PCE Completion Summary

Company Name:	HAYES LEMMERZ INT'L INC.	SRN:	A4646
Address:	1600 W EIGHT MILE RD	Staff:	JD
City:	FERNDALE	Type:	208a
County:	63	Report Date:	05/04/05

Required Elements	Date PCE Documented	Compliance Status	Comments
Compliance Evaluation	05/04/05	C	208a Source

Additional Comments

Facility appeared compliant with clean feedstock requirment and recordkeeping requirements of PTI 368-99. Rule 208a registration received timely. Reported MAERS emissions below Rule 208a threshold levels.

Staff Signature :

Supervisor Signature :

cc: Mr. Keshave Singh, Compliance Support Unit

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-01754

FACILITY: **HAYES LEMMERZ, INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **SOUTHEAST MICHIGAN**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **DAVE MILLER, FACILITY MANAGER**		ACTIVITY DATE: **05/04/2005**
REPORT DATE: **06/02/2005**	STAFF: **JD**	TRAVEL TIME: **2**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **4**
SOURCE CLASS: **SM**	[ ]NSPS [ ]NESHAP [ ]PSD [ ]TOXIC [ ]MACT	

REMARKS:

Overview:

AQD staff performed a March 18, 2005, unannounced visit of the Hayes Lemmerz International, Inc. (Hayes Lemmerz) facility located at 1600 West Eight Mile Road, Ferndale, Michigan. The purpose of this inspection was to determine the facility's compliance with the requirements of the Federal Clean Air Act; Article II, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451) and the administrative rules promulgated therein, Air Use Permits to Install 368-99 and 799-92, and to review site conditions as they relate to the facility's Act 451, administrative rule R208a registration.

Emission units at the facility include four (4) dynomometer engine test cells. In addition to the permitted emission units, the facility operates four (4) electric resistance furnaces that operate without stacks, with emissions to the in-plant environment.

The Hayes Lemmerz facility is a research and development facility and technical center for automotive parts manufacturing and aluminum casting.

Compliance Evaluation:

The facility was operational during this visit. AQD staff was accompanied during this visit by Mr. Gregory Woycik, Engineering Supervisor, Development Labs (gwoycik@hayes-lemmerz.com). Mr. Woycik explained the overall process and the operational history of the facility.

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: _____ DATE: 6/2/05 SUPERVISOR: MK

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

PTI 799-92:

This permit covers a prototype nylon plastic injection molding process. Company personnel indicated this process was not operating at the facility and that the process equipment had been removed. AQD advised Company personnel that the PTI can be voided by submitting a PTI void request to AQD District Staff.

PTI 368-99:

This permit covers a 10,000 pound aluminum melting furnace and associated casting processes. Four (4) special conditions are associated with this PTI, to include:

Special Condition 1: Requirement for only clean feedstock to be charged in the aluminum melting process. Based on discussion with Company personnel and AQD staff observations, the facility appeared compliant with the clean feedstock requirement of the PTI.

Special Condition 2: Requirement for recordkeeping of monthly tonnage of aluminum products produced and the monthly usage of flux processed. Based on discussion with Company personnel and AQD review of recordkeeping documentation maintained by the Company (Attached), the facility appeared compliant with the recordkeeping requirement of the PTI.

Special Condition 3: Requirement for the dust collector system to be installed and operating properly in conjunction with the sand reclamation process. Company personnel indicated the sand reclamation process was no longer operational and that the dust collector associated with that process had been removed from the facility.

Special Condition 4: Requirement for particulate emissions from the sand reclamation process to not exceed 0.10 pound per 1,000 pound of exhaust gases, calculated on a dry gas basis. As stated above, Company personnel indicated the sand reclamation process was no longer operational.

Administrative Rule R208a Registration:

The Hayes Lemmerz facility initially registered for administrative rule R208a designation March 14, 1997 as CMI-Tech Center, Inc., and has renewed that registration annually since that time. Hayes Lemmerz submitted the R208a annual renewal forms starting in May of 2000. The most recent R208a annual

FACILITY: **HAYES LEMMERZ, INC** | SRN **A4646**

REMARKS:

renewal was received on March 3, 2005.

AQD file documents indicate the facility was initially registered under administrative rule R208a to address dynamometer engine testing and other emission sources at the facility, in order to obtain federally enforceable emissions limits to exempt the facility from the requirement to obtain a Title V renewable operating permit. The R208a initial registration document identifies that four (4) engine dynamometers are being operated at the facility. Plant personnel indicated that the current normal usage of these test cells is for the testing of specific engine components, i.e. exhaust manifolds, pistons, etc. The initial R208a registration, dated March 14, 1997, indicates that emission sources present at the facility included gasoline and diesel fuel combustion engine test cells, natural gas combustion heaters and boilers, aluminum casting/molding prototype development, storage tanks, and a woodshop.

AQD staff review of the 2004, Michigan Air Emissions Reporting System (MAERS) for the Hayes Lemmerz facility indicated the following 2004 air emissions from emission unit EUREVERBFURNACE for Source Code Classification (SCC) 3-04-001-03 (Industrial Processes, Secondary Metal Production, Aluminum, Smelting Furnace/Reverberatory), and SCC 3-04-900-33 (Industrial Processes, Secondary Metal Production, Fuel Fired Equipment, Natural Gas: Furnaces), and from reporting group RGTESTCELLS for SCC 2-04-004-01 (Internal Combustion Engines, Engine Testing, Reciprocating Engine, Gasoline), and SCC 2-04-004-02 (Internal Combustion Engines, Engine Testing, Reciprocating Engine, Diesel/Kerosene):

Carbon Monoxide	2,800	pounds
Nitrogen Oxides	6,111	pounds
PM10	606	pounds
PM10, Filterable	483	pounds
PM2.5	177	pounds
PM2.5, Filterable	447	pounds
Sulfur Dioxide	262	pounds
Sulfur Oxides	252	pounds
TOC	313	pounds
VOC	441	pounds

Reported Non-Criteria Pollutant Emissions

PM	746	pounds

The R208a threshold emission limit for the reported criteria pollutant emissions is fifty (50) tons per year for each of the

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

individual reported pollutants. Based on the reported 2004, MAERS for the facility, and the Company's timely R208a renewal, the Company is compliant with its R208a registration.

Non-Permitted Furnaces:

Four (4) electric resistance furnaces are present at the facility, with charging capacities of 500 pounds, 2,500 pounds, 1,000 pounds, and 6,000 pounds. Company personnel provided make/model and the installation date of these units (Attached). Company personnel indicated flux is used in each of these furnaces, as needed, to clean the furnaces, with charging rate and flux usage recorded for each furnace. These furnaces have been determined to be PA 451, administrative rule R201 (Permit to Install) exempt pursuant to administrative rule R283(1)(a), Permit to Install exemptions, testing and inspection equipment, for pilot processes or process equipment utilizing T-BACT.

Conclusion:

The Hayes Lemmerz facility appears to be in compliance with all applicable air use requirements reviewed during this inspection. Administrative rule R208a registration was up-to-date for the facility. Air emissions for calendar year 2004, as reported in the 2004 MAERS submittal for the facility, are below the administrative rule R208a emission levels, indicating the facility is being operated in compliance with the R208a operational status for the facility afforded by the Act 451 administrative rules.

Hayes Lemmerz Technical Center

Reverb Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added **(i.e. Aluxal)**	Weight Flux Used **(lbs)**	General Appearance of the Area	Condition of Cleaning Tools	Comments - Condition of refractory lining, (i.e. Really dirty, dredged bottom, had trouble, etc.)

Date	Material Grade Added (i.e. A356, 357)	Weight Added (lbs)		Comments (i.e. wheel Remelt, remelt sows, gates & risers, etc.)
		Prime	Remelt	

Woycik, Greg

From: Moore, David
Sent: Wednesday, May 04, 2005 10:36 AM
To: Woycik, Greg; Gillette, Dave
Subject: RE: Electric Resistance Furnaces

From what I gather the information you are looking for is as follows.

If either of you know anything different let me know.

Furnace Name	Manufacturer	Model #	Charge Capacity	Install Date	Heat Method
UBE Crucible	FWS	unknown	1000 #	March-93	Electric Resistance Panels
3 Heater furnace	Deltamation / HLI AuGres	Holder 00-102	6000 #	September-01	Electric Immersion Heaters
LPWM	Deltamation / HLI AuGres	LPPM-3	2500 #	July-01	Electric Resistance
Alloy Development Furnace	Morganite Crucible Co.	HE ERBO Size 2	500 #	February-05	Electric Resistance Panels

David Moore
Engineering Supervisor
Hayes Lemmerz Technical Center
248-397-0428
dmoore@hayes-lemmerz.com

-----Original Message-----
From: Woycik, Greg
Sent: Tuesday, May 03, 2005 3:16 PM
To: Moore, David; Gillette, Dave
Subject: FW: Electric Resistance Furnaces

Do you have this info?

Gregory G. Woycik
Engineering Supervisor
Applied Engineering
Hayes Lemmerz International
(248) 397-2249
(248) 397-1252 (fax)
gwoycik@hayes-lemmerz.com

-----Original Message-----
From: James Day [mailto:dayja@michigan.gov]
Sent: Tuesday, May 03, 2005 3:09 PM
To: Woycik, Greg
Subject: Electric Resistance Furnaces

Regarding my recent visit to the Hayes Lemmerz facility, can you forward back the make/model, charging capacity and installation date of the four (4) electric resistance furnaces operating at the facility.

Thank you!

James A. Day
Environmental Quality Analyst
Michigan Department of Environmental Quality
Air Quality Division
27700 Donald Court
Warren, Michigan 48092
Phone: 586-753-3735
Fax: 586-753-3731
dayja@michigan.gov

Pyrotek

CESANA

Post-it® Fax Note 7671	Date 11/29	# of pages ▶ 4
To Rick Carroll	From Jacquie	
Co./Dept. Hayes Ferndale	Co. Pyrotek	
Phone #	Phone # 219.248.4141 K200	
Fax # 248.397.1252	Fax # 219.248.2350	

ALUXAL 2700

Sodium free, injection flux

White powdered Sodium-free injection and cleansing flux for Aluminium alloys.

Product Physical Data

Appearance	Fine crystalline powder
Mesh size	<22
Type of dross	Dry

Description

ALUXAL 2700 is a specially formulated injection and cleansing flux suitable for the treatment of Aluminium alloys in crucible and reverberatory furnaces. ALUXAL 2700 when injected in the molten metal, purifies and removes from the alloy any non metallic inclusions. Its reaction gives a dry dross with a very limited metal content.

Recommended use

ALUXAL 2700 is recommended for Aluminium Magnesium alloys melted in crucible or reverb furnaces. The product does not contains Sodium, it can be used either for casting billette, ingots, rolling slabs and sand or gravity castings. It is also used for treating Aluminium-Silicon alloys pre-modified with Strontium and Aluminium-Silicon > 13% (hypereutectic alloys).

Application temperature

ALUXAL 2700 should be used at 700 up to 750°C.

Type of furnaces

Melting and holding furnaces, transfer and pouring ladles.

Method of use

ALUXAL 2700 can be injected by PAL P.I. 60, PAL 2500 and 3500 units. The amount required is generally 0,10%-0,15% of molten metal charge.

Flux should be charged into the hopper just before use: check metal temperature and then start degassing procedures. Before and after insertion into molten metal ensure that nitrogen is flowing through the lance to avoid clogging.
After injection remove dross from the lance tip and make sure that the lance hole is clean from any metal.

Leave the metal resting for three minutes, remove the dross and start pouring procedures.

Health and safety

During all treatments, especially degassing, the operator should wear safety goggles and dust mask. The furnace should be fitted with adequate extraction hood. To avoid contacts with the skin the use of protective gloves is recommend.
In case of accidental contact with the eyes, irrigate with clean water for 20 minutes and consult a physician. After handling wash well with soap and water.

Packaging

25 kg paper bags with polythene lining.

Material Safety Data Sheet

Available on request.

06.04.1998

#08-0154

Pyrotek Inc.
4447 East Park 30 Drive
Columbia City, IN 46725

A.CESANA

MATERIAL SAFETY DATA SHEET N° CH 749

Emission date : 24.06.1998
Revision n° 0 date : 24.06.1998

Emergency phone number :	0039-02 - 35.34.941 (5 automatic lines)
Trade name:	ALUXAL 2700
Product description	Powdered flux for molten Aluminium alloys

1. Ingredient's health hazard informations

1.1 Hazardous costituents	Costituent (s)	CAS n°	Hazard indications	Percentage
	Potassium fluosilicate (K_2SiF_6)	16871-90-2	"Xn" (R 20/22)	---
	Potassium carbonate (K_2CO_3)	584-08-7	"Xn" (R 22)	---
1.2 Appearance	Powder			
1.3 Colour	White			
1.4 Odour	Odourless			

2. Physical properties		
2.1	Melting point	No Data
2.2	Density (20°C)	1.1 - 1.3 g/cm3
2.3	Vapour pressure	---
2.4	Viscosity °C	---
2.5	Solubility in water	Partially soluble
2.6	pH value	No Data
2.7	Flash point	No data (Product not flammable)
2.8	Ignition temperature	No Data
2.9	Decomposition temperature	--
2.10	Hazardous decomposition products	If heated to elevated temperature emits toxic fumes of F and CO_2
2.11	Hazardous reactions	Avoid contact with strong acids (development of
2.12	Other indications	Avoid humid conditions

Pyrotek Inc.
4447 East Park 30 Drive
Columbia City, IN 46725

ACESANA

MATERIAL SAFETY DATA SHEET n° CIU 749

ALUXAL 2700

3. Warnings and prescriptions		
3.1 EEC hazard warning label	*Symbol : "Xn" Harmful*	
3.2 Risk / Safety phrases	R phrases : 20/22 - 36/37	
	Harmful by inhalation and if swallowed. Irritating to eyes and respiratory system.	
	S phrases : 22-25-26	
	Do not breathe dust. Avoid contact with eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.	
4. Storage and handling precautions		
4.1 Technical protection measures	*Use the product in areas protected by hoods or in emplacement fitted with dust extractors.*	
4.2 Personal protections informations	*Respiratory protection*	*Wear suitable protective mask with filter for inorganic powder.*
	Eye protection	*Wear protective goggles.*
	Hands protection	*Wear protective rubber gloves.*
	Others	--
4.3 Storage precautions	*Store in a suitable, dry, warehouse.*	
4.4 Ambient industrial hygiene	*It is recommended to comply with all precautionary and necessary steps used in handling chemical products.*	
4.5 Fire, explosion protection steps	*Product is not flammable. In case of fire, remove the product from the surrounding area.*	
4.6 Waste disposal	*Do not dispose the waters contaminated by the product into the sewer system. Check the appropriate State, regional, or local regulation for additional waste disposal requirements.*	

Pyrotek Inc.
4447 East Park 30 Drive
Columbia City, IN 46725

ACESAN

MATERIAL SAFETY DATA SHEET n° CH/749

ALUXAL 2700

5.	Instructions in case of fire or accident	
5.1	Spill or Leak Procedures	*Shovel into a container for later disposal. Avoid clean-up procedures that may result in water pollution. Avoid contact with the product.*
5.2	Extinguishing media	*Use extinguishing agent suitable for type of surrounding fire.*
5.3	First aid	*Skin contact* *Wash area of contact thoroughly with soap and water.* *Eye contact* *Flush immediately with large amounts of water for at least 15 minutes. Do not rub eyes.* *Ingestion:* *Ingestion is unlikely. If ingested, induce vomiting with emetic. Do not stop spontaneous vomiting.* *Inhalation:* *Remove affected person from source of exposure. If inhalated, rinse nasal mucouses with normal saline solution.*
5.4	Other informations	*Get medical attention in case the affected person reveals symptoms due to skin and eye irritation, ingestion or inhalation.*

6.	Toxicity data	
6.1	Acute oral toxicity of the product	*( ) Toxic (DL50 < 200 mg/kg)* *(X) Harmful (DL 50 da 200 a 2000 mg/kg)* *( ) Not harmful (DL 50 > 2000 mg/kg)*
6.2	Skin and mucous tolerability	*Irritating to eyes and respiratory system.*
6.3	Main symptoms in case of poisoning	*Nausea, vomiting, irritating to mocous and respiratory system.*
6.4	Exposure limit ACGIH TLV	*Inorganic fluorides : 2.5 mg/m3*
7.	Environmental information	*Class of risk for waters (WGK) : 1- Compound lightly pollution*
8.	Transport codes	*UN N° 2655 - Class: 6.1 - Letter/digit: 64°C* *Harmful product : Keep away from food - stuffs.*
9.	Special measures	--

The information in this document is believed to be correct as of the date issued. This information and the product are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENT
AIR QUALITY DIVISION
ACTIVITY REPORT: Self Initiated Inspection

A464612339

FACILITY: Hayes-Lemmerz Technical Center, Inc.		**SRN / ID:** A4646
LOCATION: 1600 West Eight Mile Road, FERNDALE		**DISTRICT:** Southeast Michigan
CITY: FERNDALE		**COUNTY:** OAKLAND
CONTACT:		**ACTIVITY DATE:** 10/27/2010
STAFF: Erik Gurshaw	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** SM OPT OUT
SUBJECT: Self-initiated inspection.		
RESOLVED COMPLAINTS:		

On October 27, 2010, AQD staff, Erik Gurshaw, attempted to conduct an inspection at Hayes-Lemmerz Technical Center located at 1600 W. Eight Mile Road in Ferndale, Michigan. Upon arriving at the facility, however, it was determined that the building is vacant and the company no longer operates at the location. A "Newmark Knight Frank" real estate company "For Sale" sign is in front of the building along Eight Mile Road. It appears as though no business has occupied the address since Hayes-Lemmerz moved out of the building in 2007. PTI Numbers 799-92 and 368-99 issued to Hayes-Lemmerz Technical Center were voided on March 13, 2007, by Ms. Sue Thelen.

NAME Erik A. Gurshaw DATE 11/24/10 SUPERVISOR CJE

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-02832

FACILITY: **HAYES LEMMERZ, INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **SOUTHEAST MICHIGAN**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **DAVE MILLER**		ACTIVITY DATE: **02/27/2007**
REPORT DATE: **02/28/2007**	STAFF: **EG**	TRAVEL TIME: **30 MINS**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **2 HRS**
SOURCE CLASS: **SM**	[ ]NSPS [ ]NESHAP [ ]PSD [x]TOXIC [ ]MACT	

REMARKS:

On February 27, 2007, AQD staff, Erik Gurshaw, conducted a targeted, unannounced inspection at Hayes Lemmerz International, Inc. located at 1600 Eight Mile Rd. in Ferndale, Michigan. The purpose of the inspection was to determine compliance with the Federal Clean Air Act; Article II, Part 55, Air Pollution Control of Natural Resources and Environmental Protection Act, 1994 Public Act 451; Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) rules; the conditions of opt-out permit numbers 799-92 and 368-99; and Rule 208a which limits criteria pollutant and HAP emissions to less than half of major source threshold levels.

Upon arriving at the facility, AQD staff introduced themselves and stated the purpose of the visit to Mr. David Miller, Facility Manager (Ph: 248-397-2239). Mr. Miller indicated that the facility operates from 7:00 AM until 5:00 PM Monday through Friday. Eighteen employees currently work at the facility, but only four of them are employed by Hayes Lemmerz International. The remaining fourteen employees are employed by Diversified Machining, Inc. which is leasing office space in the building. Hayes Lemmerz is currently in the process of vacating the building and plans to sell it as soon their lease with Diversified Machining, Inc. expires. Diversified Machining is using a portion of the building for sales and CAD and engineering design.

PTI number 799-92 is for a nylon plastic injection molding process which has not been used at the facility in more than a decade. The equipment associated with this process was removed approximately ten years ago. PTI number 368-99 is for a 10,000 pound aluminum melting furnace and associated casting processes.

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: Erik A. Gurshaw DATE: 2/28/07 SUPERVISOR: CJE

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-02832

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

According to Mr. Miller, the aluminum melting furnace has not been used since November, 2005. The furnace is still at the building, but the equipment associated with the sand casting and sand reclamation processes was removed in 2004. The company plans to sell the aluminun melting furnace as soon as possible. Hayes Lemmerz's 208a registration covered emissions from four dynamometers located at the facility. Mr. Miller indicated that these dynos have not been used in more than seven years. Three of the dynos are completely outdated and Hayes Lemmerz has plans to dismantle and disgard them. Hayes Lemmerz plans to sell the remaining dyno which is of the portable variety. The company did not renew their 208a registration this year since they had no plans to use the dynos and are vacating the building. Four electric resistance furnaces are also present at the facility with charging capacities of 500 pounds, 1,000 pounds, 2,500 pounds, and 6,000 pounds. These furnaces were previously determined to be exempt from permit-to-install requirements pursuant Rule 283(1)(a). Mr. Miller indicated that these furnaces have not been used since November, 2005, and that they will be sold as soon as possible.

Based on this inspection, it appears that no processes which could result in air emissions are conducted at the facility. Hayes Lemmerz is in the process of vacating and selling the building and its remaining process equipment. Mr. Miller said that the company will be submitting a MAERS report for the 2006 year, but that the emissions in the report will only be for natural gas usage associated with heating water and the building. Mr. Miller requested that PTI numbers 799-92 and 368-99 be voided and that the facility be removed from the MAERS reporting list for the 2007 year.

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-02324

FACILITY: **HAYES LEMMERZ, INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **SOUTHEAST MICHIGAN**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **aDAVID MILLER**		ACTIVITY DATE: **03/13/2006**
REPORT DATE: **03/16/2006**	STAFF: **RRP**	TRAVEL TIME: **1 HR.**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **12 HR.**
SOURCE CLASS: **B**	[ ]NSPS [ ]NESHAP [ ]PSD [x]TOXIC [ ]MACT	

INSPECTION RESULTS:

	QTY	POINT/CONTROL	PERMIT/RULE/ORDER	STATUS
1	4	0001 ENGINE TEST CELLS	PI NO. EXEMPT RULE RULE285(G), RULE208A	NO NO
2	1	0003 MIXER-ALUMINUM CASTING	PI NO. 368-99 RULE R208A	C C
3	1	0008 VERSOCAST CASTING	PI NO. EXEMPT RULE RULE 283	NO NO
4	1	0009 UBE CASTING MACHINE	PI NO. EXEMPT RULE RULE 283	NO NO
5	1	0010 1000 LB ELEC HOLDING FURN	PI NO. EXEMPT RULE RULE 283	C C
6	1	0011 2000 LB ELEC HOLDING FURN	PI NO. EXEMPT RULE RULE 283	C C
7	1	0012 FURNACE	PI NO. 368-99	NO
8	1	0013 TILT FURNACE	PI NO. EXEMPT RULE RULE 283	NO NO
9	2	PARTS WASHERS	PI NO. EXEMPT RULE RULE 281(H)	C C

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: [signature] DATE: 3/27/2006 SUPERVISOR: [signature]

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-02324

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

On March 13, 2006, I conducted a level 2 unannounced inspection at Hayes-Lemmerz Technical Center, Inc. located at 1600 W. Eight Mile Road, Ferndale, Michigan. The facility is a research and development facility. During the inspection, I was accompanied by Mr. David Miller, facilities manager.

Mr. Miller took me to the rooms that housed the dynamometer cells and I observed 3 units. He mentioned that these equipment has not operated for at least 3 years due to outdated equipment resulting to loss of business to competitors who own newer and more modern dynamometer units. When operating, these dynamometer cells have the potential to cause air pollutant emissions such as Carbon Monoxide and Nitrogen Oxides in excess of 100 tons per year per pollutant, thus making the facility subject to the Clean Air Act of 1990 Title V permitting requirements. The facility is currently registered as exempt from the Clean Air Act of 1990 Title V Renewable Operating Permit program using the Michigan DEQ Air Quality Division (AQD) Administrative Rule R 336.1208a, otherwise known as Rule 208a. The company has to renew the registration every year to avail of the exemption. Mr. Miller submitted the company's Rule 208a annual renewal registration form together with his MAERS submittal. AQD records showed that MAERS was received on February 10, 2006.

The AQD issued Permit to Install 386-99 for a clean feedstock aluminum melting process with seven crucible furnaces. During the inspection, the melting process was not operating due to repairs being conducted on the inner surface of the furnace (refractory lining). The furnace burners fire natural gas to melt only clean aluminum feedstock comprising of prime aluminum and scrap aluminum re-melts that are free of oils, paints, greases, lubricants, and foreign materials. Clean feedstock refers to aluminum ingot, T-bar, sow, and molten aluminum. The main melting furnace is supported by a 1,000 lb. and 2000 lb. electrically heated holding furnaces to keep the molten material from solidifying prior to pouring to the different molds as deemed necessary or when there is a requirement to cast a certain mold. During the shutdown, the electric holding furnace contain some molten aluminum material on hold. The facility has several casting equipment that are on standby such as the versocast, ube casting equipment, and the mixer/aluminum casting equipment. Some of the casting equipment do not require a sand mold.

Per PTI 368-99 special condition no. 1, Mr. Miller showed me samples of casted aluminum products that are now ready to be re-melted as feedstock and I did not observe any paints, oils, greases, and lubricants on the scraps. Mr. Miller informed me that scrap re-melts come exclusively from castings produced

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-02324

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

within the company as part of R & D requirements by different divisions. Per special condition no. 2, I obtained a copy of the monthly tonnage of fluxes used and tonnage of aluminum melted to produce the total tonnage of products. For FY2005, records showed that the facility melted a total of 41,670 lb. of prime aluminum and 85,274 lb. of re-melted aluminum feedstock to produce a total of 126,944 lb. of products. The attached table showed the breakdown of the type, quantity, and date of feedstock processing. Another attached table showed the recordkeeping of flux usage with dates, types, and quantities used. Per special condition no. 3, the sand reclaim process was also down due to furnace repair. I observed a dust collection system installed and appeared in good condition. I did not observe any opacity while I was conducting my inspection.

While conducting inspection, I observed 2 parts washers, each with less than 10 square feet surface area, that may be PTI exempt per AQD Administrative Rule 281(h). I observed the covers were closed and safety instructions were posted near each unit.

Date: 3/ 16/ 2006
Revised Form 4/15/1997

TARGETING DATA LONG FORM

State: MI TID #: A4646
Data Problem:

I. IDENTIFICATION

Facility (plant) name: HAYES LEMMERZ, INC
Location: 1600 W EIGHT MILE RD
Address: 1600 W EIGHT MILE RD
City: FERNDALE Zip Code: 48220- Mobile?
County: OAKLAND CO Code: 63 Office: SE Inspector: RRP
Description: R & D FACILITY
Facility Contact: DAVE MILLER Telephone: 248-397-2239
Applicable regulations: SIP, TOXIC

If OTHER, describe:
Low Priority/Minimum Frequency code: 208A REGISTRATION SOURCE
TARGETED CONTROL/PROCESS SYSTEM: Identify 1st priority system(s): ALUMINUM MELTING FURNACE
Identify other priority system(s): DYNAMOMETER CELLS

State ID: A4646
AFS ID: 05-26-125-00031
Operating Permit #:
- Issd.: / / Expir.: / /
- Permit Type:
EPA ID: SIC: 8734
ITS Source Code: MISCELLANEOUS
EPA Class: B

Insp Commitment: Y
Pollutant Class:

II. EMISSIONS

Emissions Data Year: 2004

TARGETED POLLUTANT:*	Pollutant	Is a Control System Used to Reduce Emissions?	Are Fugitive Emissions a Priority Concern?
1st Priority:	CO		
2nd Priority:	NOX		

* Identify more than one pollutant only if other pollutants are a major targeting concern. Pollutant symbols are: PM, SOX, NOX, CO, VOC, TRS, PB, HAZ, and TOX.

EMISSIONS:*

PM Cont.	0.37	SOX Cont.	0.13	NOX Cont.	3.05	CO Cont.	1.40
Uncont.	0.37	Uncont.	0.13	Uncont.	3.05	Uncont.	1.40
VOC Cont.	0.22	TRS Cont.		PB Cont.			
Uncont.	0.22	Uncont.		Uncont.			

* Provide emissions data in tons/year. If unknown, estimate uncontrolled emissions in tons/year according to the following scale: 1,5,15,30,50,80,125,250,500,2000,10000+. TOX/HAZ emissions are listed, if applicable, on page 2.

