

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

M358230555

FACILITY: IAC Group ,ALMA,LLC ( Formally Lear Corporation)		SRN / ID: M3582
LOCATION: 1965 WILLIAMS RD, ALMA		DISTRICT: Lansing
CITY: ALMA		COUNTY: GRATIOT
CONTACT: John McConkie , Plant Technical Manager		ACTIVITY DATE: 07/02/2015
STAFF: Michelle Luplow	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled, unannounced partial compliance evaluation		
RESOLVED COMPLAINTS:		

Inspected by: Michelle Luplow

Personnel Present: John McConkie (jmconkie@iacna.com), Plant Technical Manager

Other Relevant Personnel: Jim Colmer (jcolmer@bbande.com), Consultant

**Purpose:** Conduct an unannounced, scheduled, partial compliance evaluation (PCE) inspection by determining compliance with International Automotive Components' (IACs) Permit No. 170-79H, including verification that IAC 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:** IAC is involved with making interior automotive parts, using mold-injection, hand-spray painting of interior automotive products (such as consoles, for Ford, Toyota, Chrysler, and GM), applying "fabric" to the interior automotive parts, and assembling the interior automobile parts (for example, installing light tubes and wiring in overhead consoles). The newly permitted FGCOATING2 handles components for IAC's new project for the Camaro. Permit 170-79G was issued to cover 2 new emission units not previously covered in 170-79F: EUMANUAL and EUROBOTIC, and flexible group FGCOATING2 (for EUMANUAL and EUROBOTIC). Permit 170-79H was issued because IAC wanted to transfer all production from EUBOOTH1-4 to EUMANUAL and EUROBOTIC. EUBOOTH1-4, per PTI 170-79H, were required to be removed from service by May 1, 2015, and AQD was to be notified as such within 7 days of removal. On May 19 AQD received a letter from IAC dated May 5, 2015 notifying AQD that the EUBOOTH1-4 and its associated IR oven have been removed from service. Flexible FGCOATING has been removed in PTI version 170-79H and replaced with FGCOATING2. Propylene carbonate was removed from the current permit because IAC no longer uses it.

IAC is an opt-out facility. VOCs are limited to 0.75 tpy from EUADHESIVELN; VOC, cumene, 2-propanol-1-(2-butoxy-1-methylethoxy), and tripropylene glycol methyl are limited to 64.2 tpy, 152.4 lb/year, 16,965 lb/year, and 16,675 lb/year, respectively, for FGCOATING2; and each individual HAP and aggregate HAPS are limited to less than 9.0 tpy and less than 22.5 tpy, respectively, for FGFACILITY.

**Inspection:** At approximately 10:30 a.m. on July 2, 2015 I arrived at IAC. I met John McConkie in the lobby. I gave J. McConkie a DEQ "Environmental Inspections: Rights and Responsibilities" brochure.

J. McConkie said there are 42 mold injectors/presses that can press from 90 to 2200 tons. All mold injectors/presses located on the site are exempt from obtaining a PTI per Rule 285 (l)(i).

#### *Process/Operational Restrictions*

The Process/Operational Restrictions for all permitted emission units are the same. They require that all waste material be captured and stored in closed containers and to dispose of waste material in an acceptable manner and in compliance with all state rules and federal regulations. Additionally, all VOC/HAP-containing materials be handled in such a manner to minimize fugitive emissions.

J. McConkie said that IAC ships out both hazardous waste and waterborne/non-hazardous waste containers. All hazardous and non-hazardous waste containers are located in one room. All containers were closed during the inspection. There is one 55-gallon drum that collects the waste from purging lines that contain catalyst or solvent. These are considered hazardous waste. The purge lines are connected to the room which run directly to the drums.

IAC is currently in compliance with all Process/Operational Restrictions at this time.

#### **EUBOOTH1-4 and associated IR OVEN**

J. McConkie showed me the area where EUBOOTH1-4 and the IR Oven used to be. None of the booths, nor the oven, were present; the section where the equipment used to be is now used as a warehouse/storage area.

#### **EUADHESIVELN**

EUADHESIVELN has a natural gas-fired oven to cure the parts.

