



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone 304/926-0475 • FAX: 304/926-0479

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

ENGINEERING EVALUATION / FACT SHEET

BACKGROUND INFORMATION

Application No.: R13-3251A
Plant ID No.: 107-00153
Applicant: Hino Motors Manufacturing U.S.A., Inc. (HINO)
Facility Name: Williamstown, West Virginia Plant
Location: Williamstown, Wood County, WV
NAICS Code: 371101
Application Type: Class II Administrative Update
Received Date: May 11, 2016
Engineer Assigned: Thornton E. Martin Jr.
Fee Amount: \$300.00
Date Received: May 11, 2016
Complete Date: June 09, 2016
Newspaper: *The Parkersburg News and Sentinel*
Applicant Ad Date: May 19, 2016
UTMs: Easting: 459.52 km Northing: 4,360.60 km Zone: 17
Description: Addition of retractable paint booth for repair operations and windshield installation operation.

DESCRIPTION OF PROCESS

HINO installed a medium duty truck assembly plant in an existing building near Williamstown, West Virginia in 2007. The facility was approved for installation under a permit determination A permit was issued on September 11, 2015 and included the sources described below. The standard color of the HINO trucks is white. The white truck cabs, fenders, and hoods are delivered finished from other Hino operations or suppliers. HINO is now operating a custom color system which allows custom color application at the assembly facility.

Promoting a healthy environment.

Truck Assembly Description

HINO assembles medium duty trucks. Sub-assemblies arrive via truck from offsite. The trucks are assembled by building the frame (side members and cross pieces) and adding the axles, wheels and brake components. The transmission, engine and radiator are added, along with their peripheral equipment (tanks, wiring, pedals, clutch assembly, differential, drive train, steering components, etc.). The cab (as delivered, fully assembled), fenders and hood are the final components of the assembly process. The assembly does not include placement of the truck bed on the vehicle. Beds will be installed at other locations as required for the customers' use. The sub-assemblies are units which bolt or otherwise clipped or fastened together to form completed trucks. This is a mechanical assembly process which does not include gluing or adhesive application.

During assembly, fluids are added to the trucks. Typical motor vehicle fluids are kept on hand for filling of the vehicles' parts. The materials are coolant fluids (antifreeze), diesel fuel, engine oil, transmission oil (manual and automatic transmissions), differential oil, power steering oil/fluid, brake oil/fluid, clutch oil/fluid, greases for the steering, pedal assembly, clutch, parking brake control and transmissions. These materials are stored in the containers in which they are delivered (for example, 5 gallon pails, 55 gallon drums, totes, diesel in a 5,000 gallon tank). Storage of these materials and their placement into the vehicles does not produce air emissions.

After fluid addition, the truck engines are tested as the vehicles move to an inspection area. With the engine switched off, the trucks are inspected for posture and measurement. The truck engines are restarted and the vehicles are tested by a brake tester, speedometer tester, side slip tester, steering angle tester and a headlight tester. The trucks are then shower tested for water tightness of the windshield and windows. This operation occurs inside the facility and no venting of water vapor occurs. The total engine run time for this process (engine testing and all subsequent testing) is approximately 40 minutes inside the facility.

The following are the identified emission sources at this facility:

Custom Color Operation

Equipment – Paint Booths with Heaters (1S-3S) and Body Prep Area (4S)

The custom color operation includes two paint booths with heaters and a body prep area. A third paint booth is proposed for future operations. The white paint is prepped in the body prep area to allow the custom color to adhere to the existing paint. This operation is a scuffing type operation to remove the glossy finish of the existing paint. The body of the truck is then moved into the paint booths and the custom color (primer, paint, and clearcoat) is applied. Although the operation includes mostly custom color application and not a complete body

Fact Sheet R13-3251A
Hino Motors Manufacturing U.S.A., Inc.
Williamstown, West Virginia Plant

painting, the existing permit will allow for a quantity of primer, paint, and clearcoat (approximately one gallon of each per vehicle) to allow for approximately 5,000 truck cabs to be painted, whether it is a complete paint job or custom color application. There is no limit on the amount of trucks that can be painted but, a limit on the amount of materials used in the painting operation. Therefore, if less paint is used on a body, then the total number of bodies to be painted can be higher than 5,000 per year.