COMMENTS:

III. COMPLIANCE

COMPLIANCE TEST: Year of last compliance test:
Results: (P)ass, (F)ail, or (U)Pending
SELF-MONITORING REPORTS: Can the review of these reports be used in place of an inspection?
Is an inspection needed based on self-monitoring reports?
INSPECTIONS: Date of last Level 2 (or higher level) inspection (Mo/Day/Yr) 3/ 13/ 2006
Were actual or potential emissions or O&M problems identified during the last inspection?
During any other inspection conducted in the last two years?
COMPLAINTS: Do complaints indicate a potential compliance problem?
MALFUNCTIONS: Are there excessive malfunctions (in frequency or magnitude)?
ENFORCEMENT: Has any enforcement action been initiated for emissions or O&M problems recently?
Is inspection needed due to ongoing or recently-completed enforcement?
ONGOING COMPLIANCE PROBLEM: Is there an ongoing emissions or O&M problem at the facility?
IS MORE THAN ONE POINT SOURCE EXPERIENCING PROBLEMS?
MINOR PROBLEMS: Are all compliance problems indicated above minor?
Is a follow-up inspection justified because of minor problems?
PROBLEMS RESOLVED: Are all problems indicated above now resolved? Yes

RATE VULNERABILITY OF FACILITY TO UPSET:	Very High	High	Average X	Low
RATE O&M PRACTICES at the site:	Very Poor	Poor	Average X	Good

COMMENTS:

IV. AIR QUALITY

LOCATED IN A NONATTAINMENT AREA?..... PM_____ SO2_____ Ozone X CO_____ NOx_____ PB_____

IMPACT ON AIR QUALITY in principal impact area:..... Very High_____ High X Moderate_____ Minor_____

POPULATION affected by facility in impact area:..... High Density X Low Density_____

ARE THERE AIR QUALITY PROBLEMS INVOLVING MORE THAN ONE POLLUTANT?..... _____

COMMENTS: _____

V. SPECIAL CIRCUMSTANCES

INSPECTION NEEDED: 1. Never Inspected_____ 2. Inspection Overdue_____ 3. New Permit_____
4. Permit Renewal_____ 5. Other_____ Explain: _____

INSPECTION NOT NEEDED: 1. Temporarily Shut Down/Moved_____ 2. Permanently Shut Down/Moved_____
3. Other_____ Explain: _____

COMMENTS: _____

VI. RESOURCES

TIME FACTOR: Estimate all office and on-site time (hrs) required for one level 2 or higher inspection of the entire facility. If more than one inspection level is planned during the year, enter the average time per inspection..... 12.00

TRAVEL TIME: Estimate the travel time required per inspection (round trip). If more than one inspection will be conducted on the same trip, please apportion the time equally among all facilities to be inspected and indicate only this facility's share 1.00

FREQUENCY FACTOR: Number of level 2 or higher inspections needed (number/years)..... 1/ 4

COMMENTS: _____

VII. INSPECTOR RANKING

INSPECTOR RANKING: Rank facility from 1 (lowest priority) to 4 (highest priority) for an inspection next year, based on your overall evaluation of the facility..... 1

UNIQUE FACTORS: Are there unique factors not considered above which affect your ranking?..... _____

Explain: _____

COMMENTS: _____

II. EMISSIONS (CONTINUED)

TOXIC AND NESHAP INFORMATION: (Tons per year controlled)

CAS#	CHEMICAL NAME	SARA S313 DATABASE	SARA S313 EDITED	DISTRICT DATA ACTUAL	DISTRICT DATA CTRLD?*

* Enter control efficiency (%) or YES; YES will default to 95%

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Technical Center

TEL Furnace Melting Log

Jan. 2005 - Dec. 2005

Date	Material Grade Added (i.e. A356, 357)	Weight Added (lbs)		Comments (i.e. wheel Remelt, remelt sows, gates & risers, etc.)
		Prime	Remelt	
1/5/05	A356		620	Scrap wheels
1/6/05	A356		620	Scrap wheels
1/6/05	A356		1000	T-sow
1/6/05	A356		620	Scrap wheels
1/6/05	A356		1100	T-sow
1/6/05	A356		1100	T-sow
1/11/05	A356		1100	T-sow (secondaty)
1/17/05	A356		1200	T-sow (secondaty)
2/16/05	A356		400	Scrap wheels (D219 THT)
2/16/05	A356		720	Scrap wheels 18"
2/16/05	A356		670	Scrap wheels (THT) & Biscuits
2/17/05	A356	1100		Russion T-sow
2/17/05	A356		1000	Secondary sow from UBE
2/18/05	A356	1200		Russion T-sow
2/18/05	A356		600	Scrap wheels
2/23/05	A356		600	Scrap wheels & knuckles
2/23/05	A356		720	Scrap knuckles D219 & biscuits (THT)
3/3/05	A356	1200		T-sow
3/4/05	A356		700	Scrap knuckles D219 & biscuits (THT)
3/4/05	A356		700	Scrap knuckles D219 & biscuits (THT)
3/7/05	A356		600	Scrap knuckles D219 & biscuits (THT)
3/9/05	A356		600	Scrap knuckles D219 & biscuits (THT)
3/14/05	A356		400	Scrap knuckles D219 & biscuits (THT)

3/14/05	A356		600	Scrap knuckles D219 & biscuits (THT)
3/16/05	A356	1200		T-sow
3/17/05	A356	1300		T-sow
3/18/05	A356		750	Usubarv Scrap Weels
3/18/05	A356		900	Usubarv Scrap Weels
3/18/05	A356		850	Usubarv Scrap Weels
3/21/05	A356		720	Usubarv Scrap Weels
3/21/05	A356		350	Usubarv Scrap Weels + Knuckle D219
3/21/05	A356		1200	Secondary T-sow
3/21/05	A356		1200	Secondary T-sow
3/21/05	A356		800	Scrap knuckles D219 & biscuits (THT)
3/22/05	A356		700	Scrap knuckles D219 & biscuits (THT)
3/22/05	A356		760	Scrap wheels
3/22/05	A356		1200	Secondary T-sow
3/22/05	A356	1300		T-sow
3/23/05	A356		1400	Secondary T-sow
3/23/05	A356		1463	Secondary T-sow
3/23/05	A356		940	Scrap wheels + Knuckle D219
3/24/05	A356		1460	Secondary T-sow
3/28/05	A356		700	Scrap knuckles D219 & biscuits (THT)
3/29/05	A356		1460	Secondary T-sow
3/30/05	A356		700	Scrap knuckles D219 & biscuits (THT)
3/30/05	A356		750	Scrap wheels
4/4/05	A356		600	Scrap Control Arms, Biscuits (THT), Crosssmembers
4/4/05	A356		500	Scrap Control Arms
4/4/05	A356		800	Scrap knuckles D219 & biscuits (THT)
4/13/05	A356		800	Scrap knuckles D219 & biscuits (THT)
4/13/05	A356		855	??

TEL Furnace Melting Log

4/14/05	A356		800	Scrap knuckles D219 & biscuits (THT)
4/14/05	A356		600	Scrap knuckles D219 & biscuits (THT)
4/15/05	A356		850	Scrap knuckles D219 & biscuits (THT)
4/21/05	A356		600	Scrap knuckles D219 & biscuits (THT)
5/2/05	A356		400	Scrap knuckles D219 & biscuits (THT)
5/19/05	A356		1200	Secondary T-sow
5/26/05	A356		2400	Secondary T-sow
5/26/05	A356		1200	Secondary T-sow
5/26/05	A356		1000	Secondary T-sow
5/27/05	A356	1200		Secondary T-sow
5/27/05	A356		500	Scrap wheels
5/27/05	A356		1000	Secondary T-sow
5/31/05	A356		1200	Secondary T-sow
5/31/05	A356		500	Scrap wheels & biscuits
6/1/05	A356		1200	Secondary T-sow
6/1/05	A356		500	Scrap wheels
6/2/05	A356		600	Scrap wheels & biscuits
6/2/05	A356		550	Scrap wheels
6/2/05	A356	2170		Prime (High Fe)
6/2/05	A356		550	Scrap wheels
6/6/05	A356		600	Scrap wheels
6/7/05	A356		400	Scrap control arms
6/15/05	A356		1957	T-sow (low Mg)
6/16/05	A356		1957	T-sow (low Mg)
6/16/05	A356		1957	T-sow (low Mg)
6/21/56	A356		1515	Primery T-Sow (low Fe, 0.7)
6/21/05	A356		1200	T-sow (Gainesville standard)
6/22/05	A356		1000	Scrap wheels

TEL Furnace Melting Log

6/22/05	A356		600	Scrap wheels
6/23/05	A356		500	Scrap wheels
6/23/05	A356	1200		T-sow (Gainesville standard)
6/28/05	A356		900	Scrap wheels
6/29/05	A356	1200		
6/30/05	A356		1300	Scrap wheels
7/5/05	A356		500	Scrap Crossmembers
7/5/05	A356		500	Scrap wheels
7/5/05	A356	1200		T-sow (Gainesville standard)
7/5/05	A356	1200		T-sow (Gainesville standard)
7/15/05	A356	1200		T-sow (Gainesville standard)
7/15/05	A356	1200		T-sow (Gainesville standard)
7/15/05	A356		600	Scrap wheels
7/15/05	A356		600	Scrap wheels
7/18/05	A356	1200		Scrap wheels
7/18/05	A356	1200		Scrap wheels
7/19/05	A356		600	Scrap wheels
7/20/05	A356	1200		T-sow (Gainesville standard)
7/20/05	A356	1200		T-sow (Gainesville standard)
8/22/05	A356		500	Scrap wheels
8/22/05	A356		600	Scrap wheels
8/22/05	A356		600	Scrap wheels
8/23/05	A356		600	Scrap wheels
8/23/05	A356		500	Scrap wheels
9/16/05	A356		1200	
9/29/05	A356		600	
9/30/05	A356		720	
10/11/05	A356		1200	
10/13/05	A356		1200	
10/13/05	A356		1200	
10/14/05	A356		700	

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TEL Furnace Melting Log

Jan. 2005 - Dec. 2005

10/18/05	A356		800	
10/24/05	A356	1000		T-sow
10/25/05	A356		500	Scrap wheels
10/25/05	A356	1200		T-sow High Mg
10/25/05	A356	1200		T-sow High Mg
10/26/05	A356	1200		T-sow prime
10/26/05	A356	1200		T-sow prime
10/26/05	A356	1200		T-sow 40 Mg
10/27/05	A356	1200		T-sow prime 40mg
10/27/05	A356	1200		T-sow 40 Mg
10/27/05	A356	1200		T-sow 40 Mg
10/27/05	A356	1200		T-sow 40 Mg
10/27/05	A356	1200		T-sow 40 Mg
10/27/05	A356	1200		T-sow 40 Mg
10/28/05	A356		490	Scrap wheels
11/21/05	A356	1200		T-sow
11/21/05	A356	1200		T-sow
11/21/05	A356	1200		T-sow
11/21/05	A356	1200		T-sow
11/26/05	A356		1200	Secondary T-sow
12/12/05	A356		600	Scrap casting (Montague)
12/13/05	A356		650	Scrap wheels
12/16/05	A356		800	Scrap wheels
12/19/05	A356		750	Scrap Wheels
Sum Total		41670	85274	

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Low Pressure Wheel Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, Condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
11/29/04	MC	ALUXAL	3 LBS	NORMAL	OK	DEGASSED FIRST
1-10-05	AS	"	"	"	"	very Dirty
2-14-05	RC	ALUXAL	5 LBS	NORMAL	OK	Normal
3-14-05	RC	ALUXAL	10 LBS	Normal	OK	Very DIRTY DROSS Build up
4-11-05	RC	ALUXAL	10 LBS	OK	OK	Heavy Build up walls, DROSS
4-18-05	—	—	—	—	—	Down for PM
4-25-05	—	—	—	—	—	Down for PM
5-2-05	—	—	—	—	—	Down for PM
DOWN FOR PM UNTIL FRIDAY MAY 20, 2005						
5-23-05	RC	—	5 LBS	Normal	Normal	New Refractory, looks Good
31 May	RB	"	~~3~~ 6	"	"	Good
6 Qua	"	"	"	"	"	"
6-20-05	RC	Pyroflux	10 LBS	Normal	OK	GOOD!
29 Qua	RB	"	5	"	"	"
7/18/05	RC	"	10	OK	OK	Heavy Dross
7-11-05	AS	"	.5 lbs	OK	OK	Heavy
18 Qua	RB	"	"	"	"	Normal
7-25-05	RC	"	10 LBS	OK	OK	Heavy Dross
8-8-05	AS	"	5 lbs	"	"	Light Dross
8-29-05	RC	"	5 LBS	OK	OK	light dross
9-6-05	RB	"	"	"	"	"
9-13-05	AS	"	"	"	"	light

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Technical Center

Low Pressure Wheel Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, Condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
9-19-05	RC	Pyroflux 25	5 LBS	OK	OK	Heavy dross from Fri Run
9-26	RB	Wheldron Flux	—	"	"	normal
10-3	RC	"	"	"	"	Heavy
10-10	RB	"	"	"	"	"
10-18	RB	Pyroflux	"	"	"	"
10-24	RC	"	"	"	"	Normal
10-31	RC	"	10 LBS	OK	OK	Very Heavy Dross From Runs
11-21-05	RC	"	10 LBS	OK	OK	Medium Dross
12-12-05	RC	"	10 LBS	OK	OK	Very Heavy Dross
12-16-05	RC	Boiled out	14 to	ingots DOWN UNTIL	after	Christmas

Hayes Lemmerz Technical Center

3 Heater Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
12-6-04	RC	ALUXOL	4 LBS	OK	OK	Normal Buildup
12-14-04	RC	"	"	OK	OK	Heavy Buildup
1-10-05	RC	"	5 lbs	ok	ok	"
1-13-05	RC	"	"	ok	ok	" "
1-28-05	RC	"	"	OK	OK	" "
2-7-05	BB	"	"	"	"	Normal, Change #3 T.C.
2-14-05	HS	"	"	"	"	Normal
2-21-05	BB	"	"	"	"	"
2-28-05	HS	"	"	"	"	"
3-7-05	RC	"	"	"	"	Normal
3-14-05	RB	"	3	"	"	
3-21-05	HS	"	"	"	"	Heavy wall Build-up
3-28-05	RC	"	5 LBS	OK	OK	Wall Buildup
4-4-05	HS	"	"	"	"	normal
4-11	RB	"	3 LB	"	"	"
4-18-05	RC	"	5 LBS	OK	OK	Normal
4-25-05	HS	"	"	"	"	"
5-2-05	RB	"	"	"	"	"
5-8-05	RC	"	5 LBS	OK	OK	Normal
5-16-05	HS	"	5 lbs	ok	ok	Light Build-up
5-31-05	RC	"	10 LBS	OK	OK	Light
6-7-05	HS	"	5 lbs	"	"	Light Build-up

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3 Heater Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
6-20-05	RC	PyroFLUX	10LBS	OK	OK	Normal
6-27-05	HS	"	5 lbs	ok	ok	Normal
7-11-05	RC	"	10LBS	OK	OK	Normal
7-18-05	HS	"	5 lbs	ok	OK	Normal
25 Jul	RB	"	"	"	"	"
8-1-05	HS	"	3 lbs	"	"	"
8-8-05	HS	"	3 lbs	"	"	"
8-15-05	HS	"	5 lbs	"	"	Light
22 Aug	RB	"	"	"	"	"
8-29-05	HS	"	5 lbs	"	"	Medium Dross
9-6-05	RC	"	5 LBS	"	"	Dross Buildup - Wall
9-13-05	RB	"	"	"	"	Light
9-19	HS	"	5 lbs	"	"	Light Dross
9-26-05	RC	FLUXGUN	5 MING	OK	OK	~~Light~~ Heavy
10-10	HS	"	"	"	"	"
10-24	RB	PyroFlux	5 Lb	"	"	Light
10-31	HS	"	5 lb.	"	"	Medium Dross
11-7	RC	"	10 LB	"	"	Medium
11-21-05	HS	"	10 LBS	"	"	Medium Dross
11-28	HS	"	10 LBS	"	"	Light
12-6	RB	"	5 LB	"	"	"
12-12	HS	"	"	"	"	Normal

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Launder Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
11-22-04	[illegible]	ALUXAL	3 LBS	OK	OK	NORMAL
12-6-04	RC	ALUXAL	3LBS	OK	OK	Normal
1-10-05	[illegible]	"	3 lbs	OK	OK	Normal
2-6-05	RC	"	—	OK	OK	Normal
1-7-5-05	RB		1 1/2	"	"	"
2-24-05	[illegible]	"	"	"	"	"
2-28-05	RC	"	"	OK	OK	Normal
3-7-05	RB	"	"	"	"	"
3-21-05	RC	"	"	OK	OK	NORMAL
4-5-05	RC	"	"	OK	OK	NORMAL
4-11-05	HS	"	"	"	"	"
4-18-05	RB	"	"	"	"	"
4-26-05	RC	"	"	OK	OK	Normal
5-2-05	HS	"	"	"	"	"
5-9-05	HS	"	"	"	"	"
5-16-05	RC	"	"	"	"	Normal
5-23-05	HS	"	"	"	"	Wall Build-up
31 May	RB	"	"	"	"	Normal
7 June	RC	"	"	"	"	Normal
6-13-05	HS	"	5 lbs	"	"	Normal
20 Jun	RB	"	"	"	"	"
26 June 05	RC	"	"	"	"	Normal

Hayes Lemmerz
Technical Center

Launder Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
7-5	HS	Aluxal	3 lbs	OK	OK	Normal
7 QUL	RB	"	"	"	"	"
7-18-05	RC	"	"	"	"	Normal
8-8-05	RC	"	"	"	"	Heavy Buildup
8-15-05	HS	"	"	"	"	light
8-22-05	RC	PYRO FLUX	3 LBS	OK	OK	light
9-6-05	HS	"	5 lbs	"	"	Heavy Dross
9-12-05	RC	"	"	"	"	light
9-19-05	RB	"	"	"	"	"
9-26-05	HS	Wellron Flux	—	"	"	used Flux inspector to clean
10-3-05	HS	"	"	"	"	Heavy
10-10	RB	"	"	"	"	"
10-18	HS	"	"	"	"	"
10-24	RB	Pyro Flux	"	"	"	light
31 OCT	RB	"	"	"	"	"
11-7	HS	"	"	"	"	light Dross
11-14	HS	"	"	"	"	light
11-21-05	HS	"	"	"	"	light
11-28	HS	"	3 lbs	"	"	light
12-6-05	HS	"	3 LBS	"	"	light
12-12	RB	"	"	"	"	"
12-19	RC	"	5 LBS	"	"	Medium Dross

Hayes Lemmerz
Technical Center

Reverb Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments - Condition of refractory lining, (i.e. Really dirty, dredged bottom, had trouble, etc.)
11-15-04	HS	~~A356~~ Aluxal	10 LBS	OK	OK	OK DEGASSED DIPWELL 1st
11-22-04	HS	Aluxal	"	OK	OK	Normal Degassed Dipwell
11-29-04	HS	"	"	"	"	light Dross DEGASSED Dipwell
12-6-04	RC	"	"	OK	OK	light DROSS; DEGASSED Dipwell
12-13-04	RC	"	10 LBS	OK	OK	" " " " "
12-20-04	RC	"	10 LBS	OK	OK	Normal DEGASSED Dipwell
1-10-05	HS	"	"	OK	OK	Heavy Dross
1-31-05	RB	"	"	"	"	Normal
2-7-05	HS	"	12 lbs	"	"	"
2-14-05	RC	"	12 LBS	"	"	Normal
2-21-05	HS	"	"	"	"	"
2-28	RB	"	10	"	"	"
3-14-05	RC	"	20 LBS	OK	OK	Normal
3-28-05	HS	"	10 lbs	"	"	"
4-4-05	HS	"	10 lbs	"	"	"
4-11-05	RC	"	20 LBS	OK	OK	Normal
4-18-05	HS	"	10 lbs	"	"	Normal Dross, Dredged Bottom
5-2-05	RC	"	20 LBS	OK	OK	Normal " "
5-9-05	HS	"	10 lbs	"	"	"
5-16	RB	"	10 Lbs	"	"	"
5-23-	RC	"	10 LBS	OK	OK	OK
5-31-05	HS	"	10 lbs.	"	"	Normal Dross
7 Jun	RB	"	"	"	"	"

Hayes Lemmerz
Technical Center

Reverb Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments - Condition of refractory lining, (i.e. Really dirty, dredged bottom, had trouble, etc.)
6-13-05	HS	Aluxal	10 lbs	OK	OK	Light Dross
6-21-05	RC	PyroFlux	15 LBS	OK	OK	Heavy Dross -
6-29-05	RB	"	10	"	"	Light
7-5-05	RC	PyroFlux	15 LBS	OK	OK	LIGHT
7-11-05	HS	"	10 lbs	"	"	Normal
7-18-05	RB	"	"	"	"	"
7-25-05	RC	"	"	"	"	Normal
8-1-05	HS	"	"	"	"	"
8-8-05	RC	"	"	"	"	Normal
8-21-05	HS	"	10 lbs	"	"	Normal
8-29-05	RC	"	15 LBS	"	"	Normal
9-6-05	RB	"	10	"	"	"
9-12-05	HS	"	15 lbs	"	"	Normal
9-19-05	RC	"	15 LBS	"	"	Normal
9-26	RB	~~Weldbow~~ Flux Gun	5 min	"	"	Heavy
10-3	HS	"	"	"	"	"
10-10	RC	"	10 min	"	"	"
10-18	RB	Flux Gun	"	"	"	"
10-24	HS	PyroFlux	10 lbs	"	"	Normal
10-31	RC	"	"	"	"	Normal
11-14	HS	"	"	"	"	Light Dross
11-21	HS	"	"	"	"	Light

Hayes Lemmerz
Technical Center

Reverb Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments - Condition of refractory lining, (i.e. Really dirty, dredged bottom, had trouble, etc.)
12-5	RS	PyroFlux	5 lbs	ok	ok	Light
12-12	RC	"	"	ok	ok	Light
12-19	RC	"	10 LBS	ok	ok	Heavy Dross

Hayes Lemmerz Technical Center

UBE Furnace Cleaning Log

Jan. 2004 - Dec. 2004

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
11-29-04	RC	ALUXAL	3 LBS	OK	OK	DEGASSED FIRST, NORMAL
12-6-04	RC	ALUXAL	4 LBS	OK	OK	DEGASSED FIRST, NORMAL
12-13-04	RC	"	"	OK	OK	Normal
12-22-04	RC	"	"	OK	OK	Heavy Buildup
1-13-05	RC	"	"	OK	OK	Crucible-Re installed
1-28-05	RC	"	"	OK	OK	OK
14 FEB 05	RB	"	1 1/2	"	"	"
2-21-05	HS	"	"	"	"	"
2-28-05	RC	"	"	OK	OK	OK
3-7-05	RC	"	"	"	"	"
3-21-05	RC	"	"	OK	OK	Normal
4-5-05	RC	"	"	OK	OK	NORMAL
4-11-05	HS	"	"	"	"	"
4-18-05	RB	"	"	"	"	"
4-26-05	RC	"	"	"	"	Heavy Buildup
5-2-05	HS	"	"	"	"	Normal
5-9-05	HS	"	"	"	"	"
5-16-05	RC	"	"	"	"	Normal
5-23-05	HS	"	"	"	"	"
31 MAY	RB	"	"	"	"	"
6-6-05	RC	"	"	"	"	Normal
6-13-05	HS	"	"	"	"	"

Hayes Lemmerz
Technical Center

UBE Furnace Cleaning Log

Jan. 200_ - Dec. 200_

Date	Initial	Type of Flux Added (i.e. Aluxal)	Weight Flux Used (lbs)	General Appearance of the Area	Condition of Cleaning Tools	Comments, condition of refractory lining (i.e. Really dirty, dredged bottom, had trouble, etc.)
6-27-05	RC	PYRO FLUX	5LBS	OK	OK	Normal
7-5	AS	"	3 lbs	"	"	"
11 Jul	RB	"	"	"	"	"
7-18-05	RC	"	"	"	"	OK
7-25-05	FURNACE DOWN FOR Rebuild					
9-6-05	AS	Pyro Flux	1 lb.	ok	ok	Light Dross
9-12-05	RC	"	"	OK	ok	OK
9-19-05	RB		"	"	"	"
9-27-05	AS	—	—	"	"	"
10-3	AS	—	—	"	"	Light
10-18	AS	"	2 lbs	"	"	"
31 Oct	RB	"	"	"	"	"
11/21/05	RC	"	"	"	"	Light
11-28	AS	"	3 lbs	"	"	Medium Dross
12-6	MEB	"	3 LBS	"	"	Light
12-11	MEB	"	"	"	"	"
12-15	RC	BAILED OUT; NOT IN USE			(INGOTS)	

CLEANING SOLVENT EXCHANGE LOG

DATE	GALLONS EXCHANGED	INITIALS
2-16-04	15	W.N.
3-31-04	7	WN
5-12-04	5	W. N
6-22-04	11	W.N.
7-27-04	6	WN
9-7-04	8	WN
10-20	6	WN
11-30	7	WN
1-30-05	5	WN
1-31-05	6	WN
3-2-05	9	WN
4-5-05	5	WN
6-9-05	8	WN
8-2	4	WN
9-9	6	WN
10-1	3	WN
12-5-05	4	WN
1-4-06	5	WN
3-2-06	3	WN

Form Approved
OMB No. 44-R1387

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

MATERIAL SAFETY DATA SHEET

Required under USDL Safety and Health Regulations for Ship Repairing, Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME: Rapid Parts Maintenance	EMERGENCY TELEPHONE NO.: (313) 792-2250
ADDRESS (Number, Street, City, State, and ZIP Code): 36180 Groesbeck Mt. Clemens, Michigan 48043	
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS: R.P.M. # 108
CHEMICAL FAMILY: Mixed Aromatic & Aliphatic Hydrocarbons	FORMULA: N.A.

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS	100	Est. 300ppm	FILLER METAL PLUS COATINC OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					

HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES	%	TLV (Units)

SECTION III - PHYSICAL DATA

BOILING POINT (°F.)	340-550	SPECIFIC GRAVITY (H_2O=1)	0.82
VAPOR PRESSURE (mm Hg.)	N.A.	PERCENT, VOLATILE BY VOLUME (%)	100
VAPOR DENSITY (AIR=1)	N.A.	EVAPORATION RATE (_____ =1)	N.A.
SOLUBILITY IN WATER	Nil.		

APPEARANCE AND ODOR: Clear (Slight Straw Color) (Mild Aromatic Odor)

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used): 140 ° F T.C.C.	FLAMMABLE LIMITS	Lel: na	Uel: na

EXTINGUISHING MEDIA: Water spray or fog, Foam, Fog, CO2, Dry Chemicals

SPECIAL FIRE FIGHTING PROCEDURES: Same as any Petroleum Oil.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

(Continued on reverse side)

Form OSHA-20
Rev. May 72

07-0008

SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

EFFECTS OF OVEREXPOSURE
Moderate conjunctival irritation. Drying of skin due to loss of oils and fats from skin. Excessive inhalation may cause dizziness, nausea, and headache.

EMERGENCY AND FIRST AID PROCEDURES
Eye contact: Flush with water. Skin contact: Wash with mild soap, apply skin cream. Inhalation: Remove to fresh air. Oral: Do not induce vomiting.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	

INCOMPATABILITY *(Materials to avoid)*
Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
None in normal usage.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED
Avoid excessive heat and sparks. Contain spillage. Return material to container. Ventilate enclosed spaces. Keep petroleum products out of streams and waterways.

WASTE DISPOSAL METHOD
In accordance with State and Federal E.P.A. Regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION *(Specify type)*
Self-contained breathing apparatus for concentrations above T.L.V. Limits.

VENTILATION	LOCAL EXHAUST Normal room ventilation.	SPECIAL
	MECHANICAL *(General)* Explosion-proof ventilation equipment.	OTHER Normal precautions

PROTECTIVE GLOVES Rubber type. (For prolonged use.)	EYE PROTECTION Normal precautions.

OTHER PROTECTIVE EQUIPMENT
None in normal useage.

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
Combustible - Keep away from open flame, sparks, and extreme heat. Use adequate ventilation. Store so leakage can readily be seen. Keep containers closed.

OTHER PRECAUTIONS
If clothing becomes saturated, do not smoke, remove clothing immeadiatly.

Wash skin with soap and water after contact.

07-0008

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-01033

FACILITY: **HAYES LEMMERZ, INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **SOUTHEAST MICHIGAN**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **MR. DAVE MILLER**		ACTIVITY DATE: **01/13/2004**
REPORT DATE: **01/14/2004**	STAFF: **FL**	TRAVEL TIME: **1 HR**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **8 HRS**
SOURCE CLASS: **SM**	[ ]NSPS [ ]NESHAP [ ]PSD [ ]TOXIC [ ]MACT	

REMARKS:

On January 13, 2004, I conducted an unannounced annual inspection at Hayes Lemmerz, Inc. The facility is located on 1600 West 8 Mile Rd., Ferndale. I started the inspection at 9:30 AM. Mr. Dave Miller, the facility maintenance manager is the contact person. I went over the permit conditions and corresponding record keeping requirements with him, and explained the purpose of the inspection.

This is a R&D facility. Although this is a large facility, most of the work done here are engineering work. Dynamometer test cells used to be a big source of emissions at this site. However, they have not done any engine testing, although the equipment is still installed. Dave mentioned that engine testing is a competitive market and their testing equipment are not really state of the art, that's why they don't have any customers at this time. Since the equipment is still installed, they want to keep their R208a registration.

Permit #799-92
This permit covers a prototype nylon plastic injection molding process. During the inspection, the process equipment was removed. I advised Mr. Miller to void the permit.

Permit # 368-99
This permit is for aluminum melting furnace. Various aluminum wheel rims are put back to the furnace after testing for metal strength and other metal properties. During the inspection, the scrap that was going to the furnace was free of paint, coating, oils, grease, lubricants, or other foreign materials. The company keeps monthly records of the amount of the aluminum that is melted and the usage rate of fluxes processed according to the

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: [signature] DATE: 1-14-04 SUPERVISOR: [signature]

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-01033

FACILITY: **HAYES LEMMERZ, INC** | SRN **A4646**

REMARKS:

permit requirement. In the permit, there are conditions regarding to sand reclamation process. Mr. Miller told me that they didn't have the reclamation process on site. When they applied the permit, they took a process from other facility as the model to write the permit application; however, they didn't need the reclamation process. As a result, there's no baghouse installed. I told him to revise the permit. During the inspection, I didn't observe any visible emissions from the facility. The furnace is operated 24 hours per day and 365 days per year. However, they were shutdown for the past 6 months to do maintenance (refractory work). Records show that they are processing about 600-800 pounds per batch. The furnace has a 10,000 pound capacity and can melt 1000 pounds aluminum per hour.

For now, the other source of air emissions for the facility are the natural gas hotwater heaters. They have several small hot water heaters.

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-00665

FACILITY: **HAYES LEMMERZ, INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **SOUTHEAST MICHIGAN**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **MR. DAVE MILLER**		ACTIVITY DATE: **04/22/2003**
REPORT DATE: **04/30/2003**	STAFF: **JZ**	TRAVEL TIME: **1 HR**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **1 HR**
SOURCE CLASS:	[ ]NSPS [ ]NESHAP [ ]PSD [ ]TOXIC [ ]MACT	

INSPECTION RESULTS:

	QTY	POINT/CONTROL	PERMIT/RULE/ORDER	STATUS
1	1	0003 ALUMINUM FURNACE	PI NO. 368-99	C

REMARKS:

On April 22, 2003, I conducted an annual inspection at Hayes Lemmerz, Inc. The facility is located on 1600 West 8 Mile Rd., Ferndale. I started the inspection at 2:15 PM. Mr. Dave Miller, the facility maintenance manager, and Mr. David Moore, the engineering supervisor for the developmental lab, met with me at the facility. Also, Sebastian Kallumkal from AQD was with me. I went over the permit conditions and corresponding record keeping requirements with him, explained the purpose of the inspection.

Inspection:

This is a R&D facility.

Permit #799-92
This permit covers a prototype nylon plastic injection molding process. During the inspection, the process equipment was removed. I advised Mr. Miller to void the permit.

Permit # 368-99
This permit is for aluminum melting furnace. Various aluminum wheel rims are put back to the furnace after testing for metal strength and other metal properties. During the inspection, the scrap that was going to the furnace was free of paint, coating, oils, grease, lubricants, or other foreign materials. The

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: Joyce Z DATE: April 30, 03 SUPERVISOR: MK

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-SE-00665

FACILITY: **HAYES LEMMERZ, INC**	SRN **A4646**

REMARKS:

company kept a monthly records of the amount of the aluminum is melted and the usage rate of fluxes processed according to the permit requirement. In the permit, there are conditions regarding to sand reclamation process. Mr. Miller told me that they didn't have the reclamation process on site. When they applied the permit, they took a process from other facility as the model to write the permit application; however, they didn't need the reclamation process. As a result, there's no baghouse installed. I told him to revise the permit. During the inspection, I didn't observe any visible emissions from the facility. The furnace is operated 24 hours per day and 365 days per year.

In conclusion, the company appeared to operate in compliance with the permit and Air Pollution Control Regulations.

