

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

N649645216

FACILITY: Hutchinson Aerospace & Industry		SRN / ID: N6496
LOCATION: 1300 S COUNTY FARM RD, ITHACA		DISTRICT: Lansing
CITY: ITHACA		COUNTY: GRATIOT
CONTACT: Donald English , Maintenance Manager		ACTIVITY DATE: 07/16/2018
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Unannounced, Scheduled compliance inspection to determine compliance with PTI No. 57-05C.		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow (author) and Sam Braman (AQD LDO)

Personnel Present: Donald English, Maintenance Manager (donald.english@hutchinsonna.com)

Purpose: Conduct an unannounced, scheduled, partial compliance evaluation (PCE) inspection by determining compliance with Hutchinson's' Permit No. 57-05C, including verification that Hutchinson stayed within the permit's emission limits to remain an opt-out source and not enter into Title V status. This inspection was done as part of a full compliance evaluation (FCE).

Facility Background/Regulatory Overview: Hutchinson makes suspension wraps for armored humvees, and heat-resistant suspension mounts for heavy trucks, Harley Davidson, the Cummins diesel, Peterbilt, etc.

Hutchinson is an opt-out facility: there are facility-wide individual and aggregate HAPs restrictions.

PTI 57-05C, issued February 20, 2018, was written to include the addition of EU-TURBOSPRAY, an emission unit transferred from the Hutchinson facility in Cadillac. At the time of the inspection installation had not been completed. Don English, Maintenance Manager, said that they plan to complete the installation by the end of July or early August.

Hutchinson has been flagged as a facility that may use PFAS- and PFOS-containing materials, thus an inspection was required. D. English said that the City of Ithaca had already inquired Hutchinson of this and FTC Consultants worked to determine that Hutchinson had, nor used, any PFAS-or PFOS-containing materials. I have requested that Hutchinson provide documentation via SDS and other information to verify that this is correct. I will write a report under separate cover to discuss the results of this inquiry.

Inspection: At approximately 8:00 a.m. on July 16, 2018, Sam Braman and I met with Don English, Maintenance Manager and the environmental contact for Hutchinson. I provided him with a January 2017 Permit to Install Exemptions Handbook and explained that any time there are plans to install new equipment or change existing equipment, the exemption rules must be reviewed to ensure the installation or change is exempt.

Table 1 contains a list of all emission units onsite. I verified with D. English that there are no emergency generators or boilers located at the facility.

Table 1. Emission Unit List

EU	Description	Control	PTI/ Exemption	Flexible Group	Installation/ Mod Date
EU- RUBBERMOLDING	Rubber injection molding and compression presses not to exceed 56	Central ventilation with 80 cartridge HEPA filters, 70% presses	57-05C	FGFACILITY	11-17-98/ 3-18-16

	presses.	controlled, at a maximum			
EU-DESPATCH 1 & 2	2 electrically heated ovens used for post-cure of metal and rubber parts, and some post-cure of adhesive coated metal parts	NA	57-05C	FGDESPATCH, FGFACILITY	3-24-05
EUADHESIVEDIP1 & 2	Enclosed dual tanks for adhesive dip machine with overhead cure oven	RTO	57-05C	FGRTO, FGFACILITY	3-1-00 (line 1) 10-1-02 (line 2)
EUMANUALBOOTH	Manual spray booth	Dry filters RTO	57-05C	FGRTO, FGFACILITY	5-1-05
EUAPM1 & 2	Automatic spray paint/adhesive machine/booth with hot air dryers	Dry filters for coating RTO	57-05C	FGRTO, FGFACILITY	5-1-05
EU-PRODPLUS (EUAPM3)	Application of coating to tubes and washers using a brush-type applicator. Hot air-dried	RTO	57-05C	FGRTO, FGFACILITY	5-1-05
EUTURBOSPRAY	Rotary spray booth applies adhesive to metal and plastic parts using HVLP or equivalent	Permanent Total Enclosure RTO	57-05C	FGRTO, FGFACILITY	TBD 2018
1 Parts Washer	2.5'x1.5' parts washer containing Safety Kleen solution, DEQ-sponsored orange operating instructions posted	Lid closed	Rule 281(2) (h)	NA	NA

EU-RUBBERMOLDING

EU-RUBBERMOLDING consists of a maximum of 56 presses, with a minimum of 70% of the presses being controlled by a centralized fabric filter. D. English said Hutchinson has an 80-cartridge HEPA filter filtration system to capture the fumes from the rubber presses (see attached photo).