The painting sequences are intermittent with the application of a coating, then a 15 minute tack time prior to the next coating application. After the clear coat is applied, the paint booths are closed and the temperature raised to accelerate drying. For the emissions estimate, it was assumed that the entire process can occur in one hour. The actual time may be longer due to the need to apply at least two color layers and two clearcoat layers with the 15 minute tack time between applications of each layer. The drying time is anticipated to last approximately 30 minutes. This also includes paint mixing.

Miscellaneous Touch-Up, Cleaning, and Material Use (5S)

Equipment – Various uses of aerosol and other paints to touch up scratches during inspections, cleaners for the painting operations, and materials which contain VOCs and HAPs that are used on the assembly floor

HINO receives parts from numerous suppliers which are shipped in, wrapped and stored at the site. The main two colors that are used for touch up are black and white (since this is the current major color scheme). The frame and other major parts under the body are painted black. The current main color for the body is white. The facility uses Rustoleum products for touch up at the inspection stations. These paints only release VOC from the facility. Additionally, at the beginning of the assembly line, there is a pot sprayer with Asian paint. This paint is VOC free. Other products are used, such as a rubberized undercoating, Magnaflux Spotcheck, WD-40, brakleen, and cleaners for the painting operation. The VOC and HAP constituents of these materials are released from the building.

Welding (6S)

Equipment – Welders

Welding occurs when the facility shortens a wheel base for the trucks. The frames are cut with a saw and then the ends need to be refinished to replace the endcaps on the frames. Welding emissions are based on the worst case emissions estimate from each type of welding electrode in AP-42, Section 12.19-2.

Truck Engine Emissions (7S)

Equipment – Assembled Vehicles on the Inspection Line

After assembly is completed on a vehicle, it is inspected. The inspection has several steps where the engine is on or off depending on what is being inspected. The emissions from the engines are based on certified manufacturers emissions, AP-42, and an approximate run time of 40 minutes per engine. Once the trucks leave the building, they are mobile equipment and the engine emissions are not counted toward the potential to emit.

Parts Washers (8S)

Equipment – Parts Washer (2)

Two parts washers are located at the site. There is one in the maintenance area and one in the inspection area. The emissions from the parts washers are based on AP-42. Fluids are only refreshed as needed.

Emergency Generator (9S)

Equipment – Generac QuietSource 22 KW

There is an emergency generator to power the emergency lights and office operations should a power failure occur. The generator is not sized to power the facility during power disruptions. The emergency generator is a natural gas fueled 40 horsepower engine and is certified under 40CFR60, Subpart JJJJ. Emissions are based on manufacturer's emissions and AP-42.

Building Heaters (10S)

Equipment – Multiple Trane, Lennox, Reznor, and Horizon natural Gas Fueled Heaters

There are 33 building heaters at this site. The building had heaters when HINO moved into the site. There are 29 heaters with heat ratings ranging from 120,000 Btu/hr up to 800,000 Btu/hr. A new addition, which holds the color custom department, includes 4 more building heaters. The emissions from the heaters are based on the total heat rating of the heaters and AP-42 emission factors. The 29 heaters have a total heat rating of 16.21 MM Btu/hr. The 4 custom color department heaters have a total heat rating of 2.2 MM Btu/hr.

Vehicle Activity (VA)

Equipment – Assembled vehicles moving on paved and gravel surfaces and delivery vehicles on paved surfaces

Fact Sheet R13-3251A
Hino Motors Manufacturing U.S.A., Inc.
Williamstown, West Virginia Plant

Future estimates call for assembly of approximately 20,000 trucks. The trucks leave the assembly building and drive around the building to the gravel parking area. The trucks are then sold and driven off the gravel area for delivery to the customer.