- Natural Gas Usage for the facility (MCF) (includes the usage of the Furnace)

- January – 2348.0
- February – 2289.0
- March – 2205.0
- April – 1902.0
- May – 942.0
- June – 612.0

- July – 423.0
- August – 583.0
- September – 643.0
- October – 652.0
- November – 1153.0
- December – 1657.0

Hayes Lemmerz
Technical Center

TEL Furnace Melting Log

Jan. 2002 - Dec. 2002

Date	Material Grade Added (i.e. A356, 357)	Furnace (Reverb, Ube, Wheel, IHS)	Weight Added (lbs)	Prime / Scrap/ Secondary	Comments (i.e. wheel scrap, remelt sows, gates & risers, etc.)
2/26/02	A356	(Rvb) Ube Wh IHS	2000	P Scr (Sec)	remelt sows
3/18/02	A356	(Rvb) Ube Wh IHS	1,140	P (Scr) Sec	scrap control arm castings
3-27-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sows
3-27-02	A-356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" "
3-28-02	A-356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" "
4-1-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sows
4-1-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" "
4-1-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" "
4-1-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sows
4-2-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sows
4-2-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sows
4-2-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" " " "
4-2-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" " " "
4-2-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" " " "
4-9-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	Remelt Sow
4-9-02	A356	(Rvb) Ube Wh IHS	1,120	P Scr (Sec)	" "
6-13-02	A356	(Rvb) Ube Wh IHS	6,40	P (Scr) Sec	Remelt Scrap Honda Wheels
6-17-02	A356	(Rvb) Ube Wh IHS	2080	P (Scr) Sec	Remelt Scrap Honda Wheels
7-26-02	A356	(Rvb) Ube Wh IHS	3,600	P Scr (Sec)	Remelt Sows
7-26-02	A357	(Rvb) Ube Wh IHS	200	(P) Scr Sec	Billet ok per Dave M.
7-26-02	A356	(Rvb) Ube Wh IHS	100	P (Scr) Sec	Scrap Control Arms
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow

Hayes Lemmerz
Technical Center

TEL Furnace Melting Log

Jan. 2002 - Dec. 2002

Date	Material Grade Added (i.e. A356, 357)	Furnace (Reverb, Ube, Wheel, IHS)	Weight Added (lbs)	Prime / Scrap / Secondary	Comments (i.e. wheel scrap, remelt sows, gates & risers, etc.)	Time IN
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~8:00~~
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~10:45~~
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~11:00~~
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~1:00~~
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~2:00~~
7-31-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~3:00~~
8-1-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~9 AM~~
8-7-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~10 AM~~
8-7-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	~~11:30~~
10-15-02	A356	(Rvb) Ube Wh IHS	2,000	P Scr (Sec)	Remelt Large Sow	
10-17-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	
10-17-02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
10-17	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
10/18/02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
10/18/02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
10/27/02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
10/27/02	A356	(Rvb) Ube Wh IHS	1,000	P Scr (Sec)	" "	
10/27/02	A356	(Rvb) Ube Wh IHS	1200	P Scr (Sec)	" "	
11/26/02	A356	(Rvb) Ube Wh IHS	1200	P Scr (Sec)	" "	
11/26/02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	" "	
12/13/02	A356	(Rvb) Ube Wh IHS	1,200	P Scr (Sec)	Remelt Sow	
12/17/02	A356	(Rvb) Ube Wh IHS	1,000	(P) Scr Sec	primary Sow	

Total 53,440 lbs

Hayes Lemmerz
Technical Center

TEL Furnace Melting Log

Jan. 2003 - Dec. 2003

Date	Material Grade Added (i.e. A356, 357)	Furnace (Reverb, Ube, Wheel, IHS)				Weight Added (lbs)	Prime / Scrap / Secondary			Comments (i.e. wheel scrap, remelt sows, gates & risers, etc.)
1-9-03	A356	(Rvb)	Ube	Wh	IHS	1,200	P	Scr	(Sec)	Remelt Sow
1-9-03	A356	(Rvb)	Ube	Wh	IHS	1,200	P	Scr	(Sec)	" "
2-3-03	A356	Rvb	Ube	(Wh)	IHS	500	P	Scr	Sec	(1) Ladle from ReverB
2-5-03	A356	Rvb	Ube	(Wh)	IHS	1,000	P	Scr	Sec	(2) Ladled from ReverB
2-5-03	A356	Rvb	(Ube)	Wh	IHS	200	P	(Scr)	Sec	Remelt ~~GATES~~ GATING
~~2-7-03~~	~~A356~~	Rvb	Ube	Wh	IHS		P	Scr	Sec	
2-7-03	A356	Rvb	Ube	(Wh)	IHS	1,000	P	(Scr)	Sec	2 Ladles from ReverB
2-7-03	A356	(Rvb)	Ube	Wh	IHS	2,400	P	Scr	(Sec)	Remelt BIG SOW
2-10-03	A356	(Rvb)	Ube	Wh	IHS	168	P	(Scr)	Sec	Scrap Castings
2-12-03	A356	(Rvb)	Ube	Wh	IHS	940	P	(Scr)	Sec	Scrap Explorer Wheels
2-13-03	A356	(Rvb)	Ube	Wh	IHS	470	P	(Scr)	Sec	" " "
2-20-03	A356	(Rvb)	Ube	Wh	IHS	1200	(P)	Scr	Sec	PRIME SOW
2-24-03	A356	(Rvb)	Ube	Wh	IHS	1,000	P	(Scr)	Sec	Scrap Wheels
2-28-03	A356	(Rvb)	Ube	Wh	IHS	2400	P	Scr	(Sec)	Remelt Sow
3-3-03	A356	(Rvb)	Ube	Wh	IHS	1300	(P)	Scr	Sec	PRIME Sow
3-5-03	A356	(Rvb)	Ube	Wh	IHS	~~540~~	P	(Scr)	Sec	Wheel SCRAP
3-5-03	A356	(Rvb)	Ube	Wh	IHS	540	P	(Scr)	Sec	Wheel SCRAP
3-5-03	A356	Rvb	(Ube)	Wh	IHS	200	P	(Scr)	Sec	Remelt Scrap
3-11-03	A356	(Rvb)	Ube	Wh	IHS	1300	(P)	Scr	Sec	PRIME SOW
3-12-03	A356	(Rvb)	Ube	Wh	IHS	480	P	(Scr)	Sec	SCRAP Wheels
3-12-03	A356	(Rvb)	Ube	Wh	IHS	355	P	(Scr)	Sec	SCrap Wheels
3-12-03	A356	(Rvb)	Ube	Wh	IHS	1300	(P)	Scr	Sec	PRIME SOW

Hayes Lemmerz
Technical Center

TEL Furnace Melting Log

Jan. 2003 - Dec. 2003

Date	Material Grade Added (i.e. A356, 357)	Furnace (Reverb, Ube, Wheel, IHS)				Weight Added (lbs)	Prime / Scrap / Secondary			Comments (i.e. wheel scrap, remelt sows, gates & risers, etc.)
3-13-03	A356	Rvb	Ube	Wh	IHS	620	P	Scr	Sec	SCRAP wheels
5-14-03	A356	Rvb	Ube	Wh	IHS	700	P	Scr	Sec	SCRAP wheels
4-17-03	A356	Rvb	Ube	Wh	IHS	744	P	Scr	Sec	SCRAP wheels
4-17-03	A356	Rvb	Ube	Wh	IHS	1800	P	Scr	Sec	4 Ladles Transfer from ReverB
4-17-03	A356	Rvb	Ube	Wh	IHS	744	P	Scr	Sec	scrap wheels
4-17-03	A356	Rvb	Ube	Wh	IHS	744	P	Scr	Sec	Scrap wheels
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	
		Rvb	Ube	Wh	IHS		P	Scr	Sec	

Hayes Lemmerz
Technical Center

TEL Furnace Cleaning Log

Jan. 2003 - Dec. 2003

Date	Flux Added (i.e. Aluxal)	Furnace (Reverb, Ube, Wheel, LP)				Weight Flux Used (lbs)	Comments (i.e. Really dirty, dredged bottom, had trouble, etc.)
1-10-03	Foseco	(Rvb)	Ube	Wh	LP	10 LBS	DIRTY
1-10-03	"	Rvb	Ube	(Wh)	LP	5 LBS	DIRTY
1-10-03	"	Rvb	Ube	Wh	(LP)	5 LBS	"
1-10-03	"	Rvb	(Ube)	Wh	LP	2 LBS	"
1-21-03	Foseco	(Rvb)	(Ube)	(Wh)	(LP)	22 LBS	"
1-31-03	"	(Rvb)	(Ube)	(Wh)	(LP)	20 lbs	very Dirty, high Dross
2-5-03	ALUXAL	Rvb	Ube	(Wh)	LP	5 LBS	DIRTY, scraped walls, dregedged bottom
2-7-03	ALUXAL	Rvb	Ube	Wh	(LP)	5 LBS	DIRTY
2-7-03	ALUXAL	Rvb	Ube	(Wh)	LP	5 LBS	DIRTY
2-10-03	ALUXAL	(Rvb)	Ube	Wh	LP	10 LBS	DIRTY
2-10-03	ALUXAL	Rvb	Ube	Wh	(LP)	5 LBS	DIRTY
2-10-03	ALUXAL	Rvb	(Ube)	Wh	LP	2 LBS	—
2-14-03	Foseco	(Rvb)	Ube	Wh	LP	5 lbs	—
2-14-03	Aluxal	Rvb	(Ube)	Wh	LP	2 lbs	Slightly Dirty
2-14-03	Aluxal	Rvb	Ube	(Wh)	LP	3 lbs	scraped walls and tubes very well
2-14-03	Aluxal	Rvb	Ube	Wh	LP		
2-21-03	ALUXAL	(Rvb)	Ube	Wh	LP	10 LBS	cleaned
2-21-03	ALUXAL	Rvb	(Ube)	Wh	LP	2 LBS	"
2-21-03	ALUXAL	Rvb	Ube	Wh	(LP)	5 LBS	" scraped walls + tubes
3-07-03	"	(Rvb)	Ube	Wh	LP	5 lbs	low Dross
3-07-03	"	Rvb	(Ube)	Wh	LP	1 lb	"
3-10-03	"	Rvb	Ube	(Wh)	LP	2 lbs	Scraped tubes looked good with Blue coating

Hayes Lemmerz
Technical Center

TEL Furnace Cleaning Log

Jan. 2003 - Dec. 2003

Date	Flux Added (i.e. Aluxal)	Furnace (Reverb, Ube, Wheel, LP)				Weight Flux Used (lbs)	Comments (i.e. Really dirty, dredged bottom, had trouble, etc.)
3-14-03	ALUXAL	(Rvb)	Ube	Wh	LP	10 LBS	cleaned
3-14-03	〃	Rvb	(Ube)	Wh	LP	2 LBS	NOT BAD cleaned
3-14-03	〃	Rvb	Ube	Wh	(LP)	5 LBS	SCRAPPED Walls + Tubes
4-04-03	〃	(Rvb)	(Ube)	(Wh)	LP	2 lbs	Reverb not cleaned (Small Hi-Lo Down)
4-11-03	〃	~~(Rvb)~~	Ube	Wh	(LP)	5 LBS	cleaned
4-11-03	〃	Rvb	(Ube)	Wh	~~(LP)~~	2 LBS	〃
4-11-03	〃	~~(Rvb)~~	Ube	Wh	LP	10 LBS	〃
4-17-03	NONE	Rvb	Ube	(Wh)	LP	—	Did not Flux cleaned ~~three~~
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		
		Rvb	Ube	Wh	LP		

Hayes Lemmerz Technical Center

TEL Furnace Cleaning Log

Jan. 2002 - Dec. 2002

Date	Flux Added (i.e. Aluxal)	Furnace (Reverb, Ube, Wheel, LP)				Weight Flux Used (lbs)	Comments (i.e. Really dirty, dredged bottom, had trouble, etc.)
4-2-02	ALUXAL	(Rvb)	Ube	Wh	LP	~~40 LBS~~	Initial Flux after filling - Lots of Dross
4-15-02	" "	(Rvb)	Ube	Wh	LP	10 LBS	Heavy Dross
5-2-02	"	(Rvb)	Ube	Wh	LP	10 LBS	Slight Dross
5-17-02	"	(Rvb)	Ube	Wh	LP	10 lbs	Slight Dross
5-29-02	"	(Rvb)	Ube	Wh	LP	10 Lbs	Slight DROSS
6-21-02	"	(Rvb)	Ube	Wh	LP	10 LBS	DROSS
7-11-02	"	(Rvb)	Ube	Wh	LP	10 LBS	DRAINED Reverb Refluxed
8-31-02	"	(Rvb)	Ube	Wh	LP	10 LBS	DROSS - Initial Flux after filling - BAD!
9-8-02	"	(Rvb)	Ube	Wh	LP	10 LBS	Slight Dross
9-20-02	"	(Rvb)	Ube	Wh	LP	10 LBS	Slight Dross
10-04-02	"	(Rvb)	Ube	Wh	LP	10 LBS	Slight Dross
10-21-02	"	(Rvb)	Ube	Wh	LP	10 LBS	DROSS
11-1-02	"	(Rvb)	Ube	Wh	LP	10 IBS	"
11-1-02	"	Rvb	(Ube)	Wh	LP	2 IBS	Heavy Dross
11-1-02		Rvb	Ube	(Wh)	LP	—	Slight Dross
11-1-02		Rvb	Ube	Wh	(LP)	—	Slight Dross
11/22/02	None	Rvb	(Ube)	Wh	LP		Scraped walls; skimmed
11-25-02	Aluxal	(Rvb)	Ube	Wh	LP	10 LBS	Slight
11-25-02	None	Rvb	Ube	Wh	(LP)	—	Slight
11-26-02	ALUXAL	Rvb	Ube	(Wh)	LP		DROSS Slight
12-17-02	ALUXAL	(Rvb)	Ube	Wh	LP	10 LBS	" "
		Rvb	Ube	Wh	LP		

Total 52 lbs

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-LV-03925

FACILITY: **CMI TECH CENTER INC**		SRN **A4646**
LOCATION: **1600 W EIGHT MILE RD**		DISTRICT **LIVONIA**
CITY: **FERNDALE**		COUNTY: **OAKLAND CO**
CONTACT: **DAVE MILLER**		ACTIVITY DATE: **01/26/2000**
REPORT DATE: **01/28/2000**	STAFF: **FL**	TRAVEL TIME: **2 HRS**
LEVEL OF INSPECTION: **2**	FACILITY COMPLIANCE STATUS: **C**	TIME ON ACTIVITY **12 HRS**
SOURCE CLASS: **SM**	[ ]NSPS [ ]NESHAP [ ]PSD [ ]TOXIC [ ]MACT	

REMARKS:

I conducted a compliance inspection at the facility on January 26, 2000 and met with Dave M. Miller, facilities manager and Diane M. Zekind, director of technical services.
The CMI tech center is now known as Hayes Lemmerz International, Inc tech center. This is still a research and development center. They do engineering services and R & D for their own company and for outside companies as well.
Typical of most R & D is that the potential to emit is large but actual emissions are small. The major source of air emissions are internal combustion engines tested at the facility. I believe the dynamometer test cells were installed prior to 1993 and therefore exempt under Rule 278 and 285(g). CO is the pollutant with the largest PTE and also the largest actual emissions. To get out of the renewable operating permit program, the company registered under R208a. During the initial registration in 1997, the company reported 47.4 tons of actual CO emissions and 2.7 tons actual total HAP emissions. This was based on approximately 30,000 gallons of gasoline and 5000 gallons of diesel fuel. For gasoline, the CO emission factor is 3.12 and for diesel, 0.95. These are consistent with factors used in test engines. There are 4 dynamometer test rooms. Each room could have more than 2 test engines. Gasoline usage is metered to each room. But they do not track usage of each individual engine. Since 1997, the gasoline usage in the dynamometer engine testing has decreased.
They have some boilers that supply heat and steam. Emissions from these are less than a ton. They also have a small electric powered natural gas compressor. This has not been used in recent years. As mentioned above, they do engineering services to support R & D, but emissions from these activities are nil.
The company just recently replaced their equipment for aluminum casting. They have a permit (PTI 368-99) for this process. They

STATUS CODES: C=COMPLIANCE NC=NONCOMPLIANCE NO=NOT OPERATING U=UNDETERMINED

NAME: [signature] DATE: 02-01-00 SUPERVISOR: [signature]

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: SCHEDULED INVESTIGATION

A-LV-03925

FACILITY: **CMI TECH CENTER INC**	SRN **A4646**

REMARKS:

installed a larger furnace. Diane said that for this new equipment they will be using a different resin in their core and mold. This will be less odorous. Previously, their resin contains phenol and naphthalene. These are odorous chemicals.
Company has a permit no. 799-92 for a prototype plastic injection molding. They do not really need this permit now since plastic injection is exempt.
Company submitted their 208a renewal in 1998 and 1999. Since gasoline usage in the dynamometers have gone down, emissions from this facility should go down as well.

MONTGOMERY WATSON

VIA FACSIMILE 734-953-0243

November 4, 1998

FOIA Coordinator
Michigan Department of Environmental Quality
Southeast Michigan District Office
38980 Seven Mile Road
Livonia, Michigan 48152-1006

Dear Sir or Madam:

Pursuant to the Freedom of Information Act, I am requesting an appointment to review any Environmental Response Division, Waste Management Division, Storage Tank Division, Air Quality Division, and Surface Water Quality Division files for the following properties:

Site Name	Address	County
CMI Southfield, Inc.	19400 West Eight Mile Road, Southfield	Oakland
CMI Southfield, Inc.	26290 West Eight Mile Road, Southfield	Oakland
CMI Tech Center	1600 West Eight Mile Road, Ferndale	Oakland

I would like to schedule an appointment for Monday or Tuesday, November 9 or 10, 1998, if possible. Please contact me at 248-449-3418 with any information.

Sincerely,

MONTGOMERY WATSON

Patrick J. Davison, Jr.
Environmental Scientist

Bruce Olson
248-449-3407
10:30am
Monday 11-9-98

RECEIVED ERD S.E.
NOV - 4 1998
FILE
COUNTY

pjd
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41651 Eleven Mile Road
Novi, Michigan
48375

Tel: 248 344 0205
Fax: 248 344 0217

Serving the World's Environmental Needs

(FR)

A-CMI

A Joint Venture of Alcoa & CMI International

KENTUCKY CASTING CENTER

P.O. Box 399, 1660 STATE ROUTE 271 NORTH
HAWESVILLE, KENTUCKY 42348-0399
Phone: 502-927-6833 Fax: 502-927-6849

FACSIMILE TRANSMITTAL

To: Air Quality Division **From:** Jeff Norton

Company: MDEP **Date:** 3-16-98

Fax Number: 313-953-0243

Message: MAPR Forms

Number of Pages Including Cover Page: 2

CMI-Tech Center, Inc.

1600 WEST EIGHT MILE ROAD
FERNDALE, MICHIGAN 48220
Telephone: (248) 399-9600
Fax: (248) 414-6278

Via Facsimile

March 16, 1998

Michigan Department of Environmental Quality
Air Quality Division
Southeast Michigan District
38980 Seven Mile Road
Livonia, Michigan 48512

Re: **MAPR Submittal**

Dear Sir or Madam:

This letter is to inform you that my MAPR forms were mailed today and therefore may be a few days late. I apologize and hope that this does not present a problem. I fill out MAPR forms for multiple facilities and want to submit accurate and complete forms.

Again, I do apologize! Please call with any comments or concerns.

Sincerely,

Jeffrey Norton
Environmental Engineer

STATE OF MICHIGAN

JOHN ENGLER, Governor

DEPARTMENT OF ENVIRONMENTAL QUALITY

HOLLISTER BUILDING, PO BOX 30473, LANSING MI 48909-7973

INTERNET: http://www.deq.state.mi.us

RUSSELL J. HARDING, Director

REPLY TO:

SE MICHIGAN DISTRICT OFFICE
38980 SEVEN MILE RD
LIVONIA MI 48152-1006

April 7, 1997

Registration No: LV-025-97
SRN: A4646

Mr. Gary Ruff, President
CMI - Tech Center, Inc.
1600 West Eight Mile Road
Ferndale, Michigan 48220

Dear Mr. Ruff:

The Air Quality Division, Michigan Department of Environmental Quality, Southeast Michigan District Office has received the Rule 208a Initial Registration Form and the associated summary tables for CMI - Tech Center, Inc., located at 1600 West Eight Mile Road, Ferndale, Michigan. Air Quality Division staff have determined that your facility's 1997 submittal is administratively complete pursuant to Rule 208a(3).

Be aware that the owner/operator of the stationary source will be subject to enforcement action if the department later determines that the stationary source did not meet the criteria for limiting potential to emit as described in Rule 208a(1) at the time this registration was submitted.

Should you have any questions, please contact Rhonda M. Vassar at 313-432-1268.

Sincerely,

Marwan A. Khuri, P.E.
Assistant District Supervisor
Air Quality Division
313-953-1419

MAK:ec
cc: Rhonda M. Vassar, Environmental Quality Analyst
District file

MACT Standard for Halogenated Solvent Cleaners

Company:	**CMI TECH CENTER INC**
Alternative Name:	
Address:	**1600 W. 8 MILE, FERNDALE 48220**
Equip. Location:	
SRN:	
District/County:	**3, 63**

This facility was sent an initial notification packet regarding the MACT Standard from the Air Quality Division in Summer, 1995. AQD and EAD distributed initial notification packets to approximately 1500 potentially subject sources in Michigan. The sources were found based on queries (based on SCC codes for solvent cleaners) in the Emissions Inventory and from waste manifests obtained from Waste Management Division. MACT subject sources were required to submit an initial notification report to the Division. The results of the mailing were as follows:

- Approximately 210 sources (machines) reported that they were subject to the MACT.
- Approximately 550 sources reported that they were not subject to the MACT.
- Approximately 750 sources did not respond to the mailing.
- Only subject sources were required to respond to the mailing.

This is one of the facilities that did not respond to the initial notification mailing

This does not mean that the facility is automatically subject to the MACT Standard

If staff are performing a scheduled or self-initiated inspection at this facility it may be advantageous to determine if the MACT Standard is applicable to the machine.

Applicability -

Any cleaner (i.e. a degreaser or cold cleaner) that uses any of the following solvents (at least 5% by weight):

1. Methylene Chloride (Dichloromethane) - CAS # 75-09-2
2. Perchloroethylene (Tetra Chloro Ethylene, Perc) - CAS # 127-18-4
3. Trichloroethylene (TCE) CAS # 79-01-6
4. Carbon Tetrachloride CAS # 56-23-5
5. Chloroform CAS # 67-66-3
6. 111-Trichloroethane (Methyl Chloroform) CAS # 71-55-6 (was scheduled to be phased out of production by 1996)

- Types of cleaner can include small saf-t-cleans, machines exempt from NSR permitting and old (grandfathered) machines.
- Exemptions from the MACT include buckets smaller than 2 gallons and wipe cleaning activities

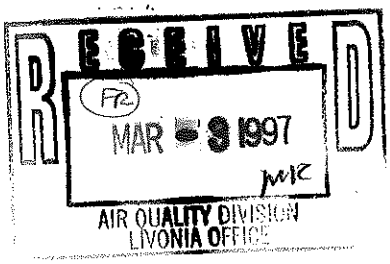
Guidance Information -

Each district was supplied with a green 3-ring binder in 1996 entitled **"Halogenated Solvent Cleaner NESHAP AQD Guidance Manual"** The manual contains information that can be used as guidance material when regulating the MACT Standard.

IK

1500 WEST EIGHT MILE ROAD
FERNDALE, MICHIGAN 48220
PHONE: (810)399-9600
FAX: (810)399-3512

CMI-Tech Center, Inc.



Fax

To: District Supervisor: AQD **From:** Jeff Norton

Fax: (313)953-1544 / 953-0243 **Pages:** 2

Phone: **Date:** February 28, 1997

Re: Op. Memo #4 and Rule 208(a); Opt Out **CC:**

☑ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:** [Click here and type comments]

CMI-Tech Center, Inc.

1600 WEST EIGHT MILE ROAD
FERNDALE, MICHIGAN 48220
PHONE: (810)399-9600
FAX: (810)39-3512

A4646
4B
source.

February 27, 1997

District Supervisor
Air Quality Division
Michigan Department of Environmental Quality
Southeast District 10 Office
38980 West Seven Mile Road
Livonia, Michigan 48152

Re: **Operational Memo#4 and Rule 208(a); 50% Opt Out**

Dear Sir and/or Madam:

In accordance with AQD Op. Memo #4 and AQD Rule 208(a), we are notifying you that actual emissions for our plant at 1600 West Eight Mile Road, Ferndale, Michigan do not exceed any of the "50%" thresholds for criteria pollutants or hazardous air pollutants. This facility provides technical support for our foundry operations.

Actual emissions of criteria pollutants and hazardous air pollutants in 1995 and 1996 were below 50% of all major source thresholds. Therefore under the provisions of Op. Memo #4 and Rule 208 (a), a Title V Renewable Operating Permit (ROP) application is not due at this time.

CMI-Tech Center will be submitting the appropriate filings to register under Rule 208(a) shortly.

Please contact me if you have any questions regarding this information.

Sincerely,

Jeff Norton
Environmental Engineer

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
COMPLAINT LOG

COMPLAINT NO: C-96LV-0094	DATE/TIME RECEIVED: 04/26/96 07:44:25	RECEIVED BY: EC
ASSIGNED TO: FL	DATE/TIME OF INCIDENT: 04/25/96	DATE RESOLVED: 05/08/96
FACILITY: CMI TECH CENTER INC		SRN: A4646
LOCATION: 1600 W EIGHT MILE RD		COUNTY: OAKLAND CO
CITY: FERNDALE		ZIP CODE: 48220
CONTACT: JEFF NORTON/DIANE ZEKIND		PHONE NO: 810-399-9600
COMPLAINANT: NICHOLAS HAVEN		
LOCATION: 649 KENSINGTON		PHONE NO: 810-542-2143
CITY: FERNDALE	STATE: MI	ZIP CODE: 48220-
FOLLOW-UP CONTACT REQUESTED? No		
SOURCE TYPE: Industrial	EMISSION SOURCE: Fugitive	SCC CODE: 3-04-003-01
SCC DESC: Secondary Metal Production		
SOURCE DESC: metal molding R & D		
SOURCE OF COMPLAINT: Verbal		

NATURE OF COMPLAINT: [x] Odor [ ] Opacity [ ] Fugitive Dust [ ] Fallout [ ] Open Burning [ ] Health Effects [ ] Susp. Health Effects [ ] Other

REMARKS:

On May 8, 1996, Ryan and I conducted an inspection at the CMI-Tech Center. We met with Jeff Norton and Diane Zekind from the facility.
The CMI facility here is an office building and metal molding R & D. There are several structures that make up the compound. Some of it are unoccupied, while others are used as storage. Jeff mentioned that a portion of the compound is a 307 site. The compound used to be owned by Ethyl Corporation until 1986.
The complainant, Nicholas Haven, mentioned an odorless fume by the north end of the CMI facility. We went to the north end fenced vacant lot owned by CMI. We did not detect any odor.
In one of the structures, near the north end, were several pieces of waste containers. I noticed many open near empty oil containers. Jeff said they are to be picked up soon by American

NAME: [signature] DATE: 5-09-96 SUPERVISOR: MK

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
COMPLAINT LOG

COMPLAINT NO: C-96LV-0094	DATE/TIME RECEIVED: 04/26/96 07:44:25	RECEIVED BY EC
ASSIGNED TO: FL	DATE/TIME OF INCIDENT 04/25/96	DATE RESOLVED 05/08/96
FACILITY: CMI TECH CENTER INC	SRN: A4646	

REMARKS:

Tank.
We also inspected their woodworking facility and noticed a strong styrene odor inside. Source of the styrene odor is the glue that they were using. Diane mentioned that the air inside this building is recirculated and that there were no stacks in the building, so there is little possibility that the styrene odor will dissipate outside. I took copies of the MSDS of the different glues they are using.
Another building houses a prototype molding operation consisting of a 500 pound capacity electric furnace and an injection molding type of equipment. Metal used for this process is 100 % aluminum.
The last operation we observed was the metal cutting operation, also housed in a separate building. Some of the cutting equipment uses cutting oil. The cutting oil is monitored for molds and fungi. I did not observe any moldy odor inside this building.
During my inspection, we were informed that the facility has been recently inspected by the Environmental Response Division and the City of Ferndale, probably due to the complaint of Mr. Haven. I attempted to contact Mr. Haven several times, but I could not reach him. He does not have an answering machine. At this time, I will consider this complaint resolved. I will investigate further, if I receive another complaint.

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
COMPLAINT LOG

COMPLAINT NO:	DATE/TIME RECEIVED: 4/26/96 @ 10:45am	RECEIVED BY: EC
ASSIGNED TO: FL	DATE/TIME OF INCIDENT:	DATE RESOLVED:
FACILITY: CNI Engineering (form. Apple Corp)		ESTABLISHMENT NO: A4646
LOCATION: 8 Mile & Pinecrest		COUNTY: Oakland
CITY: Ferndale		ZIP CODE:
CONTACT:		PHONE NO:
COMPLAINANT: Nicholas Haven		
LOCATION: 649 Kensington		PHONE NO: 810-542-2143
CITY: Ferndale	STATE: Mich	ZIP CODE: 48220
SOURCE TYPE:	EMISSION SOURCE:	SCC CODE:
SCC DESC:		
SOURCE DESC:		
SOURCE OF COMPLAINT:		

NATURE OF COMPLAINT: [ ]Odor [ ]Opacity [ ]Fugitive Dust [ ]Fallout
[ ]Open Burning [ ]Health Effects [ ]Susp. Health Effects [ ]Other

REMARKS: Per PEAS Operator #6 (received 4/25/96 @ 5pm)
Complainant went over fence to retrieve golf balls (50 ft into the field) and was overcome by odorless (?) fume. Wind from the NE.
Did not contact any other office.

NAME: _____ DATE: _____ SUPERVISOR: _____

FREEMAN TUF-FIL MAHOGANY

Material Safety Data Sheet

QUICK IDENTIFIER
Common Name: (used on label and list)

Page 1 of 3

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910. 1200. Standard must be consulted for specific requirements.

