



May 1, 2020

Mr. Oakley Hall  
Tennessee Department of Environment & Conservation  
Cookeville Field Office  
1221 South Willow Avenue  
Cookeville, Tennessee 38506  
(via email)

Re: 30-Day Notification of Storm Water Benchmark Monitoring Results  
Bonnell Aluminum, Inc.  
279 Carthage Lane, Carthage, TN  
Storm Water Permit No. TNR053907

Dear Mr. Hall:

The 2020 storm water analytical results at the Bonnell Aluminum, Inc. (Bonnell) facility located at 279 Bonnell Lane in Carthage, Tennessee, exceeded some yearly average benchmark parameters for Aluminum, Copper, Iron, and Zinc in multiple outfalls. This letter serves as 30-day notification that Bonnell sampled the storm water outfalls on April 8<sup>th</sup> and received the first analytical reports on April 21, 2020, for that rain event. A summary of the results is provided below.

Outfall ID (Industry Sector)	Analyte	Benchmark Limit (mg/l)	Result (mg/l)
SW-04 (Sectors F & L)	Aluminum	0.75	4.30
	Copper	0.018	0.0291
	Zinc	0.395	0.768
SW-05 (Sectors AA & F)	Aluminum	0.75	0.85
SW-06 (Sector AA)	Aluminum	0.75	2.37
	Iron	5.0	37.7
	Zinc	0.395	0.896
SW-07 (Sector AA)	Aluminum	0.75	4.65
	Zinc	0.395	0.695

\* Note: only results exceeded benchmark values are included in the above table.

**Potential Causes of Exceedances:**

It should be noted that there was several days of dry weather prior to this rain event. This normally increases certain values related to dust, sludge, and gravel.

Since Bonnell Aluminum is an aluminum extrusion facility, aluminum is stored throughout the plant grounds and can be exposed to storm water. The transporting of wastewater treatment sludge to and from the landfill has been significantly reduced. If Bonnell continues to send its wastewater treatment sludge to an Alum manufacturing facility it will eventually lower the aluminum in the stormwater. This sampling event does show signs of this beginning.

Bonnell is continuing to investigate the elevated concentrations of copper detected in outfalls SW-04. Improvements made in 2018 appear to be helping. Bonnell did move used electrical motor storage inside.

Zinc concentrations in samples collected from outfalls SW-04, SW-06 and SW-07 have exceeded benchmark levels. These elevated levels in zinc may be attributed to the fill material, but gravel fill should not affect SW-07. Bonnell will investigate this area since it is mostly parking. Bonnell continues to obtain gravel and stone as needed from the Liberty Mine to prevent elevated zinc levels. Levels are less, but still above the benchmark.

Iron concentration of SW-06 is very puzzling. That level would point to some kind of extreme steel corrosion or some chemical present that contains ferrous. Bonnell will investigate this and report on any findings in the 60 day follow-up.

**Improvements:**

Mid 2019, Bonnell Aluminum started shipping a portion of its wastewater treatment sludge (aluminum sludge) to an Alum Manufacturing facility in July of 2019. Currently this reuse activity is still in place and 100% of the aluminum sludge Bonnell produces is going to this facility. This means that currently no aluminum sludge is placed in the onsite landfill and none is moved onsite via our dump truck. This greatly reduces the risk of aluminum getting into our storm water from this source.

Late in 2018, Bonnell installed a new catch basin at SW-04. This basin will give Bonnell the ability to prevent spills from reaching Mulherrin Creek. This catch basin also allowed us to repair the storm water culvert that was eroding the bank and ditch. Bonnell was storing electric motors and pumps in a recycle bin exposed in SW-04, but we have stopped this practice. These actions directly reduced contaminants in SW-04. Bonnell also installed drainage to divert some storm water run-off into the storm water basin at SW-05. This is closer to the original storm water flow pre-2016. This project will also reduce contaminates in SW-05 due to some settling effect of the storm water basin.

The Storm Water Permit also requires Bonnell to review its Storm Water Pollution Prevention Plan (SWPPP) within 60 days of receiving the analytical data and make any modifications to the SWPPP that will reduce constituent concentrations to below the applicable benchmarks. Bonnell will provide any additional written documentation of the findings of the investigations mentioned above by June 7,2020. Depending upon these findings and, if applicable, Bonnell will revise its SWPPP.

Please send confirmation of receipt of this email. If you have any questions, please contact me at 615-683-2267.

Sincerely,



Barry Cohoon  
Environmental Manager

