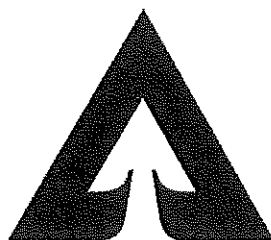


**COMPLIANCE TEST REPORT  
DETERMINATION OF CYLINDER GAS AUDIT  
ACCURACY FOR THE  
DRYER RTO STACK CO MONITOR,  
DRYER RTO STACK VOC MONITOR  
AND  
PRESS STACK VOC MONITOR**



**Weyerhaeuser**

**4111 West Four Mile Road  
Grayling, Michigan 49738**

**Prepared by:**

**Kathi Moss  
Environmental Manager  
Weyerhaeuser NR Company**

**Third Quarter, 2017**

**RECEIVED**  
SEP 25 2017  
AIR QUALITY DIVISION

## 1.0 INTRODUCTION

Cylinder Gas Audit (CGA) testing was conducted by Weyerhaeuser personnel on the gaseous emissions monitors servicing the Dryer RTO Stack and Press Stack. These tests involved the volatile organic compound (VOC) monitoring system on the Press Biofilter exhaust, and the carbon monoxide (CO) and VOC monitoring systems for the Dryer RO exhaust. The Press audits were conducted on September 14, 2017 and the Dryer audits were conducted on September 19, 2017, satisfying the quality assurance/quality control requirements for these monitoring systems for the third quarter of 2017.

## 2.0 SUMMARY OF RESULTS

The results of the three CGA Tests are provided in Appendix A of this report. The results present the times for each of the tests, calibration gas concentrations and monitoring system responses. Calculations of CGA Accuracies are provided in Appendix B. All accuracies were within the allowable limit of plus or minus (+/-) 5% for VOC (EPA/530-SW-91-010, Sec.2.2.4.7) and plus or minus (+/-) 15% for CO (40CFR60, App. F, Sec. 5.2.3 (2)). The results are summarized in the table below.

### Emissions Monitor CGA Accuracies Weyerhaeuser, Grayling

| Monitor                        | Audit Point |         |        |
|--------------------------------|-------------|---------|--------|
|                                | Zero        | Mid     | High   |
| Press VOC Monitor              | 0.24%       | 0.19%   | 0.24%  |
| Dryer VOC Monitor (Low Range)  | 0.77%       | 0.42%   | 0.08%  |
| Dryer VOC Monitor (High Range) | NA          | 0.09%   | 1.21 % |
| Dryer CO Monitor               | NA          | -0.689% | 0.211% |

## **3.0 PROCEDURES**

### **3.1 Methods**

The procedures outlined in USEPA Publication EPA/530-SW-91-010, "Methods Manual for Compliance with the BIF Regulations", Section 2.2.6.3, "Calibration Error Test Procedure" were used for auditing the Press and Dryer VOC monitors. The procedures outlined in 40 CFR 60, Appendix F, Section 5.1.2 were used for auditing the Dryer CO monitor.

### **3.2 Cylinder Gas Audit**

All of the monitors were challenged with audit gases of known concentration at three (3) points. Audit gases were introduced three (3) times at each audit point for a sufficient period of time to assure that adsorption/desorption of the sample transport surfaces had stabilized. Each monitor operated in the normal sampling mode during the audit. Audit gasses were introduced to the monitor calibration gas line, which delivered the audit gas to the sampling system at a point between the stack sample probe and sample line. A flow meter was used to assure that the audit gas into the monitors was confirmed to be that of the normal value.

The Dryer CO monitor was challenged with 279.1 ppm, 125.7 ppm, and zero gases. The Dryer VOC monitor was challenged with 747.8 ppm, 352.1 ppm, 75.15 ppm, 34.93 ppm and zero gas in order to completely audit both spans of this dual range instrument. The press VOC monitor was audited against gases of 81.12 ppm, 34.95 ppm and zero. All audit gases were prepared in accordance with EPA Traceability Protocol No. 1. Certificates of analysis for these gases are provided in Appendix C of this report.

### **3.3 Calculations**

Calibration Error calculations for the VOC monitors followed EPA/530-SW-91-010, "Methods Manual for Compliance with the BIF Regulations", Section 2.2.6.3.2. Calculations for the CO monitor followed 40 CFR 60, Appendix F, Section 6.3.