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

A157135668

FACILITY: HUNTSMAN ADVANCED MATERIALS AMERICAS, LLC.		**SRN / ID:** A1571
LOCATION: 4917 DAWN AVE, EAST LANSING		**DISTRICT:** Lansing
CITY: EAST LANSING		**COUNTY:** INGHAM
CONTACT: Dianne Blessing , EH & S Specialist		**ACTIVITY DATE:** 07/22/2016
STAFF: Nathaniel Hude	**COMPLIANCE STATUS:** Non Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Scheduled, unannounced, initial contact (as inspector) inspection as part of an FCE.		
RESOLVED COMPLAINTS:		

Inspection Report
A1571- Huntsman (formerly Ciba-Geigy Corporation)
4917 Dawn Avenue
East Lansing, MI 48823

Inspection Date:
7/22/16

Facility Contacts:
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MDEQ AQD Personnel:
Nathan Hude – huden@michigan.gov, 517-284-6779

Facility Description:
The Facility manufactures epoxy resins and specialty polymers, including intermediates for the finished products. Raw materials are stored in above ground tanks and drums. The raw materials are blended in closed mixers. Some products are also manufactured in the hardener and resin kettles. Liquid products are approximately 50% of the Huntsman business.

Huntsman also manufactures polyurethane plastic boards and mixes adhesives from purchased epoxy resins. The NAICS code reported to MAERs is 325211 "Plastic Material and Resin Manufacturing". Adhesives, accelerators, and hardeners are produced in kettles and mixers, as well as premixes for the polyurethane plastics. A Reaction Injection Molding system is used to make the polyurethane boards. The boards are cured in ovens and machined to marketing dimensions. Polyurethane plastic board production is approximately 50% of the Huntsman business.

The facility is located on the eastern edge of East Lansing near the Okemos border in a commercial area. Dawn Avenue only goes south off from W. Grand River Avenue and dead ends at a railroad bridge that crosses the Red Cedar River.

Huntsman currently employs 37 employees and operates Monday –Thursday with 21 hour operations in production and Monday-Friday 8 hours per day with front office staff.

For inspection purposes, Monday – Thursday is best to observe operations.

For entry into the production area, eye protection, steel toed boots, long sleeve shirt and hearing protection is required.

Applicable Regulations:
PTI 358-99 for consolidation of numerous permits and establishing facility wide Opt-Out limits
PTI 871-90 for a buffalo scrubber
PTI 580-88A for a baghouse
PTI 785-81 for a pilot plant to simulate on a small scale the following equipment: versamix kettle, ross kettle, marion cowles, 3-roll mill and hobart and attended to the existing rotoclone scrubber

PTI 689-80 to connect vents from three kettles to the buffalo scrubber connects vents from hardner kettle, small kettle, condenser on the versamix to the buffalo scrubber
R336.1282(b)(i) for 2,400,00 BTU/hr boiler
R336.1287(l)(vi) for polyurethane board shaping via grinding and cutting

Non-Applicable Regulations:
40CFR63 Subpart JJJJJJ (6J)- NESHAP for Area Source Boilers does not apply due to the exemption per 63.11195(e) as a gas fired boiler

40CFR63 VVVVVV (6V)- NESHAP for Chemical Manufacturing Area Sources; an analysis of this regulation was conducted by Huntsman which found that the facility does not utilize any of the raw material or feed stock nor does Huntsman produce any products containing the compounds identified in found in Table 1 of the regulation.

40CFR63 BBBBBBB (7B)- NESHAP for Chemical Preparations Industry; an analysis of this regulation was conducted by Huntsman which found that the facility does not utilize any of the raw material or feed stock identified in the definition of "Target HAP Containing" as stated in paragraph 63.11579 and defined in 63.11588.

Previous Inspections (within 5 years):
4/5/13, Brian Culham, no issues noted

Previous Violations:
none

Violations Found During this Inspection:
1. Scrubber differential gauge was inoperable as required by PTI 358-99 Special Condition 9.
2. polymeric diphenyl methane diisocyanate usage is not being reported and may be over the limit as identified in PTI 358-99 Special Condition 4.
3. Cold Cleaner usage rates were not provided by the company. Due to the emissions of these devices being vented to the scrubber when open, it should be included in the MAERS submissions. This will be cited as a violation of AQD Policy 013.