HMIS™
H HEALTH
F FLAMMABILITY
R REACTIVITY
PERSONAL PROTECTION

SECTION 1 -

Manufacturer's Name	FREEMAN MANUFACTURING & SUPPLY COMPANY		
Address	1246 West 70th Street	Emergency Telephone No.	216-961-4200
City, State, and ZIP	Cleveland, Ohio 44102-2097	Other Information Calls	Same As Above
Signature of Person Responsible for Preparation (Optional)		Date Prepared	June 30,1989

SECTION 2 – HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s) (chemical & common name(s))	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)	CAS NO.
UNSATURATED POLYESTER RESIN IN MONOMER :				<50%	Mixture
(Unsaturated Polyester Resin		Not Determined)		(35-40%	Not Availab
(Styrene Monomer - OSHA: 100 ppm TWA, 200 ppm ceiling, 600 ppm peak for 5 min. in any 3 hrs. (Z-2) ~~TLV: 50 ppm, 215 mg/m^3 TWA; 100 ppm,~~ 425 mg/m^3 STEL)				(10-15%	100-42-5)
TITANIUM DIOXIDE	15 mg/m^3	5 mg/m^3 (resp. dust) 10 mg/m^3 (total dust)		<10	13463-67-7
IRON OXIDE	10 mg/m^3	5 mg/m^3		< 5	20344-49-4
IRON OXIDE	10 mg/m^3	5 mg/m^3		< 5	1309-37-1

SARA TITLE III STATUS: SEE ADDTIONAL INFORMATION SECTION

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point	OF COMPOUND: Not Applicable	Specific Gravity (H_2O=1)	1.94	Vapor Pressure (mm Hg)	Not Determined
	Vapor Density (Air = 1) (styrene) 3.6				
Solubility in Water	Insoluble	Reactivity in Water	None		
Appearance and Odor	Smooth paste, styrene odor.	Melting Point	N/A		

SECTION 4 – FIRE & EXPLOSION DATA

Flash Point	OF COMPOUND: 200 F. C.	Method Used	COC	Flammable Limits in Air % by Volume	LEL STYRENE: Lower 1.1	UEL Upper	6.1
Auto-Ignition Temperature	N/A	Extinguisher Media	Foam, CO_2, or dry chemical.				

Special Fire Fighting Procedures: None known. However, firefighters should wear self-contained breathing apparatus to avoid inhalation of smoke or vapors.

Unusual Fire and Explosion Hazards: Styrene will polymerize readily at elevated temperatures of fire conditions. If this occurs in a closed container, there is a possibility of violent rupture.

03-0051

~~03-0051(C)~~

SECTION 5 – PHYSICAL HAZ[illegible]DS (REACTIVITY DATA)

Stability: Unstable ☐ Stable ☒ Conditions to Avoid: Heat and direct sunlight.

Incompatability (Materials to Avoid): Strong acids and oxidizing agents.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, low molecular weight hydrocarbons, and organic acids.

Hazardous Polymerization: May Occur ☒ Will Not Occur ☐ Conditions to Avoid: Sunlight, open flames, and contamination.

SECTION 6 – HEALTH HAZARDS - HAZARDS OF STYRENE CONTAINED IN THE RESIN

1. Acute: PLEASE SEE ATTACHED SHEET. 2. Chronic: PLEASE SEE ATTACHED SHEET.

Signs and Symptoms of Exposure: PLEASE SEE ATTACHED SHEET.

Medical Conditions Generally Aggravated by Exposure: PLEASE SEE ATTACHED SHEET.

Chemical Listed as Carcinogen or Potential Carcinogen: See Attachment. National Toxicology Program: Yes ☐ No ☒. I.A.R.C. Monographs: Yes ☐ No ☒. OSHA: Yes ☐ No ☒.

Emergency and First Aid Procedures: PLEASE SEE ATTACHED SHEET.

ROUTES OF ENTRY

1. Inhalation: X
2. Eyes:
3. Skin: X
4. Ingestion:

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage: Avoid storage above 100°F. Avoid prolonged or repeated skin contact and inhalation of heated vapors or spray mists.

Other Precautions: Avoid improper addition of promoter and/or catalyst. A promoter and catalyst used with this product should always be mixed separately with the product and must never be mixed together.

Steps to be Taken in Case Material is Released or Spilled: Remove saturated clothing promptly and wash affected areas with soap and water. Remove all sources of ignition, ventilate area. Absorb with inert materials such as vermiculite or sand and place in a closed container.

Waste Disposal Methods (Consult federal, state, and local regulations): Incinerate in an approved incinerator or dispose of in a chemical dump in accordance with local, state, and federal regulations.

SECTION 8 – SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection (Specify Type): Must be worn to prevent inhalation of heated vapors, spray mists, or if TLV is exceeded.

Ventilation: Local Exhaust ☐ Mechanical (General) ☐ Special ☐ Other ☐: Provide general dilution or local exhaust ventilation to comply with Section II and IV.

Protective Gloves: Chemical resistant plastic or rubber gloves required. Eye Protection: Wear face shield or chemical goggles.

Other Protective Clothing or Equipment: Safety showers and eyewash stations should be available.

Work Hygienic Practices: See Above Control Measures. Page 2 of 3 03-0051

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.

SECTION VI - HEALTH HAZARDS

EFFECTS OF OVEREXPOSURE: (HAZARDS OF STYRENE CONTAINED IN THE RESIN)

Styrene may be irritating to all parts of the respiratory tract at 400ppm. Styrene may be fatal at 10,000 ppm. SKIN: Prolonged or frequent contact may cause defatting and dryness of the skin with resultant irritation and possible dermatitis. Styrene may be absorbed through the skin in toxic amounts. EYES: May cause irritation. Liquid splashes may result in more serious injuries. May cause lacrymation (tears). INHALATION: Vapors may cause mucous membranes irritation, and upper respiratory tract discomfort. High concentrations may result in headaches, nausea, insensibility and other central nervous system effects. Repeated exposure to high concentrations may cause liver and kidney damage. INGESTION: May cause gastrointestinal disturbances, pain and discomfort.

EMERGENCY AND FIRST AID PROCEDURES:

SKIN: Wash with soap and water. EYES: Flush with copious amounts of water. for 15 min. Seek immediate medical aid. INHALATION: Remove victim from exposure. If victim is unconscious, administer artifical respiration and/ or oxygen as needed. Seek medical aid. INGESTION: DO NOT INDUCE VOMITING (aspiration hazard). Seek immediate medical medical aid.

CARCINOGENCITY: The International Agency for Research on Cancer (IARC) has classified styrene as a possible human carcinogen (class 2B). The IARC 2B classification is not based on significant new evidence that styrene might be a carcinogen but on a revised IARC classification scheme and new data on STYRENE OXIDE.

ADDITIONAL INFORMATION SECTION

SARA TITLE III STATUS:

This product contains the following toxic chemical subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986. The same chemical has been categorized under Section 311/312 as having the following hazards: acute, chronic, fire, reactive.

STYRENE MONOMER CAS NO. 100-42-5

03-0051

~~03-0051(2)~~

Date: December 29, 1989 Supersedes Revision Dated: 09-21-89

MATERIAL SAFETY DATA SHEET

Fiber-Resin Corporation
25200 Malvina
Warren, MI 48089

Date: January 17, 1990
Prepared by: Sam Engel
Telephone #: (313) 777-3131

PRODUCT IDENTIFICATION

Fiber-Resin Name: FR-540-A Hardener

Product Class: Epoxy Curing Agent

DOT Proper Shipping Name: Diethylenetriamine Solution

DOT Hazard Class/I.D. Number: Corrosive Material, UN-1760

DOT Label: Corrosive

W.H.M.I.S.: D1B, D2A, E

WARNING STATEMENTS

Strong sensitizer. Severe eye and skin irritant. Vapors harmful.

PRECAUTIONARY MEASURES

Avoid skin contact with product at all times.

EMERGENCY AND FIRST AID PROCEDURES

If in eye:	Flush immediately with water for 15 minutes. Consult a physician if irritation persists.
If on skin:	Wash affected area with soap and water. Launder contaminated clothing before reuse.
In case of fire:	Extinguish with water spray, foam, dry chemical or carbon dioxide.
Spill or leak:	Wear rubber gloves and wipe up with absorbent material. Residue may be removed with chlorinated solvent.

HAZARDOUS INGREDIENTS

Material Name/CAS#	Level In Product	OSHA PEL	ACGIH TLV (1988,1989)
Adduct of a Bisphenol A Epoxy Resin (25085-99-8) with Propoxylated Triethylenetetramine (69980-74-1) and	< 30%	NE	1 ppm
Phenol (108-95-2) and	< 40%	NE	NE
	< 3%	5 ppm	5 ppm

03-0082

Diethylenetriamine (111-40-0)	< 35%	NE	1 ppm (skin)

NE = Not Established
NA = Not Applicable

This MSDS is prepared to comply with the OSHA Hazard Communication Standard (29 CFR 1910.1200). Unlisted ingredients are not "Hazardous" per this OSHA Standard and are considered to be trade secrets of the Fiber-Resin Corporation. Identities of trade secret ingredients (which are on the TSCA inventory) will be made available following the procedures specified in the standard.

OCCUPATIONAL CONTROL PROCEDURES

Eye Protection:	Safety Glasses. Have emergency eye-wash fountains available.
Skin Protection:	Prevent contact by using rubber gloves and appropriate protective clothing. Launder contaminated clothing before reuse.
Respiratory Protection:	NIOSH approved respirator with organic vapor cartridge (if sensitive).
Ventilation:	Standard industrial ventilation.

FIRE PROTECTION

Flash Point/Method:	>200 F/TCC
Extinguishing Media:	Use water spray, foam, dry chemical or carbon dioxide.
Special Fire Fighting Procedures:	Use self-contained breathing apparatus and full protective equipment.
Unusual Fire and Explosion Hazards:	None known.

REACTIVITY DATA

Stability:	Stable
Incompatibility:	Strong oxidizing agents.
Hazardous Decomposition Products:	Incomplete combustion can yield low molecular weight hydrocarbons, as well as carbon monoxide, carbon dioxide and nitrogen compounds.
Hazardous Polymerization:	Will not occur.

03-0082

EFFECTS OF OVEREXPOSURE

Eyes:	Strong irritant.
Skin:	Skin contact will cause severe irritation. Strong dermal sensitizer. After contact apply skin creams.
Inhalation:	Inhalation of vapors may cause respiratory irritation.
Chronic:	No anticipated chronic effects. This product does not contain regulated levels of NTP, IARC, or OSHA listed carcinogens.
Existing Health Conditions Affected by Exposure:	Inhalation of vapors could aggravate asthmatic condition.

PHYSICAL DATA

Physical State:	Amber colored liquid
Weight per Gallon:	8.55
Specific Gravity:	1.03
Odor:	Ammoniacl
Vapor Pressure:	.08 mm Hg
Viscosity:	Fluid
% Solids:	> 99%
pH:	Alkaline
V.O.C.*:	< 10 gm/Liter

*Volatile Organic Content per ASTM 3960-81

SPILL, LEAK & DISPOSAL INFORMATION

Spill or Leak Procedures:	Wear rubber gloves and wipe with absorbent material. Residue may be removed with a chlorinated solvent.
Waste Disposal:	This product is a DOT Corrosive. It does not, however meet the RCRA definition of corrosive waste. Dispose in accordance with appropriate governmental regulations.

STORAGE

Store in a cool dry location.

REGULATORY INFORMATION

TSCA

All components of this product are registered under the regulations of the Toxic Substance Control Act.

03-0082

SARA TITLE III

Section 313: This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR part 372:

Chemical Name	CAS #	Percentage
Phenol	108-95-2	2.0%

This information must be included in all MSDS that are copied and distributed for this material.

03-0082

MATERIAL SAFETY DATA SHEET

TOOL CHEMICAL COMPANY, INC.

2226 Burdette
Ferndale, MI, 48220
(313) 548-0950
FAX: 313-548-4547

TCC-102

DATE ISSUED: 10/31/88
REVISION DATE: 11/20/95

I. PRODUCT IDENTIFICATION

OUR NEW ADDRESS
31200 Stephenson Highway
P.O. Box 71970
Madison Heights, MI 48071
(810) 588-2270
Fax (810) 588-5909

TRADE NAME OR NUMBER: TCC-102

PRODUCT NAME: EPOXY HARDENER TCC-102

MANUFACTURER: TOOL CHEMICAL CO., INC.

EMERGENCY PHONE NUMBER: 1-(800)-424-9300

PROPER SHIPPING NAME AND HAZARDOUS CLASS:
CAUSTIC ALKALI LIQUID NOS, 8, UN-1719, III

CHEMICAL FAMILY: MODIFIED ALIPHATIC AMINE

HMIS: HEALTH 2 FIRE 1 REACTIVITY 0B

II. INGREDIENTS

CAS NO.	%W	%V	CHEMICAL NAMES(S)	ACGIH/TLV	OSHA/PEL	CARCINOGEN
000112-24-3			T E T A	----	----	NO
84852-15-3			PHENOL, 4-NONYL	----	----	NO
*MIXTURE			EPI-CURE 3282	----	----	NO

*CONTACT SHELL CHEMICAL (713) 241-2252

III. PHYSICAL DATA

BOILING POINT: >200F

EVAPORATION RATE (=1): .001

SPECIFIC GRAVITY (H20=1): .95

VAPOR PRESSURE: N/A

VAPOR DENSITY: N/A

SOL. IN H20 % BY WT: COMPLETE

APPEARANCE / ODOR: AMINE ODOR

PH: N/A

IV. FIRE AND EXPLOSION DATA

FLASH POINT: >200F

FLAMMABLE LIMITS -

LEL: N/A UEL: N/A

EXTINGUISHING MEDIA: CO2, FOAM, DRY CHEMICAL, H2O

SPECIAL FIRE FIGHTING PROCEDURES:
AVOID SMOKE. USE SELF CONTAINED BREATHING APPARATUS. WEAR PROTECTIVE CLOTHING.
UNUSUAL FIRE AND EXPLOSION HAZARD:
NONE KNOWN

CAP 03-0098

V. HEALTH HAZARD INFORMATION

PRIMARY ROUTES OF ENTRY: INHALATION XX SKIN CONTACT XX OTHER_____

EFFECTS OF OVEREXPOSURE: SEE BELOW

SKIN CONTACT: STRONG IRRITANT--COULD CAUSE BURNS

EYE CONTACT: IRRITANT--COULD CAUSE BURNS

INHALATION: IRRITANT

INGESTION: MAY CAUSE BURNS OF MOUTH AND THROAT

EMERGENCY AND FIRST AID PROCEDURES:

EYES: WASH EYES IMMEDIATELY WITH WATER FOR 15 MINUTES. CONSULT MEDICAL PERSONNEL.

SKIN: WASH OFF IN FLOWING WATER AND SOAP. WASH CLOTHING BEFORE REUSE.

INHALATION: REMOVE TO FRESH AIR IF EFFECTS OCCUR; CONSULT PHYSICIAN.

INGESTION: LOW IN TOXICITY. DO NOT INDUCE VOMITING, IF LARGE AMOUNTS ARE INGESTED, DRINK MILK OR WATER, CONTACT MEDICAL PERSONNEL

VI. REACTIVITY

STABILITY: UNSTABLE_____STABLE XX

CONDITIONS TO AVOID:
HIGH TEMPERATURES 300C

INCOMPATABILITY (Materials to avoid):
OXIDIZING MATERIALS, ACIDS, HEAT.

HAZARDOUS DECOMPOSITION PRODUCTS:
THERMAL DECOMPOSITION MAY PRODUCE CO, CO2.

HAZARDOUS POLMERIZATION: MAY OCCUR_____WILL NOT OCCUR XX

CONDITIONS TO AVOID:
N/A

VII. SPILL AND LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
BROADCAST ABSORBENT MATERIAL, SOAK UP, DISCARD, AND FLUSH WITH WATER. AVOID DISCHARGE INTO WATERWAYS AND SEWERS.

WASTE DISPOSAL METHOD:
DISPOSE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. KEEP OUT OF PUBLIC WATER SUPPLIES.

VIII. SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS:

LOCAL EXHAUST: RECOMMENDED
MECHANICAL: (GENERAL) REQUIRED

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATOR: IF GRINDING USE DUST MASK.
EYE: GOGGLES
GLOVES: RUBBER GLOVES(CHEMICAL RESISTANT)
OTHER: COVERALLS

IX. SPECIAL PRECAUTIONS

HANDLING AND STORAGE:

STORE IN A DRY AREA AT ROOM TEMPERATURE. AVOID EXTREME TEMPERATURES AND ELONGATED STORAGE TIMES. KEEP CONTAINERS CLOSED TO PREVENT MOISTURE ABSORPTION. THE RECOMMENDED SHELF LIFE IS 12 MONTHS.
OTHER PRECAUTIONS: WHEN RESIN AND HARDENER ARE MIXED: IN CASE THE MATERIAL EXOTHERMS OR SMOKES, DOUSE WITH WATER.

X. REGULATORY INFORMATION

FEDERAL EPA

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:
NONE

perfund Amendments and Reauthorization Act of 1986 (SARA) Title III require submission of ..nual reports of release of toxic chemical in 40 CFR 372 (for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are:

CHEMICAL NAME	CAS NUMBER	CONCENTRATION
None		

Canadian Regulation - The workplace Hazardous Materials Information System (WHMIS) classification for this product is:

D1B/D2A E - CORROSIVE

TOXIC SUBSTANCE CONTROL ACT: The ingredients of this product are listed on TSCA inventory.

NOTE: To the best of our knowledge, the information contained herein is accurate. Final determination of the suitability of any material is the sole responsibility of the users. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.

NAME(PRINT): DIANA HAYNES
TITLE: VICE PRESIDENT

CMI-Tech Center, Inc.

Friday, May 13, 1994

Air Quality
Michigan Department of Natural Resources
38980 Seven Mile Road
Livonia, Michigan

Re: revised AQ-30 Form

Dear Sir and/or Madam,

Enclosed is a copy of our AQ-30 Form with respect to Permit No. 799-92 per your letter received April 24. In reference to the Equipment Operating Schedule, it's hard to place a hard number. This machine operates in a Research and Development setting and may run a week and then set idol for weeks before it runs again. The hours per day may also vary.

Sincerely,

Jeff Norton
Environmental Engineer

Michigan Department of Natural Resources
Office of Environmental Enforcement
FREEDOM OF INFORMATION Officer
P.O. Box 30028
Lansing, MI 48909
Telephone: (517) 373-3503

DNR

REQUEST FOR DISCLOSURE OF RECORDS

By Authority of the Michigan Freedom of Information Act 442, P.A. 1976 as amended.

ALL INFORMATION MUST BE TYPED OR PRINTED EXCEPT FOR WRITTEN SIGNATURE.

REQUESTER'S NAME			SOCIAL SECURITY OR FEDERAL I.D. NO.
Tyler D. Tennent			---------
ADDRESS (STREET AND NUMBER)			HOME PHONE
1600 First Federal Building			Area Code (---)------
CITY	STATE	ZIP CODE	BUSINESS PHONE
Detroit	MI	48226-1962	Area Code (313) 965-8663

Organization (if any)
Clark, Klein & Beaumont, Counselors At Law

I wish to examine ☐ receive a copy XX of the following materials:
(Provide detailed descriptions of materials being requested and specify number of copies needed of each.)

Air Quality Division file on CMI-Southfield, Inc., 26290 W. 8 Mile Rd., Southfield, MI.

We DO NOT have any files at the other CMI locations (714 N. Saginaw; Holly;

19400 W. 8 Mile, Southfield; and 30331 Southfield Rd., Southfield).

I hereby request a waiver or reduction in fees as provided in Section 4(1) of F.O.I.A. because:

☐ I am indigent or receiving public assistance (proof attached)

☐ I represent a public interest group (Attach statement fully explaining nature of organization)

I understand the DNR may take 10 additional business days, if necessary, to fill my request, due to the diverse locations or large volume of the materials.

I understand that if it is determined that some or all of the materials which I have requested to review or have copied may not be disclosed, I will receive a written denial including the reason for denial and explaining my right to appeal.

Signature of Requester per letter Date

PLEASE MAKE CHECK OR MONEY ORDER IN THE AMOUNT OF $ NO CHARGE (see below for details), PAYABLE TO: **STATE OF MICHIGAN** and **MAIL** with **CANARY** COPY TO: MICHIGAN DEPARTMENT OF NATURAL RESOURCES
CASHIER'S OFFICE
P.O. BOX 30028
(-DO NOT SEND CASH-) LANSING, MI 48909

FOR DEPARTMENT OF NATURAL RESOURCES USE ONLY

THE DIVISION EMPLOYEE RECEIVING THE REQUEST SHOULD COMPLETE THIS SECTION

Details of Charges

Labor $ _____

Copying $ _____

Mailing $ _____

TOTAL $ NO CHARGE

Less Payment Received $ _____

BAL. DUE $ _____

DIVISION	UNIT	
Air Quality Division	Southeast Michigan	
ACCOUNT NUMBER	COST CENTER	OBJECT CODE
		999
DNR EMPLOYEE'S SIGNATURE		DATE PROCESSED
Lorraine Constantine		4/20/92

DO NOT WRITE BELOW — FOR CASHIER'S USE ONLY

DISTRIBUTION:
WHITE - REQUESTER
CANARY - SUBMIT WITH REMITTANCE TO CASHIER'S OFFICE
PINK - CASHIER'S OFFICE
GOLDENROD - DIVISION

Michigan Department of Natural Resources
Office of Environmental Enforcement
FREEDOM OF INFORMATION Officer
P.O. Box 30028
Lansing, MI 48909
Telephone: (517) 373-3503

DNR

REQUEST FOR DISCLOSURE OF RECORDS

By Authority of the Michigan Freedom of Information Act 442, P.A. 1976 as amended.

ALL INFORMATION MUST BE TYPED OR PRINTED EXCEPT FOR WRITTEN SIGNATURE.

REQUESTER'S NAME			SOCIAL SECURITY OR FEDERAL I.D. NO.
Celeste Brancel			320 42 4684
ADDRESS (STREET AND NUMBER)			HOME PHONE Area Code (708)
233 N. Michigan Ave., Suite 1621			452-6312
CITY	STATE	ZIP CODE	BUSINESS PHONE Area Code (312)
Chicago	IL	60601	856-8747

Organization (if any)
PRC Environmental Management Inc.

I wish to examine [X] receive a copy [X] of the following materials:
(Provide detailed descriptions of materials being requested and specify number of copies needed of each.)

Air permit record for Ethyl Corp. and
GME - GMAD Lake Orion

I hereby request a waiver or reduction in fees as provided in Section 4(1) of F.O.I.A. because:
- [ ] I am indigent or receiving public assistance (proof attached)
- [ ] I represent a public interest group (Attach statement fully explaining nature of organization)

I understand the DNR may take 10 additional business days, if necessary, to fill my request, due to the diverse locations or large volume of the materials.

I understand that if it is determined that some or all of the materials which I have requested to review or have copied may not be disclosed, I will receive a written denial including the reason for denial and explaining my right to appeal.

Signature of Requester Celeste Brancel Date 1/30/92

PLEASE MAKE CHECK OR MONEY ORDER IN THE AMOUNT OF $_____(see below for details), PAYABLE TO: **STATE OF MICHIGAN** and **MAIL** with **CANARY** COPY TO: MICHIGAN DEPARTMENT OF NATURAL RESOURCES
CASHIER'S OFFICE
P.O. BOX 30028
(-DO NOT SEND CASH-) LANSING, MI 48909

FOR DEPARTMENT OF NATURAL RESOURCES USE ONLY

THE DIVISION EMPLOYEE RECEIVING THE REQUEST SHOULD COMPLETE THIS SECTION

Details of Charges

Labor $ 3.80
Copying $ 2.15
Mailing $ _____
TOTAL $ 5.95
Less Payment Received $ _____
BAL. DUE $ 0

DIVISION	UNIT	
Field Administration	AQD	
ACCOUNT NUMBER	COST CENTER	OBJECT CODE
110-75-1121	36000	999
DNR EMPLOYEE'S SIGNATURE		DATE PROCESSED
Ernesto Constantine		

DO NOT WRITE BELOW — FOR CASHIER'S USE ONLY

DISTRIBUTION:
WHITE - REQUESTER
CANARY - SUBMIT WITH REMITTANCE TO CASHIER'S OFFICE
PINK - CASHIER'S OFFICE
GOLDENROD - DIVISION

PR 1046 (rev. 5/88)

#65-91 FR

91 03 0098

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.
Unknown - Possibly CMI Corp	Oakland	N/A
EQUIPMENT LOCATION	**DISTRICT**	**DATE** MM DD YY
	Livonia	2 / 28 / 91
CITY / TOWNSHIP	**STAFF**	**TRAVEL TIME**
	F Rieth	
CONTACT AND TITLE		**TIME ON ACTIVITY**

ACTIVITY:

- ☑ COMPLAINT RECEIVED 2-28-91
- ☑ COMPLAINT INVESTIGATION 2-28-91
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☐ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER
- ☐ OTHER

MAJOR SOURCE: ☐ A-1 ☐ A-2 ☐ NESHAP ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☐ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

Cheryl Keller
21130 Poinciana
Southfield 355-3774

Strong odor present in area now.

Response: I arrived at the complainant's home within about 90 minutes of receiving the complaint. No odor was detected. The complainant said she could still smell an ammonia odor - She described it as similar to a home permanent. I drove through the area, including near CMI Corp. No odor was detected. I placed a call to CMI (Mark Shepler) to determine if they added any chemicals to their water/cutting oil treatment system. He was not available - will call back. There are no other likely odor sources in the area. The wind was from the SE. There are lots of residences between the complainant's home and the nearest industrial sources. If an odor problem continues here, I would expect we will get other complaints. Complainant will call again when odor is present.

Mr Shepler called back. No chemicals had been added since 2-22-91

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME Fred Rieth DATE OF REPORT 2-28-91 SUPERVISOR'S INITIALS (2)

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

R5642
Rev. 5/85

#46-31 FR

91 03 0077

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.
CMI corp?	Oakland	
EQUIPMENT LOCATION	**DISTRICT**	**DATE** MM DD YY
8 Mile & Baxter area near Beech	Livonia	01 / 28 / 91
CITY / TOWNSHIP	**STAFF**	**TRAVEL TIME**
Southfield	F Rieth	
CONTACT AND TITLE		**TIME ON ACTIVITY**

ACTIVITY:

- ☒ COMPLAINT RECEIVED _____
- ☐ COMPLAINT INVESTIGATION _____
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☐ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER _____
- ☐ OTHER _____

MAJOR SOURCE: ☐ A-1 ☐ A-2 ☐ NESHAP ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☐ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

Complainant: Cheryl Keller
21130 Poinciana
Southfield 355-3774

Strong odors at her home.

Strong odor

(White copy was inadvertantly given to the company)

Response: Investigated 1-29. Mark Shapler at CMI said cutting oils on all but one of their systems had been replaced (old disposed of & new added) in December, 1990. He took us through the plant - Some odor detected in plant in a couple of areas, but not very strong. No odor detected outside plant at the time.

I located the complainant's home - about ½ mile NW of plant. A school exists between her home & the plant (fairly close to plant). I would be surprised if plant odors would carry this far given the odor level inside the plant. I asked the complainant to keep log for possible future use. No other obvious odor sources in the area, which has a lot of residences.

Mark Shapler sent me the attached paperwork that was generated by the company following complaints received in summer of 90 from residents much closer to his plant.

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME Fred Rieth DATE OF REPORT 2-6-91 SUPERVISOR'S INITIALS

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

R5642
Rev. 5/85

SEP 19 1990

DEPARTMENTAL CORRESPONDENCE

RECEIVED
JAN 31 1991
AIR QUALITY DIVISION

To	Mark Shepler	**Dep't**	Plant Manager
From	Jim Grissom	**Dep't**	TPM
Subject	Coolant System	**Date**	9/18/90

In regards to the problem with an odor in the area, we checked all coolant systems and found nothing out of the ordinary. We brought in or talked to all of our suppliers of equipment and to the people who supply us with coolant.

1) Castrol Industrial Great Lakes, Inc. (Coolant & additives)

We went over the last 6 months of checks and additions of additives and everything looks in order. They took samples on Friday, 9/7/90 and then made some adjustments for the weekend. Castrol came back in at 7:00 A.M. on Monday, 9/10/90 to see how the odor was and took samples again. The representative from Castrol felt that the smell was not bad and that all plants using coolant have some odor. Our concentration is a little high on the two large systems, but this is due to tramp oil that is emulsified in the coolant.
(See attached reports for additional information).

2) Henry Filter (Wedge Wire Filter & Coolant System)

They came in and looked at both the head line and the main 654 pit system. They felt both systems looked and were operating fine. They did have some suggestions that might help with tramp oil and chips that are getting into our coolant lines.
(See attached sheets for additional information).

3) Hyde (Oil Separator)

I talked to the representative on the telephone about our oil separator. He explained how the system is suppose to work and ours is working properly. There was some concern about how the filter media was put back into the equipment after being cleaned. He told me that there is no problem with what we did and that it will still do the job, but not as efficiently. We also adjusted weirs to reduce the thickness of oil slick.

4) Donaldson, Huckins and Asso (Centrifuge)

A representative came in and we talked to him. It seems we are O.K., but a service man will stop by when he is in the area to go over this piece of equipment with us.

5) Gottman (Filter Paper Media)

We are trying a couple of different weights of filter paper to determine which works best for CMI material.

6) Circulation Pumps

The pumps we installed on the coolant pit to keep the coolant circulating during shut downs are working and have been repiped to get better circulations.

7) Holding Pits

These are pumped out on a regular basis and don't seem to create any odor until they are pump out. When they are pumped out, the smell is terrible.

Summary

As it stands for right now, our coolant system seems to be in good shape. Of course there's always room for improvement, but I'm not sure if the odor problem is coming from our plant or from some other source.

