DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
Field Observation Report: Stack Testing

Facility: WEYERHAEUSER NR COMPANY		**SRN / ID:** B7302
Location: GRAYLING	**County:** CRAWFORD	**District:** Cadillac

Permit(s):	MI-ROP-B7302-2010a				
Save					
Contact (s):	Thomas Schmelter - Tester	Staff (s):	Jeremy Howe - Cadillac	Date (s):	06/17/14
	Faith Dandois - Facility				
	Kathi Moss - Facility				

ACTIVITY:	
☐ Pre-Test Site Visit/Monitoring	☑ Relative Accuracy Test Audit (RATA)
☐ Performance Specification Test (PST)	☐ COMS Performance Test Audit
☐ Cylinder Gas Audit (CGA)	☐ Visible Emissions Observation
☐ Photos Taken	☐ Other

This was Relative Accuracy Test Audit (RATA) at Weyerhaeuser NR Company, Grayling OSB located near Grayling, Crawford County on June 17, 2014 for the following emission units / flexible groups and parameters:

- EUPRESSLINE
  - Flow
- FGDRYERS
  - Flow

JH 7-7-14

The following individuals were involved with the test:

DEQ
Jeremy Howe – Cadillac

Stack Testers – Bureau Veritas
Thomas Schmelter – Lead *248.388.1525* *thomas.schmelter@us.bureauveritas.com*
Dillon King – Assisting

Facility – Weyerhaeuser
Faith Dandois – EHS Coordinator *989.889.0923* *faith.dandois@weyerhaeuser.com*
Kathi Moss – EHS Manager *989.619.3042* *kathi.moss@weyerhaeuser.com*

Observations:

I arrived onsite at 0930

I met Kathi in the front office who took me out to the CEM shack for EUPRESSLINE. Dillon was in there reading the meter box and Tom was moving the pitot tube. Faith was also inside there assisting with process information. BV did not take measurements for diluents which is fine because it is ambient air vented from the press room. I told Tom that they could use 29.0 lb/lb-mol as the dry molecular weight of the gas since this is allowed in Method 2 for non-combustion sources. BV had taken the temp at each point on the first run and found no variation in temp (all were 89 F if I remember correctly). BV, then took the liberty to measure the temp at only one traverse point during each flow run. I was about to tell Tom to start taking them at each point when the instrument he was using fell off the catwalk into a puddle of water and stopped working. BV does not take flow or temp measurements with the meter box, but I asked him to do that for one run so I could see the temps which were all within a degree of each other. I independently calculated the flow for Run 3. I got 86,542 scfm and BV got 86,504 scfm.

The CEMs tech had wanted to change the flow parameters after the RATA on EUPRESSLINE. He also wanted to change the flow for FGDRYERS after an initial run or two. I advised against doing either of these to Faith and I said I would check on it. I found out the correct way to go about adjusting a monitor is to do three runs and then adjust the monitor and then immediately do a RATA. I passed this information on to Faith and Kathi.

The result for EUPRESSLINE flow RATA is below:

EUPRESSLINE				
Run #	RM scfm	CEM scfm	di	Used?
1	**88490**	**98199**	**-9709**	**Y**
2	**90101**	**99017**	**-8916**	**Y**
3	86504	99543	-	N
4	**88436**	**97226**	**-8790**	**Y**
5	**88992**	**97138**	**-8146**	**Y**
6	**87300**	**97121**	**-9821**	**Y**
7	**88799**	**98718**	**-9919**	**Y**
8	**89888**	**98453**	**-8565**	**Y**
9	89433	99728	-	N
10	**92309**	**99162**	**-6853**	**Y**
11	**89462**	**99533**	**-10071**	**Y**
12	96051	98387	-	N
Avg	89308	98285	-8976.67	Limit
Round	0	Sd	1045.39	
Count	9	***RA***	***11.0***	***20***

I decided to go to lunch while BV moved their equipment to FGDRYERS.

I left the site @ 1140

I returned to the site @ 1220

Faith took me out to FGDRYERS. BV had everything up on the stack, so that is where we stayed throughout the RATA. The original Run 2 was voided because one of the hoses for the pitot tube came off sometime during the measurements. BV was using Fyrite to measure diluents. The fluid for the first O2 analyzer appeared to be spent because it read the same thing (2%) whether stack gas or ambient air was used. The backup O2 analyzer worked so BV used that instead. BV put the Fyrite away initially I thought to protect it against the driving wind, but they were under the impression that one analysis would suffice. I informed them that a diluent measurement had to be taken whenever a moisture sample was taken because they are described being on the same schedule in PS2, however in terms of being within the same hour. Usually, this hour will apply to three normal RATA runs of 21 minutes apiece. Since flow runs are short (5 minutes) the moisture sample was lasting longer than the three RATA runs associate with it. Each RATA was taking about 4 hours to complete, so either way the one diluent measurement was not going to cover all the runs. Thus, I'm not sure why BV thought it would be ok to take one diluent sample other than they again were thinking it doesn't require a measurement if it doesn't change (temps on EUPRESSLINE). I independently read and calculated the flow for Run 6. I got 124,652 scfm and BV got 125,189 scfm.

The result for FGDRYERS flow RATA is below:

FGDRYERS				
Run #	RM scfm	CEM scfm	di	Used?
1	139532	125675	-	N
2	137958	125446	-	N
3	**132578**	**125541**	**7037**	**Y**
4	**130738**	**122462**	**8276**	**Y**
5	**127441**	**121142**	**6299**	**Y**
6	**125189**	**118331**	**6858**	**Y**
7	**122161**	**114979**	**7182**	**Y**
8	**123123**	**115576**	**7547**	**Y**
9	**124778**	**116379**	**8399**	**Y**
10	134665	122008	-	N
11	**131341**	**125355**	**5986**	**Y**
12	**137583**	**127440**	**10143**	**Y**
Avg	128325	120800	7525.222	Limit
Round	0	Sd	1267.60	
Count	9	***RA***	***6.6***	***20***

I noticed in BV's RATA spreadsheet that they were still taking the absolute value of the differences to calculate d and CC for RA. I pointed this out to them again and Dillon said that he would change it.

Before I left I told Tom that BV would have to take a temperature measurement at each traverse point on EUPRESSLINE next time.

I talked with Kathi about how the CEM was converting to dscfm for CO reporting. She told me that the CEM tech was working on it, but the programming is cryptic and the person that set it up no longer works there and did not take notes. I told her they could work on it some more, but to involve me if necessary. I wanted to track down what is going on with the monitor before the next RATA or if they replace it. I am pretty sure it is nothing more than a default value for moisture, but Weyerhaeuser needs to be able to explain how they calculate emissions.

I left the site @ 1705

Staff: Jeremy Howe CC: Date: 07/07/014