

DEPARTMENT OF ENVIRONMENTAL QUALITY  
AIR QUALITY DIVISION  
ACTIVITY REPORT: Scheduled Inspection

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| <b>FACILITY:</b> L L JOHNSON LUMBER MFG CO   | <b>SRN / ID:</b> B1589           |
| <b>LOCATION:</b> 563 N COCHRAN, CHARLOTTE  | <b>DISTRICT:</b> Lansing         |
| <b>CITY:</b> CHARLOTTE   | <b>COUNTY:</b> EATON             |
| <b>CONTACT:</b> Mark Johnson , Chairman/CEO  | <b>ACTIVITY DATE:</b> 08/25/2016 |
| <b>STAFF:</b> Michelle Luplow  | <b>SOURCE CLASS:</b> MINOR       |
| <b>SUBJECT:</b> Scheduled, unannounced compliance inspection to determine compliance with LL Johnson's PTI's 684-82A and 155-70. |                                  |
| <b>RESOLVED COMPLAINTS:</b>  |                                  |

Inspected by: Michelle Luplow  
 Personnel Present: Mark Johnson, Chairman/CEO (mark@theworkbench.com)

**Purpose:** Conduct an unannounced, scheduled compliance inspection by determining compliance with LL Johnson Lumber (LL Johnson) Permits to Install (PTI) Nos. 684-82A and 155-70.

**Facility Background/Regulatory Overview:** Mark Johnson, Chairman/CEO, explained that LL Johnson used to be a sawmill. In 2006 they shut the sawmill down and in 2010 they resumed business doing contract milling for individuals with logs to be milled. He said they shut down the mill completely in July 2015. They currently still use the wood boiler, but he said it is shut down during the summer months. LL Johnson previously used the wood boiler for sanitizing the pallets with the steam generated from the wood boiler, but the pallet companies, particularly Kamps pallets, now have their own pallet sanitizer. The wood boiler is now only used to run and heat the plant.

M. Johnson said that the sawmill equipment and the gas line to the gas burner have been removed since the 2014 inspection. He said they have plans to remove the dry kilns as well. PTI 155-70 was for the gas burner of the wood-fired boiler. Because the gas line has been removed I will request that PTI 155-70 be voided. They currently buy, cut, and sell various types of lumber from around the world.

LL Johnson may be subject to the Boiler MACT NESHAP Subpart JJJJJ for area source boilers. The State of Michigan does not currently have delegated authority to enforce this standard.

LL Johnson still maintains the two boilers permitted under 684-82A: a 150 HP Wickes HRT Boiler (305,332 Btu/hr) and a 80 HP Wickes HRT boiler (203,554 Btu/hr). He said the boilers are inspected annually by Hartford insurance (wood boilers are insured through them).

**Inspection:** This was an unannounced, scheduled compliance inspection. At approximately 2:00 p.m. on August 25, 2016 I met with Mark Johnson, CEO/Chairman. I explained to M. Johnson that I was there to conduct a routine inspection and provided him with a DEQ "Environmental Inspections: Rights and Responsibilities" brochure to illustrate a typical inspection procedure. I also provided him with a July 2014 Permit to Install Exemption handbook, and a boiler MACT outreach brochure.

#### PTI No. 684-82A: Wood-fired Boilers

M. Johnson said that LL Johnson only operates the 80 HP boiler now that they only use the boilers for heating.

Visible emissions are required to be no more than 20% within any 6-minute average. The wood-fired boiler was not operating during the inspection; however, opacity had been seen from its stack in the past. Both boilers are vented to the one main stack. M. Johnson explained that when they were in the business of sanitizing pallets there was a lot of start-up and shut-down of the boilers, which caused the majority of the opacity issues. He explained that using the boiler only for heat reduces the amount of start-up/shut-down periods allowing the combustion to be more stable, thus allowing for complete combustion and less opacity. He explained that during start-up the temperature is too low which causes the opacity. He said by slowly firing up the wood-fired boiler, opacity can be reduced. The computer system that they maintain (installed pre-2006) helps maintain proper combustion inside the combustion chamber of the boilers by adjusted the fan speeds, feed rate of fuel, etc., further reducing opacity. There were discussions during the 2014 inspection about installing an opacity monitor

for this that would trigger an alarm when opacity was too high, but M. Johnson said that they made the decision not to install it.

The multiclone must be installed and operating properly if LL Johnson plans on using the wood-fired boilers. M. Johnson said that the multiclone is used to capture fly ash and said they do have a bypass/damper installed in the stack that allows for the bypass of the multiclone; however, he said they do not use the damper when the wood-fired boiler is operating. He said the unburned carbon is injected back into the firebox when the temperature in the firebox is high enough to support proper combustion.

The permit allows up to 24 lbs/day of office wastepaper and paper hand towels to be burned in the wood-fired boiler. M. Johnson said that they burn 16 – 20 lbs of paper/paper hand towels per week. He said they also burn up to 700 lbs of wood fuel per day when the boilers are operating. The wood fuel, M. Johnson said, is in the form of planar shavings (shavings from lumber cutting) and sawdust.

Compliance statement: LL Johnson appears to be in compliance with PTI 684-82A at this time.

NAME M. Johnson

DATE 9/30/16

SUPERVISOR B.M.