Additionally, this facility receives the parts to assemble the trucks in shipping containers and other delivery trucks. These vehicles drive to either the unloading docks or to the container storage area at the back of the property. Delivery vehicles are on paved road surfaces while at the site. AP-42 emissions estimate methods were used to determine the emissions.

Proposed Additions

There are two facility additions proposed: (1) Retractable Paint Booth and (2) Windshield Installation.

Retractable Paint Booth (11S)

The proposed Retractable Paint Booth is portable and can be retracted to 20 – 25 percent of its' length. The booth will be used to repair scratches or other similar cosmetic damage to truck cabs and parts. It is designed to intake fresh air through pre-filters in the main entry doors and the air is vented through a filter unit at the opposite end.

Because the booth will be used for repairs on an as-needed basis, with existing paint colors, the Applicant is not requesting a yearly increase in the amount of materials used in the painting operation. Therefore, for the emissions estimate, it is assumed that hourly emissions will increase but, the total yearly emissions will remain unchanged. There are no new paints proposed for this paint booth. The paints used are the same paints as currently permitted; therefore, the Applicant did not include the Material Safety Data Sheets (MSDS) in the application.

Windshield Installation (12S)

The proposed Windshield Installation operation will be located in the Unpacking and Sub-Assembly area of the facility. Windshields will be attached to trucks with Sikaflex-255 FC, a polyurethane based adhesive with VOC and HAP components. The MSDS for this material is included in Attachment H of the application. This adhesive, or a similar adhesive, will be used to install the windshields.

SITE INSPECTION

HINO was last inspected by Mike Rowe of the Compliance and Enforcement Section of the Division of Air Quality on August 21, 2015. The inspection was a full on site, targeted inspection at which time HINO was given the inspection code of 30 - In Compliance. A site inspection was deemed unnecessary at this time.

From I-77, take exit #185 to Williamstown (State Route 51) and go 0.2 miles. Turn left on Highland Avenue (State Route 14) and go 1.4 miles. Turn left on State Route 14 and travel 1.5 miles. The facility is located on the left.

ESTIMATE OF EMISSIONS BY REVIEWING ENGINEER

Emissions generated at this facility are mainly from applying surface coatings, the body prep room, and associated touchups and cleaning activities. The pollutants emitted are particulate matter and VOCs, which include hazardous air pollutants (HAPs).

The white paint is prepped in the body prep area to allow the custom color to adhere to the existing paint. This operation is a scuffing type operation (sanding) to remove the glossy finish of the existing paint to allow for painting.

VOC estimates from the three identical paint booths (1S), (2S), & (3S) and the proposed Retractable Paint Booth (11S) at this facility were determined by using a mass balance approach and assuming that all of the VOCs in the coating were emitted. To estimate the hourly emissions, Regulation 21, Section 19, limitations were utilized. The paint and primer meet the definition of air-dried coatings with VOC limits of 3.5 pounds per gallon. The clear coat has a VOC limit of 4.3 pounds per gallon. Therefore, for the maximum hourly VOC emissions it was assumed that the operation will use clear coat for one hour. The maximum hourly particulate emissions (PM, PM₁₀, and PM_{2.5} assumed to be equal) were based on the highest solids coating being utilized for the entire hour. Maximum HAP emissions were based on the percent by weights of the HAPs present in the materials, the gallons per hour capacity of the paint gun, and the unit weight of the specific material. It was assumed that the material is used for an entire hour and the highest HAP value was taken as the emission value.

