

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

B201426435

FACILITY: Day International, Inc. a Flint Group Company		SRN / ID: B2014
LOCATION: 111 Day Dr, THREE RIVERS		DISTRICT: Kalamazoo
CITY: THREE RIVERS		COUNTY: SAINT JOSEPH
CONTACT: Joseph Doornbos, Director of Mfg		ACTIVITY DATE: 08/14/2014
STAFF: Dennis Dunlap	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Compliance inspection.		
RESOLVED COMPLAINTS:		

This was not an announced inspection. The inspection brochure was handed out. Joe Doornbos and Jim Cotton are the contact persons. The facility makes lithographic blankets for the printing industry. In general, fabric is shipped in to the facility. This is generally a cotton and polyester blend. The fabric is bonded together with glue in 2-5 layers. There is an anchor layer of rubber and a coat of rubber on the outside.

**EUMILLING, FGFABFILTER-** This consists of three mills where raw materials are combined and mixed. One mill is reserved for black dye only. Raw rubber is added first. Steel rollers flatten the rubber and then other ingredients such as dyes are added. The dyes are solid. No VOCs are used here. The rollers continue to mix the rubber compound. When thoroughly mixed, the rubber sheet is taken out and hung on a rack. About 20 batches per day are produced here. This area is not connected to the Solvent Recovery System (SRS). The mills are connected to a dust collector that emits to the outside air (FGFABFILTER1). The dust collector has a differential pressure gage that is monitored daily. Weekly visible emission observations are also required, although these are generally also done daily. There is a Malfunction Abatement Program for the dust collector when the diff. pressure readings is outside the range of 0.7 and 5.0 or when visible emissions are observed. The pressure at the time of the inspection was 2.5. No visible emissions were seen.

**EUCOMPOUNDING-** This is in the same room as EUMILLING. There are about 2 hoods where ingredients to make the rubber compound are handled and weighed. The hoods are connected to FGFABFILTER. This area is not connected to the SRS.

**Granulation area-** This is a room where the rubber sheets are ground up. Talc is used. There is an internal dust collector. The grinding is done in 1 or 2 shifts each day. The ground rubber is placed in drums.

**EUCEMENTPREP-** This consists of two rooms where there are 16 Ross 100 gallon mixers, one Ross 300 gallon mixers, two Ross 200 gallon mixers (EUROSS200), and one Winkworth 200 gallon horizontal mixer (EUWINKWORTH). This totals 20. The ground rubber is mixed with toluene in the mixers or churns. The rooms are connected to the SRS and are part of the permanent total enclosure (PTE). There are two cold cleaners here (EUCOLDCLEANER), one that uses heptane and one that uses ethanol. There is also a 30 gallon still used to recover toluene. There are two pony mixers (EURULE287k). Toluene is stored in an outside underground storage tank (EUUST). The tank is divided into three compartments. One is for recovered solvent, one is for storage, and one is overflow protection. The amount of toluene used in the process is recorded daily. The mixers or churns have a metering device to monitor toluene. One churn has a nitrogen blanket to protect against explosions.

The south room monitor for the PTE was reading 0.348. The north room monitor was reading 0.360. The minimum is 0.007.

**Boiler-** There is one natural gas-fired 20.9 MMBtu/hr Cleaver Brooks boiler installed about 8/2/79. This is exempt by Rule 282(b) i. It is also exempt from NSPS. The boiler is used for heat for ovens, the spreaders, and building heat.

**EUCOATING-** This consists of four spreaders where the rubber compound from the mixers or churns is spread onto the fabric. The layers of fabric are bonded together here with glue. The anchor rubber layer is also put on here. The face rubber layer is put on by spreaders 3 and 4. This may consist of 20 to 40 coats of rubber. Talc or starch is put on the rubber face after finished. The spreaders are connected to a dust collector (Dept. 62) that vents back inside the building. The dust collector itself is outside by

**FGFABFILTER1.** This room is connected to the PTE. The blades of the spreaders are cleaned with ethanol (EUCLEANING).

**Festoon room-** This is where the coated fabric sheets are hung to allow toluene to evaporate and the sheets to maintain there shape. This room is connected to the PTE.