Jim Grissom

JG/klk

Castrol Industrial

Castrol Industrial Great Lakes Inc.
1445 W. McPherson Park Drive
P.O. Box 860
Howell, MI 48844-0860
(517) 546-8600 (800) 227-9323 FAX: (517) 546-9456

CSR Continuous Service Report

CSR #: 1024
Product: SC-390
System: 630
Sales Engineer: J.GROTENHUIS
Operation: MACHINING
Capacity: 27,000
Material: ALUMINUM
Filtration: WEDGEWIRE
Date Charged: 07/13/89
Concentration Range: 3.0-5.0%

CMI SOUTHFIELD
PLANT #2
26290 W. 8 MILE ROAD
SOUTHFIELD, MI 48034

Attn: PEGAN/C.IVON/BUZO

	Range					
Sample #:		46	47	48	49	50
Date Taken:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Received:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Completed:		08/14/90	08/21/90	09/05/90	09/07/90	09/11/90
% Free Oil:	< 2	0.6	1.3	TRACE	1.3	TRACE
Solids:	NONE	LIGHT	LIGHT	MED	LIGHT	LIGHT
Refractometer %:	3.0-5.0	-	-	-	6.5	-
Sulfonates %:	3.0-5.0	5.5	5.2	5.3	4.5	5.2
Bacteria/ml:	< 8	<4	<4	4	<4	<4
Fungi:	< 4	H			h	
pH:	8-10	8.8	9.1	8.6	8.7	9.2
Acid Split %:	3.0-5.0	10.8	9.1	9.6	5.3	8.8

COMMENTS

IT HAS BEEN 61 WEEKS SINCE SYSTEM WAS CHARGED
46 - DILUTION RICH, HEAVY YEAST
48 - DILUTION RICH

Castrol Industrial

Castrol Industrial Great Lakes Inc.
1445 W. McPherson Park Drive
P.O. Box 860
Howell, MI 48844-0860
(517) 546-8600 (800) 227-9323 FAX: (517) 546-9456

CSR Continuous Service Report

CMI SOUTHFIELD
PLANT #2
26290 W. 8 MILE ROAD
SOUTHFIELD, MI 48034

Attn: PEGAN/C. IVON/BUZO

CSR #: 1028
Product: SC-390
System: 622
Sales Engineer: J. GROTENHUIS
Operation: MACHINING HEADS
Capacity: 10,000
Material: ALUMINUM
Filtration: WEDGEWIRE (HENRY)
Date Charged: 07/25/89
Concentration Range: 6.0-7.0%

	Range	43	44	45	46	47
Sample #:						
Date Taken:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Received:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Completed:		08/14/90	08/21/90	09/05/90	09/07/90	09/11/90
% Free Oil:	< 2	TRACE	TRACE	TRACE	TRACE	TRACE
Solids:	NONE	LIGHT	MED	MED	MED	MED
Refractometer %:	6.0-7.0	6.5	6.6	5.6	5.6	5.6
Sulfonates %:	6.0-7.0	8.4	8.6	9.6	9.4	10.0
Bacteria/ml:	< 8	<4	<4	5	8	<4
Fungi:	< 4				0	
pH:	8-10	8.9	9.0	8.4	8.7	9.2
Acid Split %:	6.0-7.0	7.0	6.5	7.0	7.9	7.9

COMMENTS

IT HAS BEEN 59 WEEKS SINCE SYSTEM WAS CHARGED
46 - DILUTION RICH; NOTE BACTERIA
47 - DILUTION RICH

Castrol Industrial

Castrol Industrial Great Lakes Inc.
1445 W. McPherson Park Drive
P.O. Box 860
Howell, MI 48844-0860
(517) 546-8600 (800) 227-9323 FAX: (517) 546-9456

CSR Continuous Service Report

CMI SOUTHFIELD
PLANT #2
26290 W. 8 MILE ROAD
SOUTHFIELD, MI 48034

Attn: PEGAN/C.IVON/BUZO

CSR #: 1025
Product: SC-390
System: 605
Sales Engineer: J. GROTENHUIS
Operation: DRILLING/MILLING
Capacity: 4,000
Material: ALUMINUM
Filtration: CHIP DRAG
Date Charged: 07/13/90
Concentration Range: 4.0-5.0%

	Range	43	44	45	46	47
Sample #:						
Date Taken:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Received:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Completed:		08/14/90	08/21/90	09/05/90	09/07/90	09/11/90
% Free Oil:	< 2	0.6	TRACE	TRACE	TRACE	TRACE
Solids:	NONE	MED	LIGHT	MED	LIGHT	LIGHT
Refractometer %:	4.0-5.0	1.9	3.3	4.3	4.7	4.7
Sulfonates %:	4.0-5.0	4.6	4.7	5.0	4.4	4.5
Bacteria/ml:	< 8	<4	<4	<4	<4	<4
Fungi:	< 4				h	
pH:	8-10	9.1	9.2	8.6	8.6	9.3
Acid Split %:	4.0-5.0	4.0	4.0	5.0	5.0	5.0

COMMENTS

IT HAS BEEN 9 WEEKS SINCE SYSTEM WAS CHARGED

Castrol Industrial

Castrol Industrial Great Lakes Inc.
1445 W. McPherson Park Drive
P.O. Box 860
Howell, MI 48844-0860
(517) 546-8600 (800) 227-9323 FAX: (517) 546-9456

CSR Continuous Service Report

CSR #: 1026
Product: SC-390
System: 613
Sales Engineer: J.GROTENHUIS
Operation: MACHINING
Capacity: 3,300
Material: ALUMINUM
Filtration: CHIP DRAG
Date Charged: 07/09/90
Concentration Range: 4.0-5.0%

CMI SOUTHFIELD
PLANT #2
26290 W. 8 MILE ROAD
SOUTHFIELD, MI 48034

Attn: PEGAN/C. IVON/BUZO

	Range					
Sample #:		41	42	43	44	45
Date Taken:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Received:		08/13/90	08/20/90	09/04/90	09/07/90	09/10/90
Date Completed:		08/14/90	08/21/90	09/05/90	09/07/90	09/11/90
% Free Oil:	< 2	TRACE	TRACE	TRACE	TRACE	TRACE
Solids:	NONE	LIGHT	LIGHT	TRACE	TRACE	TRACE
Refractometer %:	4.0-5.0	-	4.0	4.0	4.7	5.6
Sulfonates %:	4.0-5.0	5.0	5.6	4.9	5.3	5.8
Bacteria/ml:	< 8	5	<4	4	<4	<4
Fungi:	< 4				h	
pH:	8-10	9.1	9.2	8.4	8.6	9.2
Acid Split %:	4.0-5.0	5.0	4.5	4.0	4.5	5.0

COMMENTS

IT HAS BEEN 9 WEEKS SINCE SYSTEM WAS CHARGED

COOLANT PIT # _____ COOLANT RECORDS MONTH SEPT

ITE	H_2O	Coolant	%	PH	Kation 886	Coolstan	Sodium Omadine	Amp 95	Additive #5	Additive #21	Additive #26	Additive #6	NOTES
-7													
54							2			1 cup			
22						5				1 cup			
13						2.5				1 cup			
05						2.5				1 cup			

KILLS BACTERIA AND RAISES PH

KILLS FUNGUS

DEODERANT

INTERDEPARTMENTAL CORRESPONDENCE

TO: JIM GRISSOM **DEPT.:** T.P.M.

FROM: JEFF NORTON **DEPT.:** ENGINEERING

SUBJECT: HENRY FILTER SYSTEMS **DATE:** 9/18/90

J.M.(MICKEY)FRAKES, SALES ENGINEER FOR HENRY FILTERS, WAS IN PER OUR REQUEST ANSWERING QUESTIONS PERTAINING TO TRAMP OIL, DEAD SPOTS, AND CHIP PENETRATION INTO THE SYSTEM (BOTH THE MAIN:654 AND HEADLINE). THE FOLLOWING SUGGESTIONS WERE MADE:

1) PUT A REVERSE SPROCKET ASSEMBLY ON THE NORTH FILTER DRUM IN THE MAIN PIT. CURRENTLY BOTH DRUMS ARE ROTATING CLOCKWISE WHICH SEEMS TO BE PUSHING ALL BUILD UP TO THE NORTH SIDE OF THE PIT. BY REVERSING THE ROTATION OF THE DRUM THE FILTRATION AND FLOW SHOULD BE MORE CENTRALIZED. **(QUOTE IN PROCESS).**

2) HOOK HEADERS/STEINING NOZZLES TO CLEAN COOLANT SYSTEM AND LOCATE IN DEAD SPOTS TO HELP MOVE BOTH CHIPS AND TRAMP OIL.

3) PLACE WARNING FLAGS ON THE RATCHET SYSTEM WHICH CONTROLS THE DRUM ROTATION. THIS WOULD ALLOW FOR VISUAL INSPECTION. THE FLAG WOULD MOVE UP AND DOWN WITH THE ROTATION OF THE DRUM. THIS COULD BE TAKEN A STEP FURTHER AND HOOKED UP TO AN ALARM WHICH WOULD SOUND IF THE DRUMS STOPPED ROTATING.

4) PLACE A CYCLE COUNTER AND TIMER ON THE HEADLINE SYSTEM. THIS ALSO WORKS AS A WARNING DEVICE AND VISUAL AID. ONE IS CURRENTLY IN USE ON THE MAIN SYSTEM. **(QUOTE IN PROCESS).**

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

#306-90 FR
90 03 0285

ESTABLISHMENT		COUNTY	ESTABLISHMENT NO.
Unknown CMI Plant #2		Oakland	NONE
EQUIPMENT LOCATION		DISTRICT	DATE MM DD YY
8 Mile/Beech Daly 26290 W 8 Mile		S.E. MI Dist Hqrs	/ /
CITY / TOWNSHIP		STAFF	TRAVEL TIME
Farmington Southfield		Constantine	
CONTACT AND TITLE			TIME ON ACTIVITY

ACTIVITY:

- [X] COMPLAINT RECEIVED 9-7-90
- [X] COMPLAINT INVESTIGATION
- [ ] PARTIAL SCHEDULED INVESTIGATION
- [ ] COMPLETE SCHEDULED INVESTIGATION
- [ ] SELF-INITIATED INVESTIGATION
- [ ] CONSENT ORDER INVESTIGATION
- [ ] SOURCE TEST MONITORING
- [ ] VISIBLE EMISSIONS OBSERVATION
- [ ] SAMPLE COLLECTED
- [ ] PHOTOS TAKEN
- [ ] MEETING WITH COMPANY
- [ ] TELEPHONE CONVERSATION
- [ ] LETTER
- [ ] OTHER

MAJOR SOURCE: [ ] A-1 [ ] A-2 [ ] NESHAP [ ] NSPS [ ] CEM [ ] PSD

LEVEL OF INSPECTION: [ ] LEVEL I [ ] LEVEL II [ ] LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

Telephone complaint received on 9/7/90 at 9:30 AM

Cindy Peters
20556 Kinloch
Redford
#255-0313

Complainant stated there is a strong chemical odor, ongoing for several weeks.

Response: Source of odor has been identified as CMI Corp - Plant #2, at 26290 W 8 Mile in Southfield - Odor is like mildew and emanates from bacteria which grow in the company's water soluble cutting oil which is used as coolant in cutting & turning of steel parts in large machines. The oil used is specified by the customer, so switching oil is not a solution (or option). There is no exhaust stack - the odor emanates from general bldg ventilation, open doors etc. Also, it is not from the sewer either. The cutting oil is not discharged to the sewer. The company uses additives to minimize bacteria growth, but must also be careful not ~~to~~ to add too much (plus the additives have odors and can bother employees if added too rapidly. The company has agreed to conduct a study of the problem in an effort to come up with a solution. They will inform me of the results. Meanwhile, I spoke w the complainant and discussed our involvement. Sandy McGlew verified a mildew-like odor on 8 Mile Rd near the plant on 9-7-90

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME Fred Rieth DATE OF REPORT 9-18-90 SUPERVISOR'S INITIALS BJ

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

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Rev. 5/85

#304-90 FR

90 03 0284

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

ESTABLISHMENT: CMI	COUNTY: Oakland	ESTABLISHMENT NO.: N/A
EQUIPMENT LOCATION: 8 Mile, bet. Inkster & BeechDaly 26290 W 8 Mile	DISTRICT: S.E. MI Dist.	DATE MM DD YY: / /
CITY / TOWNSHIP: Southfield	STAFF: Constantine	TRAVEL TIME:
CONTACT AND TITLE:		TIME ON ACTIVITY:

ACTIVITY:

- ☒ COMPLAINT RECEIVED 9-5-90
- ☒ COMPLAINT INVESTIGATION 9-5-90
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☐ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER
- ☐ OTHER

MAJOR SOURCE: ☐ A-1 ☐ A-2 ☐ NESHAP ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☐ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

14832

Telephone complaint received on 9/5/90 at 11:05 AM

Sherri Anderson
20453 Norborne
Redford
#531-5208

Complainant stated strong odor coming from this plant, usually occurs at night but is strong today. Eyes are burning and watering.

Maurice Sanders 297-9419 - Detroit W&S Dept

Mark Shepler - CMI [redacted] 357-5180

Response: Investigated same day - I detected a moderate mildew-like odor on 8 Mile near CMI. The odor comes from their soluble oil cutting machine Coolant, which is treated regularly to control bacteria that generate the odor. Mark Shepler agreed to check w his maintenance people to determine that oil treatments are being done on schedule and to determine if anything else can be done. They only discharge sewage wastes to the sewers - No cutting oil solutions, so the sewers should NOT be the odor source. The odor carried a short distance South of 8 Mile during my inspection. Winds were from the N at the time. No odor was detected at the time near the complainants home. Complainant said odor has been present at her home continuously for past 3-4 weeks (?).

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME Fred Roth DATE OF REPORT 9-11-90 SUPERVISOR'S INITIALS GB

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

R5642
Rev. 5/85

Ethyl Petroleum Additives Division
30150 Telegraph Road
Suite 117
Birmingham, MI 48010-2905

January 31, 1990

SCM

Mr. Robert P. Miller, Chief
Air Quality Division
Department of Natural Resrouces
State of Michigan
Stevens T. Mason Building
Box 30028
Lansing, Michigan 48909

Dear Mr. Miller:

I received the enclosed Michigan Air Pollution Reporting Form which was mailed to Mr. W. E. Adams at our address. Mr. Adams has since retired from the corporation, and the facilities in question have been sold to CMI, Incorporated, 1600 West Eight Mile Road, Ferndale, Michigan 48220. Ethyl Corporation has not operated these facilities since 1984, and as such have nothing to report.

If you have any other questions or comments, please contact me at (313) 642-1602.

Sincerely,

John P. Sunne

John P. Sunne
Associate Director
Automotive Development

Enclosure

AQ-10 BUSINESS IDENTIFICATION

1988 Reporting Form

See Instructions on Reverse Side

DNR USE ONLY - INITIALS, DATE: SKM 1/10/89

DO NOT DUPLICATE 1987 COMPUTER PRINTED INFORMATION IF CORRECT FOR 1988. ENTER ONLY CORRECTIONS OR ADDITIONS.

ESTABLISHMENT NUMBER: A4646

DNR USE ONLY — ACTION: NEW 1.☐ CHANGE 2.☐ DELETE ☐ O.K. ☐

ITEM 1

PHYSICAL LOCATION ADDRESS AND INFORMATION

A. BUSINESS NAME AS LOCALLY KNOWN (EXAMPLE: "OLDSMOBILE DIV.","KENT SCHOOL")
~~ETHYL CORP~~ SEE ATTACHED
CMI CORPORATION

B. PLANT NAME (EXAMPLE: "POWER PLANT","STORE-32","609-BLDG")
RESEARCH LAB
~~ETHYL CORP~~ SKM 1/10/89 DNR

NOT DNR Message

FACILITY SOLD TO CMI Corp. owned NO LONGER BY ETHYL Corp. JOHN P. SUNNE 313 [illegible]

C. STREET NUMBER (DO NOT USE P.O.BOX): 1600
D. STREET NAME: W 8 MILE RD

E. CITY NAME: FERNDALE
F. ZIP CODE: 48220
MI 160

G. NAME OF OWNER OR PARENT/HOLDING COMPANY: ~~ETHYL CORP~~

H. PERSON TO CONTACT REGARDING THIS FORM: ~~P. SUNNE~~
I. TELEPHONE NO.: ~~(313) 414-2208~~

J. COUNTY REFER TO TABLE I: OAKLAND 63
COUNTY NAME _____ COUNTY NO. _____

K. FEDERAL EMPLOYER'S IDENTIFICATION NO.: ~~[illegible]~~

L. STANDARD INDUSTRIAL CLASSIFICATION REFER TO TABLE II: 7391

M. NUMBER OF EMPLOYEES: 1

N. DUN & BRADSTREET NO. (FOR THIS FACILITY)

RECEIVED JAN 05 1989 AIR QUALITY DIVISION

ITEM 2

MAILING ADDRESS

DO NOT FILL IN ANY OF THIS ITEM IF THE ADDRESS IS THE SAME AS IN ITEM 1

A. NAME: ~~ETHYL CORP~~

B. NAME: ~~ATTN: P. SUNNE ADAMS~~

C. STREET ADDRESS OR POST OFFICE BOX: ~~30150 TELEGRAPH ROAD SUITE 111~~
GERI - RETURN TO

D. CITY NAME: ~~BIRMINGHAM~~
E. STATE: ~~MI~~
F. ZIP CODE: ~~48010~~

FOR ASSISTANCE CALL: 313-344-9450

RETURN FORMS TO: DISTRICT OFFICE
AIR QUALITY DIVISION
505 WEST MAIN STREET
NORTHVILLE, MI. 48167

*SIGNATURE OF PERSON COMPLETING FORMS _____ DATE _____

CERTIFICATION BY _____ DATE _____

PR5608 10/88

88030540 KG

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

262-88

ESTABLISHMENT	COUNTY	ESTABLISHMENT NO.
CMI CORP.	Oakland	
EQUIPMENT LOCATION: 1600 W. 8 Mile Rd.	DISTRICT: Northville	DATE (MM DD YY): 06 / 16 / 88
CITY / TOWNSHIP: Ferndale	STAFF: S.Hess	TRAVEL TIME
CONTACT AND TITLE		TIME ON ACTIVITY

ACTIVITY:

- ☒ XX COMPLAINT RECEIVED 6-23-88
- ☑ COMPLAINT INVESTIGATION
- ☐ PARTIAL SCHEDULED INVESTIGATION
- ☐ COMPLETE SCHEDULED INVESTIGATION
- ☐ SELF-INITIATED INVESTIGATION
- ☐ CONSENT ORDER INVESTIGATION
- ☐ SOURCE TEST MONITORING
- ☐ VISIBLE EMISSIONS OBSERVATION
- ☐ SAMPLE COLLECTED
- ☐ PHOTOS TAKEN
- ☐ MEETING WITH COMPANY
- ☐ TELEPHONE CONVERSATION
- ☐ LETTER
- ☐ OTHER

MAJOR SOURCE: ☐ A-1 ☐ A-2 ☒ NESHAP AHERPS ☐ NSPS ☐ CEM ☐ PSD

LEVEL OF INSPECTION: ☐ LEVEL I ☐ LEVEL II ☐ LEVEL III

INSPECTION RESULTS / REMARKS:

SOURCE / CONTROL | PERMIT / RULE / ORDER | STATUS

This was a referral from: Frank Luxon, City Inspector of Ferndale
546-2366

Please call the inspector before inspection.

Renovating the factory - caller believes they are removing asbestos & not handling it properly.

Upon My Arrival, 6-23-88 Greg Went, Project Coordinator explained that Bulk Samples had been taken & Analyized As Negative For Asbestos 12-87. This was done by the Co. President who was NOW deceased. After Mr. Luxon's Visit All work was Stopped And Removed. After Mr. Luxon's Visit All work was Stopped And covered. I Requested that the Material be Analyized Immediately by A License Contractor And Notification be made to the Dept. On 6-27-88. The Analysis Confirmed Asbestos (Friable). CMI ~~was~~ contracted Environmental Technologies Co. To Remove the Asbestos in the Dumpster & begain Reenvironting (6-30-88). A follow up was Done 8.9.88 the Project Completion Date. See Asbestos Report For CMI.

STATUS CODE: C = COMPLIANCE; NC = NONCOMPLIANCE; NO = NOT OPERATING; U = UNKNOWN

NAME K.L. Green DATE OF REPORT 8.9.88 SUPERVISOR'S INITIALS JD

DISTRIBUTION: White – Division Office; Canary – Staff Member; Pink – District Office

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Rev. 5/85

ETHYL CORPORATION
AIR CONSERVATION · SUITE 111
30150 TELEGRAPH ROAD · BIRMINGHAM, MICHIGAN 48010 · (313) 642-1208

January 20, 1986

District Office
Air Quality Division
15500 Sheldon Road
Northville, MI 48167

Dear Air Quality Division,

Enclosed are our completed Forms AQ-10 and AQ-20 for 1984. As indicated in last year's letter, we have closed the facility and it is for sale. As noted on the AQ-10 form, I am the only Ethyl employee located in Detroit with continuing responsibility at the facility. Therefore, there is no one available to certify my report.

If you have any questions, please call at the above telephone number.

Sincerely,

W E Adams

W. E. Adams

WEA:sc
Enclosures

A-4646

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [X] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

DATE MM/DD/YY: 8/18/83

ESTABLISHMENT	NO.	QUARTER	NO.
Ethyl Corp.	A 4646		3
NUMBER AND STREET	CITY	STAFF	NO.
1600 W. 8 Mile Road	Ferndale	A. Peppo	71
CONTACT	TITLE	COUNTY	NO.
Cal Worlrel		Oakland	63
PRIMARY ACTIVITY		DISTRICT	NO.
		Pontiac	3

REMARKS:

This morning Drew Lelli and I went to Ethyl Corp. research lab to conduct an annual investigation. Our contact was Mr. Cal Worlrel. At this ethyl plant they are in the business of research and development with 50% being chemical and 50% being automotive i.e. they test for emissions from gasoline and diesel engines. These emissions include CO_2, O_2, etc. Mr. Worlrel said they develop the octane levels here.

Business at Ethyl Corp. is real slow. They used to have 500 employees, they now have 50.

Drew Lelli and I evaluated the following pieces of equipment. (1) Multiple chamber incinerator. Mr. Worlrel said they use their trash dumpsters more than their incinerator. (2) Boilers. Boiler U.A. has been removed completly. I will be deleting this from the E.I. System. (3) Three degreasers. (4) Enamel spray booth employing filters. (5) Engine test stands. (6) Gasoline storage tanks and (7) Sanders, grinders, routers, etc. Also, the bromine and M.E.K. are no longer in use at Ethyl. I will be deleting these from the E.I. System. I also will be sending a letter to Mr. Silver confirming our investigation.

Anne Peppo

PROJECT

01	MAJOR SOURCE
02	MINOR SOURCE TRAVEL - 1.5 HR.
03	RESIDENCE FIELD - 1.25 HR.
04	MEETING – CONFERENCE OFFICE - 0.75 HR.
05	TRAINING
07	
08	
09	
10	
00	OTHER (explain)

SURVEY ACTION		TYPE	NO.
01	EMISSION POINTS INVESTIGATED		
02	VISIBLE EMISSION EVALUATION		
03	SOURCE TEST (STAFF)		
04	SOURCE TEST (COMPANY)		
05	GRAB SAMPLE		
06	PICTURES TAKEN		
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
00	OTHER (explain)		

COMPLIANCE STATUS

- A. IN COMPLIANCE
- B. UNKNOWN COMPLIANCE
- C. OUT OF COMPLIANCE NOT ON A SCHEDULE
- D. ON A SCHEDULE MEETING INCREMENTS
- E. ON A SCHEDULE, NOT MEETING INCREMENTS
- F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

(F)

R5642
3/77

DEPT. OF NATURAL RESOURCES
AIR QUALITY DIVISION

PRODUCED 03/24/83

ETHYL CORP
ETHYL CORP
RESEARCH LAB
1600 W 8 MILE RD
FERNDALE 48220
R S SILVER

DISTRICT NO. 03
COUNTY 63 OAKLAND
ESTAB. NO. A4646
313 3999600

STAFF ____Anne Peppo____ NO. __71__

CONTACT ____Sam Workkel____ DATE __3-18-83__

TOTAL TIME, HOURS ________ PROJECTED TIME, HOURS ________

3-18-83 → 9 a.m.

FQY	SID	ECODE	---- SOURCE NAME ----	PIECES	AVG.-HOURLY-RATE	----------- CONTROLS ----------	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
(1)	001	0006	MULTIPLE CHAMBER INC	1	400.00 LBS.			.01	
(2)	002	0018	BOILER KEELER 1	1	5.00 MMBT			.62	7.23
	003	0018	BOILER KEELER 2	1	5.00 MMBT			.77	9.22
	005	0018	BOILER AN	1	1.43 MMBT			.01	
	006	0018	BOILER AE	1	.35 MMBT			.01	.11
	007	0018	BOILER UA	1	.75 MMBT				
	008	1257	TRICHLOROETHYLENE	1	.01 GALS				
	009	1275	METHYLCHLOROFORM	1	GALS				
	010	1256	MINERAL SPIRITS	3	.10 GALS				
	011	1276	ALCOHOLS	1	GALS				
	012	1276	TOL-XYL USAGE	1	.01 GALS				
	014	1277	OTHER SOLVENT USAGE	1	.02 GALS				
(4) 00.5	015	1083	ENAMEL SPRAY BOOTH	1	.01 GALS				
(5) 01.0	016	0079	ENGINE TEST STANDS	37	1.06 GALS				
	017	0560	PLANER SAW ROUTER (7)	4	TONS	SET-CHAM			
(7)	018	0561	SANDER	1	TONS	FAB-FILTR			
	021	9999	AMMONIA REFRIGERANT	1	1.20 LBS.				
	024	9999	BROMINE	1	.30 LBS.				
	025	1276	MEK	1	GALS				
	026	0018	BOILER D1	1	1.01 MMBT				
	027	0018	BOILER D2	1	1.01 MMBT				
	028	0064	WELDING & BRAZING	1	.02 LBS.				
(6)	~~029~~	~~1190~~	~~GASOLINE STORAGE TAN~~	60	15.13 GALS				
	030	1258	METAL DEGREASING	1	.03 GALS				
(7)	031	0060	BENCH GRINDERS	2	TONS	FAB-FILTR			

DELETE (007, 024, 025)

underground 500 to 10,000 gallons

large degreasing unit → caustic solution

(3) 3 degreasers TOTAL

* LETTER NEEDED

No consumer products

ONLY at this location

7, plant file
cc: Tom Maahs

ETHYL CORPORATION
RESEARCH AND DEVELOPMENT DEPARTMENT · RESEARCH LABORATORIES
1600 WEST EIGHT MILE ROAD · FERNDALE, MICHIGAN 48220 · (313) 399-9600

May 11, 1983

State of Michigan
Department of Natural Resources
Stevens T. Mason Bldg.
Box 30028
Lansing, Michigan 48909

Attention: Mr. Richard S. Johns
Compliance Section Supervisor
Air Quality Division

Dear Sirs:

In response to your letter of April 18 concerning the requirements for testing tank trailers for vapor tightness under Commission Rule 627, this is to inform you that we do not own or operate any tank trailers at this location of the Ethyl Corporation. We handled less than 140,000 gallons of gasoline in 1982.

It is our understanding that we are not subject to the requirements of the provisions of the Michigan Administrative Rules for Air Pollution Control cited in your letter.

Please advise us if this is incorrect.

Sincerely,

C. J. Worrel
Supervisor of Safety and Security

CJW/lcb

cc: MDNR District 3 Office
2455 N. Williams Lake Rd.
Pontiac, Michigan 48054

STATE OF MICHIGAN

JAMES J. BLANCHARD, Governor

DEPARTMENT OF NATURAL RESOURCES

STEVENS T. MASON BUILDING
BOX 30028
LANSING, MI 48909
HOWARD A. TANNER, Director

Circ. ltr + File - Rule 627

April 18, 1983

Gentlemen:

This is to inform you that the Michigan Air Pollution Control Commission has adopted new regulations which may affect the operation of your gasoline delivery vessels.

If your delivery vessel is subject to control by a vapor balance or vapor recovery system at a gasoline dispensing or loading facility, the provisions of Commission Rule 627 apply. This rule requires you to test the tank trailers for vapor tightness during the second quarter of each year beginning 1983, by the methods detailed in Rule 1005. Rule 627 also requires you to notify, in writing, the appropriate district office of the Air Quality Division of the time and location of the test not less than seven days before the scheduled test. Also, please note Rule 627 requires that you submit a detailed test report upon completion of the test to the respective district office no later than July 15. Enclosed for your reference are copies of Rule 627, Rule 1005, and a map outlining the district boundaries with a list of district office addresses and phone numbers.

If has also come to our attention, that many delivery vessels subject to control by a vapor balance or vapor recovery system at a gasoline dispensing or loading facility do not comply with the requirements of Commission Rules 606(4)(b), 607(4)(b), 608(4)(b) and 609(3)(b). These rules require such delivery vessels to be equipped with a device to ensure that the vapor tight collection line will close upon disconnection so as to prevent the release of organic vapor. Please note this requirement and implement corrective action where necessary.

If you have any questions regarding these requirements, please contact the district office which covers your area. Thank you for your cooperation.

Sincerely,

Richard S. Johns

Richard S. Johns
Compliance Section Supervisor
Air Quality Division

RSJ:nh
Enclosures

R1026

2455 N. Williams Lake Road
Pontiac, Michigan 48054

August 10, 1982

Ethyl Corporation
R & D Laboratories
1600 W. Eight Mile Road
Ferndale, Michigan 48220

Attention: Mr. Ross Stevenson

Gentlemen:

On August 4, 1982 staff of the Department of Natural Resources conducted an investigation of your facility located at 1600 W. Eight Mile Road in Ferndale, Michigan to evaluate compliance of that facility with requirements of subtitle C of the Resource Conservation and Recovery Act (RCRA) as amended.

As a result of that investigation, staff of the Department of Natural Resources have determined that the above facility is in violation of the requirements of subtitle C of RCRA. Specifically, staff found that:

1. No danger signs were posted at entrance (to storage area) as required in 40 CFR 265.14 (c).
2. No inspection log is maintained as required in 40 CFR 265.15 (d).
3. Personnel training records do not indicate that personnel have taken part in an annual review of initial training as required in 40 CFR 265.16 (c).
4. The contingency plan does not include an evacuation plan for personnel as required in 40 CFR 265.52 (f).
5. No operating record is maintained as required in 40 CFR 265.73.
6. All required facility records were not available as required in 40 CFR 265.74 (a).

We request that you respond to this letter by September 1, 1982 providing documentation to this office regarding those actions taken to correct these violations.

If you have any questions regarding this matter, please feel free to contact me at (313) 666-2700.

Sincerely,

Andrea Stewart

Andrea Stewart
Resource Specialist
Air Quality Division

AS:mb

RCRA Inspection Report

EPA Identification Number: M I D 0 4 1 8 0 3 1 2 3

Installation Name: ETHYL CORPORATION R + D LABORATORIES

Location Address: 1600 WEST EIGHT MILE ROAD

City: FERNDALE State: MICHIGAN

Date of inspection: 8/04/82 Time of inspection (from) 10:45 A.M. (to) 12:30 P.M.

Person(s) interviewed	Title	Telephone
ROSS STEVENSON	SUPT. ADM. SERVICES	(313) 399-9600
JOHN GUCCIONE	RESEARCH ENGINEER	(313) 399-9600

Inspector(s)	Agency/Title	Telephone
ANDREA STEWART	MDNR - AIR QUALITY	(313) 666-2700

Installation Activity (mark only one box) — Inspection Form(s)

- [X] Treatment/Storage/Disposal per 40 CFR 265.1 and/or Generation and/or Transportation — A
- [ ] Treatment/Storage/Disposal (no generation or Transportation) — A
- [ ] Generation and Transportation — B, C
- [ ] Generation only — B
- [ ] Transportation only — C

INSPECTION FORM A

Section A: SCOPE OF INSPECTION.

1. Interim status standards for treatment storage or disposal of HAZARDOUS WASTES SUBJECT TO 40 CFR 265.1. Complete Inspection Form A sections B, C, D, E, and G.

2. Place an "X" in the box(es) corresponding to the facility's treatment, storage and disposal processes, and generation and/or transportation activity (if any). Complete only the applicable sections and appendixes.