Recent Complaints (within 2 years):
none

MAERS Reporting
Facility is not Categorized in MAERS though does report due to their Opt-Out status.
NAICS Code: 325211 – Plastics Material and Resin Manufacturing

MAERS Emission Unit List
EU0002- Kettles and mixers vented to Rotoclone scrubber

Inspection Summary
I arrived at Huntsman around 10:15 am for a scheduled, unannounced, initial contact (as new inspector), full compliance evaluation inspection. It was sunny skies with 5-10mph winds out of the south West; upon entering the parking lot and the building, I did not detect any odors or see any visible emissions.

I entered through the front entrance where I was met by a receptionist. I introduced myself and informed her on the reason for my visit. She stated that the individual who was the EHS in the past was no longer with the company, but would inform the new individuals. Shortly thereafter, I was met by Greg, Cathy, and Dianne.

We sat down in a nearby conference room and after introductions I provided them with a copy of our inspection brochure, the Boiler MACT Card, and my business card. We went over the brochure and I discussed the reason for my visit. The site has a total of five active permits, yet one permit, 358-99 that is labeled as a permit to "consolidate permits & facility wide limits". We discussed whether the four permits in question were still required (871-90, 580-88A, 785-81, and 689-80) and came to the conclusion that we would inspect based on the permit requirements, but would research to determine if they could be voided. Of the four inspection reports listed in MACES, 1/24/08, 3/24/09, 3/23/10, and 4/5/13, none of the reports referenced these permits in question. A MDEQ letter written for the issuance of PTI 358-99 identifies at least 430 permits to be void upon issuance of 358-99, yet these four permits are not identified in the letter. I will inform the company that if an intent to void these permits is requested, they will need to comply with R336.1278a(1).

We also discussed 40CFR63 7B and 40CFR63 6V. These regulations have been cited in past reports as "could be" or "may be" subject, but required compliance was never determined. I requested an analysis be completed by the company for each regulation; specifically if they utilize materials containing "Target HAP-containing" as per definition in paragraph 63.11588 in 6V or are classified as a "chemical manufacturing process unit" utilizing the HAPs listed in Table 1 of the subpart 7B per paragraph 63.11494(a)(2). It should be noted that the cover letter for PTI 689-80 specifically states "for the various chemical processes that do not involve any of the acrylonitrile, propylene oxide, or cadmium compounds". On 7/26, Kenneth provided email notification that the regulations did not apply by stating the following:
1) Does Huntsman use compounds as identified in Table 1 of 40CFR63 VVVVVV (V6)?
A) NESHAP 6V is not applicable the Huntsman East Lansing site. Huntsman does not use any raw materials or feed stock containing the compounds identified in Table 1 of Subpart VVVVVV, nor does Huntsman produce any products containing these compounds.
2) Does Huntsman use compounds as identified in the definition of and percent listed of the definition of "Target HAP Containing" found in 40CFR63 BBBBBBB (B7)?
A) NESHAP 7B is not applicable the Huntsman East Lansing site. Huntsman does not use any raw materials, feed stock or produce any products with any compounds that meet the "Target HAP Containing" definition.

Our discussion also included the Boiler MACT. Huntsman, as an area source of HAPS would technically be subject to 40CFR63 6J; yet the 2400 MBH boiler installed is fueled by natural gas and is thus exempt per paragraph 63.11195(e). This boiler is used for process heat and steam in the plant. This boiler is rated at 2400MBH or 2,400,000 BTU/hr and is exempt from permitting via R336.1282(b)(i).

The following is written by permit and may not necessarily be in the actual order of inspection.

PTI 689-80 description states "to connect vents from three kettles to the buffalo scrubber connects vents from hardener kettle, small kettle, condenser on the versamix to the buffalo scrubber" per permit cards. A diagram included in the permit file highlights the location of units where emissions are to be collected, yet I believe the facility has changed its indoor footprint since issuance. This permit does not have any special conditions in which to inspect, only general conditions so the inspection did not cover anything other than general conditions and known state rules. Since the buffalo scrubber has been removed per 871-90 and the remaining equipment is covered by the 358-99 consolidation permit, it is recommended this permit to be void.

