

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

A585836732

FACILITY: Mead Johnson & Company, LLC		SRN / ID: A5858
LOCATION: 725 E. Main Street, ZEELAND		DISTRICT: Grand Rapids
CITY: ZEELAND		COUNTY: OTTAWA
CONTACT: Thomas A. Joelson , Senior EH&S Facilitator		ACTIVITY DATE: 08/30/2016
STAFF: April Lazzaro	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

AQD staff April Lazzaro and Chris Robinson arrived on site at 9:30 AM and met with Tom Joelson, and Mike Monaghan. Staff informed them of the scope of the inspection and presented each with a copy of the DEQ Environmental Inspections: Rights and Responsibilities brochure and discussed its contents. The scope of the inspection was outlined to include meeting the Compliance Monitoring Strategy requirement as a Full Compliance Evaluation. The inspection will include the components of the Renewable Operating Permit (ROP) MI-ROP-A5858-2012a.

FACILITY DESCRIPTION

Mead Johnson & Company manufactures powdered milk products for infants, and makes products for people with special medical needs. The facility has many sources of particulate controlled by either baghouses, rotoclones or wet scrubbers. There are two boilers installed in 1960 which were upgraded in 1994 to utilize low NOx burners. This change is not considered a modification pursuant to NSPS. A third boiler was installed in 2012 and is natural gas fired. The stationary source is subject to the Maximum Achievable Control Technology Standards as applicable, Subpart ZZZZ for Reciprocating Internal Combustion Engine with compliance deadlines of 2012 and more recently Subpart DDDDD for Industrial Commercial and Institutional Boilers and Process Heaters. The digest process condenser and knock out pot and 2 spray dryer baghouses are also subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM). The CAM requirements have been incorporated into the ROP.

Due to the large nature of the facility, staff and Mr. Joelson, used the ROP and the Malfunction Abatement Plan (MAP) as an inspection tool and visited the permitted and exempt emission units.

The stacks on the ZIPP building roof and the ZSP building roof were accessed and at that time there were no indications of excess emissions observed.

COMPLIANCE EVALUATION

EUBOWEN-DRYER

This process consists of equipment used to take a liquid product and atomize it into a hot air stream to evaporate all moisture. The emission limit is to be verified by testing if deemed necessary, and maintenance. A minimum water flow of 18 gpm on the wet scrubber is

required. The EU was not in operation at the time of the inspection. There were no observed stack changes.

EUDIGEST-TANKS

Following the emission unit inspection, staff requested the digest emissions records, which were provided via e-mail timely. No issues were identified at EUDIGEST-TANKS and there were no observed stack changes. The condenser and associated equipment preventative maintenance (PM) is being conducted properly. Rotoclone equipment PM was last conducted on 08/16/2016.

The emission limit of VOC from vents V1 through V5 is 181.7 pounds per 24-hour period and 33.2 tons per 12-month rolling time period. Reported 12-month rolling emissions for vents V1 through V5 are 16.61 tons and the steam ejector is 2.08 tons. (see attached records) The rotoclone wet scrubber shall maintain a minimum water pressure of 23 psi during operation and was operating at 105 psi at the time of the inspection. The condenser and knock out pot was not in operation at the time of the inspection. This EU is subject to CAM, and all monitoring is being conducted to meet the requirements.

EUZSP-VIT-WEIGH

This process consists of a scale where dry materials are transferred into containers and weighed. The emission limit is to be verified by testing if deemed necessary, and maintenance. The EU was not in operation at the time of the inspection. All required PM is being conducted properly. There were no observed stack changes.

EULIQUIFIER-TANK

This process consists of mixing tanks with associated rotoclone control equipment. Required PM is being conducted properly. The rotoclone wet scrubber shall maintain a minimum water pressure of 23 psi during operation and was operating at 86 psi at the time of the inspection. The emission limit is to be verified by testing if deemed necessary, and maintenance. There were no observed stack changes.

EUZSP-LIQ-PROCESS

This process consists of equipment used for liquefying and mixing dry powdered materials. The rotoclone wet scrubber shall maintain a minimum water pressure of 1.5 gpm during operation and was operating at 2.3 gpm at the time of the inspection. The emission limit is to be verified by testing if deemed necessary, and maintenance. There were no observed stack changes.

EUZSP-SPRAY-DRYER

This process consists of a natural gas fired heater and spray drying operations with associated cleaning. The unit was not in operation. VOC limited to 1.8 tpy per 12-month rolling time period, and 167 lbs of sodium hydroxide per wash cleaning cycle. Reported emissions through August 2016 are 322 pounds (0.16 tons) and the highest sodium hydroxide per wash use was 98 lbs. The emission limit is to be verified by testing if deemed necessary, emissions recordkeeping and maintenance. There were no observed stack changes.

