Healthy People. Healthy Communities.

[DATE \@ "MMMM d, yyyy"]

Mr. Tony Hobson
New-Indy Catawba, LLC
5300 Cureton Ferry Road
PO Box 7
Catawba, SC 29704

Re: Steam Stripper, Aerated Stabilization Basin, and Post-Aeration Tank – Condensate Collection and Treatment Test Report – Conducted July 9-11, 2021

Dear Mr. Mallett:

The referenced test report has been reviewed by the Department, and the results and operating parameters from the report are summarized below:

Table [SEQ Table * ARABIC]: 40 CFR 63, Subpart S Condensate Collection and Treatment

Date	15-Day Average Daily Total Condensate Collected[i]	Fraction of HAP Biologically Removed	Condensate Treated by ASB[i]	Condensate Treated by Stripper[i]	Total Condensate Treated by ASB and Stripper[i]
7/9/2021	10.9	86.5	3.3	6.5	9.9
7/10/2021	11.2	90.1	3.7	6.4	10.1
7/11/2021	11.3	90.9	3.8	6.6	10.5
Averages	11.1	89.2	3.6	6.5	10.2

[i]*Unit of measure is lbs Methanol/ODTP*

Notes:
1. The minimum collection requirement for the Mill is 7.2 lbs of Methanol per oven-dried ton of pulp produced on a 15-day rollig average basis.
2. The number of aerators operational each testing day was approximately 37.
3. The ratio of non-methanol HAPs to methanol was 0.016 for the third quarter total HAP testing.

Table [SEQ Table * ARABIC]: ASB BOD_5 and Mixed Liquor Volatile Suspended Solids

Date	ASB Effluent BOD_5 Conc. (ppm)	ASB Zone 1 MLVSS (ppm)	ASB Zone 2 MLVSS (ppm)	ASB Zone 3 MLVSS (ppm)
7/9/2021	15	243	191	154
7/10/2021	16	350	250	98
7/11/2021	24	397	273	147
Averages	18	330	238	133

Table [SEQ Table * ARABIC]: F_{air} and F_{bio} for Individual TRS Compounds

TRS Compound	ASB F_{air} (%)	Post-Aeration Tank F_{air} (%)	ASB F_{bio} (%)	Post-Aeration Tank F_{bio} (%)
Hydrogen Sulfide	11	108	89	-8
Methyl Mercaptan	91	77	9	5
Dimethyl Sulfide	83	63	17	11
Dimethyl Disulfide	41	31	59	47

Table [SEQ Table * ARABIC]: RSK-175 TRS Results

	Hydrogen Sulfide (µg/L)	Methyl Mercaptan (µg/L)	Dimethyl Sulfide (µg/L)	Dimethyl Disulfide (µg/L)
Foul Condensate Inlet	77,292/86,001	3,523/7,586	3,975/4,897	7,057/4,203
Foul Condensate Outlet	13,516	274/2,119	956/838	2,569/222
ASB Influent	99.3/17.3	52.4/19.3	141/50.8	498/0.38
ASB Zone 1	14,922	131/331	37,484/179	387/131
ASB Zone 2	1,574	38.3/8.53	25.9/7.50	64.3/33.6
ASB Zone 3	27.6	1.42/12.1	3.23	12.1/1.43
ASB Effluent	8.13	0.99/1.83	4.93	1.95/0.99
Post-Aeration Basin Inlet	1.71	0.50/4.00	1.59	4.00/0.51
Post-Aeration Basin Surface	21.3	3.09/20.4	7.36	20.44/3.07
Post-Aeration Basin Outlet	71.04	1.36/7.70	3.68	7.70/1.34

*Note, where two results are presented, the value on the left is calculated from raw data and the value on the right is what is reported in the test report.

Table [SEQ Table * ARABIC]: Condensate Collection and Treatment System Operating Parameters

	Range	**Average**
Pulp Production (ODTP/day)	1,356 – 1,694	1,553
Steam Stripper Inlet Foul Condensate Flow (gal/min)	479.3 – 502.1	492.5
Steam Feed Rate (Thousand lb/hr)	64.6 – 69.9	67.7
Steam Stripper Inlet Foul Condensate Temp. (°F)	247.7 – 254.8	251.6
Stripped Condensate Flow (gal/min)	479.3 – 502.1	492.5
Stripped Condensate Temp. (°F)	331.1 – 335.0	333.6
Effective Steam to Feed Ratio (%)	17.9 – 18.3	18.1
ASB Inlet Liquid Flow (Million gal/day)	20.82 – 21.66	21.33
Foul Condensate Hardpipe to ASB Flow (Million gal/day)	0.33 – 0.35	0.34
ASB Outlet Liquid Flow (Million gal/day)	21.16 – 21.99	21.70
Post Aeration Tank Flow (Million gal/day)	19.3 – 25.1	23.03
Aerator Horsepower (hp)	2,775 – 3,150	2,900
Effective Steam to Feed Ratio (%)	17.9 – 18.3	18.1

Table 6: Sample pH Summary

pH	Range	Average
Foul Condensate Inlet	8.12 – 8.52	8.29
Foul Condensate Outlet	7.86 – 9.81	8.82
ASB Influent	8.52 – 9.38	8.94
ASB Zone 1	7.85 – 9.22	8.28
ASB Zone 2	7.98 – 8.65	8.33
ASB Zone 3	7.82 – 8.74	8.37
ASB Effluent	7.31 – 7.58	7.47
Post-Aeration Basin Inlet	7.60 – 7.69	7.65
Post-Aeration Basin Surface	7.78 – 7.99	7.86
Post-Aeration Basin Outlet	7.75 – 7.90	7.81

Table 7: Sample Temperature Summary

Temperature (°F)	Range	Average
Foul Condensate Inlet	124.1 – 137.6	133.2
Foul Condensate Outlet	106.6 – 153.1	131.2
ASB Influent	109.1 – 114.4	111.9
ASB Zone 1	89.3 – 100.6	95.4
ASB Zone 2	84.3 – 94.8	90.3
ASB Zone 3	82.9 – 92.1	88.2
ASB Effluent	84.2 – 91.6	88.8
Post-Aeration Basin Inlet	84.5 – 85.2	84.7
Post-Aeration Basin Surface	83.6 – 84.9	84.1
Post-Aeration Basin Outlet	Static	84.3

Table 8: Sample Dissolved Oxygen Summary

Dissolved Oxygen (mg/L)	Range	Average
ASB Influent	0.15 – 0.51	0.31
ASB Zone 1	0.02 – 1.99	0.29
ASB Zone 2	0.02 – 0.79	0.15
ASB Zone 3	0.27 – 2.59	1.50
ASB Effluent	0.07 – 1.98	0.68
Post-Aeration Basin Inlet	0.25 – 3.68	1.49
Post-Aeration Basin Surface	2.88 – 15.30	7.15
Post-Aeration Basin Outlet	0.74 – 18.00	7.30

If I can be of further assistance, please contact me at (803) 898-3856 or email me at monroedn@dhec.sc.gov.

Sincerely,

David N. Monroe
Environmental Health Manager
Source Evaluation Section
SCDHEC Bureau of Air Quality

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