PTI 785-81 description states "for a pilot plant to simulate on a small scale the following equipment: versamix kettle, ross kettle, marion cowles, 3-roll mill and hobart and attended to the existing rotoclone scrubber" per permit cards. Throughout the permit and permit application "kilo lab" is used as a synonym for the pilot lab. During the inspection, I found that the only processes that were still connected and operational of this permit were the 30 gallon Versamix and 50 gallon Cowles mixer which were connected to the current rotoclone scrubber. This equipment was technically re-permitted or covered by the issuance of 871-90, though 871-90 did not include special conditions specific to the lab. These special conditions were inspected as follows:
14. No VE's from lab; none witnessed though neither the 30 gallon Versamix or 50 gallon Cowles mixer were operating.
15. Requiring operating approval through testing at AQD's request; this has never been sought that I can find in records.
16. The date, time, and nature of all product made in lab will be kept on file for 2 years; I used the extensive spreadsheet submitted by Huntsman in their MAERS report to review this information.
17. Shall not operate lab unless Type "N" rotoclone scrubber is installed; I confirmed installation and operation of the scrubber through the sight glass.
18. The total combined production per year of the production plant and lab shall not exceed the production rate given by the applicant in existing permits; due to the vagueness of this condition as to which permits it is referencing, it would be very complicated to research and confirm due to the amount of permits that were active when 785-81 was issued (≥ 400 permits), though confirmation of this condition was not competed, I believe it is being met due to the reduced work load and processing of the facility now as compared to when the permit was issued.
19. The applicant shall only blend or use raw materials and only produce chemically reacted products which have been previously reviewed and approved by AQD under any other of the applicants air permits, except experimentation not intended for sale or immediate manufacturing; much like the response to 18, due to the vagueness of this condition as to which permits it is referencing, it would be very complicated to research and confirm due to the amount of permits that were active when 785-81 was issued (≥ 400 permits), though confirmation of this condition was not competed, I believe it is being met due to the reduced work load and processing of the facility now as compared to when the permit was issued.

Based on this review, it appears Huntsman is in compliance with PTI 580-88A.
Due to the removal of equipment, this is a violation of General Condition 4 of PTI 785-81, yet due to the issuance of 871-90 I believe that the condition for emission control has been met as intended and there has not been an increase in emissions due to the removal of said equipment. I do not believe voiding this permit is appropriate, but the conditions should be incorporated into a better revised and all-inclusive single permit for the facility and this equipment.

PTI 580-88A description states "for a baghouse" per permit cards whereas the issuance letter states "to recover phenolic microballoons and fumed silica". This baghouse is vented to the rotoclone scrubber and controls emissions when these components are added to a mix. According to the permit application, the baghouse is on a pallet and is portable so that it can be moved to different mixers as needed. Online research found that phenolic microballoons is used as light weight filler for epoxy and polyester resins with a density lower than glass. Fumed silica per Wikipedia is a "powder has an extremely low bulk density and high surface area. Its three-dimensional structure results in viscosity-increasing, thixotropic behavior when used as a thickener or reinforcing filler. Serves as a universal thickening agent and an anticaking agent in powders". The baghouse is used due to how the phenolic microballoons and fumed silica affect the scrubber water. PTI 358-99 does not reference this device and I cannot find a exemption rule that is fitting to allow this permit to be voided. There are three special conditions of the permit that were inspected as follows:
14. There shall be no VE's from the baghouse; no VE's were noted.
15. Applicant shall not operate baghouse unless rotoclone scrubber is installed; yes it was installed and operating.
16. Applicant shall not substitute raw materials for those that would cause an increase in emissions; this condition is very subjective since the baghouse is used for a control device, it is unclear how a change in product would cause an increase in PM when a baghouse is used; I believe this is standard language as it has been found in numerous older permits.
Based on this review, it appears Huntsman is in compliance with PTI 580-88A.

