

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

M421024740

FACILITY: Cayman Chemical Co.		SRN / ID: M4210
LOCATION: 1180 Ellsworth Rd, ANN ARBOR		DISTRICT: Jackson
CITY: ANN ARBOR		COUNTY: WASHTENAW
CONTACT: Michael Lemon , Manager, Safety & Regulatory		ACTIVITY DATE: 03/13/2014
STAFF: Glen Erickson	COMPLIANCE STATUS: Compliance	SOURCE CLASS:
SUBJECT: Scheduled inspection prompted by company's submittal of a Rule 208(a) Initial Registration.		
RESOLVED COMPLAINTS:		

Scheduled inspection prompted by company's submittal of a Rule 208(a) Initial Registration on 3-11-14.

Met with Mike Lemon, Manager, Safety & Regulatory and Andrew Pavlik, Regulatory Specialist, to discuss the company's submittal, and to inspect facility, particularly with respect to the various processes they operate and their compliance status relative to permit to install Rule 201 requirements.

Discussed the specifics of Lemon's 208(a) submittal and the types of processes they operate at the facility, which is comprised of two (2) adjacent buildings located at 1180 and 1428 Ellsworth Rd., Ann Arbor. For purposes of EPA's Title V regulation, these contiguous buildings satisfy the definition of a "single stationary source".

I told Lemon that I would need to do a bit more research about whether Rule 208(a) is a viable means of restricting the PTE if they haven't reported emissions to MAERS in previous years in order to have actual emissions established to provide the basis for the 50% of Title V threshold comparison.

The company expanded their manufacturing operations over the last several years to include the second building. The company manufactures and conducts research and development of unique and specialty compounds and chemicals, bio-assay kits, chemical reference standards, pharmaceutical API, and forensic compounds. Research and development operations would be exempt from Rule 201 air use permit requirements through compliance with permit exemption Rule 283 (b): laboratory equipment while the manufacturing operations could not use that exemption, even though both types of operations use the same type of laboratory fume hoods for exhaust. It may not be possible to easily establish whether a particular fume hood is used for just R & D or for manufacturing also. Establishing compliance with the provisions of permit exemption Rule 290 may be possible.

We toured the two (2) buildings where a total of 63 fume hoods are operated. All of the fume hoods are reasonably alike in size, and all appear to use similar VOCs, some of which are HAPs, and/or TACs, and all appear to use similar quantities of these compounds. Therefore, it may be possible for Lemon to establish Rule 290 exemptions for each of these fume hoods individually by averaging the air pollutant emissions evenly across all of the fume hoods.

In addition to the laboratory fume hoods, they operate three(3) small natural gas-fired boilers, all well less than the 50 MMBtu/hr. threshold for fuel-burning equipment described in permit exemption Rule 282 (b)(i). They also operate two (2) diesel emergency generators, one a Cummins 755 HP unit manufactured in 2005, and a Caterpillar 375 HP unit manufactured in 1984. Both only operate 1/2 to 2 hrs./month for preventative maintenance testing. Both are only subject to the RICE MACT standard of Part 63, subpart ZZZZ , which requires regular oil changes and belt maintenance, which they comply with.

I continued the inspection on 3-20-14 after I had researched the feasibility of Lemon using Rule 208(a) for restricting their PTE for Title V purposes. I found that Cayman could use their historical records of actual air pollutant emissions to demonstrate that they are less than 50% of all criteria and all HAP Title V thresholds. The Rule 208(a) initial registration submitted to AQD on 3-11-14 is administratively complete and appears accurate and complete. An administratively complete Rule 208(a) letter was sent to the company on 4-1-14. The amounts of HAPs emitted are all well under 1 ton/yr., with MeCl₂ being the largest at 2.4 tpy; and MeOH at 1.2 tpy. The total HAPs emitted last year was 4.44 tons. All values are less than 50% of the individual HAP threshold of 10 tpy; and the 25 tons aggregate of HAPs per year. Also, total VOCs = 11.6 tpy, well less than 50% of 100 ton VOC threshold for Title V. All of the chemical compound manufacturing varies in size and volume from microgram/microliter to gram/liter sizes; so overall very small amounts are processed.

On 3-31-14 Lemon submitted Rule 290 exemption demonstrations for all the laboratory fume hoods used for manufacturing operations. These exemptions all appear accurate and complete.

Company will be required to submit annual MAERS reports to supplement their Rule 208(a) registration. Company appears to be in full compliance with all applicable air quality regulations at this time. I e-mailed Dennis McGeen to add company to next year's MAERS submittal list.

NAME GLEN ERIKSON

DATE 4-8-14

SUPERVISOR 