Table #1 PM Emissions from Coatings (1S, 2S & 3S)					
Application System	Coating	Hourly Coating Usage (Gal)	Transfer Efficiency (%)	Solids Content lb/gal	PM, PM ₁₀ , & PM _{2.5} Emission Rate lb/hr
HVLP	Color Atlas White (CAS992)	11.16	65	7.59	0.30

Assuming each of the three paint booths are consuming 3.72 gallons of the respective highest solid content coatings at 7.59 ppg; the facility would have an hourly PM rate of 0.11 pounds per hour for each paint booth. HINO has proposed an annual limit of 15,000 gallons of total coatings used at the facility. This usage limit would restrict the facility's worst-case potential of PM, PM₁₀, & PM_{2.5} to just 0.20 tons per year for each paint booth.

Table #2 PM Emissions from Retractable Paint Booth (11S)					
Application System	Coating	Hourly Coating Usage (Gal)	Transfer Efficiency (%)	Solids Content lb/gal	PM, PM ₁₀ , & PM _{2.5} Emission Rate lb/hr
HVLP	Color Atlas White (CAS992)	0.821	65	7.59	0.11

Emissions from the three natural gas fired paint booth heaters (1S), (2S), & (3S) were combined with the paint booths and included in the permit. The three heaters have a combined maximum heat input of less than 5 MMBtu/hr.

The PM, PM₁₀, & PM_{2.5} emissions associated with the Body Prep Room (4S) were calculated using 5,000 lbs/hr as the maximum weight of processed material processed through the operations in a single hour and Rule 7, Table 45-7A dictated an emission rate for a type 'a' source to be 5.0 lbs per hour for PM. Thus, the applicant requested the permit limit for PM, PM₁₀, & PM_{2.5} to be 5.0lbs/hr, 2.38 lbs/hr, and 2.38 lbs/hr respectively.

In the application, the only significant emissions from the welding process (6S) were PM and manganese emissions, of which, manganese is hazardous air pollutant.

HINO used the worst case emission factor of all electrode types from AP-42, Table 12.19-1. The highest PM emission factor (81.6 per 1,000 pounds) was multiplied by the maximum amount of electrodes consumed in a year (500 pounds per year) to predict an annual PM, PM₁₀, & PM_{2.5} rate of 0.02 tons per year.

There are 33 natural gas fired building heaters associated with the facility (29 existing and 4 added in the custom color department area). The emissions from the heaters were based on the total heat rating of the heaters (16.21 MM Btu/hr and 2.2 MM Btu/hr) and AP-42 emissions factors.

The truck engine emissions associated with this facility were deemed insignificant and not included in the permit.

The following table(s) summarize the proposed emissions from the HINO's Williamstown Facility:

Criteria Pollutant	Total Emissions			
	Uncontrolled		Controlled	
	lb/hr	ton/yr	lb/hr	ton/yr
VOC	53.80	37.14	53.78	37.05
PM	50.90	65.27	21.52	45.54
PM ₁₀	36.32	36.88	6.94	17.15
PM _{2.5}	32.90	32.00	3.52	12.27
NO _x	2.98	11.46	2.98	11.46
CO	10.84	10.64	10.84	10.64
SO ₂	2.54	7.43	2.54	7.43
Total HAPs	13.39	5.17	13.39	5.17
Lead	0.000011	0.000049	0.000011	0.000049

Criteria Pollutant	Total Emissions			
	Uncontrolled		Controlled	
	lb/hr	ton/yr	lb/hr	ton/yr
VOC ¹	3.90	0.58	3.90	0.58
PM	2.18	0	0.11	0
PM ₁₀	2.18	0	0.11	0
PM _{2.5}	2.18	0	0.11	0
Total HAPs	1.23	0.58	1.23	0.58
Lead	0	0	0	0

¹ The total yearly paint throughput will not increase with the addition of the Portable Paint Booth and no new paint types will be used. The Product Data Sheet and SDS list VOC content at 0.53 lb/gal for the adhesive. This calculates to 0.24 pph and 0.38 tpy. Precise HAP

concentrations were unavailable so the maximum listed values from the SDS were used. Using conservative HAP concentrations yielded HAP emissions higher than VOC emissions but, since all the HAPs are VOCs, the Total HAPs emissions were used as the VOC emissions.