PTI 871-90 description states "for a buffalo scrubber" per permit cards which is an inaccurate statement based supplemental documentation in the permit file; I believe the description was entered in error. The permit approval letter states "for modifications to existing air pollution control process equipment, including the removal of the Buffalo scrubber and routing all emission points to the existing Rotoclone scrubber which will be upgraded". The permit application states that the Rotoclone would be upgraded from a 10,000cfm capability to a 12,000cfm capability so that the system could handle all of the emission points that 2 scrubbers originally controlled. It also stated that the buffalo scrubber serviced the small kettle, anti-oxidants, resin kettle, and hardener kettle; the removal of the buffalo scrubber would allow for easier access to the kettle room. There are five special conditions of the permit that were inspected as follows:
14. Applicant shall manufacture each product with maximum emission limits as per Appendix A; Appendix A refers to 17 permits in the 134-82 series, 98 permits in the 537-80 series, 20 permits in the 538-80 series, 67 permits in the 539-80 series, 1 permit in the 663-86 series, 68 permits in the 677-86 series, 33 permits in the 688-80 series, 33 permits in the 690-80 series, 71 permits in the 691-80 series, 42 permits in the 807-80 series, 59 permits in the 808-80 series, 106 permits in the 809-80 series for a total of 615 permits allowing 12,327 different batches as specified by permit and 47,779,436 unspecified units (gallons or pounds) of product. The cited permits have all since been voided making this condition unenforceable.
15. Applicant shall not produce anything listed in Appendix A unless the rotoclone scrubber is installed and operating properly; I did confirm operation of the scrubber, this requirement is also covered via PTI 358-99 SC 8.
16. Exhaust gasses must be ≥ 70 feet above the ground and a maximum diameter of 20 inches at exit; PTI 358-99 revised this to ≥ 76 feet above the ground and a maximum diameter of 20 inches.
17. Applicant may use any vessel for the manufacture of any product which is covered by an approved permit as identified in Appendix A yet shall not exceed production rate limitation; due to the voidance of these permits, this condition cannot be confirmed.
18. Records of all batches manufactured per year shall be kept on file for two year; this data is available in MAERS and special restrictions for batches of concern are detailed in PTI 358-99.
Based on this permit, with the removal of the Buffalo scrubber and venting all emission points to the rotoclone scrubber and the voidance of all permits identified in Appendix A, PTI 871-90 should and can be voided.

PTI 358-99 permit cards description states" for consolidation of numerous permits and establishing facility wide Opt-Out limits". A review of the permit eval found the following: "This application is to consolidate the existing 500+ air permits for the facility-wide production operations that are vented to the Rotoclone Scrubber. The consolidated permit will be for emission unit EUKettles & Mixers consisting of the following equipment:
Process Equipment: pph tpy

230 Gallon Pfaudler Kettle	5.15	4.11
750 Gallon Versamix	11.10	14.87
230 Gallon Nauta Mix	1.91	1.55
800 gallon large marion mix	1.16	4.32
jaygo double planetary mix	2.19	8.16
two 15-gallon hobart mixers	0.14	0.52
3-roll roller mill	0.58	2.17
pfaudler resin kettle	0.96	3.57
cowles mixer	0.65	2.41
230 gallon small marion mixer	2.44	5.59
pfaudler hardener kettle	12.00	5.32
TOTAL	38.3	52.6

This unit description or specific unit identification is not included with the permit as the style of past and current permits are different.
The permit has ten special conditions that were inspected as follows:
1. VOC emission rates will not exceed 38.3 lbs/hr or 52.6 tons/yr; this documentation was on hand at the facility and provided by Dianne, the tracking sheet used is what is submitted to MAERS and is well below both limits.
2. The methanol emission rate shall not exceed 4.9 lbs/hr or 1 ton/yr; it appears that methanol is only used in the "small marion" for a product named ZK Araldite CW 9029 Blue US and a total of 52 batches were made with the average hourly emission of 0.5 lbs/hr and a total of 0.1 tons/yr.
3. The furfuryl alcohol rate shall not exceed 0.014 lbs/hr; furfuryl alcohol is no longer used at the site per Dianne and Greg.
4. The polymeric diphenyl methane diisocyanate emission rate shall not exceed 0.02 lbs/hr; the facility did not believe they utilized this compound anymore but provided a MSDS for a product stored in their 10,000 gallon tank named Rubinate M that identifies 2 components/ingredients being:
Isocyanic acid, polymethylenepolyphenylene ester, CAS 9016-87-9, 60-100%
4,4'-methylenediphenyl diisocyanate, CAS 101-68-8, 30-60%
When I returned to the office, I performed a search using CAMEO and found that the CAS 9016-87-9 identifies polymeric diphenyl methane diisocyanate as the chemical name which uses Isocyanic acid, polymethylenepolyphenylene ester as a synonym. The current spreadsheet utilized does not identify emission for this substance. Given that the emission limit is so small, this may be a concern if it is used in a manner that is not similar to use as a coating or as for plastic formation. 4,4'-methylenediphenyl diisocyanate is known in industry as MDI and polymeric diphenyl methane diisocyanate is known in industry as PMDI. 4,4'-methylenediphenyl diisocyanate is identified as a HAP by the EPA and polymeric diphenyl methane diisocyanate though not designated as a HAP, is identified on the state toxic rules as a "High Concern Toxic Air Contaminant" in table 20 of rule R336.1226. MDI and PMDI has methods for estimating emissions based on the product made and the breathing and working losses of the storage tanks. A recently inspected facility used PMDI as a coating; the reaction consumes a tremendous amount of the HAPS and toxics, it is unclear if the process using this chemical is similar and the facility was asked for details in a 7/25/16 email. Further information will be detailed at the end of this report once received.
5. In regards to furfuryl alcohol; which has not been used in multiple years.
6. Shall limit the production of Accelerator DY9741 to 37,500 pounds per year; product has not been produced since 2006.
7. Shall keep records of the number of batches made per calendar month, pounds of VOC per batch, pounds of VOC per month; this documentation was on hand at the facility and provided by Dianne, the tracking sheet used is what is submitted to MAERS.
8. Shall not operate any kettle of mixer unless the rotoclone scrubber is installed and operating properly; the scrubber was operational during the inspection though the differential pressure gauge was reading 0.0. This was documented in the previous inspection during 0.0 by Brian Culham in 2013, yet as reading 11.5-12.5 by Dan McGeen in 2008. Brian did not state if the scrubber was operating properly. Although the pressure drop gauge was not working, the scrubber itself was operating as could be heard and seen through the inspection glass.
9. Shall equip and maintain the rotoclone scrubber with a device to measure differential pressure; as stated in the previous SC, the scrubber was operational during the inspection though the differential pressure gauge was reading 0.0. This was documented in the previous inspection during 0.0 by Brian Culham in 2013, yet as reading 11.5-12.5 by Dan McGeen in 2008. This is a violation of this condition for failure to maintain the device.
10. Exhaust gases shall be discharged unobstructed vertically upwards with a maximum diameter of 20 inches and an exit point not less than 76 feet above the ground; I could not physically check the dimensions of this stack, yet based on my estimates, it meets this requirement, The stack looks to be just over twice as tall as the 33 foot tall building.
Other than the violation for failure to maintain the differential pressure gauge of SC9, Huntsman is in compliance with the other conditions of this permit.