Permit application process(es) (EPA Form 3510-3)			Inspection Form A section(s)
S01	☒	storage in containers	I
S02	☐	storage in tanks	J
T01	☐	treatment in tanks	J
S04	☐	storage in surface impoundment	K,F
T02	☐	treatment in surface impoundment	K,F
D83	☐	disposal in surface impoundment	K,F
S03	☐	storage in waste pile	L
D81	☐	disposal by land application	M,F
D80	☐	disposal in landfill	N,F
T03	☐	treatment by incineration	O/P
T04	☐	treatment in devices other than tanks, surface impoundments, or incinerators	Q

Other activities

GENERATOR	☒	APPENDIX	GN
TRANSPORTER	☐	APPENDIX	TR

3. Indicate any hazardous waste processes, by process code, which have been omitted from Part A of the facility's permit application.

—

4. Indicate any hazardous waste processes (by process code and line number on EPA Form 3510-3 page 1 of 5) which appear to be eligible for exclusion per 40 CFR 265.1(c). Provide a brief rationale for the possible exclusion.

—

Section B: GENERAL FACILITY STANDARDS: (Part 265 Subpart B)

	YES	NO	NI*	Remarks
1. Has the Regional Administrator been notified regarding: 265.12				
a. Receipt of hazardous waste from a foreign source?			✓	NO WASTE RECEIVED FROM FOREIGN SOURCE
b. Facility expansion?			✓	NO FACILITY EXPANSION
c. Change of owner or operator?			✓	NO CHANGE OF OWNER/OPERA
2. General Waste Analysis: 265.13				
a. Has the owner or operator obtained a detailed chemical and physical analysis of the waste?	✓			
b. Does the owner or operator have a detailed waste analysis plan on file at the facility?	✓			WASTE IS GENERATED BY BATCH PROCESS – EACH BATCH IS ANALYZED AND RECORDED IN A LOG WHICH IS KEPT ON FILE.
c. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site?			✓	SEE 2b
3. Security - Do security measures include: (if applicable) 265.14				
a. 24-Hour surveillance?	✓			
or				
b. i. Artificial or natural barrier around facility?	✓			
and				
ii. Controlled entry?	✓			
c. Danger sign(s) at entrance?		✓		
4. Owner or operator inspections: 265.15				
a. Does the owner or operator inspect the facility for malfunctions, deterioration, operator errors, and dischanges of hazardous waste that may affect human health or the environment?	✓			

*Not Inspected

	YES	NO	NI	Remarks
b. Does the owner or operator have an inspection schedule at the facility?	✓			
c. If so, does the schedule address the inspection of the following items:				
i. monitoring equipment?	✓			HEAT DETECTORS
ii. safety and emergency equipment?	✓			
iii. security devices?	✓			
iv. operating and structural equipment (i.e. dikes, pumps, etc.)?			✓	
v. type of problems to be looked for during the inspection (e.g. leaky fitting, defective pump, etc.)?	✓			
vi. inspection frequency (based upon the possible deterioration rate of the equipment)?	✓			STORAGE AREA INSPECTED DAILY
d. Are areas subject to spills inspected daily when in use?	✓			
e. Does the owner or operator maintain an inspection log or summary of owner or operator inspections?		✓		
f. Does the inspection log contain the following information:				
i. the date and time of the inspection?			✓	
ii. the name of the inspector?			✓	
iii. a notation of the observations made?			✓	
iv. the date and nature of any repairs or remedial actions?			✓	
5. Do personnel training records include: 265.16				
a. Job titles?	✓			
b. Job descriptions?	✓			

	YES	NO	NI	Remarks
c. Description of training?	✓			
d. Records of training?	✓			
e. Did facility personnel receive the required training by 5-19-81?	✓			
f. Do new personnel receive required training within six months?			✓	
g. Do personnel training records indicate that personnel have taken part in an annual review of initital training?		✓		
6. If required, are the following special requirements for ignitable, reactive, or incompatible wastes addressed? 265.17				
a. Special handling?	✓			
b. No smoking signs?	✓			
c. Separation and protection from ignition sources?	✓			

Section C: PREPAREDNESS AND PREVENTION: (Part 265 Subpart C)

	YES	NO	NI	Remarks
1. Maintenance and Operation of Facility: 265.31 Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?		✓		
2. If required, does the facility have the following equipment: 265.32				
a. Internal communications or alarm systems?	✓			
b. Telephone or 2-way radios at the scene of operations?	✓			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?	✓			

Indicate the volume of water and/or foam available for fire control:

2 HOSES FOR WATER AVAILABLE

150-LB. PORTABLE DRY CHEMICAL FIRE EXTINGUISHER

3. Testing and Maintenance of Emergency Equipment: 265.33				
a. Has the owner or operator established testing and maintenance procedures for emergency equipment?	✓			
b. Is emergency equipment maintained in operable condition?	✓			
4. Has owner or operator provided immediate access to internal alarms? (if needed) 265.34	✓			
5. Is there adequate aisle space for unobstructed movement?	✓			
6. Has the owner or operator attempted to make arrangements with local authorities in case of an emergency at the facility?	✓			

Section D: CONTINGENCY PLAN AND EMERGENCY PROCEDURES: (Part 265 Subpart D)

	YES	NO	NI	Remarks
1. Does the Contingency Plan contain the following information: 265.52				
a. The actions facility personnel must take to comply with §265.51 and 265.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control, and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part (as applicable.)	✓			
b. Arrangements agreed by local police departments, fire departments hospitals, contractors, and State and local emergency response teams to coordinate emergency services pursuant to §265.37?	✓			
c. Names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinators?	✓			
d. A list of all emergency equipment at the facility which includes the location and physical description of each item on the list and a brief outline of its capabilities?	✓			
e. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes?)		✓		
2. Are copies of the Contingency Plan available at the site and local emergency organizations? 265.53	✓			

	YES	NO	NI	Remarks
3. Emergency Coordinator 265.55				
a. Is the facility Emergency Coordinator identified?	✓			U.A. LEHIKOINEN
b. Is coordinator familiar with all aspects of site operation and emergency procedures?	✓			
c. Does the Emergency Coordinator have the authority to carry out the Contingency Plan?	✓			
4. Emergency Procedures 265.56				
If an emergency situation has occurred at this facility, has the Emergency Coordinator followed the emergency procedures listed in 265.56?			✓	NO EMERGENCY SITUATION HAS OCCURRE

Section E: MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING: (Part 265 Subpart E)

	YES	NO	NI	Remarks
** 1. Use of Manifest System 265.71				FACILITY DOES NOT RECEIVE WASTE FROM OFF-SITE
a. Does the facility follow the procedures listed in §265.71 for processing each manifest? (Particularly sending a copy of the signed manifest back to the generator within 30 days after delivery.)	—	—	—	
b. Are records of past shipments retained for 3 years?	—	—	—	
** 2. Does the owner or operator meet requirements regarding manifest discrepancies? 265.72	—	—	—	
3. Operating Record 265.73				
a. Does the owner or operator maintain an operating record as required in 265.73?	—	✓	—	
b. Does the operating record contain the following information:				
i. The method(s) and date(s) of each waste's treatment, storage, or disposal as required in 40 CFR Part 265 Appendix I?	—	—	✓	
ii. The location and quantity of each hazardous waste within the facility? (This information should be cross-referenced to specific manifest number, if waste was accompanied by by a manifest.)	—	—	✓	
***iii. A map or diagram of each cell or disposal area				

** Not applicable to owners or operators of on-site facilities that do not receive any waste from off-site sources.

*** only applies to disposal facilities

	YES	NO	NI	Remarks
showing the location and quantity of each hazardous waste? (This information should be cross-referenced to specific manifest number, if waste was accompanied by a manifest.)				NOT A DISPOSAL FACILITY
iv. Records and results of all waste analyses, trial tests, monitoring data, and operator inspections?			✓	
v. Reports detailing all incidents that required implementation of the Contingency Plan?			✓	
vi. All closure and post closure costs as applicable?			✓	
4. Availability of Records 265.74				
Are all facility records required under 40 CFR Part 265 available for inspection?		✓		
5.**Unmanifested Waste Reports 265.76				FACILITY DOES NOT RECEIVE WASTE FROM OFF-SITE
a. Has the facility accepted any hazardous waste from an off-site generator subject to 40 CFR 262.20 without a manifest or or shipping paper?				
b. If "a" is yes, provide the identity of the source of the waste and a description of the quantity, type, and date received for each unmanifested hazardous waste shipment.				

** Not applicable to owners or operators of on-site facilities that do not receive any hazardous from off-site sources.

Section G - CLOSURE AND POST CLOSURE (Part 265 Subpart G)

	YES	NO	NI	Remarks
1. Closure 265.112				
a. Is the facility closure plan available for inspection?	✓			
b. Does the plan identify:				
i. maximum extent unclosed during facility life?	✓			
ii. maximum hazardous waste inventory?	✓			
iv. estimated year of closure?	✓			"CLOSURE NOT ANTICIPATE
v. schedule of closure activities?	✓			
c. Has closure begun?		✓		
*2. Post-Closure 265.118	NOT A DISPOSAL FACILITY			
a. Is the post-closure plan available for inspection?				
b. Does this plan contain:				
i. description of groundwater monitoring activities and frequencies?				
ii. description of maintenance activities and frequencies for				
AA. integrity of cap, final cover, or containment structures, where applicable				
BB. facility monitoring equipment				
iii. name, address, and phone number of person or office to contact during post-closure care period?				
c. Has the post-closure period begun?				
d. Is the written post-closure cost estimate available? 265.144				

*Applies only to disposal facilities.

Section I - USE AND MANGEMENT OF CONTAINERS (Part 265, Subpart I)

		YES	NO	NI	Remarks
1.	Are containers in good condition? 265.171	✓			
2.	Are containers compatible with waste in them? 265.172	✓			
3.	Are containers managed to prevent leaks? 265.173	✓			
4.	Are containers stored closed?	✓			
5.	Are containers inspected weekly for leaks and defects.	✓			
6.	Are ignitable and reactive wastes stored at least 15 meters (50 feet) from the facility property line? (Indicate if waste is ignitable or reactive). 265.176	✓			
7.	Are incompatible wastes stored in separate containers? (If not, the provisions of 40 CFR 265.17(b) apply). 265.177	✓			
8.	Are containers of incompatible waste separated or protected from each other by physical barriers or sufficient distance?	✓			

Section A: Scope

1. Complete this Appendix if the owner or operator of a TSD facility also generates hazardous waste that is subsequently shipped off-site for treatment, storage, or disposal.

Section B: MANIFEST REQUIREMENTS (Part 262, Subpart B)

	YES	NO	NI	Remarks
(1) Does the operator have copies of the manifest available for review? 262.40	✓			
(2) Examine manifests for shipments in past 6 months. Indicate approximate number of manifested shipments during that period. 2				
(3) Do the manifest forms examined contain the following information: (If possible, make copies of, or record information from, manifest(s) that do not contain the critical elements). 262.21				
a. Manifest document number?	✓			
b. Name, mailing address, telephone number, and EPA ID number of Generator	✓			
c. Name and EPA ID Number of Transporter(s)?	✓			
d. Name, address, and EPA ID Number Designated permitted facility and alternate facility?	✓			
e. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	✓			
f. The total quantity of waste(s) and the type and number of containers loaded?	✓			
g. Required certification?	✓			
h. Required signatures?	✓			

(4) Reportable exceptions 262.42

a. For manifests examined in (2) (except for shipments within the last 35 days), enter the number of manifests for which the generator has NOT received a signed copy from the designated facility within 35 days of the date of shipment. ___

b. For manifests indicated in (4a), enter the number for which the generator has submitted exception reports (40 CFR 262.42) to the Regional Administrator. ___

Section C: PRE-TRANSPORT REQUIREMENTS (Part 262, Subpart C)

	YES	NO	NI	Remarks
1. Is waste packaged in accordance with DOT regulations? (Required prior to movement of hazardous waste off-site) 262.30	✓			
2. Are waste packages marked and labeled in accordance with DOT regulations concerning hazardous waste materials? (Required for movement of hazardous waste off-site) 262.31 262.32	✓			
3. If required, are placards available to transporters of hazardous waste? 262.33	✓			

4. On-site accumulation of generated hazardous wastes. A HWMF may accumulate hazardous waste it generates either (A) in its storage facility [265.1(b)] or (B) in accordance with 40 CFR 262.34 [see 265.1(c)(7)]. Option B restricts all accumulation to tanks and containers. If the installation elects option A, check this box ☒ and skip to Section D. If the installation elects option B, complete the following observations: See 40 CFR 262.34 January 11, 1982 Revision

	YES	NO	NI	Remarks
a. Is each container clearly marked with the start of accumulation date?				
b. Have more than 90 days elapsed since the date inspected in (a)?				
c. Do wastes remain in accumulation tanks for more than 90 days?				
d. Is each container and tank labeled or marked clearly with the words "Hazardous Waste"?				

Section D: - RECORDKEEPING AND REPORTING (Part 262, Subpart D)

	YES	NO	NI	Remarks
1. Are all test results and analyses needed for hazardous waste determinations retained for at least three years? 262.40	✓			

Section E: - INTERNATIONAL SHIPMENTS (Part 262, Subpart E)

	YES	NO	NI	Remarks
1. Has the installation imported or exported Hazardous Waste? 262.50		✓		

(If answered Yes, complete the following as applicable.)

a. Exporting Hazardous waste; has a generator:

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

☐ COMPLAINT RECEIVED
☐ PERMIT ACTION
☐ ANNUAL COMPLIANCE INVESTIGATION COMPLETED
☐ NESHAP
☐ NSPS
☐ REVISED STATUS

DATE MM/DD/YY: 8/04/82

ESTABLISHMENT	NO.	QUARTER	NO.
ETHYL CORPORATION R+D LAB	A-4646		3
NUMBER AND STREET	**CITY**	**STAFF**	**NO.**
1600 WEST EIGHT MILE ROAD	FERNDALE	A. STEWART	98
CONTACT	**TITLE**	**COUNTY**	**NO.**
ROSS STEVENSON	SUPT. ADM. SERVICES	OAKLAND	63
PRIMARY ACTIVITY		**DISTRICT**	**NO.**
RCRA INSPECTION		PONTIAC	3

REMARKS:

THIS FACILITY GENERATES HALOGENATED AND NON-HALOGENATED SOLVENTS AND ORGANOPHOSPHATES AND STORES THESE WASTES IN CONTAINERS FOR LONGER THAN 90 DAYS. THE DEFICIENCIES UNDER RCRA REQUIREMENTS INCLUDE:

1.) NO DANGER SIGNS AT ENTRANCE (265.14)
2.) NO INSPECTION LOG (265.15(d))
3.) PERSONNEL HAVE NOT HAD ANNUAL REVIEW OF TRAINING (265.16(c)).
4.) NO EVACUATION PLAN (265.52(f))
5.) NO OPERATING RECORD (265.73)
6.) ALL RECORDS REQUIRED WERE NOT AVAILABLE FOR INSPECTION (265.74)

PROJECT

01 MAJOR SOURCE
02 MINOR SOURCE
03 RESIDENCE
04 MEETING – CONFERENCE
05 TRAINING
07 _____
08 _____
09 _____
10 _____
00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
09 _____		
10 _____		
11 _____		
12 _____		
13 _____		
14 _____		
15 _____		
16 _____		
17 _____		
18 _____		
19 _____		
00 OTHER (explain)		

COMPLIANCE STATUS

A. IN COMPLIANCE
B. UNKNOWN COMPLIANCE
C. OUT OF COMPLIANCE NOT ON A SCHEDULE
D. ON A SCHEDULE MEETING INCREMENTS
E. ON A SCHEDULE, NOT MEETING INCREMENTS
F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

MK

R5642
3/77

May 28, 1981

Mr. C. J. Worrel
Ethyl Corporation
1600 West Eight Mile Road
Ferndale, MI 48220

Dear Mr. Worrel:

This letter is in response to your May 18, 1981, letter in which you requested a written interpretation of Rule 601 with respect to the meaning of research and development equipment utilized for the purpose of producing saleable products or goods.

The intent of this rule is to exclude research and development equipment from the Part 6 rules if such equipment is not producing goods intended for general sales. Therefore, assuming your statement is indeed true, i.e., ". . . such production does not take place at this facility.", we would conclude that such equipment is not subject to the Part 6 rules.

If you have any further questions regarding this matter, please do not hesitate to contact me at (517) 322-1333.

Sincerely,

Jonathan L. Trout, Senior Engineer
Permit Unit
Air Quality Division

JLT:kb
cc: Tom Maki

DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION

ACTIVITY REPORT

AQ-42

- [ ] COMPLAINT RECEIVED
- [ ] PERMIT ACTION
- [x] ANNUAL COMPLIANCE INVESTIGATION COMPLETED
- [ ] NESHAP
- [ ] NSPS
- [ ] REVISED STATUS

DATE MM/DD/YY: 10-16-80

ESTABLISHMENT	NO.	QUARTER	NO.
ETHYL CORP	A4646		4
NUMBER AND STREET: 1600 W. 8 MILE RD.	CITY	STAFF: HANSON	NO. 84
CONTACT: A. HUFFMAN - R. STEVENSON	TITLE	COUNTY: OAK.	NO. 63
PRIMARY ACTIVITY: CHEMICAL RESEARCH		DISTRICT: Pont.	NO. 3

REMARKS:

COMPLETED ANNUAL INVESTIGATION ON AN M/C INCIN.
7 G/O Boilers
8 Solvent USAGE SOURCES
ENG. TEST STANDS
GAS STORAGE
WELDING & BRAZING
GRINDERS
ALSO Reviewed THIS YEARS AQ forms W/ THEM. - MADE & CHECKED APPROPRIATE SOURCE CHANGES
ALSO AN ALLEGED DISCREPANCY ON EMISSIONS from SID 029 GASOLINE STORAGE: 2/80 EMISSION PRINT OUT GIVE EMISSION = 4.93 T/yr. THEIR SURV. FEE & 9/80 AQ-20 HAS 9.93 T/yr. - HIGHER FIGURE CONFIRMED By LINDA

PROJECT: 02

- 01 MAJOR SOURCE
- 02 MINOR SOURCE
- 03 RESIDENCE
- 04 MEETING – CONFERENCE
- 05 TRAINING
- 07
- 08
- 09
- 10
- 00 OTHER (explain)

SURVEY ACTION	TYPE	NO.
01 EMISSION POINTS INVESTIGATED		
02 VISIBLE EMISSION EVALUATION		
03 SOURCE TEST (STAFF)		
04 SOURCE TEST (COMPANY)		
05 GRAB SAMPLE		
06 PICTURES TAKEN		
09		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
00 OTHER (explain)		

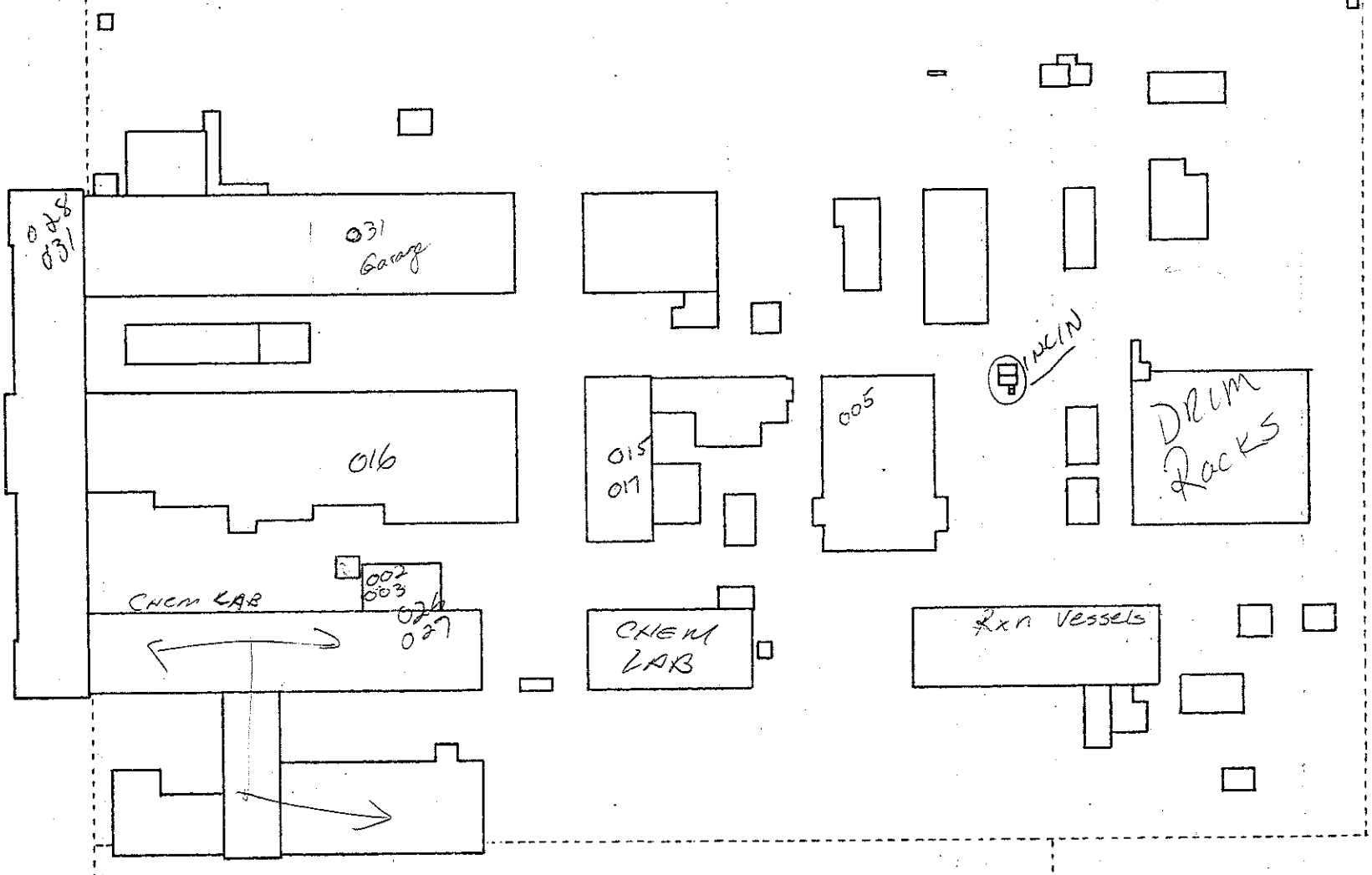
COMPLIANCE STATUS: B

- A. IN COMPLIANCE
- B. UNKNOWN COMPLIANCE
- C. OUT OF COMPLIANCE NOT ON A SCHEDULE
- D. ON A SCHEDULE MEETING INCREMENTS
- E. ON A SCHEDULE, NOT MEETING INCREMENTS
- F. ON A SCHEDULE, NOT KNOWN IF MEETING INCREMENTS

Marwan

R5642
3/77

Bobcat
Clark



PROG. G/629/55
DEPT. OF NATURAL RESOURCES
AIR QUALITY DIVISION

REPORT OF ANNUAL INVESTIGATIONS

PRODUCED 02/06/80

ETHYL CORP ph. 399-9600 DISTRICT NO. 03
ETHYL CORP
RESEARCH LAB COUNTY 63 OAKLAND
1600 W 8 MILE RD
FERNDALE 48220 ESTAB. NO. A4646
A E HUFFMAN

STAFF HANSON NO. 84
CONTACT A. HUFFMAN, R. STEVENSON DATE 10-8-80

TOTAL TIME, HOURS PROJECTED TIME, HOURS

* = BILLED FOR SCHEDULED INVESTIGATION
S = SEMIANNUAL A = ANNUAL B = BIENNIAL

	SID	SOURCE NAME	PIECES	AVG. HOURLY RATE	CONTROLS	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
* B	001	MULTIPLE CHAMBER INC.	1	400.00 LBS.			.14	.05
* B	002	GENERAL GAS/OIL BLR > N.G.C #6	1	5.00 MMBT			.96	11.53
* B	003	GENERAL GAS/OIL BLR > N.G.C #6	1	5.00 MMBT			.66	7.87
	005	GENERAL GAS/OIL BLR	1	1.43 MMBT			.01	
	006	GENERAL GAS/OIL BLR	1	.35 MMBT			.01	.09
	007	GENERAL GAS/OIL BLR	1	.75 MMBT				
	008	- TRICHLOROETHYLENE	1	.05 GALS				
	009	- METHYL CHLOROFORM	1	.01 GALS				
	010	- MINERAL SPIRITS	3	.11 GALS				
	011	- ALCOHOLS	1	GALS				
	012	- TOLUENE - XYLENE	1	.01 GALS				
	014	- ALL OTHER SOLVENTS	1	.02 GALS				
	015	- SPRAY ENAMEL & PRIME	1	.02 GALS				
	016	ENGINE TEST STANDS	37	14.45 GALS				
	017	WOOD PLANERS, SAWS, ETC	4	TONS				
	018	WOOD SANDERS	1		FAB-FILTR			
	019	~~PRIME SPRAY BOOTH~~	1	GALS				
	021	OTHER POINT SOURCE NH_3 refrigerant	1	→ CLOSED REFRIG SYST.				
	022	OTHER POINT SOURCE Pb in exhaust	1	→ FROM TEST STANDS → MAY DELETE				
	024	OTHER POINT SOURCE Bromine,	1					
	025	OTHER SOLV. USE - MEK	1	GALS				
	026	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	027	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	028	WELDING AND BRAZING UNDER GRD.	1	.02 LBS.				
* B	029	GAS STORAGE	63	25.03 GALS				
	030	METAL DEGREASING	1	.04 GALS				
	031	GRINDERS, ETC.	10	TONS				

019 Same Booth added to 01's

(CHANGE 031 10 TO 2
8 are small pedestal grinders)

2 are controlled by fab filter

(gas storage tanks ≈ 200,000 gal/yr
emission limit on A920 shows
H_2C_y = 9.93 seems too high
AVE T° yr. round ≈ 55°F
Surveillance fee INVOICE shows
4.93 T/yr on 029)

$\frac{36}{41} \times .65 \times \frac{5}{41} \times 80$

9.8

5% 88% 65 12% 80

5720 400

$\frac{19}{380} = 5\%$

DEPT. OF NAT[illegible] RESOURCES
AIR QUALITY DIVISION

399-9600 Jeri 10:00 Rob Zimmerman

PRODUC 02/07/79

ETHYL CORP
ETHYL CORP
RESEARCH LAB
1600 W 8 MILE RD
FERNDALE 48220
A E HUFFMAN

DISTRICT NO. 03
COUNTY 63 OAKLAND
ESTAB. NO. A4646

STAFF ---------- NO. ----------
CONTACT ---------- DATE ----------

* = BILLED FOR SCHEDULED INVESTIGATION
S = SEMIANNUAL A = ANNUAL B = BIENNIAL

TOTAL TIME, HOURS ----------
PROJECTED TIME, HOURS ----------

	SID	---- SOURCE NAME ----	PIECES	AVG.-HOURLY-RATE	---------- CONTROLS ----------	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
* B	001	MULTIPLE CHAMBER INC.	1	400.00 LBS.			.14	.05
* B	002	GENERAL GAS/OIL BLR	1	5.00 MMBT			.52	7.95
* B	003	GENERAL GAS/OIL BLR	1	5.00 MMBT			.95	14.79
	005	GENERAL GAS/OIL BLR	1	1.43 MMBT			.01	
	006	GENERAL GAS/OIL BLR	1	.35 MMBT			.01	.09
	007	GENERAL GAS/OIL BLR	1	.75 MMBT				
	008	TRICHLOROETHYLENE ?	1	.01 GALS				
	009	METHYLCHLOROFORM ?	1	.02 GALS				
	010	MINERAL SPIRITS ? - cold cleaner	1	.05 GALS				
	011	ALCOHOLS ?	1	GALS				
	012	TOLUENE XYLENE MIX. ?	1	.01 GALS				
	014	ALL OTHER SOLVENTS ?	1	.02 GALS				
	015	SPRAY ENAMEL	1	.02 GALS				
	016	ENGINE TEST STANDS	37	20.77 GALS				
	017	WOOD PLANERS, SAWS, ETC	4	TONS				
	018	WOOD SANDERS	1	TONS	FAB-FILTR			
	019	SPRAY LACQUER	1	GALS				
→	020	FLOW COAT OTHER COAT	1	.04 GALS				
	021	OTHER POINT SOURCE- NH_3-REFRIGERANT	1	TONS				
	022	OTHER POINT SOURCE- Pb-ENG EXHAUST	1	~~TONS~~				
	024	OTHER POINT SOURCE- BR-	1	MCF				
	025	METHYL ETHYL KETONE	1	.01 GALS				
	026	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	027	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	028	WELDING AND BRAZING	1	.02 LBS.				

029 GASOLINE STORAGE
030 COLD CLEANER - METAL DEGREASER 1
031 BENCH GRINDERS 10

Z59055- 1370
03/04/78

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
AIR QUALITY DIVISION
REPORT OF ANNUAL INVESTIGATIONS

ETHYL CORP
ETHYL CORP
RESEARCH LAB
1600 W 8 MILE RD
FERNDALE 48220
A E HUFFMAN

DISTRICT NO. 03
COUNTY 63 OAKLAND
ESTAB. NO. A4646

STAFF ____ NO. ____
CONTACT ____ DATE ____

* = BILLED FOR SCHEDULED INVESTIGATION
S = SEMIANNUAL A = ANNUAL B = BIANNUAL

TOTAL TIME, HOURS ____ PROJECTED TIME, HOURS ____

	SIC	SOURCE NAME	PIECES	AVG.-HOURLY-RATE	CONTROLS	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
* B	CC1	MULTIPLE CHAMBER INC.	1	400.00 LBS.	Burners?		.14	.05
* B	CC2	GENERAL GAS/OIL BLR	1	5.00 MMBT	5%		2.14	14.71
* B	CC3	GENERAL GAS/OIL BLR	1	5.00 MMBT			1.17	7.95
	CC5	GENERAL GAS/OIL BLR ~~one 1.31 MM~~	1	1.43 MMBT			.01	
	CC6	GENERAL GAS/OIL BLR Boiler was dropped	1	.35 MMBT			.02	.05
	CC7	GENERAL GAS/OIL BLR	1	.75 MMBT				
	CC8	TRICHLORCETHYLENE	1	.01 GALS				
	CC9	METHYLCHLOROFORM	1	.01 GALS				
	C10	MINERAL SPIRITS	1	.05 GALS				
	C11	ALCOHOLS	1	GALS				
	C12	TOLUENE XYLENE MIX.	1	.01 GALS				
	C13	BENZENE	1	GALS				
	C14	ALL OTHER SOLVENTS	1	.02 GALS				
	C15	SPRAY ENAMEL	1	.01 GALS				
	C16	ENGINE TEST STANDS	37	10.54 GALS				
	C17	WOOD PLANERS,SAWS,ETC	4	TONS				
	C18	WOOD SANDERS	1	TONS	FAB-FILTR			
	C19	SPRAY LACQUER	1	GALS				
	C20	FLOW COAT OTHER COAT	1	.01 GALS				
	C21	OTHER POINT SOURCE	1	TONS				
	C22	OTHER POINT SOURCE	1	TONS				
	C23	OTHER POINT SOURCE	1	LBS.				
	C24	OTHER POINT SOURCE	1	MCF.				
	C25	METHYL ETHYL KETONE	1	.01 GALS				
	C26	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	C27	GENERAL GAS/OIL BLR	1	1.01 MMBT				
	C28	WELDING AND BRAZING ~~added in last year~~	1	.02 LBS.				

