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

N741840249

FACILITY: Richard-Allan Scientific, part of Thermo Fisher		**SRN / ID:** N7418
LOCATION: 4481 Campus Drive, KALAMAZOO		**DISTRICT:** Kalamazoo
CITY: KALAMAZOO		**COUNTY:** KALAMAZOO
CONTACT: Larry Kwapis , Engineering and Facilities Manager		**ACTIVITY DATE:** 06/14/2017
STAFF: Monica Brothers	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Unannounced scheduled inspection		
RESOLVED COMPLAINTS:		

This was an unannounced, scheduled inspection. Staff (Monica Brothers) arrive onsite at 12:45PM. I introduced myself to the receptionist at the front desk, and asked her if Larry Kwapis, the Engineering and Facilities Manager, or Jeff Burch, the EHS Supervisor was available to do an air quality inspection. She said that Jeff no longer worked there but that she would contact Larry Kwapis and let him know that I was there to do an inspection. Larry came to the front lobby a few minutes later with Katie Isaac, the new EHS Supervisor. He led us into his office where I gave them both my business card and a brief explanation of the inspection process and the types of records I would want to see after the facility tour. I also asked them a few preliminary questions about changes to the facility since the last inspection in 2014.

Richard Allan Scientific is a subsidiary of Thermo Fisher Scientific and makes various types of dyes for the anatomical pathology industry. They also repair tissue-processing equipment that is used by their customers. This does not involve any activities that cause air emissions. They have about 160-175 employees who work 3 shifts per day, five days per week, with some Saturdays. Two of those shifts are manufacturing and the third shift is distribution. They commenced operations in 2002 and are currently operating under PTI # 25-15.

Process Rooms:

As we began the tour, Larry showed me the Quality Assurance Lab and the Research and Development lab. These areas do not involve any activities that create air emissions. We then saw the two process rooms (flammable and non-flammable) where many different sizes of containers are filled with different products. Larry said that they fill anywhere from small 15ml vials to 55-gallon drums. They have a total of 15 fill lines, each of which also seals and packages the product. Each room has exhaust hoods from the various filling points on the lines, which are then combined into one exhaust point that exits the building. They use ink jet printers, about one per line, to print expiration dates on the products. The emissions from the printing are included in their 290 calculations.

Tanks:

They still have the same 6 tanks as during the last inspection in 2014. All of them are contained indoors. There are three 7,000 gallon stainless steel tanks, which hold xylene, methanol, and formaldehyde. The formaldehyde formulation is 36.9% formaldehyde, 11% methanol, and the rest is water. There is a stainless steel 8,500 gallon alcohol tank, and two 10% neutral buffered formalin (NBF) tanks, 5,000-6,000 gallons each. One of the two NBF tanks is a stainless steel tank, and the other is a poly tank. The 10% NBF is made on-site by Richard Allan Scientific and contains formaldehyde and methanol. The tanks are each considered a closed system, with displaced vapors during unloading returning to the tanker. So there are no emissions associated with the tanks unless there is a spill or leak. The facility also uses many other materials, in smaller quantities, in the formulation of their products. These are contained in smaller totes that are scattered around the facility. The usage and emissions from these materials are included in their 290 calculations.

Exempt Processes and Equipment:

They have two very small natural gas-fired boilers that are used to heat paraffin wax. The paraffin wax from the indoor tanks is simply packaged in various ways and shipped off. Each Lochinvar boiler is 1 MBtu/hr, and both were installed in 2002. These can be considered exempt under Rule 282(b)(i). In the room where the paraffin wax is processed, they have a Torit dust collector for the wax particulate that is generated during machining. The Torit is vented internally.

The facility also has two emergency diesel generators. One is a Cummins Onan unit that is rated at 200kW, and the other is a Cummins unit that is rated at 80kW. They were both installed in 2002 when the facility was built and are not NSPS subject. They both had non-resettable hour meters on them, which read 470.8 hours for the 80kW unit and 473.6 for the 200kW unit. These are both exempt under Rule 285 (g).

They have a parts washer in their maintenance area. The lid was closed and the DEQ rules were posted. The SDS is attached to this report, and it is considered exempt under Rule 281(h).

Records:

They are keeping appropriate monthly 290 records, with separate records being kept for each ITSL and IRSL limit. The highest monthly emissions for the IRSL (20 lbs/month limit) during 2016 was 2.65 lbs for their filling processes. The highest monthly emissions for the ITSL (1000 lbs/month limit) during 2016 was 319.02 lbs, also for their filling processes. They are under the required Rule 290 limits.

The records required by PTI# 25-15 are facility-wide records. Their records are up to date, and they are keeping track of how many gallons of HAP-containing material are used per month. They are also keeping track of the HAP content of each material they use and their HAP emissions in tons/calendar month. They have a limit of less than 9TPY on a 12-month rolling timescale, for each individual HAP, and a limit of less than 22.5TPY on a 12-month rolling timescale, for aggregate HAPs. Their highest 12MR emissions value for individual HAPs is 572.13 lbs, and their highest for aggregate HAPs is 1016.13 lbs. They are therefore under the required limits. Records are attached to this report.

The facility seemed to be in compliance with their permit and any applicable exemptions at the time of the inspection.

NAME [signature] DATE 6/28/17 SUPERVISOR MA 6/29/17