Emission Limits, Design/Equipment Parameters & Monitoring/Recordkeeping

VOCs from rubber processing are limited to 3.1 tpy on a 12-month rolling basis, as determined at the end of each calendar month. Hutchinson is required to maintain record for the VOC emission factor for each type of rubber processed; and the VOC mass emission calculations per calendar month and per 12-month rolling time period.

Hutchinson currently uses two "types" of rubber, Rubber #3 and Rubber #11, which are labeled as such, according to EPA's nomenclature under AP-42, Section 4.12. Sue Kuieck, Hutchinson's consultant from FTC, said that Hutchinson chooses the

EPA rubber compound type that best fits their formulation. Generally each EPA rubber compound type is determined by the base rubbers in the mixture. Sue Kueck provided me with an example mixture for Rubber #3 and Rubber #11 to demonstrate how Hutchinson's rubber formulations match up to the EPA's Rubber Compound formulations (attached). For example, Rubber #3 contains natural rubber, and Rubber #11 contains neoprene. I verified that Hutchinson was using the AP-42 VOC emission factors for Rubber Compounds #3 and #11 for Platen Press Curing (emission factors attached) for each month in the 12-month rolling time period, July 2017 – June 2018.

Hutchinson has the rolling 12-month totals spreadsheet for VOCs emitted, but also individual, detailed spreadsheets per month (see attached for July 2017 and June 2018 summaries). The 12-month rolling VOC emissions from July 2017 – June 2018 is 0.4 tpy (attached), within the 3.1 tpy limit.

Visible emissions from the centralized 80-cartridge HEPA filter system are limited to 5% opacity on a 6-minute average. While outside observing the filtration system we did not see any visible emissions coming from the stack. D. English said that the post-filter emissions are only vented outside during the summer months. During the winter months the hot, filtered exhaust air is pushed back into the facility. There are a total of 5 55-gallon drums used to collect any post-filter particulate, although D. English said he has never seen particulate in any of the drums in the 4 years that he has worked at this position. He explained that the HEPA filters on the bottom rows become dirtier than the filters near the top, and so when the filters are changed the bottom cartridges are removed and thrown into garbage bags right at the cartridge filter system before being thrown into a dumpster. The top filters are then moved to the bottom of the unit and top filters are then replaced with new filters.

Hutchinson is required to install, calibrate and maintain a device to monitor the pressure drop on the fabric filtration system, and they are required to monitor and record the pressure drop on a daily basis. D. English said that the operating range on the fabric filter is 0.5 – 1.5 in. H₂O. During the inspection I recorded a pressure drop of 0.9 in. H₂O across the system. D. English said that the filters are replaced when the pressure drop increases toward the maximum of the operating range, or every 6 months, whichever comes first. D. English provided me with daily pressure drop records for May 13, 2016 – June 30, 2016; and June 24, 2018 – July 17, 2018. Readings were taken daily throughout these time periods and all pressure drops were within the 0.5 – 1.5 in. H₂O operating range.

Material Limits & Monitoring/Recordkeeping

Hutchinson is limited to 6,000,000 lbs of rubber per 12-month rolling time period and is required to record the amount and type of rubber processed in lb/calendar month and per 12-month rolling time period. According to Hutchinson's 12-month rolling emission summary (attached), from July 2017 – June 2018 1,423,114 lbs of rubber was molded in the presses, within the 6,000,000 lb limits.

Design/Equipment Parameters & Monitoring/Recordkeeping

D. English and I counted a total of 29 rubber presses being vented to the fabric filter control system and a maximum of 56 presses installed total. D. English provided me a records of all presses (attached) and whether each was vented to the control system or not, which also represented 29 rubber presses being vented to the control system. There is a total of 37 presses onsite. Hutchinson is required to vent a minimum of 70% of their rubber presses to the air filtration system., the remaining should be vented to the in-plant environment. Currently 78% of the presses are vented to the control system.