Table # 5		Proposed PTE			
Criteria Pollutant	Total Emissions				
	Uncontrolled		Controlled		
	lb/hr	ton/yr	lb/hr	ton/yr	
VOC	57.70	37.72	57.68	37.63	
PM	53.08	65.27	21.63	45.54	
PM ₁₀	38.50	36.88	7.05	17.15	
PM _{2.5}	35.08	32.00	3.63	12.27	
NO _x	2.98	11.46	2.98	11.46	
CO	10.84	10.64	10.84	10.64	
SO ₂	2.54	7.43	2.54	7.43	
Total HAPs	14.62	5.76	14.62	5.76	
Lead	0.000011	0.000049	0.000011	0.000049	

REGULATORY APPLICABILITY

45CSR4 To Prevent and Control the Discharge of Air Pollutants Into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors

The facility is subject to the requirements of 45CSR4 and shall not allow the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.

45CSR7 To Prevent and Control Particulate Matter Air Pollution From Manufacturing Processes and Associated Operations

The facility will not cause, suffer, allow or permit particulate matter to be vented into the open air from any type source operation or duplicate source operation, or from all pollution control equipment installed on any type source operation or duplicate source operation in excess of the quantity specified under the appropriate source operation type in Table 45-7A of the rule.

The purpose of this rule is to prevent and control particulate matter air pollution from manufacturing process and associated operations.

The facility performs sanding (grinding) of the existing paint on the truck body to allow for the new paint to adhere to the rough surface. The Regulation 7 particulate mass standard limit was used to estimate the emissions. Using 5,000 pounds per hour as the maximum weight of process material processed through the operations in a single hour, for an 'a' source Table 45-7A results in a particulate matter emission rate of 5.0 lbs/hour.

The process activities involved with the coating process is classified as type "a" source operation. Using the maximum hourly application rate of 28.26 pounds per hour for paint booth's (1S, 2S & 3S), 6.23 pounds per hour for the retractable paint booth (11S), along with a transfer efficiency rate of solids at 65%, and a control efficiency of 99% for the fabric filter control devices, it was determined that each paint booth's maximum controlled PM to be 0.10 pounds per hour (1S, 2S & 3S) and 0.11 pounds per hour (11S). Thus, these painting operations should have no problem achieving compliance with the process weight limits of this rule.

45CSR13 - Permits for Construction, Modification, Relocation and Operation of Stationary sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation

The purpose of this rule is to set forth the procedures for stationary source reporting, and the criteria for obtaining a permit to construct and operate a new stationary source which is not a major stationary source, to modify a non-major stationary source, to make modifications which are not major modifications to an existing major stationary source and to relocate non-major stationary sources within the State of West Virginia.

Hino Motors Manufacturing U.S.A., Inc. has proposed to install paint booths that have a potential to emit before controls greater than 6 pounds per hour and 10 tons per year of particulate matter and volatile organic compounds. Thus, Hino Motors Manufacturing U.S.A., Inc. must obtain a permit for the paint booths as required in 45CSR§13-5.1. The company has complied with the public review procedures in 45CSR§13-8.3. by publishing a legal ad in *The Parkersburg News and Sentinel* on May 19, 2016. In addition, the applicant submitted a complete application and paid the permit application fees.

The source has potential to emit of less than 100 tons per year of VOCs. In addition, emissions of HAPs are below the major source trigger levels of 10 tons per year of single HAPs and 25 tons per years of total combine HAPs. Thus, the source is not subject to a MACT standard as a major source or required to obtain a Title V operating permit in accordance with 45 CSR 30. Therefore, the source is subject to 45 CSR 22 as a 9E – Miscellaneous Surface Coating.