All filters are required to be installed, maintained and operated in a satisfactory manner. I verified that the EUADHESIVELN filters in the booth were all in proper place. The filters themselves are not visible because there is an overlay that protects the filters underneath, which was also installed properly (the overlay completely covered all vent openings).

I asked J. McConkie to use the test caps, which the permit requires to have on-hand, and test the pressure coming out of the EUADHESIVELN HVLP gun to verify that the pressure does not exceed 10 psig. For EUADHESIVELN, he said the atomization set point is 10 psig, and the reading through the test cap is 6.5 psig, indicating proper operation of the gun as an HVLP applicator.

The adhesive line uses PPG T8085 and PPG T7944. PPG T8085 has been used the entire rolling calendar year, PPG T7944 was only used up until February 2014 and records indicate usage ceased in April 2014. I obtained the MSDS and AQDS (Air Quality Data Sheet) for PPG T8085 only. IAC is limited to 0.3 lb VOC/gal (minus water) in their coatings. T8085 has a VOC (minus water) content of 0.03 lb/gallon. IAC is in compliance with their coating material limits at this time. The VOC content of T8085 with water is 0.01 lb/gal. The 12-month rolling limit for VOC is 0.75 tpy. From June 2014 through May 2015, the 12-month rolling VOC emissions was 0.004 tpy (9.45 lb/year) (based on the VOC content with water and gallon usage during the 12-month period). IAC is in compliance with their VOC 12-month rolling emission limits from EUADHESIVELN at this time.

## **FGCOATING2**

The FGCOATING2 line is referred to as the "Camaro Line" according to J. McConkie. FGCOATING2 consists of 2 conveyerized automotive interior plastic parts coating lines, a flame treatment booth, de-stat blow-off tunnel, 1 manual spray booth, 2 automatic robotic spray booths, a flash tunnel and a natural gas-fired curing oven. The flame treatment booth contains a flame that comes within inches of the part and treats the olefin plastic so that the paint can adhere to the part. The manual booth was not operating during the inspection; however, 2 of the filters were down on the wall. I brought this to J. McConkie's attention, who then spoke with one of the operators who immediately reinstalled the fabric filters before the inspection was over. There is one robot in each automatic robotic spray booth. All fabric filters were installed properly. The flash tunnel is used to evaporate the water and solvents from the coating. There is only 1 natural gas-fired oven that services this line. The parts are sent through the oven to activate the catalyst within the coatings, resulting in cured paint. There are emission limits for VOC and the TACs cumene, 2-propanol-1-(2-butoxy-1-methylethoxy), and tripropylene glycol methyl

FGCOATING2 currently uses 6 coatings (See Table 1).

### *II. Material Limits*

The coating VOC content limit is 3.0 lb VOC/gal (minus water). Table 1 lists each coating with their associated VOC and TAC contents, per the Environmental Data Sheets. The environmental data sheets provide more accurate information on the content of each coating than the Air Quality Data Sheets or the SDS. For future inspections, it is recommended that verification of coating specifications be done using the Environmental Data Sheets. Per Table 1, all coating contents are in compliance with the 3.0 lb VOC/gal, and IAC is in compliance with the material limits at this time.

J. Colmer explained that coating manufacturers have been known to alter the formulations of their coatings slightly, but still call it by the same name. It is in the facility's best interest to occasionally check with the manufacturer to ensure that the coating contents they are using to determine emission calculations have remained constant. Upon initial review of IAC's records, I found that some of the coating contents were either inaccurate, duplicated from one coating to the next in the spreadsheet, or were not accurately represented based on the SDS. This led to working with J. Colmer to look into the coating specs of each coating that is used at IAC and to provide me with the most up-to-date coating specs and the resulting, accurate emissions calculations for VOCs, TACs and HAPs. A violation was not issued for the discrepancies in the recordkeeping at this time. The worst-case coatings from the 364 and 396 series coatings are used to calculate the emissions for VOC, TACs and HAPs. Acrylonitrile is listed in IAC's coating specs under coating 364W12AX, but not in Table 1. Acrylonitrile used to be listed as a carcinogen in the old SDS and was thus listed at 0.1 wt% in IAC's spec sheet (any compound that contains carcinogens is required to be listed separately as a carcinogen if the compound contains less than 1% of the carcinogen). The new formulation of this coating uses xylene. Both are listed in IAC's coating spec sheet but only xylene is accounted for from January 2015 onward for the Camaro line.