Last 11-4-75 MK.

11-10-77

FILE

A4646

ETHYL CORP
1600 W 8 Mile
Ferndale

The EI. Stack Data is
kinda bad.
Next inspection try to
resolve DJ

PROG. G78299F721

DEPT. OF NATURAL RESOURCES
AIR QUALITY DIVISION

DISTR T 03 COUNTY 63 OAKLAND

ESTAB NO.	SRC NO.	EQUIP ID CODE	EQUIPMENT-NAME	NO. PCS	HR DY	DY YR	RATED-CAPACITY AMOUNT	UNIT	MAT.-PROCESSED AMOUNT	UNIT	CO
A4646	001	0006	MULTIPLE CHAMBER INC	1	3	250	400.00	LBS.	39.0	TONS	
A4646	002	0018	BOILER KEELER 1	1	24	200	5.00	MMBT			
A4646	003	0018	BOILER KEELER 2	1	24	260	5.00	MMBT			
A4646	005	0018	BOILER AN	1	24	365	1.43	MMBT			
A4646	006	0018	BOILER AE	1	24	250	.35	MMBT			
A4646	007	0018	BOILER UA	1	8	80	.75	MMBT			
A4646	008	0031	TRICHLOROETHYLENE	1	8	250			10.0	GAL.	
A4646	009	0032	METHYLCHLOROFORM	1	8	250			39.5	GAL.	
A4646	010	0033	MINERAL SPIRITS	1	8	250			108.0	GAL.	
A4646	011	0034	METHANOL ETHANOL ISO	1	8	250			5.0	GAL.	
A4646	012	0036	TOLUENE XYLENE	1	8	250			20.0	GAL.	
A4646	014	0038	ALL OTHER SOLVENTS	1	8	250			30.0	GAL.	
A4646	015	0041	SPRAY ENAMEL	1	8	250			33.0	GAL.	
A4646	016	0079	ENGINE TEST STANDS	37	16	250			83078.0	GAL.	
A4646	017	0560	PLANER SAW ROUTER	4	8	250			.1	TONS	
A4646	018	0561	SANDER	1	8	250				TONS	FA
A4646	019	0043	SPRAY LACQUER	1	8	250			5.0	GAL.	
A4646	020	0057	FLOW COAT OTHER COAT	1	8	250			70.0	GAL.	
A4646	021	0999	OTHER POINT SOURCE	1	8	250			.6	TONS	
A4646	022	0999	LEAD COMPOUNDS	1	16	250				TONS	
A4646	024	0999	HANDLING LOSSES	1	8	250			.6	MCF.	
A4646	025	0035	METHYL ETHYL KETONE	1	8	250			15.0	GAL.	
A4646	026	0018	BOILER D1	1	12	150	1.01	MMBT			

SOURCE DATA REPORT LISTING

DISTRICT 03 COUNTY 63 OAKLAND

ESTAB NO.	SRC ID	EQUIP CODE	EQUIPMENT-NAME	NO. PCS	HR DY	DY YR	RATED-CAPACITY AMOUNT	UNIT	MAT.-PROCESSED AMOUNT	UNIT	CONT
A4646	027	0018	BOILER D2	1	12	150	1,01	MMBT			
A4646	028	0064	WELDING & BRAZING	1	8	250			30,0	LBS.	
A4646	001		**STACK DATA** HEIGHT= 30 FT. RECTANGULAR 1 FT 3 IN BY 1 FT 3 IN TE VOL-NORM= 1500 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 001 ZONE 17 EAST 323300 NORTH 4701500								
A4646	003		**STACK DATA** HEIGHT= 79 FT. CIRCULAR DIAMETER 4 FT 10 IN AT TOP TE VOL-NORM= 4000 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 002 003 ZONE 17 EAST 323300 NORTH 4701504								
A4646	004		**STACK DATA** HEIGHT= 44 FT. RECTANGULAR 2 FT 0 IN BY 2 FT 0 IN TE VOL-NORM= 800 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 026 027 ZONE 17 EAST 323305 NORTH 4701505								
A4646	005		**STACK DATA** HEIGHT= 25 FT. RECTANGULAR 1 FT 8 IN BY 1 FT 8 IN TE VOL-NORM= 600 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 005 ZONE 17 EAST 323300 NORTH 4701500								
A4646	006		**STACK DATA** HEIGHT= 21 FT. RECTANGULAR 1 FT 1 IN BY 1 FT 1 IN TE VOL-NORM= 200 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 006 ZONE 17 EAST 323300 NORTH 4701500								
A4646	007		**STACK DATA** HEIGHT= 21 FT. CIRCULAR DIAMETER 1 FT 0 IN AT TOP TE VOL-NORM= 300 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 007 ZONE 17 EAST 323300 NORTH 4701500								
A4646	008		**STACK DATA** HEIGHT= 32 FT. CIRCULAR DIAMETER 4 FT 0 IN AT TOP TE VOL-NORM= 0 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 016 024 021 ZONE 17 EAST 323300 NORTH 4701500								
A4648	001	0018	1	1	16	260	1,00	MMBT			
A4649	001	0018	GENERAL GAS/OIL BLR	1	24	300	2,70	MMBT			
A4649	002	0018	GENERAL GAS/OIL BLR	1	16	300	1,26	MMBT			
A4649	003	0031	TRICHLOROETHYLENE	2	16	250			27800,0	GAL.	
A4649	004	0033	MINERAL SPIRITS	3	16	250			165000,0	GAL.	
A4649	010	0640	FIVE LEAD POTS	5	16	250	71,00	TONS	50,0	TONS	SCR
A4649	001		**STACK DATA** HEIGHT= 50 FT. CIRCULAR DIAMETER 2 FT 0 IN AT TOP T VOL-NORM= 10000 CFM VOL-MAX= 0 CFM SOURCES-SERVED= 010 ZONE 17 EAST 000000 NORTH 4727300								

ETHYL CORPORATION
RESEARCH AND DEVELOPMENT DEPARTMENT · RESEARCH LABORATORIES
1600 WEST EIGHT MILE ROAD · FERNDALE, MICHIGAN 48220 · (313) 564-6940

September 29, 1976

District Office
Air Quality Division
2455 N. Williams Lake Road
Pontiac, Michigan 48054

Gentlemen:

Would you please send six blank "AQ 20 Equipment Identification" forms to:

Ethyl Corporation
1600 West 8 Mile Road
Ferndale, Michigan 48220
Att: A. E. Huffman

Thank you.

Very truly yours,

A. E. Huffman
Director Administration & Services

AEH:ma

Sent 10-1 ADH

Z59105- 1191
05/19/75

MICHIGAN DEPARTMENT OF NATURAL RESOURCES
DIVISION OF AIR POLLUTION CONTROL
REPORT OF ANNUAL INVESTIGATIONS

ETHYL CORP
ETHYL CORP
RESEARCH LAB
1600 W 8 MILE RD
FERNDALE 48220
A E HUFFMAN

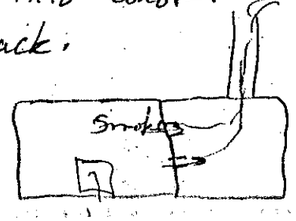
DISTRICT NO. 03
COUNTY 63 OAKLAND
ESTAB. NO. A4646

STAFF M. Khuri NO. 905
CONTACT A E Huffman DATE 11-4-75
TOTAL TIME, HOURS 2 hrs. PROJECTED TIME, HOURS 2 hrs.

* = BILLED FOR SCHEDULED INVESTIGATION
S = SEMIANNUAL A = ANNUAL B = BIANNUAL

	SID	SOURCE NAME	PCS	AVG. HOURLY RATE		CONTROLS	PART. % EFF	ESTIMATED EMISSIONS PART. T/Y	SO2 T/Y
* B	21001	MULTIPLE CHAMBER INCINERATOR	1	400.00	LBS			.16	.06
* A	22001	GENERAL GAS/OIL BOILER	1	5.00	MMBTU			1.75	11.93
* A	22002	GENERAL GAS/OIL BOILER	1	5.00	MMBTU			.97	6.36
	22003	GENERAL GAS/OIL BOILER	1	1.31	MMBTU			.01	
	22004	GENERAL GAS/OIL BOILER	1	1.43	MMBTU			.02	
	22005	GENERAL GAS/OIL BOILER	1	.35	MMBTU			.02	.05
	22006	GENERAL GAS/OIL BOILER	1	.75	MMBTU				
	23001	TRICHLORETHYLENE	1	.01	GALS				
	23002	METHYLCHLORFORM	1	.02	GALS				
	23003	MINERAL SPIRITS NAPTHA	1	.03	GALS				
	23004	METHANOL ETHANOL ISOPROPANOL	1		GALS				
	23005	TOLUENE XYLENE MIX	1	.01	GALS				
	23006	BENZENE	1		GALS				
	23009	ALL OTHER ORGANIC SOLVENTS	1	.04	GALS				
	23010	SPRAY ENAMEL SOLVENT BASE	1	.03	GALS				
* A	23012	ENGIN TEST STANDS	37	6.83	GALS	FAB-FILTR			
	23013	WOOD PLANERS, SAWS, ROUTERS	4		TONS				
	23014	WOOD SANDERS	1		TONS	FAB-FILTR			
	23301	SPRAY LACQUER SOLVENT BASE	1		GALS				
	23302	OTHER SOLVENT BASE COATINGS	1	.01	GALS				
	23303	OTHER POINT SOURCE	1		TONS				
	23304	OTHER POINT SOURCE	1		TONS				
	23305	OTHER POINT SOURCE	1	.03	TONS				

Incinerator was claimed to be a multiple Chamber inc. But it is not. No fuel is used. Cardboard, paper and wood scrapes are burned in a Chamber Smoke moves into another Chamber and then out of a stack.



EG
Yellow

RECEIVED
MAR 15 2007
AIR QUALITY DIV.
SEMI OFFICE

CJE

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-006-07

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2006 thru 12 / 2006 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

Contact for Technical Information, if other than Owner/Operator:

Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator

3-12-2007
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

HAYES LEMMERZ™
INTERNATIONAL, INC.

RRP yellow

February 8, 2006

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
27700 Donald Court
Warren, MI 48092

Subject: Rule 208a Annual Renewal Registration Form and 2005 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2005 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2005.

If you have any questions please contact me at (248) 397-2239

Sincerely,

David Miller

Facility Manager

attachments

Hayes Lemmerz International, Inc.
Technical Center
1600 W. Eight Mile Road • Ferndale, MI 48220 USA
PH: 248 399•9600

ATTACHMENT 1

RULE 208A ANNUAL RENEWAL REGISTRATION FORM
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

yellow RRP

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RECEIVED
FEB 10 2006
AIR QUALITY DIV.
SEMI OFFICE

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-002-06

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2005 thru 12 / 2005 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Guilliams, Gregory
(Last, First)
Title: Director, Technical Services

Phone: (248) 397-2239 Ext.:

Contact for Technical Information, if other than Owner/Operator:
Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator — Date: 2/9/06

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

JD yellow

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-003-05

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2004 thru 12 / 2004 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Guilliams, Gregory
(Last, First)
Title: Director, Technical Services

Phone: (248) 397-2239 Ext.:

RECEIVED MAR 1 2005 AQD

Contact for Technical Information, if other than Owner/Operator:
Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practises for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator

3/1/05
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

FL
yellow

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-006-04

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2003 thru 12 / 2003 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Guilliams, Greg
(Last, First)
Title: Director, Technical Services

Phone: (248) 397-2239 Ext.:

Contact for Technical Information, if other than Owner/Operator:
Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

RECEIVED
MAR 10 2004
AIR QUALITY DIV.
SE MI OFFICE

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator 3/9/04 Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

FL
yellow

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LU-025-97
RENEWAL REGISTRATION NUMBER: 63-003-03

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2002 thru 12 / 2002 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Greg Guilliams
(Last, First)
Title: Director, Technical Services

Phone: (248) 397-2239 Ext.:

RECEIVED
MAR 5 2003
AIR QUALITY DIVISION
LIVONIA OFFICE

Contact for Technical Information, if other than Owner/Operator:
Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator

2/28/03
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

Yellow FL

HAYES LEMMERZ™
INTERNATIONAL, INC.

March 4, 2002

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road Livonia, MI 48152

Subject: Rule 208a Annual Renewal Registration Form and 2001 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2001 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2001.

If you have any questions please contact me at (248) 397-2239

Sincerely,

David Miller
Facility Manager

enclosure

RECEIVED
MAR 7 2002
AIR QUALITY DIVISION
LIVONIA OFFICE

FL

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-025-02

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Rd.

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2001 thru 12 / 2001 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Zekind, Diane
(Last, First)
Title: Director, Technical Services

Phone: (248) 397-2239 Ext.:

RECEIVED
MAR 7 2002
AIR QUALITY DIVISION
LIVONIA OFFICE

Contact for Technical Information, if other than Owner/Operator:
Name: Miller, David
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Dave M. Lynch
Signature of Owner or Operator

3/5/2002
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RECEIVED
MAR 23 2001
AIR QUALITY DIVISION
LIVONIA OFFICE

FSL

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LV-025-97
RENEWAL REGISTRATION NUMBER: 63-011-01

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes Lemmerz Technical Center

Facility Address: 1600 W. Eight Mile

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 2000 thru 12 / 2000 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Diane Zekind
(Last, First)
Title: Director Technical Services

Phone: (248) 399-9600 Ext.: _____

Contact for Technical Information, if other than Owner/Operator:
Name: David Miller
(Last, First)
Title: Facilites Manager

Phone: (248) 399-9600 Ext.: _____

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Signature of Owner or Operator

3/21/2001
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

HAYES LEMMERZ™
INTERNATIONAL, INC.

March 21, 2001

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road Livonia, MI 48152

Subject: Rule 208a Annual Renewal Registration for Hayes Lemmerz Technical Center

State Registration No. A4646

Enclosed please find a completed Rule 208a Annual Renewal Registration form for Hayes Lemmerz Technical Center, Inc. located in Ferndale, Oakland County.

If you have any questions please contact me at (248) 397-2239

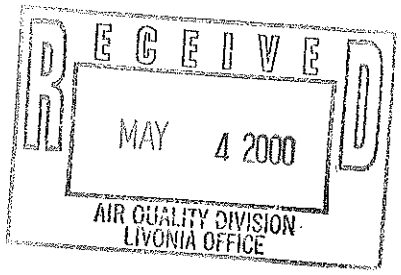
Sincerely,

David Miller

Facility Manager

enclosure

Yellow



FSL
5-16-00

March 28, 2000

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road
Livonia, MI 48152

Subject: Rule 208a Annual Renewal Registration for Hayes-Lemmerz Technical Center
State Registration No. A4646

Enclosed please find a completed Rule 208a Annual Renewal Registration form for Hayes-Lemmerz Technical Center, Inc. located in Ferndale, Oakland County (formerly CMI Tech Center, Inc.).

If you have any questions please contact me at (248) 397-2239

Sincerely,

HAYES-LEMMERZ TECHNICAL CENTER, INC.

David Miller
Facility Manager

enclosure

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: LU-025-97
RENEWAL REGISTRATION NUMBER: 63-05-00

RECEIVED MAY 4 2000 AIR QUALITY DIVISION LIVONIA OFFICE

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: Hayes-Lemmerz Technical Center, Inc.

Facility Address: 1600 W. Eight Mile Road

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01 / 1999 thru 12 / 1999 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Diane M. Zekind
(Last, First)
Title: Director - Technical Services

Phone: (248) 397-2239 Ext.:

Contact for Technical Information, if other than Owner/Operator:

Name: David Miller
(Last, First)
Title: Facility Manager

Phone: (248) 397-2239 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Diane M. Zekind
Signature of Owner or Operator

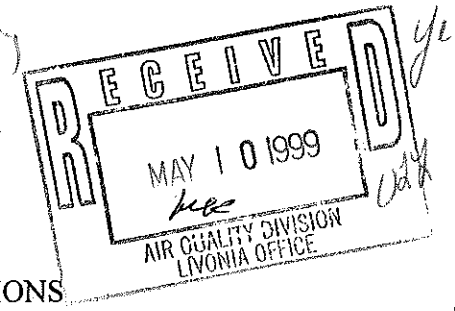
3/31/2000
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

DEQ

Michigan Department of Environmental Quality
Air Quality Division



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RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY	INITIAL REGISTRATION NUMBER: LV-025-97
	RENEWAL REGISTRATION NUMBER: 63-017-99

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: CMI - Tech Center Inc

Facility Address: 1600 W. Eight Mile Road

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01/1998 thru 12/1998 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Diane M. ZeKind
(Last, First)
Title: Director - Technical Services

Phone: (248) 399-9600 Ext.: _____

Contact for Technical Information, if other than Owner/Operator:
Name: _____
(Last, First)
Title: _____

Phone: _____ Ext.: _____

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Diane M. ZeKind
Signature of Owner or Operator

MAY 3, 1999
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

Emission Calculations for Engines 500 HP and Larger

SRN Number A4646
Point Number DV00001
Engine Test Cells

Gasoline

1998 Usage	= 0 gallons
Density	= 7.32 lbs/gal
Heat Value	= 20,300 btu/lb

Diesel Fuel

1998 Usage	= 4765 gallons
Density	= 7.1 lbs/gal
Heat Value	= 19,500 btu/lb

Emission Factors

Pollutant	Gasoline		Diesel Fuel	
	Emission factor	Source	Emission factor	Source
NO_x	0.18 lbs/gal	AAMA	4.41 lbs/mmbtu	AP-42
CO	3.12 lbs/gal	AAMA	0.95 lbs/mmbtu	AP-42
PM_{10}	0.10 lbs/mmbtu	AP-42	0.31 lbs/mmbtu	AP-42
SO_x	0.084 lbs/mmbtu	AP-42	0.29 lbs/mmbtu	AP-42
TOC	0.16 lbs/gal	AAMA	0.36 lbs/mmbtu	AP-42

AAMA – American Automobile Manufactuer's Association

Emissions from Diesel Fuel (SCC 2-04-004-02)

CO – Carbon Monoxide
4765 gallons X 7.1 lbs/gal X 19,500 btu/lb / 10^6 btu/mmbtu X 0.95 lb/mmbtu = 627 lbs or 0.31 tons

NO_x – Oxides of Nitrogen
4765 gallons X 7.1 lbs/gal X 19,500 btu/lb / 10^6 btu/mmbtu X 4.41 lb/mmbtu = 2909 lbs or 1.45 tons

PM_{10} – Particulate Matter less than 10 microns and PM Particulate Matter
4765 gallons X 7.1 lbs/gal X 19,500 btu/lb / 10^6 btu/mmbtu X 0.31 lb/mmbtu = 205 lbs or 0.10 tons

SO_x – Sulfur Dioxide
4765 gallons X 7.1 lbs/gal X 19,500 btu/lb / 10^6 btu/mmbtu X 0.29 lb/mmbtu = 191 lbs or 0.096 tons

TOC – Total Organic Carbon
4765 gallons X 7.1 lbs/gal X 19,500 btu/lb / 10^6 btu/mmbtu X 0.36 lb/mmbtu = 237 lbs or 0.0.12 tons

PB – Lead
Emission factor for lead = 0.05 gm/gal
4765 gallons X 0.05 gms/gal X 2.2 lbs/1000 gm X 1 ton/2000 lbs = 0.0003 tons

Emissions from Gasoline (SCC 2-04-004-01)

All emissions are zero.

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY INITIAL REGISTRATION NUMBER: _____
RENEWAL REGISTRATION NUMBER: _____

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: CMI - Tech Center Inc

Facility Address: 1600 W. Eight Mile Road

City: Ferndale State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01/1998 thru 12/1998 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Diane M. ZeKind
(Last, First)
Title: Director - Technical Services

Phone: (248) 399-9600 Ext.: _____

Contact for Technical Information, if other than Owner/Operator:
Name: _____
(Last, First)
Title: _____

Phone: _____ Ext.: _____

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Diane M. ZeKind
Signature of Owner or Operator

MAY 3, 1999
Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

DEQ

Michigan Department of Environmental Quality
Air Quality Division

RECEIVED
APR 22
AIR QUALITY DIVISION
LIVONIA OFFICE

RULE 208a ANNUAL RENEWAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (4) completion of this renewal registration is required to legally maintain a limit on a stationary source's potential emissions in accordance with Rule 336.1208a. Certification for this annual renewal registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of Rule 208a shall constitute a violation of this rule.

FOR AQD USE ONLY	INITIAL REGISTRATION NUMBER: LV-025-97
	RENEWAL REGISTRATION NUMBER: 63-014-98

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: CMI-TECH CENTER, INC.

Facility Address: 1600 WEST EIGHT MILE ROAD

City: FERNDALE State: MI ZIP: 48220 County No.: 63

RENEWAL INFORMATION:

Specify 12 month reporting period: 01/ 97 thru 12 / 97 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: RUFF GARY, DR.
(Last, First)
Title: EXECUTIVE VICE PRESIDENT / CHIEF TECHNICAL OFFICER

Phone: 248-399-9600 Ext.:

Contact for Technical Information, if other than Owner/Operator:
Name: NORTON JEFF
(Last, First)
Title: ENVIRONMENTAL ENGINEER

Phone: 248-399-9600 Ext.:

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. (III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2)of this rule.

Gary J Ruff — Signature of Owner or Operator

APRIL 21, 1998 — Date

Submit completed registration to the address of the appropriate district office or Wayne County as listed on reverse side of this form.

EQP 5735 (10/97)

ATTACHMENT D

DEQ
Michigan Department of Environmental Quality, Air Quality Division

RULE 208a INITIAL REGISTRATION

LIMITING POTENTIAL TO EMIT BASED ON ACTUAL EMISSIONS

Pursuant to Michigan Rule 336.1208a (Rule 208a) completion of this registration is required in order to legally limit a stationary source's potential emissions. Certification for this registration by the owner or operator will allow the source to avoid being subject to Michigan's Renewable Operating Permit program requirements. Failure to comply with any of the applicable provisions of this rule shall constitute a violation of this rule.

FOR AQD USE ONLY REGISTRATION NUMBER: LV-025-97

Please print clearly.

REGISTRATION IDENTIFICATION:

AQD Source ID (SRN): A4646 Primary SIC Code: 8734

Source Name: CMI - Tech Center, Inc.

City: Ferndale State: MI ZIP: 48220 County No.: 63

REGISTRATION INFORMATION:

Documentation demonstrating compliance with Rule 208a(2)(a)(i) must be included.

Indicate type of attachment: ____ Attached tables only X Attached tables w/additional documentation

Specify 12 month reporting period: 01 / 1996 through 12 / 1996 (month/year)

OWNER/OPERATOR REGISTRATION CERTIFICATION:

Name: Ruff, Gary Ph.D
(Last, First)

Title: President

Phone: 810-399-9600 Ext.: ____

Contact for Technical Information, if other than Owner/Operator:

Name: Norton, Jeff
(Last, First)

Title: Environmental Engineer

Phone: 810-399-9600 Ext.: ____

CERTIFICATION: I hearby certify to the following for the preceding 12 month period: I) Based on information and belief formed after reasonable inquiry, the information on the registration form is true, accurate, and complete. II) That all threshold levels specified in subrule (1) of this rule were met during the preceding 12-month period and will continue to be complied with as legally enforceable conditions for the stationary source and that the recordkeeping and reporting requirements of subrules (5) and (6) of this rule are being met and will continue to be met. III) That, during the preceding 12-month period, the air pollution control equipment was maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions as specified in subrule (2) of this rule and shall continue to be maintained and operated in a manner consistent with good air pollution control practices for minimizing emissions as specified in subrule (2) of this rule.

Gary Ruff
Signature of Owner or Operator

3/12/97
Date

Submit completed registration and attachments to the address of the appropriate district office or Wayne County.

RV

CMI-Tech Center, Inc.

1600 WEST EIGHT MILE ROAD
FERNDALE, MICHIGAN 48220
PHONE: (810)399-9600
FAX: (810)414-6278

March 14, 1997

District Supervisor
Air Quality Division
Michigan Department of Environmental Quality
Southeast District 10 Office
38390 West Seven Mile Road
Livonia, Michigan 48152

Re: **Rule 208(a) Initial Registration Submittal for CMI-Tech Center, Inc.**

Dear Sir and/or Madam:

Enclosed please find one copy of the Rule 208(a) Initial Registration and one copy of the 1996 MAPR submittal for CMI-Tech Center, Inc., located in Ferndale, Michigan.

Back up calculations relative to the AQ-29 forms can be found in the Rule 208(a) Registration.

If you need any additional information beyond that which is attached, please do not hesitate to call me.

Sincerely,

Jeffrey Norton

LV-025-97

BRAUN[SM]
INTERTEC

Rule 208a Initial Registration For CMI-Tech Center, Inc.

CMI-Tech Center
1600 W. Eight Mile Rd
Ferndale, Michigan 48220

Project LMXX-96-0004
March 13, 1997

Swanson Environmental,
A Braun Intertec Company

Engineers and Scientists Serving the Built and Natural Environments

TABLE OF CONTENTS

Table 1
Actual Emissions Summary

AQD Source ID (SRN) _____

Process/Process Equipment Description (not including control equipment)	Permit Number (if applicable)	Individual Hazardous Air Pollutant (HAP)	Annual Actual HAP Emissions (TPY)	Criteria Pollutants	Annual Actual Criteria Emissions (TPY)
Natural Gas Combustion - Heaters and Boilers Individual devices listed below. Breakdown of fuel usage in individual devices is not available.	Exempt 282.b.i			CO NOx PM SO2 VOC	0.26 0.61 0.072 0.0039 0.071
Gasoline Combustion - Engine Test Cells Individual test cells listed below. Same test cells used for all fuel tests. Fuel usage for individual cells not available.	Exempt 285.d (b)			CO NOx Pb PM SO2 VOC	46.8 2.7 0.0017 0.22 0.19 2.4
Diesel Fuel Consumption - Engine Test Cells Individual test cells listed below. Same test cells used for all fuel tests. Fuel usage for individual cells not available.	Exempt 285.d (b)			CO NOx Pb PM SO2 VOC	0.33 1.53 0.00028 0.11 0.1 0.12
Prototype Development (Aluminum casting/mold making)	Exempt 283.1.vi	Naphthalene Phenol	0.000032 0.0001	NOx PM SOx VOC	0.0021 0.025 0.0031 0.0043
Storage Tanks	Exempt 284			VOC	0.15
Woodshop	Exempt 285.i.vi			PM	0

Table 2
Stationary Source Totals
AQD Source ID (SRN)_____

Each Hazardous Air Pollutant (HAP)	Each HAP Total (T/Yr)
Phenol	0.000032
Naphthalene	0.0001
Total of All Stationary Source HAPs	2.75

Criteria Pollutants	Criteria Totals (T/Yr)
Lead	0.002
SO2	0.3
NOx	4.84
CO	47.4
PM-10	0.43
VOC	2.75

Executive Summary

CMI-Tech Center, Inc. is submitting this 208a Registration Application to obtain federally enforceable emissions limits, in order to exempt the facility from requirements to obtain a Title V renewable operating permit (ROP) under the Michigan ROP program. CMI-Tech Center, which is located in Ferndale, Michigan, is a major source due to potential emissions of carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC) and total hazardous air pollutants (HAPs) which exceed major source thresholds. However, the actual emissions for all pollutants at the facility were less than 50% of major source thresholds in 1996. Therefore, CMI is eligible for 208a registration status, and is submitting this application accordingly. Actual emissions from CMI-Tech Center are listed in the table below.

Total Emissions from CMI-Tech Center

Pollutant	Emissions (tons)
CO	47.4
NOx	4.84
Pb	0.0020
PM	0.43
SO2	0.30
VOC	2.75
Phenol	0.000032
Naphthalene	0.0001
Total HAPs	2.75

A. Introduction

CMI-Tech Center is providing this 208a Registration Application to satisfy the requirements of Michigan Rule 336.1208, and obtain federally enforceable emissions limits to exempt the CMI-Tech Center facility from the requirement to obtain a Title V renewable operating permit (ROP). The CMI-Tech Center, located at 1600 W. Eight Mile Road in Ferndale, tests internal combustion engines; and also designs, builds and tests components for the automotive sector.

The potential to emit for carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC), and total hazardous air pollutants (HAP) all exceed the major source thresholds for Michigan's ROP program. However, the actual emissions for these pollutants are less than 50 percent of the major source thresholds. Therefore, CMI-Tech Center is eligible for 208a Registration status.

B. Processes With Potential Air Emissions

The major source of emissions from the CMI-Tech Center are internal combustion engines tested at the facility. Engines are tested using four dynamometers designed for testing engines up to 600 HP, as well as a hot room for testing engines at temperatures up to 130° F and a cold room for testing engines at temperatures as low as -40° F. Other processes at the plant include the development of prototype parts which involves melting and casting aluminum ingots, mixing sand for molds, and use of a woodshop; the storage of fuels (unleaded gasoline, diesel fuel); a natural gas air compressor; and natural gas boilers and hot water heaters. A list of all non trivial emission units is Appendix A.

B.1 Emissions From Engine Testing

Emissions from the engine test cells were calculated using emission factors from the American Automobile Manufacturer's Association (AAMA) and AP-42. CMI-Tech Center considers the AAMA factors to be more accurate than AP-42, since they are based on stack test results from similar engine testing facilities. Therefore, AAMA emission factors were used when available. AP-42 emission factors were used for calculations when AAMA factors were not available. Lead emissions were calculated assuming a lead content of 0.05 gm/gal for the fuels used.

Actual emissions were calculated using 1996 fuel usage, which was 30,000 gallons of gasoline and 5000 gallons of diesel fuel. No breakdown of the amounts of fuel used in each engine test

cell was available, so total emissions for all test cells were calculated. Since the emission factors uses are identical for all engine test cells, no error is introduced by calculating facility-wide emissions, as opposed to calculating emissions for each individual cell. Table 1 below lists the emission factors used for calculating emissions from the engine test cells, and Table 2 lists the total emissions from the fuel cells.