Hutchinson is in compliance with all conditions associated with EU-RUBBERMOLDING at this time.

FG-DESPATCH

FG-DESPATCH includes 2 electrically-heated ovens used for post-curing of metal and rubber parts. Although PTI 57-05C and the older version, PTI 57-05B, state that these units are controlled by an RTO in the emission unit tables, the PTI Evalform for each PTI specifies that FG-RTO contains all emission units controlled by the RTO and EUDESPATCH1 & 2 are not among the listed emission units. There are no control devices associated with these units at the facility.

Emission Limits & Monitoring/Recordkeeping

Hutchinson is limited to a total of 4.0 tpy VOC per 12-month rolling period from both units under FG-DESPATCH combined. Hutchinson is required to maintain a current listing from the manufacturer of the chemical composition of each type of rubber, including the wt% of each component, in addition, they need to keep record of the VOC emission factor for each type of rubber processed, and the VOC mass emission calculations on a monthly and 12-month rolling basis.

The same rubber types that Hutchinson currently uses in their EURUBBERMOLDING presses are the same two types of rubber, Rubber #3 and Rubber #11, which are heated in FG-DESPATCH ovens. D. English said that although the AP-42, Section 4.12 emission factors for Platen Press Curing are representative of Rubber #3 and Rubber #11, (0.00204 and 0.00024 lb/lb, respectively), Hutchinson uses an emission factor of 0.055 lb/lb rubber, which is what they used in their permit application, and which overestimates their emissions. The VOC emissions from the despatch ovens on a monthly and 12-month rolling time period, July 2017 – June 2018, are calculated and recorded. The 12-month rolling VOC emissions is 0.97 tons.

Material Limits & Monitoring/Recordkeeping

Hutchinson is limited to 140,500 lb/year of rubber processed through the despatch ovens. They are required to record the amount and type of rubber processed in lb/calendar month and lb/12 month rolling time period. According to Hutchinson's 12-month rolling summary, from July 2017 – June 2018 35,256 lbs of rubber was processed.

D. English explained that not all rubber parts that are pressed are further processed in the despatch ovens; only those that need additional curing time (only 5 of their parts) are processed in the ovens

There are currently no Process/Operational Restrictions, Design/Equipment Parameters, Testing/Sampling, or Reporting requirements for FG-DESPATCH.

Hutchinson is in compliance with all conditions associated with FG-DESPATCH at this time.

FG-RTO

FG-RTO covers adhesive-to-rubber coating operations and includes EU-ADHESIVEDIP1 & 2, EU-MANUALBOOTH, EU-APM1 & 2, EU-PRODPLUS, and EU-TURBOSPRAY, which has not yet been installed. A Permanent Total Enclosure is required for EU-TURBOSPRAY only. As stated previously, EU-TURBOSPRAY installation is not complete and therefore there are no emissions and monitoring or recordkeeping to check for compliance at this time. Within 30 days of completion of the installation of EU-TURBOSPRAY, Hutchinson is required to notify the AQD of the installation. During our pre-inspection meeting I reminded D. English of this requirement and explained to him that the installation date is the date by which the equipment has been installed and is ready for trial operations. I also reminded him that the destruction efficiency of the RTO for EU-TURBOSPRAY is required to be conducted 180 days after commencement of trail operations.

Emission Limits, Design/Equipment Parameters, Testing/Sampling & Monitoring/Recordkeeping

Hutchinson is limited to 30.0 tpy VOCs on a 12-month rolling period for all emission units in FG-RTO and limited to 1.30 tpy per 12-month rolling period for EU-TURBOSPRAY. The following records are required to be kept for EU-TURBOSPRAY and FG-RTO, separately: Gallons with water and VOC content with water of each adhesive, coating and solvent used; and the VOC mass emission calculations on a monthly and 12-month rolling period. Only FG-RTO is being evaluated for these items at this time. Additionally, Hutchinson is required to determine VOC content, water content and density by Method 24 analysis, or, if approved by the AQD District Supervisor, can determine these 3 coating parameters using manufacturer's formulation data.