J. Colmer said that production is expected to increase in October and November on the Camaro line, and we should expect to see emissions from the facility to increase.

Table 1: Coating Specs for Camaro Line (VOC and TAC)

Coating	VOC (with water) lb/gal	VOC (without water&exempt solvents) lb/gal	Cumene (wt%)	2-propanol, 1-(2-butoxy-1-methylethoxy) (wt%) CAS 29911-28-2	tripropylene glycol methyl (wt%) CAS 25498-49-1	Density (lb/gal)
364W13X (medium camel)	0.72*	2.1	0.01	5.83	NA	9.5
396W24313C (black lacquer)	1.19*	2.8	NA	NA	NA	8.77
396W102 (light camel)	1.37*	2.9	NA	NA	6.04	9.86
364W12AX (black)	0.78*	2.1	0.01	7.19	NA	9.14
AWDF-9397	1.4	3.0 (2.97 as applied) **	NA	NA	NA	8.96
AWXL-0256	2.7	2.8	0.16	NA	NA	9.03

\* IAC calculated using the coating specs and the "South Coast Air Quality Management District: VOC calculator for Paint and Coatings Calculated from Non-Volatile & Water Content" (example attached).

\*\* J. Colmer said although the AWDF-9397 hardener has a VOC content is 3.02 lbs/gallon (minus exempt solvents) the "as applied" VOC content is 2.97 because they do a mixture of 3.5 parts paint to 1 part of the hardener before applying it to the part. All coatings meet the material limit of 3.0 lb VOC/gal (minus water). Coating AWDF-9397 is exactly 3.0 lb VOC/gal and it may be worthwhile to take a sample of this coating at a future inspection to verify VOC content.

*IV. Design/Equipment Parameters*

According to SC IV.2, IAC is required to keep test caps available for pressure testing of high-velocity low-pressure (HVLP) applicators. J McConkie verified that they have HVLP applicators and showed me the test caps. He said they never use the test caps because they atomize at a low pressure (23 lbs) which he said is greatly lower than the HVLP regulations, and transfer efficiency is better at lower pressures. I asked J. McConkie to use the test caps, which the permit requires to have on-hand, and test the pressure coming out of the EUMANUAL and EUROBOTIC HVLP guns to verify that the pressure does not exceed 10 psig (the definition of HVLP). See the table below for the atomization set points and the actual pressure reading from the test caps. All actual readings are at or below 10 psig. IAC is in compliance with SC IV.2.

Table 2. Atomization Test Cap Data

	Atomization Set Point (psig)	Actual Reading (psig)
Manual Spray	30	7
Robot 1	43	10
Robot 3	43	10

In addition to maintaining HVLP pressures in the applicators, the exhaust filters must also be installed, maintained and operated in a satisfactory manner. EUMANUAL was not operating during the inspection, but 2 of the square filters were down on the wall. J. McConkie immediately directed personnel to put the filters back up, which was done before we left the EUMANUAL area. All fabric filters were in place in the two EUROBOTIC booths. IAC is in compliance with this requirement.

*VI. Monitoring/Recordkeeping*

IAC keeps electronic records of the coating specs for each coating (containing the VOC, HAP and TAC wt%; water content, and density), the VOC emission calculations per calendar month and 12-month rolling tonnage, TAC emissions calculations per calendar month and 12-month rolling tonnage, and HAP emissions calculations per calendar month and 12-month rolling tonnage. Attached are the spreadsheets. I verified that all calculations used in determining the emissions in Table 3 were correct. Cumene in Table 3 only has January – May 2015 records as the coatings containing this compound were not used until then (for the Camaro Line). Note that the emissions are much lower than the limits IAC applied for because the Camaro Line, FGCOATING2 has not been used for production yet.

Table 3.

Pollutant	Actual (June 2014 – May 2015)	Limit
VOC	4.60 tpy	64.2 tpy 12-month rolling
Cumene	2.34 lb/yr	152.4 lb/year 12-month rolling
1-(2-butoxy-1-methylethoxy)-2-propanol	1,350 lb/year	16,965 lb/year 12-month rolling
Tripropylene glycol methyl	1,134 lb/year	16,675 lb/year 12-month rolling

J. McConkie explained that there was a significant drop in emissions between February and May 2015 because Windsor Assembly (who takes the parts IAC coats) was down during that time.

