



Port City Group

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January 4, 2016



Eric Grinstern, Environmental Quality Analyst
Air Quality Division, Grand Rapids District
Michigan Department of Environmental Quality
350 Ottawa Avenue, NW
Grand Rapids MI 49503

*RE: Letter of Violation for Alloy Resources Corp; SRN N7888 Muskegon County -
Excess Emissions during September 2015 Compliance Stack Test*

Dear Eric:

We received your December 11, 2015 Letter of Violation (LOV) regarding excess emissions during the September 23-24 Compliance Stack testing at Alloy Resources Corporation (ARC) based on the testing results we provided. The LOV alleges three violations occurred during this testing period. This letter provides our response.

General Response

On July 24, 2015 ARC submitted a Site Specific Test Plan (SSTP) for compliance testing to be conducted from September 23 through September 24, 2015. On August 25, 2015 ARC received written approval of the SSTP from the MDEQ for compliance testing of the two reverberatory furnaces (EUALREVERB and EUREVERB50). The approved SSTP called for testing to be conducted at different operating conditions than the original compliance testing in January 2015. The January 2015 compliance test demonstrated full compliance at the operating conditions defined by the testing.

During the year, the plant became concerned about whether it could continually maintain the three hour baghouse temperature limit with the smaller reverb running – even with no scrap being charged. Upon further review, the plant determined it might have a similar concern when the new rotary furnace came on line and prior to compliance testing. Additionally the plant completed baghouse upgrades that included completion of maintenance activities and installation of upgraded monitoring systems during this period. Additionally, ARC included the capability for carbon injection if needed for extra dioxin and furan (D/F) control.



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Except for the period of September 23-24, 2015 during the compliance testing, ARC has operated according to the limits established during the January 2015 compliance testing and defined in the April 2015 Notice of Compliance Status Report (NOCS). Specifically, when not testing, the plant operated under the operating limits established by the April 15 NOCS. For purposes of stack testing only, the plant applied for and was granted approval for compliance stack testing at higher operating conditions representative of the new furnace operation (higher scrap melt rates and baghouse temperatures). Compliance stack tests were run on September 23 and 24th during the day and included MDEQ observations.

Based on the data gathered during the stack test, ARC agrees to three hours of excess emissions on September 23 for D/F and a maximum of 1 hour of excess emissions for PM10 and PM2.5 on September 24. Details are provided below. However the compliance test data and the November 2015 NOCS provided evidence of full compliance in two out of three testing periods, and the NOCS included a revised SSM plan and operating procedures using carbon injection to maintain compliance at the higher operating rates and temperatures pending further testing.

Note that the plant continues to operate with the older limits from the April 2015 NOCS until compliance is proven via new stack testing. Additionally the plant has implemented the new corrective action procedures described below pending further compliance testing.

Note that the LOV cites Consent Order No. 31-2015, indicating the potential for stipulated fines as cited in the Consent Order. As the Consent Order went into effect only after September 23/24 (i.e., on October 27, 2015), the subject exceedances would not appear to be subject to these stipulated fines.

Specific Response

Results from the September 2015 testing were shared with MDEQ in November 2015. Two of the three particulate emission tests show full compliance with all conditions of PTI 340-07C. One of the three planned particulate emission tests showed excessive emissions during unusual operating conditions. Similarly, two of the three D/F emission tests show full compliance with all conditions of PTI 340-07C, while only one of the three tests resulted in excess emissions. The details and proposed corrective operating procedures were described in the NOCS report submitted in November 2015. This section addresses each of these specific Permit Condition violation allegations.



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Item 1 - FGFURNACES, PTI 340-07C, Special Condition I.3: Exceedance of PM10 emission rate in lbs/hr

Item 2 - FGFURNACES, PTI 340-07C, Special Condition I.4: Exceedance of PM 2.5 emission rate in lbs/hr

Testing for these conditions occurred on the afternoon of September 24 from approximately 2pm – 6pm. The first hour tested high, while the other two tests later that afternoon were in full compliance. The high emissions during the first test were caused by lime pretreatment being inefficient immediately after the routine cleaning of the baghouse just prior to testing. Specifically, the excess emissions were probably for only the initial 15-20 minutes while the filter cake was building. At worst operations at the facility resulted in excess emissions for a maximum of one hour. Two subsequent tests under similar conditions an hour later proved no excess emissions.

Corrective Action - The plant has already modified its manual baghouse cleaning procedure to include extra lime cake addition after the manual cleaning process and prior to scrap charging to ensure compliant PM10 and PM 2.5 emissions (as verified by the second and third PM compliance tests).

Item 3 - FGMACT-RRR, PTI 340-07C, Special Condition I.1: Exceedance of dioxins and furans emission limit (grain D/F TEQ per ton of charge)

Testing was conducted for this condition the morning and afternoon of September 23 and the morning of September 24. The test in the afternoon of September 23 indicated high D/F. The tests on the morning of September 23 and the morning of September 24 under similar operating condition indicate full compliance. Additionally the plant returned to the lower charge rates proven acceptable in previous testing when not compliance testing. At worst operations at the facility resulted in excess emissions for a maximum of three hours. The high emissions during the afternoon test on September 23 related to the unplanned maintenance activities related to cleaning the inside of the operating furnace at the higher baghouse temperatures established during this test. Both of the other two compliance tests indicate full compliance under normal charging conditions at these higher temperatures.

Corrective Action - The plant has already implemented additional furnace inspection and cleaning inside the furnace each shift as a preventative action. Additionally the plant will use carbon injection for D/F emission reduction when the three hour average baghouse temperatures exceed 156F (April 2015 temperature limit) or if furnace cleaning or maintenance is required at baghouse temperatures above the three hour limit pending further compliance testing. Details will be included in the SSM plan.



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We again emphasize our desire to fully cooperate and comply. We look forward to operating Alloy Resources Corp in a manner that meets all applicable environmental requirements and are scheduling additional testing to demonstrate compliance.

We welcome further discussion. Please do not hesitate to call.

Sincerely,

Jerry Garman, MPH
EHS Manager

cc: Mark Pickett, President
Dennis Flanagan, General Manager, Alloy Resources Corp
Bruce Bergeson, Bergeson Technology Services
Ben Lemley, TRC Environmental Corporation