



DEC 15 2015

December 14, 2015

Ms. Julie Brunner, P.E.  
Air Quality Division  
Constitution Hall, 1<sup>st</sup> Floor South  
525 W. Allegan St.  
Lansing, MI 48909-7760

RE: SRN: B2647, Violation Notice

Dear Ms. Brunner:

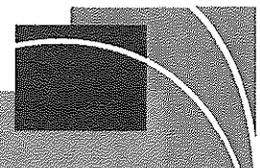
This letter is in response to your December 4, 2015 Violation Notice alleging an opacity violation for EUBOILER3 (Unit 3) at the Lansing Board of Water & Light's (BWL) Eckert Station. Specifically, the Notice alleges that Unit 3 was in violation of ROP No. MI-ROP-B2647-2012c, A, General Condition 11, and Rule 301, Mich Admin Code, R 336.1301, because there were 108 minutes of excess opacity, representing 13.81% of the boiler operating time for the third quarter. The attached opacity exceedance events report summarizes the dates and duration of the events.

### **I. Cause of Violation**

All of the Unit 3 opacity excess emissions summarized in the attachment were related to attempts to start the boiler. BWL initially attempted to start-up Unit 3 on August 26, 2015, following an extended period when the unit had been offline. This start-up was aborted after a leak was discovered in the piping that circulates the boiler water. The leak was repaired and another start-up was attempted on August 28, 2015. During this start-up, a steam governor was stuck open and the start-up was aborted to repair the governor. A second start-up was attempted that day and subsequently aborted following discovery of a tube leak inside the boiler. This tube leak was repaired and another start-up commenced on August 31, 2015. This start-up was also aborted following discovery of another tube leak.

The tube leaks discovered during these start-ups likely contributed to the opacity exceedances. Also, during each of these start-up attempts, there were problems getting the torches/igniters to light and stay lit at all levels of the boiler. This malfunction may have also contributed to the boiler upset and opacity exceedances during start-up.

Opacity exceedances that occur in conjunction with a tube leak can be steam-related and not representative of particulate matter emissions. The Continuous Opacity Monitoring System (COMS) measures transparency across the stack and cannot differentiate between water vapor from a tube leak and fly ash particulate matter, and the water vapor can exacerbate the opacity reading. As a result, the COMS readings taken during a tube leak may not accurately measure emissions due to the interference of condensed uncombined water vapor from the leak.





Julie Brunner P.E.

December 14, 2015

Furthermore, identifying 108 minutes of excess opacity emissions as 13.81% of the boiler operating time tends to exaggerate the magnitude of the excess emissions. The unit had only 782 minutes of operating time for the quarter. These excess emissions represent less than 1% of the duration of the reporting quarter.

## II. Corrective Action

All of the previously described start-ups were aborted and the unit was taken offline with the discovery of the aforementioned malfunctions and opacity exceedances. An inspection of the unit following the August 31, 2015 start-up event revealed multiple ruptured tubes. At this time, the BWL plans to retire Unit 3 on the Mercury and Air Toxics Standard (MATS) compliance date of April 16, 2016. The BWL does not intend to repair the unit to bring it online again prior to retirement.

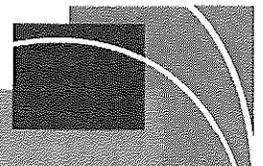
If you have any questions or would like additional information, please contact Shannon Whiton of our Environmental Services Department at (517) 702-6003.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Matus", with a horizontal line drawn through the middle of the signature.

Mark Matus  
Manager, Environmental Services Department  
[mwm@lbwl.com](mailto:mwm@lbwl.com)  
517-702-6153

Attachment



# Opacity Exceedance Events

Plant: Eckert Station

Report Period: 07/01/2015 00:00 Through 09/30/2015 23:59

Time Online Criteria: 4 minute(s)

Source: UNIT03

Standard Limit: 20.5

Parameter: OPAC

Exceptional Limit: 27.5

Interval: 006M

Event ID	Date/Time	Value	Reason Code - Description Action Code - Description
1	08/26/15 03:12	41	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
2	08/26/15 03:18	35	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
3	08/26/15 03:30	26	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
4	08/26/15 03:36	43	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
5	08/26/15 03:42	28	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
6	08/26/15 03:48	26	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
7	08/28/15 12:54	28	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
8	08/28/15 13:12	44	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
9	08/28/15 15:00	28	30 - OPAC - Boiler Startup/Shutdown 32 - SAO-Reduced load
10	08/28/15 15:12	22	30 - OPAC - Boiler Startup/Shutdown 32 - SAO-Reduced load
11	08/28/15 16:06	21	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
12	08/28/15 16:12	24	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
13	08/28/15 16:18	23	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
14	08/28/15 16:24	24	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
15	08/28/15 16:30	25	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
16	08/28/15 16:36	25	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
17	08/28/15 16:42	25	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow
18	08/31/15 13:30	21	30 - OPAC - Boiler Startup/Shutdown 33 - SAO - Adjusted air flow