

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

FY 2015 Insp

B579730482

FACILITY: Protocon Transit Mix, Inc.	SRN / ID: B5797
LOCATION: 6227 Metropolitan Parkway, STERLING HTS	DISTRICT: Southeast Michigan
CITY: STERLING HTS	COUNTY: MACOMB
CONTACT:	ACTIVITY DATE: 07/06/2015
STAFF: Iranna Konanahalli	COMPLIANCE STATUS: Compliance
SUBJECT: FY 2015 inspection of Protocon Transit Mix, Inc. ("Protocon"), a transit mix concrete batch plant	SOURCE CLASS: MINOR
RESOLVED COMPLAINTS:	

B5797 - SAR - 2015 07 06

Protocon Transit Mix, Inc. (B5797)
6227 Metropolitan Parkway
Sterling Heights, Michigan 48312-

Patrico Transit Mix Inc. (B5797) → Protocon Transit Mix, Inc. (B5797)

Rule 336.1289 transit mix concrete batch plant

On July 06, 2015, Sam Liveson, Kerry Kelly and I conducted a level 2 self-initiated inspection of Protocon Transit Mix, Inc. ("Protocon"), a transit mix concrete batch plant, located at 6227 Metropolitan Parkway, Sterling Heights, Michigan 48312. The inspection was conducted to determine compliance with the requirements of federal Clean Air Act; Article II, Air Pollution Control, Part 55 of Act 451 of 1994; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) administrative rules.

During the inspection, Mr. Sam Patrico (Cell: 586-431-0046; E-mail: sam@ProtoconTransitMix.com), President and Owner, assisted me.

Protocon (about 100,000 cubic yards per year) is exempt from Rule 336.1201 (Permit-to-Install) pursuant to Rule 336.1289 subject to the following conditions:

- (i) The plant shall produce not more than 200,000 cubic yards per year.
- (ii) The plant shall use either a fabric filter dust collector, a slurry mixer system, a drop chute, a mixer flap gate, or an enclosure for truck loading operations.
- (iii) All cement handling operations, such as silo loading and cement weighing hoppers, shall either be enclosed by a building or equipped with a fabric filter dust control.
- (iv) The owner or operator shall keep monthly records of the cubic yards of concrete produced.
- (v) Before commencing operations, the owner or operator shall notify the appropriate air quality division district supervisor of the location where the concrete batch plant will be operating under this exemption.
- (vi) The concrete batch plant shall be located not less than 250 feet from any residential or commercial establishment or place of public assembly unless all of the cement handling operations, excluding the cement silo storage and loading operations, are enclosed within at least a 3-sided structure.
- (vii) The owner or operator shall implement the fugitive dust plan described in the Rule 336.1289

I asked Mr. Sam Patrico to follow Rule 289 work-practice methods to control dust.

Entire Protocon's yard is paved with concrete. It appears that Protocon sweeps the yard periodically (once per week according to Patrico) using its own sweeper: Brooks Advance A6600XP.

The materials, such as aggregates, gravel, limestone, sand, etc., are stored in the open storage bins. The materials are brought to the grates using a front-end loader. From the grates, materials are transported using conveyors to four sand and aggregate bins. From bins (4) to weigh scales, from which they are conveyed (enclosed) to a transit mix concrete truck.

Three cement silos are present. Each silo is equipped with a dedicated baghouse to control dust during silo loading from a cement truck. On July 06, 2015, we observed cement silo being loaded pneumatically from a truck. I observed less than 5% visible emissions; not correct location according to US EPA Reference Method 9.

The materials flow into a transit mix truck by gravity. A requisite amount of water (steam or hot water in winter) is also added simultaneously.

Each of three silos is equipped with its own baghouse. Transit-Mix loading area is equipped with a baghouse.

A transit mix truck

The materials are transported using an enclosed conveyor to a truck. The truck opening area, where materials are poured, is equipped with an enclosure. The emissions from the enclosure are captured and ducted to a dry filter system, which is started automatically when a materials conveyor belt is started.

Transit-Mix truck rinsing

Transit-Mix trucks are rinsed before they leave the property to control fugitive dust. Washing protects trucks as well. City water with truck wash detergent used. There are three (3) settling ponds. Each pond settles out suspended particulate matter. While third pond contains the cleanest water, first pond contains dirtiest water. Water flows via gravity (level gradient) from third to first pond while suspended particulate settles: third containing largest particle size and first containing smallest particle size. Truck washed dirtiest rinse water goes to third pond. To first pond fresh city water is added on as needed basis.

To supply hot water or steam in colder months to concrete batches, two boilers are present:

1. Parka Industrial Boiler, 3 MM BTU per hour, 349 sq. ft. heating surface, natural gas only
2. Siox Boiler, 1 MM BTU per hour, natural gas only

Conclusion

Follow-up inspection is necessary due to fugitive dust problem.

NAME J S McNameahall DATE 08/06/2015 SUPERVISOR CJE