |
| 6/21/2016 13:00 | 71.4           | 70.0          | 2.0                              |                 | 4.000  | 2.000 | 4.000               |     |                      |                 | Bias (%) (Eqn 3)      | Both Signs Positiv |
| 6/22/2016 13:00 | 71.5           | 70.0          | 2.1                              |                 | 4.592  | 2.143 | 4.592               |     |                      |                 | 2.33                  |                    |
| 6/23/2016 13:00 | 71.4           | 70.0          | 2.0                              |                 | 4.000  | 2.000 | 4.000               |     | CV (%) (Eqn 2)       |                 | Signed Bias (%)       | Both Signs Negat   |
| 6/24/2016 13:00 | 71.9           | 70.0          | 2.7                              |                 | 7.367  | 2.714 | 7.367               |     | 0.64                 |                 | +2.33                 | FALSE              |
| 6/25/2016 13:00 | 71.8           | 70.0          | 2.6                              |                 | 6.612  | 2.571 | 6.612               |     |                      |                 |                       |                    |
| 5/26/2016 13:00 | 71.9           | 70.0          | 2.7                              |                 | 7.367  | 2.714 | 7.367               |     | Upper Probabil       | ity Limit       | Lower Probabilit      | y Limit            |
| 6/27/2016 13:00 | 71.8           | 70.0          | 2.6                              |                 | 6.612  | 2.571 | 6.612               |     | 3.03                 |                 | 1.17                  |                    |
| 6/28/2016 13:00 | 71.7           | 70.0          | 2.4                              |                 | 5.898  | 2.429 | 5.898               |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       |                     |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       | Percent Differences |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       | 0.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        | -     | 5.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       |                     | •   | -                    | •               |                       | <b>→</b>           |
|                 |                |               |                                  |                 |        | _     | 0.0                 |     |                      | 1 1             | 1 1 1                 |                    |
|                 |                |               |                                  |                 |        |       | 5.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        | -1    | 0.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        | -1    | 5.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        | - 1   | 0.0                 |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       |                     |     |                      |                 |                       |                    |
|                 |                |               |                                  |                 |        |       |                     |     |                      |                 |                       |                    |