45CSR21 Regulation To Prevent And Control Air Pollution From The Emission Of Volatile Organic Compounds

This rule is West Virginia’s application of RACT for stationary sources located in Cabell, Kanawha, Putnam, Wayne, and Wood Counties. HINO’s Williamstown Plant is subject to one section of this rule, which is Section 19.

The paints and primer utilized at the plant meets the definition of air dried coatings. Therefore, the coatings applied at the facility is subject to VOC content limitation of 3.5 pounds of VOC per gallon of coating as applied as extreme performance coating or as air-dried coating under this section. The paint and primer at HINO as applied meets the 3.5 lbs/gallon paint VOC limit and the clear coat meets the 4.3 lbs/gallon VOC limit.

The following table contains a list of coatings and cleaners utilized at the facility.

Table # 6	
Product Code	Product Name
CAS981	Color Atlas White
CAS993	Color Atlas Black
CAS1037	Color Atlas Red
CAS992	Color Atlas White
CAS200	Color Atlas Yellow
CAS250	Color Atlas Yellow
CAS364	Color Atlas Green
CAS367	Color Atlas Green
CAS523EW	Color Atlas Blue
CAS525EW	Color Atlas Blue
CAS667EW	Color Atlas Blue
CAS505EW	Color Atlas Neutral
CAE76 SDS	Color Atlas Blue
CAE153EW	Yellow
CAE254EW	Green
CAS413EW	Color Atlas Blue
15305S™	Medium Temperature Activator
189S™	Accelerator
89S	Pot Life Extender
8430S	Imron Elite Appearance Clearcoat
15305S™	Medium Temperature Activator
389S™	Accelerator

Fact Sheet R13-3251A
Hino Motors Manufacturing U.S.A., Inc.
Williamstown, West Virginia Plant

Table # 6	
Product Code	Product Name
825P32760	Gray Hybrid Epoxy Primer
FGP32765	Hybrid Primer Medium Activator
1220S	Gray Urethane Sandable Primer
194S™	Low Haps Activator
3901S	Final Klean Fast-Dry Cleaner
3909S	Low VOC Final Klean
106™	Lacquer Thinner
108™	Low HAPS Cleaning Solvent

40CFR60 Subpart JJJJ — Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

This subpart applies to engines and requires testing to verify of meeting emissions levels or certification. The EPA Certified 22 kW Generac Model QT022, Model Year 2014 Emergency Generator, will not exceed 500 hours per year of operation. The 40 hp engine's emissions shall not exceed 0.19 lb/hr and 0.05 TPY of NOx and 8.93 lb/hr and 2.23 TPY of CO.

TOXICITY OF NON-CRITERIA REGULATED POLLUTANTS

Ethyl benzene

Ethyl benzene is mainly used in the manufacture of styrene. Acute (short-term) exposure to ethyl benzene in humans results in respiratory effects, such as throat irritation and chest constriction, irritation of the eyes, and neurological effects such as dizziness. Chronic (long-term) exposure to ethyl benzene by inhalation in humans has shown conflicting results regarding its effects on the blood. Animal studies have reported effects on the blood, liver, and kidneys from chronic inhalation exposure to ethyl benzene. Limited information is available on the carcinogenic effects of ethyl benzene in humans. In a study by the National Toxicology Program (NTP), exposure to ethyl benzene by inhalation resulted in an increased incidence of kidney and testicular tumors in rats, and lung and liver tumors in mice. EPA has classified ethyl benzene as a Group D, not classifiable as to human carcinogenicity.

Toluene

Toluene is a clear, colorless liquid with a distinctive smell. Toluene occurs naturally in crude oil and in the tolu tree. It is also produced in the process of making gasoline and other fuels from crude oil and making coke from coal. Toluene is used in making paints, paint thinners, fingernail polish, lacquers, adhesives, and rubber and in some printing and leather tanning processes.