This site also has five parts washers that utilize HiSol10 as the solvent. While on site, I provided Dianne with 3 sheets (6 stickers) for "Cold Cleaner Operating Procedures". These sheets also include rules R336.1611 for existing cold cleaners and R336.1707 for new cold cleaners. I saw 2 parts washers during my inspection and all of the lids were closed as required when not in use. These parts washers are also all vented to the scrubber. A Safety Data Sheet found online from Jamson Labs dated 5/15/2014 lists the following ingredients for HiSol10 I also included VOC and HAP info:
64742-95-6 Solvent naphtha (petroleum), light arom. 50-100%, non VOC, non-HAP
95-63-6 1,2,4-trimethylbenzene 10-25%, non VOC, non-HAP
108-67-8 mesitylene 2.5-10%, VOC, non-HAP
25340-17-4 diethylbenzene 2.5-10%, non VOC, non-HAP
1330-20-7 xylene (mix) ≤ 2.5%, VOC and HAP
98-82-8 cumene ≤ 2.5%, VOC and HAP
Usage rates were not provided by the company. Due to the emissions of these devices being vented to the scrubber when open, it should be included in the MAERS submissions. This will be cited as a violation of AQD Policy 013.

Polyurethane Plastic Boards "Board Room" and Polymeric Diphenyl Methane Diisocyanate Usage

The polyurethane plastic boards "board room" was not operational during my inspection. The process uses reaction injection molding (RIM) which is completed by combining 2 liquids into a mold which then expands and hardens before being removed. This operation makes boards that are sold for the purpose of being able to carve and create templates or molds for production of vehicle parts and other structures. On site, Huntsman had templates from customers for a Caterpillar Tractor hood cowling, a tire from an unknown company, and a small engine block. These boards are produced in sizes of about 2 ft by 4 ft and up to 6 inches thick in a closed mold. After the mold, the boards are sent through an oven used for annealing. The 10 large annealing ovens are heated using electricity. After the annealing process is completed the boards then are sent to a shaping area that grinds and sizes the boards to the dimensions desired. The board shaping area is controlled by two outdoor baghouses. Since this area is vented outside, the baghouses are required but the process is exempt per R336.1287(l)(vi).