There is a dusting table connected to the Dept. 62 dust collector. From the festooning room the fabric sheets are put on pack unpack machines, then to one of three curing ovens. Two ovens are not in use. The ovens are connected to the SRS. Curing takes place at 225-290 degrees for 6-12 hours. After curing the sheets go back to the pack unpack machines. After this the rubber layer is measured and may be ground down to a certain thickness. The grinding operation is connected to dust collectors that vent back inside the building.

**EUINKJET2-** This consists of printers used to print identification on the finished sheets. They do not use HAPs. The room is not connected to the PTE. This is a Rule 290 group. Records indicate compliance with Rule 290.

**EU-SVE-** This is a soil vapor extraction system used to clean up a toluene leak. This consists of a pump house and a trailer. The vapor goes to the SRS. The system before the SRS is subject to 40 CFR Part 63 Subpart GGGGG. This includes monitoring valves and pumps for leaks. Now a visual inspection for leaks is done. This should be expanded to include checking with a n instrument. The amount of toluene recovered is based on the efficiency of the SRS system. This is a Rule 290 group. Records indicate compliance with Rule 290.

The SRS consists of three carbon adsorbers. The inlet and outlet are monitored by CEMs. A yearly RATA is performed on these CEMs. The last RATA was 8/13/14. Cylinder gas audits are also performed. There is a control panel that monitors the system operation. This includes north and south PTE pressure readings, inlet ppm, outlet ppm, efficiency, fan suction, and carbon adsorber phase. During the inspection the inlet was 1591 ppm and the outlet was 3 ppm with 99+ efficiency. The steam cycle is 90 minutes with about 2 minutes for cooling and 2 minutes for drying. There are alarms when the outlet ppm reaches a certain level and when the PTE pressure gets too low. The steam goes to two condensers where toluene is separated out. Water goes to the sanitary sewer. Alcohol goes out with the water phase. A new 3,500 gallon toluene tank is being put in inside the building to replace the underground storage tank. It appears that this installation is exempt by Rule 284i because the vapor pressure if toluene is less than 1.5 psia at 20 degrees C. There is also going to be a 250 gallon tank. Toluene will be unloaded from a tanker truck outside.

For compliance with the MACT 40 CFR Part 63 Subpart OOOO the facility is using the emission rate with add-on controls option. This is found in 63.4341(e)(1),(2),(3),(4),(6),(7), and (8). This uses the destruction efficiency determined from the 2008 performance test (99.91%). Each month the total coating used in the last 12 months in kg is multiplied by 0.9991 to derive mass of organic HAP reduction. This is subtracted from the total coating used in the last 12 months (kg). This is then divided by the total solids (rubber) used in the coating for the last 12 months. This calculates how many kg of organic HAP per kg of solids is applied in the coating. The compliance number is 0.12 kg of organic HAP per kg of solids applied. The facility is in compliance with this number. This will be done on a 12-month rolling time period. The facility is going to modify the recordkeeping so that it is more in line with the MACT. They are also going to perform another performance test in conjunction with the RATA in 2015. They will be sending an ROP modification request to change the testing language in FG-PTECONTROL to once during the term of the ROP.

In 2010 Day sent a letter to the EPA requesting a variance from the NSPS VVV because the Part 63 MACT OOOO is equivalent or more stringent than VVV. In a letter dated April 28, 2010, EPA agreed and granted the variance. The letter also accepted the SRS monitoring of the outlet gas stream to show compliance with OOOO. This letter is taken as approval of alternative monitoring to satisfy 63.4292(c).

The facility has a training program for employees to follow the work practice standards in 63.4293(b).

The facility is in compliance with the facility emission limit of 175 tons VOC based on a 12-month rolling average. All other recordkeeping appears to be in compliance.

NAME Dennis Dunlap

DATE 8/25/14

SUPERVISOR NA 8/25/2014