FGNS-DRYER-HTRS

This flexible group consists of two identical natural gas fired heaters used to supply hot air to the north and south spray dryers. Only natural gas is burned in the heaters, no opacity was observed. There were no observed stack changes. These units are subject to 40 CFR 63 Subpart DDDDD as process heaters. An initial notification report was received on May 28, 2013. The dryers are subject to an opacity limit for which compliance is expected while burning only natural gas fuel. There were no observed stack changes.

FGBOILERS

The flexible group consists of three boilers. Two Erie Co. boilers can burn either natural gas or fuel oil. The facility has removed the related fuel oil tanks and associated piping from the area. While the internal fuel firing components are still present, the unit could be considered disabled for fuel oil use, however the company has chosen to keep that as an option. The third boiler, Cleaver Brooks, was installed in 2012 and is subject to 40 CFR 63 Subpart DDDDD. An initial notification report was received on May 28, 2013 and an initial boiler tune-up compliance report was received on January 31, 2014. The company is aware of the energy efficiency report that is required, and it has been completed. Boiler #3 is also subject to NSPS Dc, and the initial notification form was received on October 18, 2012.

Daily and monthly records were requested and received timely. SO₂ 12-month rolling emissions are limited to 88 tpy. Current emissions through August 2016 were 0.06 tons from natural gas firing. NO_x 12-month rolling emissions are limited to 66.2 tpy. Current emissions through August 2016 are 4.42 tons. All three boilers PM is being conducted as required.

FGZSP-BLEND-FILL

This flexible group contains three emission units, two of which mix powdered ingredients and one that sifts powdered ingredients. All stacks and broken bag detectors were observed, no problems were identified. The emission limit is to be verified by testing if deemed necessary, and maintenance. There were no observed stack changes.

FGZIPP-PMSOURCES

This flexible group contains four emission units in which dry ingredients are transferred, mixed and placed into containers. All stacks and broken bag detectors were observed, no problems were identified. Last PM as required by MAP was conducted on 1/3/2016. The emission limit is to be verified by testing if deemed necessary, and maintenance. There were no observed stack changes.

FGNS-DRYERS

This flexible group contains two emission units where liquid product is atomized into a hot air stream evaporating all moisture and dried product is collected. Both stacks and broken bag detectors were observed, no problems were identified. Last PM's as required by MAP were conducted during the months of March, April, July and August 2016. CAM monitoring did not indicate any excursions or exceedances for the units during the last reporting period and no issues were observed during the inspection. The emission limit is to be verified by testing if deemed necessary, and maintenance. There were no observed stack changes.

FGCI-RICEMACT

This flexible group contains conditions that apply to a diesel fired fire pump. This unit has been confirmed to be equipped with a non-resettable hour meter. The facility maintains

compliance thorough required oil and filter changes annually.

FGSI-RICEMACT

This flexible group contains conditions that apply to one natural gas fired emergency generator and one propane fired emergency generator. This unit has been confirmed to be equipped with a non-resettable hour meter. The facility maintains compliance through required oil and filter changes annually.

FGRULE 290

This flexible group currently contains a variety of emission units. Records are overall maintained under the one time demonstration for the exemption. On Rule 290 emission units emitting particulate matter, all units utilize broken bag detectors for PM monitoring.

FGCOLDCLEANERS

There are two existing cold cleaners. The facility maintains the AQD required postings.

EVALUATION SUMMARY

During the closing meeting we discussed the current format for reporting emissions. The facility currently reports worst case scenario emissions from a set number of operating hours. AQD staff noticed during the annual MAERS submittal review that the facility was showing production increases in some areas (see attached) but that the emissions are staying the same due to the way they report hours of operation. We asked AQD Emissions Reporting and Assessment Unit (ERAU) staff what the expectation is for this, even if the company is over reporting their emissions. ERAU staff stated that the company should modify the method of emissions calculations and utilize the actual hours of operation for the reporting year, that way the data is more accurate. This will be looked at and evaluated during the next MAERS cycle.

On August 18, 2016 the AQD received ROP renewal application No. 201600137. This was received timely and complete and the facility received an application shield. This permit will be processed in the coming months.

Staff indicated to Mr. Joelson and Mr. Monaghan that no compliance issues were identified during the physical on-site compliance inspection. Following records review and the completion of the FCE, the facility is considered in compliance at this time.

NAME



DATE

9-23-16

SUPERVISOR