I believe this area was initially permitted under PTI 537-80C. Though the voided permit file doesn't refer to polyurethane plastic boards, it does reference polymeric methylene diphenyl diisocyanate usage in the Versamix. A memorandum from Soil and Materials Engineers Inc. dated 11/22/99 used to supplement the 358-99 application stated that Ciba (former name of business) plans to use the 30 gallon kilo lab (pilot lab) Versa mixer for products using polymeric diphenyl methane diisocyanate. An attachment to the permit application identifies emissions of 0.0154 lbs/hr without production restrictions when using the 30 gallon mixer. Although PTI 358-99 discusses polymeric diphenyl methane diisocyanate in the mixers, it does not restrict which mixer and it does not discuss board production or emissions from board production.
AP-42 table 4.4-2. Emission Factors For Uncontrolled Polyester Resin Product Fabrication Processes states that Resin Closed Molding (30800736) and Closed Molding (31401525) have an emission facto of 1 - 3% weight of starting monomer emitted. If the entire tank consisting of 10,000 gallons containing the Rubinate M, this would equate to 300 gallons of emissions total and 0.03 gallons per hour if dividing by 8760. The Rubinate MSDS does not include a density, though it does include a Relative Density of 1.23. Using the following equation RD = density of substance / density of reference (water), this equates to 10.26 lbs/gal. 3% of 10,000 gallons would equate to 3078 lbs and then dividing by 8760, it would equate to 0.35 lbs/hr.

In regards to Rubinate M, a request was made via email for the following information regarding Rubinate M usage on 7/25 and again on 7/29:
1) How this substance is used?
2) Is the process part of any sort of hardening of the plastic such as how MDI/Polymeric MDI reacts?
3) Please provide usage amounts of this substance for the past 2 years.

Further follow-ups regarding the use of Rubinate M were completed through 8/7/16. Due to a lack of response, a violation was sent for the conditions listed above in the "Violations Found During this Inspection" heading.

Other information:
Some of the kettles and mixers on site are capable of being heated, thus being used as reactors; but at this point aren't being used as such.

The facility has 3 sets of ovens for various purposes. There are 10 large electric ovens, used for the annealing of the board materials; previous inspection reports utilized R336.1286(b) as an exemption for this process. There are 6 steam ovens, used for pre-heating sealed drums and containers of thicker chemical/compounds prior to being mixed in the kettles/mixers. There are also 6 small electric ovens in the labs.

The following devices were found to not be reported in MAERS: Parts washers, polymeric diphenyl methane diisocyanate usage, and the boiler emissions.

Permit Discussion:

PTI 358-99- although attempting to be all inclusive, does not cover conditions found in PTI 785-81 in reference to a portable bag house. This permit does not provide a description of any of the emission units nor does it contain recordkeeping requirements that can be used for determining compliance with the limits included in the permit. There are conditions that limit the emissions of methanol, furfuryl alcohol, and the production of Accelerator DY9741, yet the facility states these ingredients or products have not been used/produced for some time. At the time of issuance, this permit assumed that polymeric methylene diphenyl diisocyanate usage was only done so in the mixers and does not account for usage in the closed mold process. The main emissions of this facility is VOC's or HAP's, it is unclear why scrubber control is required and the use of such should be evaluated.

PTI 785-81- This equipment was technically re-permitted or covered by the issuance of 871-90, though 871-90 did not include special conditions specific to the lab. This permit should be researched to determine requirements pertinent to current processes of the facility. Some of the equipment is listed in the PTI 358-99 permit evaluation list, whereas other equipment is not.

PTI 580-88A- information on the baghouse discussed in this permit are not included in PTI 358-99 yet should be consolidated.

PTI 871-90- for a buffalo scrubber; recommend voidance due to consolidation of equipment into one permit, 358-99.

PTI 689-80- recommend voidance due to the buffalo scrubber being removed per 871-90 and the remaining equipment is covered by the 358-99

Inspection Conclusion:
Based on this inspection, 3 violations will be cited, thus the facility will be marked as non-compliant on the report and for the Full Compliance Evaluation (FCE) until an acceptable response is received for the violations.