Hutchinson may not have requested approval for using manufacturer's formulation data in lieu of Method 24 testing on the adhesives and coatings. S. Kueick said that back when this company was going through the ROP application process, AQD inspector Brian Culham at the time had said Hutchinson (Paulstra, at the time) could use manufacturer's formulation data in lieu of Method 24 testing on their adhesives and coatings. In order to ensure that the AQD has these communications in writing, I have requested that Hutchinson submit an official request to use manufacturer's formulation data. The AQD will then send a letter approving the use of the formulation data. For the purposes of compliance checks for this inspection, manufacturer's formulation data will be an acceptable means for determining VOC content, density and water content of each coating and adhesive.

Currently, the VOC emissions are calculated using the manufacturer's formulation data, which D. English provided to me in the form of an Air Quality Data Sheet (AQDS) for the 3 most-used coatings; the AQDS contain the wt% of all components, the VOC content, and the density of the material. The reported VOC emissions are determined using a 93.7% control factor. Hutchinson is required to have a minimum combined destruction/control efficiency of 85%. In 2004, Hutchinson (then Barry Controls) conducted a capture and destruction efficiency test. Results indicated a destruction efficiency of 98.72%. S. Kueick, Hutchinson's consultant, said that when the stack test was conducted, the AQD TPU staff said even though Hutchinson's process met the Method 204 requirements for permanent total enclosures (PTEs), Hutchinson should use 95% for capture efficiency because they were not required to do the pressure drop monitoring that PTE's currently need to comply. The 93.7% control factor takes into account the 95% capture and 98.72% destruction efficiency. The 12-month rolling VOC emissions from July 2017 – June 2018 for FG-RTO was 4.0 tons (controlled at 93.7%).

There are currently no Material Limits for FG-RTO or EU-TURBOSPRAY.

Process/Operational Restrictions

Hutchinson is required to capture all waste materials and store them in closed containers. I saw no containers open to atmosphere.

Additionally, Hutchinson is required to dispose of spent filters in a manner which minimizes the introduction of air contaminants to the outer air. D. English said that the spent filters are collected in bins inside the plant and allowed to dry before being crushed down in a drum to ship out for disposal. It is my professional judgment that this process minimizes the introduction of the paint particulates to the outer air as all fabric filters are handled and captured within the plant environment prior to disposal.

A Malfunction Abatement Plan is required for the RTO. The MAP was originally submitted to AQD on May 15, 2018. Per my request 2 revisions were made to the original 5/15/18 document to ensure that the document met permit requirements. The

final, approved version was submitted to AQD on July 27, 2018.

Design/Equipment Parameters & Monitoring/Recordkeeping

Hutchinson is required to operate the spray booth portions of FG-RTO with the exhaust filters installed and operated in a satisfactory manner. I did not see any opacity from any of the stacks on Hutchinson's roof. Additionally, where spray booths were present, I verified that the fabric filters were installed properly. See Table 2.

Table 2.

EU	Fabric Filter status	Type of applicator
EUADHESIVE1	NA	Dip
EUADHESIVE2	NA	Dip
EUMANUALBOOTH	Filters installed and maintained properly; filters are double-layered	Manual applicators
EUAPM1	Filters replaced weekly to prevent damage to RTO prefilters.	Automatic applicators
EUAPM2	Filters replaced weekly to prevent damage to RTO prefilters.	Automatic applicators
EUPRODPLUS	NA	Brush
EUTURBOSPRAY	NA	Not yet installed

The RTO, which controls all VOC emissions from the emission units in FG-RTO, was operating at 1512°F during the inspection. Hutchinson is required to operate the RTO at a minimum of 1400°F. RTO temperature continuous records are required to be kept. I requested continuous records from June 23, 2018 – June 30, 2018 to demonstrate that the temperature has been maintained at or above 1400°F. D. English provided me with a continuous record of RTO temperatures for this time period (attached), which demonstrates that the RTO temperature has been continuously at or above 1500F for that time period.

Hutchinson is in compliance with all conditions associated with FG-RTO at this time.

FGFACILITY

FGFACILITY covers all process equipment source-wide, including equipment covered by other permits, grand-fathered equipment and exempt equipment.

Emission Limits, Testing/Sampling & Monitoring/Recordkeeping

Hutchinson is limited to 9.0 tpy for each individual HAP and 22.5 tpy for aggregate HAPs post-control. An RTO is used to control HAP from all units under FG-RTO.