Toluene may affect the nervous system. Low to moderate levels can cause tiredness, confusion, weakness, drunken type actions, memory loss, nausea, loss of appetite, and hearing and color vision loss. These symptoms usually disappear when exposure is stopped. Inhaling High levels of toluene in a short time can make you feel light-headed, dizzy, or sleepy. It can also cause unconsciousness, and even death. High levels of toluene may affect your kidneys.

Studies in humans and animals generally indicate that toluene does not cause cancer. The EPA has determined that the carcinogenicity of toluene can not be classified.

Xylene

Commercial or mixed xylene usually contains about 40-65% *m*-xylene and up to 20% each of *o*-xylene and *p*-xylene and ethyl benzene. Xylenes are released into the atmosphere as fugitive emissions from industrial sources, from auto exhaust, and through volatilization from their use as solvents. Acute (short-term) inhalation exposure to mixed xylenes in humans results in irritation of the eyes, nose, and throat, gastrointestinal effects, eye irritation, and neurological effects. Chronic (long-term) inhalation exposure of humans to mixed xylenes results primarily in central nervous system (CNS) effects, such as headache, dizziness, fatigue, tremors, and incoordination; respiratory, cardiovascular, and kidney effects have also been reported. EPA has classified mixed xylenes as a Group D, not classifiable as to human carcinogenicity.

Styrene

Styrene is a colorless liquid that evaporates easily and has a sweet smell. It often contains other chemicals that give it a sharp, unpleasant smell. Styrene is widely used to make plastics and rubber. Products containing styrene include insulation, fiberglass, plastic pipes, automobile parts, shoes, drinking cups and other food containers, and carpet backing. Most of these products contain styrene linked together in a long chain (polystyrene) as well as unlinked styrene. Low levels of styrene also occur naturally in a variety of foods such as fruits, vegetables, nuts, beverages, and meats. In addition, small amounts of styrene can be transferred to food from styrene-based packaging material.

If you breathe high levels of styrene (more than 1000 times higher than levels normally found in the environment), you may experience nervous system effects such as changes in color vision, tiredness, feeling drunk, slowed reaction time, concentration problems, or balance problems.

Fact Sheet R13-3251A
Hino Motors Manufacturing U.S.A., Inc.
Williamstown, West Virginia Plant

Hearing loss has been observed in animals exposed to very high concentrations of styrene. Changes in the lining of the nose and damage to the liver has also been observed in animals exposed to high concentrations of styrene, but animals may be more sensitive than humans to these effects.

The International Agency for Research on Cancer (IARC) has determined that styrene is a possible human carcinogen.

AIR QUALITY IMPACTS ANALYSIS

The writer deemed that an air dispersion modeling study or analysis was not required, because the proposed construction does not meet the definition of a major source as defined in 45CSR14.

MONITORING OF OPERATIONS

Per Section 4.1.4.a., the identity of any new coating containing a HAP(s) not listed in permit application R13-3251A must be identified to the Director in writing within thirty (30) days of using the coating. An MSDS sheet for the coating must also be supplied.

- Per Section 4.1.4., a 12-month rolling total must be used to determine that an individual HAP does not exceed 10 ton/yr.
- To determine if the VOC and PM limits given in Section 4.1.1. and 4.1.2. are met, the permittee will need to monitor and record:
 - name and id number of each coating applied.
 - number of hours used to apply each coating.
 - date applied and amount of each coating applied, and
 - amount of each coating disposed of a waste.

Using the above information, an annual combined VOC emission rate is to be calculated based on paint and solvent usage using a rolling total for any continuous span of 12 months.

- To determine if the PM limits in Section 4.1.2. are met, the permittee is to maintain records showing that the dry filters were changed out.

RECOMMENDATION TO DIRECTOR

The information provided in the permit application R13-3251A indicates that Hino Motors Manufacturing U.S.A., Inc. should meet all the requirements of the applicable rules when operated according to the permit application. Therefore, the writer recommends granting the applicant a Rule 13 construction permit for their truck assembly and painting facility.


Permit Engineer

June 09, 2016

Date