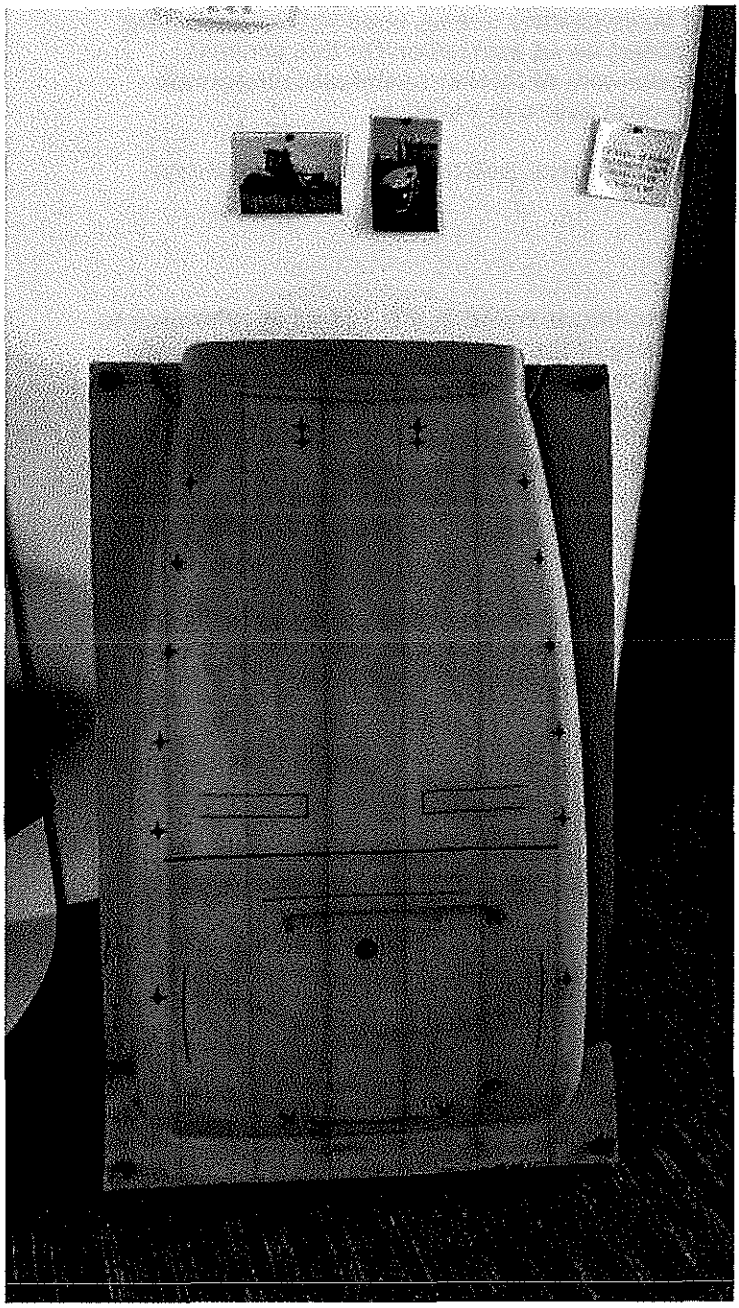

Image 1(Cat Engine Cowling) : Caterpillar Tractor Engine Cowling

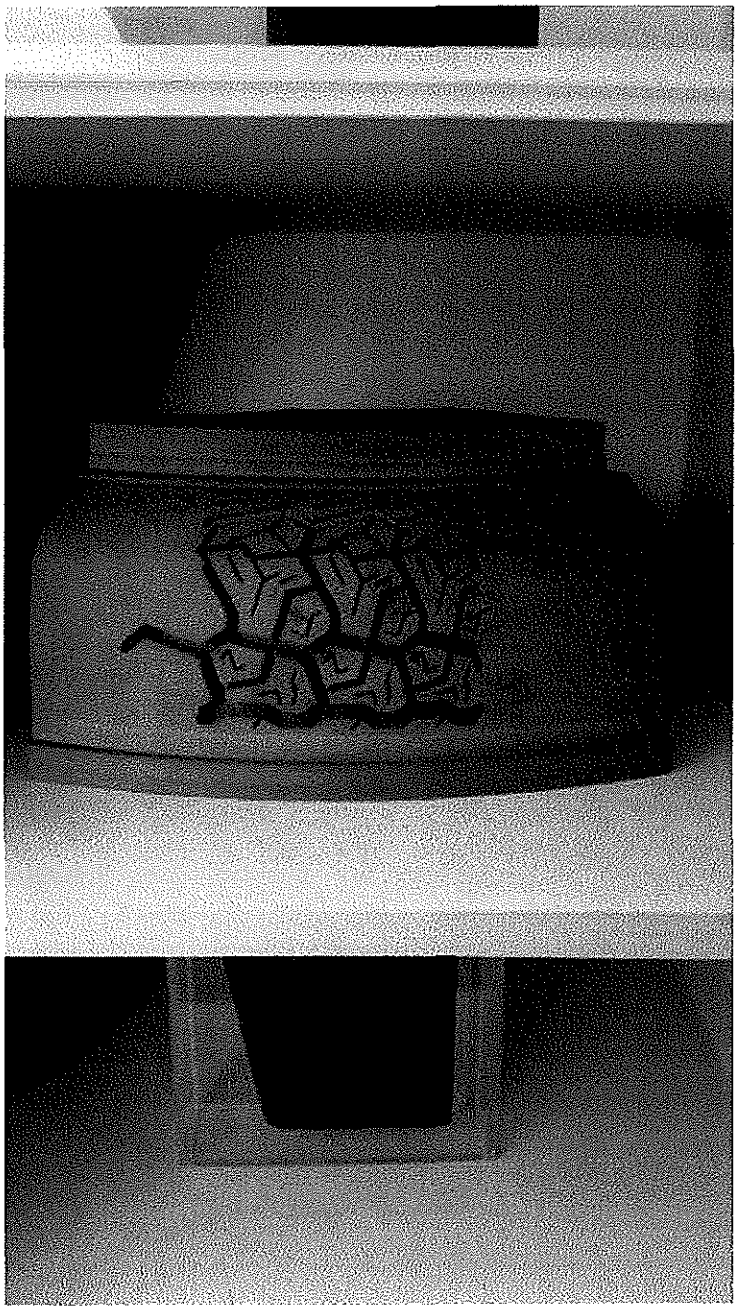