Hutchinson is required to determine the HAP content of any material, as applied and as received, using manufacturer's formulation data. I verified that Air Quality Data Sheets (AQDS) are used to determine the HAP content, which are also used to calculate HAP emissions.

When verifying that HAP contents were entered correctly into Hutchinson's calculation spreadsheets, I noticed that some of the HAPs in the AQDS were not accounted for. S. Kuieck explained that the manufacturer will change their formulations and provide Hutchinson with the new formulation data on a consistent basis, for the most recent formulation changes, Hutchinson has not yet updated the spreadsheet. Because the HAP emissions are only a fraction of the permit limits, the missing data will not cause Hutchinson to exceed their permit limits; however, I recommended to S. Kuieck that the company establish a routine schedule for updating their spreadsheets with new HAP formulation data to ensure that omissions of HAP do not get propagated throughout the year.

D. English provided me with a HAPs emissions summary sheet for July 2017 – June 2018 in addition to monthly totals per individual and aggregate HAP. The largest quantity of a single HAP generated was 3.2 tons in the form of toluene, and the largest combined total of all HAPs emitted within the rolling period was 4.43 tons.

There are currently no Material Limits, Process/Operational Restrictions, or Design/Equipment Parameters for FGFACILITY.

Hutchinson is in compliance with all conditions associated with FGFACILITY.

Safety Requirements: Hutchinson requires safety vests, hearing protection, steel-toed boots, and safety glasses.

Compliance statement: Hutchinson is in compliance with PTI 57-05C at this time.

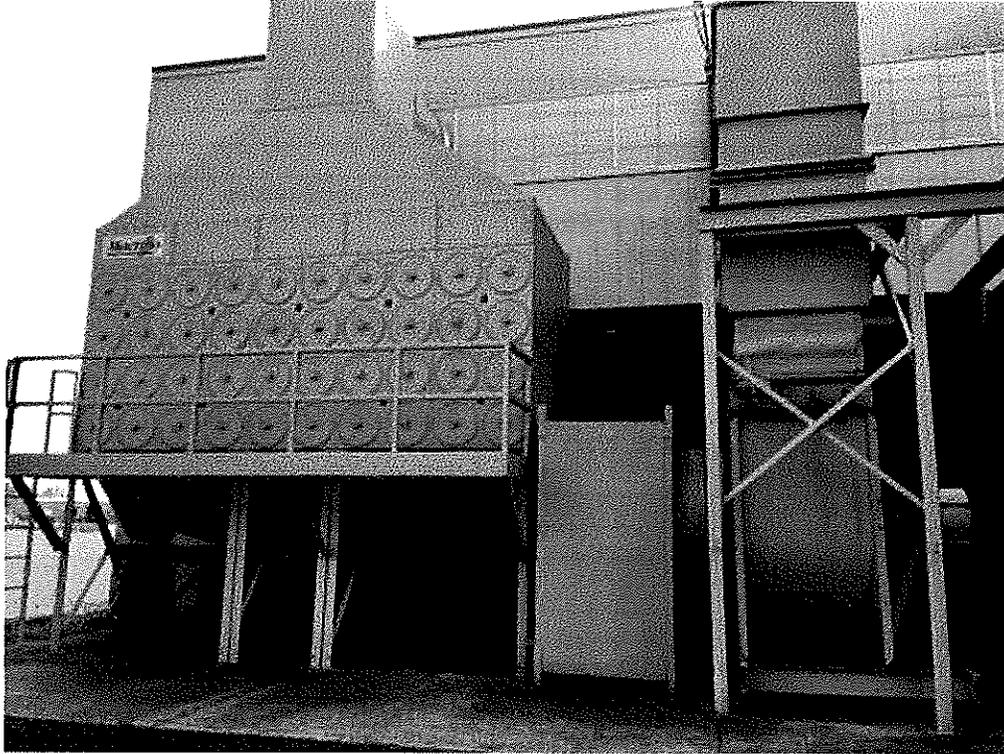


Image 1(Fume Collector) : Collector for fume emissions from EURUBBERMOLDING presses

NAME Mullen Lptw DATE 7/31/18 SUPERVISOR B.M.