IAC is in compliance with both its emission limits and monitoring/recordkeeping requirements at this time.

*VIII. Stack/Vent Restrictions*

Verification of the stack heights for all stacks was done by J. McConkie. New stacks were installed to accommodate the new booths for FGCOATING2 (SV-MANUAL, SV-ROBOT1, SV-ROBOT2 and SV-NATGASOVEN2). All stacks listed in the previous permit have been removed, except for SV-ADHESIVELN and SV-NATGASOVEN. Attached is a "floor plan" of the location of the stacks and their associated heights for FGCOATING2. The following table summarizes the floor plan heights versus the required stack heights in PTI 171-79H. Stack SV-ROBOT1 actual height is one foot lower than the required height of 37'. I will contact J. McConkie and make him aware that the stack height should be 37' and that he has 3 options: 1) Verify the stack's height again 2) increase the stack height 3) apply for a permit to modify the stack height to current height of 36'. There was no opacity emitting from any of the stacks during the inspection.

Table 4.

Stack & Vent ID	Permitted Minimum Height Above Ground (ft)	Actual Height Above Ground (ft)
SV-MANUAL	37	37
SV-ROBOT1	37	36
SV-ROBOT2	37	37
SV-NATGASOVEN2	37	38

**FGFACILITY**

IAC has individual and aggregate HAP limits. The permit evaluation form contained acrylonitrile and formaldehyde as HAPs. IAC has also included hexamethylene diisocyanate (HDI), chlorobenzene, cumene, ethylbenzene, and xylene as HAPs in their HAPs recordkeeping. Within their electronic spreadsheet IAC keeps track of the gallons of HAP-containing materials used, the HAP content, and individual and aggregated HAP emissions calculations on a monthly and 12-month rolling basis. Table 5 shows the HAP content of all coatings IAC is currently using. Table 6 shows HAP emissions versus permit limits. As shown in Table 6 IAC is in compliance with all FGFACILITY individual and aggregate HAP limits at this time.

Table 5. HAP content of various coatings.

Coating	EU	Chlorobenzene (wt%)	Cumene (wt%)	Diethylethanamine (wt%)	Acrylonitrile (wt%)	Ethylbenzene (wt%)	Formaldehyde (wt%)	HDI (wt%)	Xylene (wt%)
364W102 (light camel)	FGCOATING2	NA	NA	NA	NA	NA	0.01	NA	NA
364W13X (medium camel)	FGCOATING2	NA	0.01	0.04	NA	NA	NA	NA	0.01
396W24313C (black lacquer)	FGCOATING2	NA	NA	NA	NA	0.01	0.01	NA	NA
364W12AX	FGCOATING2	NA	0.01	0.05	NA	NA	NA	NA	0.01
AWXL-0256	FGCOATING2	NA	0.16	NA	NA	NA	NA	0.23	0.23
T8085	EUADHESIVELN	0.1	NA	NA	NA	NA	NA	NA	NA

Table 6. HAP emissions

Pollutant	Actual Individual HAP tpy, June 2014 – May 2015	Limit Individual HAP tpy, June 2014 – May 2015
Chlorobenzene		9.0 tpy each
Cumene	1.17E-3	
Diethylethanamine	2.11	
Acrylonitrile	0.019	
Ethyl benzene	<0.001	
Formaldehyde	0.019	
HDI	0.002	
Xylene	0.002	
<b>Total Aggregate HAPS June'14 – May'15</b>	<b>2.15</b>	<b>22.5 tpy</b>

**Compliance statement:** IAC is in compliance with state or federal regulations at this time.

**Inspector's Safety and Health:** Those entering the facility are required to electronically sign in and watch a safety presentation. After confirming you've watched the presentation a "badge" is printed out for you.

Safety glasses are absolutely required. J. McConkie said there are no respiratory hazards throughout the plant and there were no odors detected during the inspection. Hard hats are not required.

NAME Michelle Myers

DATE 9-18-15

SUPERVISOR \_\_\_\_\_