Image 2(Tire Mold) : Tire Mold

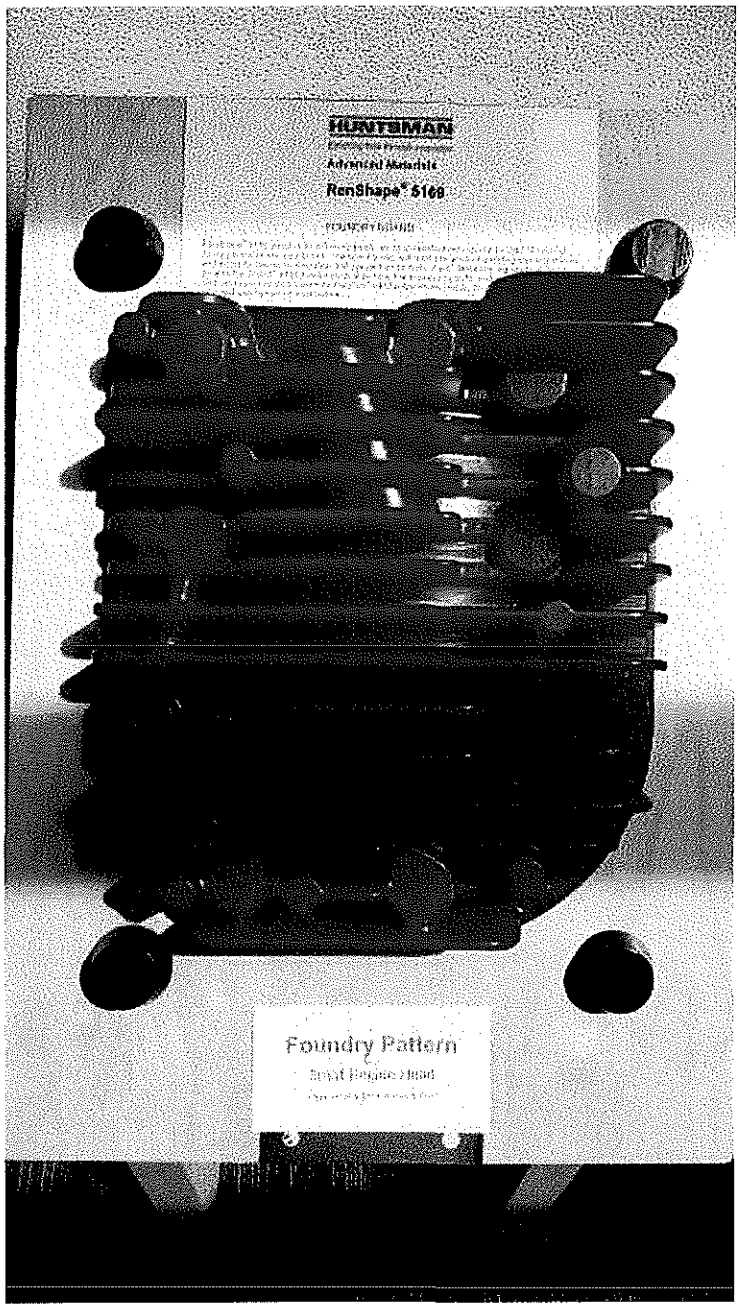

Image 3(Small Eng Block Mold) : Small Engine Block mold

NAME _____ DATE 8/9/16 SUPERVISOR_____