Table 1
Emission Factors Used For Calculating Test Cell Emissions

Pollutant	Gasoline Emission Factors (AP-42 and AAMA)	AP-42 Factors Diesel (lbs/MMBTU)
NOx	0.18 lbs/gal (AAMA)	4.41
CO	3.12 lbs/gal (AAMA)	0.95
PM_{10}	0.10 lbs/MMBTU (AP-42)	0.31
SOx	0.084 lbs/MMBTU (AP-42)	0.29
TOC	0.16 lbs/gal (AAMA)	0.36

OK.

Table 2
Total Emissions From Test Cells

Pollutant	Actual Emissions Gasoline Combustion (TPY)	Actual Emissions Diesel Combustion (TPY)
CO	46.8	0.33
NOx	2.7	1.53
Pb	0.0017	0.00028
PM_{10}	0.22	0.11
SO_2	0.19	0.10
VOC	2.4	0.12

B.1.1 Actual 1996 Emissions From Gasoline Usage:

NOx Emissions: 0.18 lbs/gal x 30,000 gal x 1 ton/ 2000 lbs = 2.7 tons

CO Emissions: 3.12 lbs/gal x 30,000 gal x 1 ton/ 2000 lbs = 46.8 tons

TOC Emissions: 0.16 lbs/gal x 30,000 gal x 1 ton/ 2000 lbs = 2.4 tons

Gasoline usage (MMBTU): 26,080 gal x 7.32 lb/gal x 20,300 BTU/lb = 4460 MMBTU

SOx Emissions: 4460 MMBTU x 0.084 lbs/MMBTU x 1 ton/ 2000 lbs = 0.19 tons

PM_{10} Emissions: 4460 MMBTU x 0.10 lbs/MMBTU x 1 ton/ 2000 lbs = 0.22 tons

B.1.2 Actual 1996 Emissions From Diesel Fuel Usage:

Diesel Fuel usage (MMBTU): 5000 gal x 7.1 lb/gal x 19,500 BTU/lb = 692 MMBTU

NOx Emissions: 692 MMBTU x 4.41 lbs/MMBTU x 1 ton/ 2000 lbs = 1.53 tons

CO Emissions: 692 MMBTU x 0.95 lbs/MMBTU x 1 ton/ 2000 lbs = 0.33 tons

SOx Emissions: 692 MMBTU x 0.29 lbs/MMBTU x 1 ton/ 2000 lbs = 0.10 tons

PM_{10} Emissions: 692 MMBTU x 0.31 lbs/MMBTU x 1 ton/ 2000 lbs = 0.11 tons

TOC Emissions: 692 MMBTU x 0.36 lbs/MMBTU x 1 ton/ 2000 lbs = 0.12 tons

B.1.3 Actual 1996 Lead Emissions:

Gasoline: 30,000 gal x 0.05 gm/gal x 2.2 lbs/1000g x 1ton/ 2000 lbs = 0.0017 tons.

Diesel: 5,000 gal x 0.05 gm/gal x 2.2 lbs/1000g x 1ton/ 2000 lbs = 0.00028 tons.

B.2 Emissions From Natural Gas Combustion

Emissions from boilers and furnaces were calculated using AP-42 emission factors, which are listed in Table 3. Actual emissions were calculated using 1996 gas usage, which was 12,894.6 MCF. Since a breakdown of gas usage in individual boilers and furnaces was not available, actual emissions were calculated on a facility-wide basis. Emission factors for boilers with a maximum heat input capacity of less than 0.3 MMBTU/hr were used when calculating the emissions. CMI-Tech Center operates two natural gas aluminum holding furnaces with heat input capacities exceeding this threshold, but these two furnaces only comprise 7.4% of the total heat input capacity of CMI-Tech Center, and one of these furnaces was not used in 1996. Thus, any error from using only the one set of emission factors for actual emissions should be small. CMI-Tech Center also has a natural-gas fired compressor, however, this compressor was not used in 1996.

Table 3
AP-42 Emission Factors

Pollutant	Factor, input < 0.3 MMBTU/hr (lbs/MMCf)	Factor, input > 0.3 MMBTU/hr (lbs/MMCf)
CO	40	21
NOx	94	100
PM	11.18	12
SO_2	0.6	0.6
VOC	11	8

Table 4
Emissions From Natural Gas Combustion

Pollutant	Actual Emissions (tons)
CO	0.26
NOx	0.61
PM	0.072
SO_2	0.0039
VOC	0.071

B.2.1 Calculations for Actual Emissions From Natural Gas Combustion:

CO: $\frac{12.9 \text{ MMCF} \times 40 \text{ lbs/MMCF}}{2000 \text{ lb/ton}} = 0.26 \text{ TPY}$

NOx: $\frac{12.9 \text{ MMCF} \times 94 \text{ lbs/MMCF}}{2000 \text{ lb/ton}} = 0.61 \text{ TPY}$

PM: $\frac{12.9 \text{ MMCF} \times 11.18 \text{ lbs/MMCF}}{2000 \text{ lb/ton}} = 0.0721 \text{ TPY}$

SO_2: $\frac{12.9 \text{ MMCF} \times 0.6 \text{ lbs/MMCF}}{2000 \text{ lb/ton}} = 0.0039 \text{ TPY}$

VOC: $\frac{12.9 \text{ MMCF} \times 11 \text{ lbs/MMCF}}{2000 \text{ lb/ton}} = 0.071 \text{ TPY}$

B.3 Emissions From Aluminum Casting Operations

Emissions from aluminum casting include emissions from the melting, fluxing and casting of the aluminum, as well as emissions from the mold-making process. The casting operations are used to produce prototype parts, and are operated on an intermittent basis. Approximately 2.5 tons of aluminum and 10 tons of sand were used in 1996.

B.3.1 Emissions from Aluminum Smelting

Emissions from the natural gas combustion in the aluminum holding furnaces were included with the boiler and furnace calculations (Section B.2). Emissions from aluminum smelting were calculated using factors from the Aerometric Information Retrieval Subsystem (AIRS) since no reliable AP-42 emission factors were available.

It is assumed that all emissions from the furnaces, other than those from the combustion of natural gas, occur while the aluminum is melting or during fluxing, not after. Under this assumption, all emissions are from the two gas furnaces used to melt the aluminum ingots, while the two electric holding furnaces have no actual emissions. Fluxing of the aluminum is performed, so emissions are also calculated for this process using AIRS emission factors. Table 5 lists the emission factors used for aluminum smelting and fluxing, and Table 6 lists the combined emissions from both furnaces for aluminum smelting, not including the emissions from natural gas combustion.

Table 5
Emission Factors For Aluminum Smelting

Pollutant	Crucible Furnace Factor (lbs/ton)	Fluxing Emission Factor (lbs/lb flux)
PM	1.7	0.5
SOx	2.5	-
NOx	1.7	-
VOC	2.5	-

Table 6
Total Emissions From Aluminum Casting and Fluxing

Pollutant	Actual Emissions (tons)
PM_{10}	0.0023
SOx	0.0031
NOx	0.0021
VOC	0.0031

B.3.1.1 Calculations of Emissions from Aluminum Casting

Actual Al usage in 1996: 2.5 tons

PM Emissions: 2.5 tons x 1.7 lbs PM/ ton Al x 1 ton/2000 lbs = 0.0021 tons

SOx Emissions: 2.5 tons x 2.5 lbs SOx/ ton Al x 1 ton/2000 lbs = 0.0031 tons

NOx Emissions: 2.5 tons x 1.7 lbs NOx/ ton Al x 1 ton/2000 lbs = 0.0021 tons

VOC Emissions: 2.5 tons x 2.5 lbs VOC/ ton Al x 1 ton/2000 lbs = 0.0031 tons

B.3.1.2 PM Emissions from Fluxing

2.5 tons Al x 0.34 lbs flux/ton x 1 lb PM/2 lbs flux x 1 ton/2000 lb = 0.00021 tons

B.3.2 Emissions From Sand Mixing and Pouring

Emissions from sand mixing and mold making are calculated using AP-42 emission factors to determine particulate emissions and material balance equations to determine VOC and HAP emissions. All volatile compounds in the resin are assumed to evaporate from the molds during the mixing and mold-making operations. Appendix B contains material safety data sheets (MSDS) used to determine material constituents.

The emissions given off from the molds during casting operations are calculated using AP-42 factors. AP-42 factors for iron foundries are used to calculate particulate emissions from sand mixing and pouring operations, since factors for aluminum foundries are not listed. Actual emissions are calculated using 1996 usage records. Table 7 lists the emissions calculated from sand mixing.

Table 7
Emissions from Sand Mixing, Mold Making and Pouring

Pollutant	Actual Emissions (tons)
PM_{10}	0.023
VOC	0.00121
Phenol	0.000032
Naphthalene	0.0001

B.3.2.1 Emissions of PM_{10} From Sand Mixing

Sand usage, 1996: 10 tons
AP-42 Emission Factor: 3.6 lbs PM/ ton sand

Actual Emissions:

10 tons sand x 3.6 lbs PM/ton sand x 1 ton/2000 lbs = 0.018 tons

B.3.2.2 Emissions of VOCs and HAPs From Resin

The resin consists of five components which are mixed in equal parts. Table 8 lists the components, as well as the amount of VOCs and HAPs in each.

Table 8
VOC and HAP Content of Resin Components

Component	Volatile (%)	Phenol (%)	Naphthalene (%)
23-134	40	-	3
20-165	58	8	3
23-133	45	-	3
17-717	85	-	9
17-772	75	-	7

Resin usage, 1996: 4 lbs (each ingredient: 20%)
Average VOC content of resin: 60.6%
Average Naphthalene content of resin: 5%
Average Phenol content of resin: 1.6%

Actual VOC Emissions:

4 lbs resin x 0.606 x 1 ton/2000 lbs = 0.00121 tons

Actual Phenol Emissions:

4 lbs resin x 0.016 x 1 ton/2000 lbs = 0.000032 tons

Actual Naphthalene Emissions:

4 lbs resin x 0.05 x 1 ton/2000 lbs = 0.0001 tons

B.3.2.3 Emissions of Particulate Matter From Pouring

Emission Factor (AP-42): 4.2 lbs/ton
Actual Emissions:

4.2 lbs PM/ton Al x 2.5 tons Al x 1 ton/2000 lbs = 0.00525 tons

B.4 Fuel Storage Tanks

Emissions from the fuel storage tanks used to store diesel fuel and gasoline (P056-P058) are calculated using the procedures in section 7.1 of AP-42. AP-42 contains methods for calculating two types of loss from tanks: standing losses due to evaporation during storage, and working losses due to evaporation during loading and unloading. Emissions from the temporary propane tank (P059) are considered to be negligible, since the propane tank is a pressure tank that will not have emissions during normal operations.

The standing losses from the underground gasoline storage tank P056 are expected to be negligible, since the temperature variations are small for underground tanks. The actual emissions due to working loss are calculated using the 1996 fuel usage records. Table 9 lists the losses calculated from the gasoline storage tanks. The temporary gasoline storage tank (P058) was not used in 1996, and had no emissions.

The standing losses are calculated for the diesel fuel tank assuming that the tank normally holds approximately 400 gallons.The actual working losses are calculated using 1996 usage. Table 9 lists the losses calculated from the storage tanks.

Table 9
Emissions From Fuel Storage

Process	Actual Standing Losses (tons)	Actual Working Losses (tons)
P056	negligible	0.15
P057	0.00	0.00
P058	negligible	negligible
P059	negligible	negligible

B.5 Wood shop Emissions

The wood shop includes a 36" band saw, drill press, Power Matic Finisher, circular saw, 18" joiner, 20" disc sander, spindle sander and a Rahn Rotor. The equipment is used for prototype production. A Tenkay Dust Collector is used to control particulate emissions from the process.

Because the shop is small and is not used on a regular production basis, and the exhaust passes through a dust collector, any particulate emissions should be negligible.

B.5 Total Emissions From CMI-Tech Center.

Table 10 contains the total actual emissions from the CMI-Tech Center. The total HAPs were calculated by summing the individual HAPs emissions with all VOC emissions. This provides a conservative value for total HAP emissions that is larger than the true value, since not all VOCs emitted from the facility are also HAPs.

Table 10
Total Emissions from CMI-Tech Center

Pollutant	Emissions (tons)
CO	47.4
NOx	4.84
Pb	0.0020
PM	0.43
SO2	0.30
VOC	2.75
Phenol	0.000032
Naphthalene	0.0001
Total HAPs	2.75

C. Material Usage Monitoring and Recordkeeping

CMI-Tech Center is proposing that any natural gas, gasoline or diesel fuel usage monitoring or recordkeeping requirements be plant-wide requirements, as opposed to requirements for individual devices or processes. CMI-Tech Center currently monitors the plant-wide

consumption of natural gas, as well as the total fuel consumed while testing the internal combustion engines. Individual engine test cells and natural gas consuming devices do not have monitors.

The use of plant-wide gasoline and diesel fuel consumption as opposed to fuel consumption in individual test cells will not have any impact on calculated emissions from engine test cells, since the same emission factors are used to calculate the emissions from gasoline and diesel fuel combustion in all four dynamometers and the hot and cold test rooms.

All natural gas combustion at the plant takes place in boilers, ovens and heaters which have the same AP-42 emission factors, except for a natural gas compressor which is rarely used (it wasn't used at all in 1995 or 1996) and the two aluminum melting furnaces. The two furnaces comprise seven percent of the total heat input of all furnaces, ovens and heaters at the plant, and the emission factors for these furnaces are either smaller than the emission factors used, or differ from the emissions factors used by less than ten percent (Table 3). Furthermore, the emissions due to natural gas consumption compose a relative minor part of the total emissions from the facility. Therefore, any under estimation of emissions from the use of one set of emission factors on a plant-wide basis will be insignificant.

Therefore, CMI-Tech Center considers fuel monitoring on a plant-wide basis to be sufficient to establish compliance with Rule 208a emission limits.

D. Conclusion

The total actual emissions for each pollutant emitted from the CMI-Tech Center are less than 50% of the major source thresholds under the Michigan ROP program, and are less than the emission limits of Michigan Rule 208a. Therefore, CMI-Tech Center is eligible for registration status under Rule 208a, and is accordingly submitting this registration status application.

Appendix A

Title V Emissions Inventory
CMI-Tech Center, Inc.
March 13, 1997

Process ID	Process Description	Raw Materials Used
P001 - Hot Water Heater, A-wing	Hot water heater. 40,000BTU/hr	Natural Gas.
P002 - Boilers, A-wing	Boilers (6). 299,000 BTU/hr ea.	Natural Gas
P003 - Rheem Hot water heater, B-wing	Hot water heater. 40,000 BTU/hr.	Natural Gas
P004 - Boilers, B-wing	Boilers (4). 299,000 BTU/hr ea.	Natural Gas
P005 - Carrier forced air, B-wing	Space heater, 132,000 BTU/hr.	Natural Gas
P006 - Rheem hot water heater, C-wing	Hot water heater. 40,000 BTU/hr.	Natural Gas
P007 - Boilers, C-wing	Boilers (8). 299,000 BTU/hr ea.	Natural Gas
P008 - C-9 HVAC, C-wing	HVAC. 260,000 BTU/hr.	Natural Gas
P009 - Natural Gas compressor, C-wing	Natural gas compressor.	Natural Gas
P010 - A.O. Smith hot water heater, E-wing	Hot water heater. 32,000 BTU/hr.	Natural Gas
P011 - Office HVAC, E-Bldg	HVAC. 74,000 BTU/hr.	Natural Gas
P012 - North HVAC,E-Bldg	HVAC. 115,500 BTU/hr.	Natural Gas
P013 - South HVAC, E-Bldg	HVAC. 115,500 BTU/hr.	Natural Gas
P014 - A.O Smith hot water heater, DA-Wing	Hot water heater. 270,000 BTU/hr.	Natural Gas
P015 - HVAC, M-bldg	HVAC. 224,000 BTU/hr.	Natural Gas
P016 - HVAC, NC-prog	HVAC. 120,000 BTU/hr.	Natural Gas
P017 - LC HVAC, L.C.	HVAC. 180,000 BTU/hr.	Natural Gas
P018 - Br. room HVAC	HVAC. 80,000 BTU/hr.	Natural Gas
P019 - North HVAC, Int.	HVAC. 74,000 BTU/hr.	Natural Gas
P020 - South HVAC, Int.	HVAC. 74,000 BTU/hr.	Natural Gas
P021 - Fin. HVAC, D-wing	HVAC. 74,000 BTU/hr.	Natural Gas
P022 - Eng. HVAC, D-wing	HVAC. 120,000 BTU/hr.	Natural Gas
P023 - DA HVAC, D-wing	HVAC. 80,000 BTU/hr.	Natural Gas
P024 - Mech. HVAC, D-wing	HVAC. 74,000 BTU/hr.	Natural Gas
P025 - New HVAC, D-wing	HVAC (4). 115,000 BTU/hr ea.	Natural Gas
P028 - Rheem hot water heater, T.E.L.	Hot water heater. 40,000BTU/hr.	Natural Gas
P029 - Office HVAC #1and #2, T.E.L.	HVAC (2). 74,000 BTU/hr ea.	Natural Gas
P030 - Office HVAC #3, T.E.L.	HVAC. 80,000 BTU/hr ea.	Natural Gas
P031 - HVAC (mid), T.E.L.	HVAC (2). 200,000 BTU/hr ea.	Natural Gas
P032 - HVAC (high), T.E.L.	HVAC (2). 250,000 BTU/hr ea.	Natural Gas
P033 - Modine unit heater, Boiler house	Space heater. 240,000 BTU/hr.	Natural Gas
P034 - Modine unit heater, Tummel East	Space heater. 55,000 BTU/hr.	Natural Gas
P035 - Modine unit heater, Tunnel West	Space heater. 40,500 BTU/hr.	Natural Gas
P036 - Modine unit heater, Maintenace LR	Space heater. 40,500 BTU/hr	Natural Gas
P037 - Modine unit heater, Maintenance BR	Space heater. 40,000 BTU/hr.	Natural Gas
P038 - Modine unit heater, Maintenance FM	Space heater. 180,000 BTU/hr.	Natural Gas
P039 - Modine unit heater, Maintenance West	Space heater. 110,000 BTU/hr.	Natural Gas
P040 - Modine unit heater, Maintenance welding rm	Space heater. 90,000 BTU/hr.	Natural Gas
P041 - Modine unit heater, Maintenance T.R.	Space heater. 110,000 BTU/hr.	Natural Gas
P042 - Dayton radiant heater, Maintenance	Space heater. 75,000 BTU/hr.	Natural Gas
P043 - A.O. Smith hot water heater, Maintenance	Hot water heater. 65,000 BTU/hr.	Natural Gas
P044 - Cell #1	Dynamometer for testing engines up to 600 HP.	Unleaded gasoline/ diesel fuel.
P045 - Cell #2	Dynamometer for testing engines up to 600 HP.	Unleaded gasoline/ diesel fuel.
P046 - Cell #3	Dynamometer for testing engines up to 600 HP.	Unleaded gasoline/ diesel fuel.
P047 - Cell #4	Dynamometer for testing engines up to 600 HP.	Unleaded gasoline/ diesel fuel.
P048 - Hot room	Dynamometer for testing engines at temperatures up to 130 F.	Unleaded gasoline/ diesel fuel.
P049 - Cold room	Dynamometer for testing engines at temperatures down to -40 F.	Unleaded gasoline/ diesel fuel.
P050 - Buhler casting machine	Aluminum casting machine.	Aluminum, RC sand molds
P026 - Dip furnace, T.E.L	Furnace. 375,000 BTU/hr.	Natural Gas
P051 - Small casting machine	Aluminum casting machine.	Aluminum, RC sand molds
P027 - Tilt furnace, T.E.L.	Furnace. 450,000 BTU/hr.	Natural Gas
P052 - 200 lb crucible furnace	Electric crucible furnace used for melting aluminum.	Aluminum
P053 - 500 lb crucible	Electric crucible furnace used for melting aluminum.	Aluminum
P054 - Core boxes	Boxes used for casting core molds.	RC sand
P055 - Mixer	Mixer used for mixing RC sand for molds.	Sand, resin.
P056 - Gasoline storage tanks	Underground gasoline storage tanks (2). 15,000 gal. ea.	Unleaded gasoline.
P057 - Diesel storage	Above ground diesel storage tank. 500 gal.	Diesel fuel.
P058 - Temporary gas AGT	Temporary above ground, 3000 gallon gasoline tank.	Unleaded gasoline.
P060 - Wood shop	Wood shop used for model building	Wood
P059 - Temporay propane tank	Temporary above ground, 1000 gallon propane tank.	Propane

Appendix B

MATERIAL SAFETY DATA SHEET

AMOCO PREMIUM LEAD-FREE GASOLINE

MANUFACTURER:
Amoco Oil Company
200 East Randolph Drive
Chicago, Illinois 60601

EMERGENCY HEALTH INFORMATION: (800) 447-8735
EMERGENCY SPILL INFORMATION: (800) 424-9300
OTHER PRODUCT SAFETY INFORMATION: (312) 856-3907

IMPORTANT COMPONENTS: Gasoline. ACGIH TWA TLV 300 ppm (900 mg/m3).

WARNING STATEMENT: Danger! Extremely flammable. Vapor harmful. Harmful if swallowed and/or aspirated into lungs. Can produce skin irritation on prolonged or repeated contact. Use as motor fuel only.

APPEARANCE AND ODOR: Clear, bright liquid. Characteristic odor.

HEALTH HAZARD INFORMATION

EYE

EFFECT: No significant irritation expected.

FIRST AID: Flush eyes with plenty of water.

PROTECTION: None required; however, use of safety glasses is good industrial practice.

SKIN

EFFECT: Prolonged or repeated contact can defat the skin and lead to irritation and/or dermatitis.

FIRST AID: Wash exposed skin with soap and water. Remove contaminated clothing, including shoes, and thoroughly clean and dry before reuse.

PROTECTION: Wear protective clothing and gloves if prolonged or repeated contact is likely.

INHALATION

EFFECT: Vapor harmful. See Toxicology Section.

FIRST AID: If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get medical attention.

PROTECTION: Use with adequate ventilation. Avoid breathing vapor and/or mist.

INGESTION

EFFECT: Low viscosity product. Harmful or fatal if swallowed and/or aspirated into lungs.

FIRST AID: If swallowed, do NOT induce vomiting. Get immediate medical attention.

07-0058
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FIRE AND EXPLOSION INFORMATION

FLASHPOINT: -45°F

FLAMMABLE LIMITS: UPPER: 7.6% LOWER: 1.3%

AUTOIGNITION TEMPERATURE: 495°F

NFPA NUMBERS: (HEALTH;1) (FLAMMABILITY;3) (REACTIVITY;)

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, halogenated agents, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Extremely flammable vapor/air mixtures form.

CHEMICAL AND PHYSICAL PROPERTIES

BOILING POINT: 80°F TO 430°F, Range

SOLUBILITY IN WATER: Negligible, below 0.1%

SPECIFIC GRAVITY (WATER = 1): 0.75

VAPOR PRESSURE: 9-15 lb RVP (ASTM D-323)

VAPOR DENSITY (AIR = 1): 3 TO 4

STORAGE AND ENVIRONMENTAL PROTECTION

STORAGE REQUIREMENTS: Store away from heat, ignition sources, and open flame in accordance with applicable federal, state, or local regulations.

SPILLS AND LEAKS: Remove or shut off all sources of ignition. Use water spray to disperse vapors. Increase ventilation if possible.

WASTE DISPOSAL: Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances.

SPECIAL PRECAUTIONS: Avoid strong oxidizers. USE AS MOTOR FUEL ONLY.

TOXICOLOGICAL INFORMATION

EYE: Primary eye irritation score 0.0/110.0 (rabbits).

SKIN: Primary dermal irritation score 1.1/8.0 (rabbits). Acute dermal LD50 greater than 5ml/kg (rabbits). Practically nontoxic for acute exposures by this route.

INHALATION: Acute LC50 20.7mg/l (rats). Moderately toxic for acute exposures by this route.

INGESTION: Acute oral LD50 18.8ml/kg (rats). Practically nontoxic for acute exposures by this route.

TOXICITY OF GASOLINE VAPOR: The American Petroleum Institute has completed a toxicity test in which rats and mice of both sexes were exposed to unleaded gasoline vapor concentrations of 67, 292, and 2056 ppm for six hours/day, five days/week for approximately two years. Exposure-related kidney damage and kidney tumors were observed in male rats, effects not seen in female rats or in mice. At the highest exposure level, female mice developed an incidence of liver tumors statistically greater than that seen in the controls. Generally, employee or public exposures are considerably less than the exposures given in the animal toxicity studies.

In separate tests, Amoco Corporation found that certain components of gasoline produced kidney damage in male rats, but not in females when the rats were exposed to vapors for 21 days. A special blend containing these components in proportion similar to that in gasoline produced less severe kidney damage in male rats only. All of these findings have been reported to the EPA as required by law.

There appears to be a resemblance between the results of the Amoco tests and the API test implicating gasoline vapors. However, other petroleum hydrocarbons and other chemicals have also been reported to produce kidney damage in male rats only. The meaning of these findings is obscured by the fact that untreated male rats can develop kidney damage with aging.

Although the meaning of these findings in terms of human health is uncertain at this time, it is felt that these results are not a cause for alarm. However, both Standard Oil and the American Petroleum Institute are conducting further studies to determine any possible relation to the effects seen to human health.

REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: Flammable liquid.

DOT PROPER SHIPPING NAME (BULK, LAND): Gasoline, Flammable Liquid, UN1203.

ISSUE INFORMATION

BY: Stephen A. Elbert

Stephen A. Elbert
Mgr., Product Safety & Toxicology

ISSUED: July 19, 1985
SUPERSEDES: January 02, 1985

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AMOCO PREMIER DIESEL FUEL
Covers all Premier Diesel Fuel brands.

MATERIAL SAFETY DATA SHEET

MSDS No. 11156000
ENGLISH

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: AMOCO PREMIER DIESEL FUEL

MANUFACTURER/SUPPLIER:
Amoco Oil Company
200 East Randolph Drive
Chicago, Illinois 60601 U.S.A.

EMERGENCY HEALTH INFORMATION:
1 (800) 447-8735
EMERGENCY SPILL INFORMATION:
1 (800) 424-9300 CHEMTREC (USA)
OTHER PRODUCT SAFETY INFORMATION:
(312) 856-3907

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS#	Range % by Wt.
Petroleum distillate	68334-30-5	95-100
Naphthalene	91-20-3	0-1
Xylene	1330-20-7	0-1

(See Section 8.0, "Exposure Controls/Personal Protection", for exposure guidelines)

3.0 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Warning! Combustible. Harmful or fatal if liquid is aspirated into lungs. Causes skin irritation on prolonged or repeated contact.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: No significant health hazards identified.

SKIN CONTACT: Causes skin irritation on prolonged or repeated contact. See "Toxicological Information" section (Section 11.0).

INHALATION: No significant health hazards identified for the liquid fuel. See "Toxicological Information" section (Section 11.0).

INGESTION: Harmful or fatal if liquid is aspirated into lungs. See "Toxicological Information" section (Section 11.0).

HMIS CODE: (Health:2) (Flammability:2) (Reactivity:0)

NFPA CODE: (Health:2) (Flammability:2) (Reactivity:0)

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4.0 FIRST AID MEASURES

EYE: Flush eyes with plenty of water.

SKIN: Wash exposed skin with soap and water. Remove contaminated clothing, including shoes, and thoroughly clean and dry before reuse.

INHALATION: If adverse effects occur, remove to uncontaminated area.

INGESTION: If swallowed, do NOT induce vomiting. Get immediate medical attention.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 120-180°F (Tag closed cup)

UEL: 7.5%

LEL: 0.6%

AUTOIGNITION TEMPERATURE: Not determined

FLAMMABILITY CLASSIFICATION: Combustible Liquid.

EXTINGUISHING MEDIA: Agents approved for Class B hazards (e.g., dry chemical, carbon dioxide, foam, steam) or water fog.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible liquid.

FIRE-FIGHTING EQUIPMENT: Firefighters should wear full bunker gear, including a positive pressure self-contained breathing apparatus.

PRECAUTIONS: Keep away from sources of ignition (e.g., heat and open flames). Use with adequate ventilation.

HAZARDOUS COMBUSTION PRODUCTS: Incomplete burning can produce carbon monoxide and/or carbon dioxide and other harmful products.

6.0 ACCIDENTAL RELEASE MEASURES

Remove or shut off all sources of ignition. Prevent spreading by diking, ditching, or absorbing on inert materials. Keep out of sewers and waterways.

7.0 HANDLING AND STORAGE

HANDLING: Use with adequate ventilation. Keep away from ignition sources (e.g., heat, sparks, or open flames). Ground and bond containers when transferring materials. Wash thoroughly after handling.

STORAGE: Store in combustible liquids storage area. Store away from heat, ignition sources, and open flame in accordance with applicable regulations

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8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: None required; however, use of eye protection is good industrial practice.

SKIN: Avoid prolonged or repeated skin contact. Wear protective gloves if prolonged or repeated contact is likely.

INHALATION: Use with adequate ventilation.

ENGINEERING CONTROLS: Control airborne concentrations below the exposure guidelines.

EXPOSURE GUIDELINES:

Component	CAS#	Exposure Limits
Petroleum distillate	68334-30-5	No exposure limit established
Naphthalene	91-20-3	OSHA PEL: 10 ppm (1989)(1971) OSHA STEL: 15 ppm (1989); Not Est. (1971) ACGIH TLV-TWA: 10 ppm ACGIH TLV-STEL: 15 ppm
Xylene	1330-20-7	OSHA PEL: 100 ppm (1989)(1971) OSHA STEL: 150 ppm (1989); Not Est. (1971) ACGIH TLV-TWA: 100 ppm ACGIH TLV-STEL: 150 ppm

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR:	Liquid. Clear, Red, Blue. Petroleum odor.
pH:	Not determined
VAPOR PRESSURE:	Not determined
VAPOR DENSITY:	Not determined
BOILING POINT:	340-675°F (approximate range)
MELTING POINT:	Not determined
SOLUBILITY IN WATER:	Negligible, below 0.1%.
SPECIFIC GRAVITY (WATER = 1):	0.85 TO 0.88
VISCOSITY:	1.8-3.6cSt at 100°F

10.0 STABILITY AND REACTIVITY

STABILITY: Stable.

CONDITIONS TO AVOID: Keep away from ignition sources (e.g. heat, sparks, and open flames).

MATERIALS TO AVOID: Avoid chlorine, fluorine, and other strong oxidizers.

HAZARDOUS DECOMPOSITION: None identified.

HAZARDOUS POLYMERIZATION: Will not occur.

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11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: Similar products have produced maximum eye irritation scores ranging from 0.33 to 1.0/110.0; 24 hours (rabbits).

SKIN IRRITATION: Similar products have produced primary skin irritation scores ranging from 0.67 to 3.83/8.0 (rabbits). Dermal LD50 for similar products was greater than 2g/kg; practically non-toxic for acute exposures by this route.

DERMAL LD50: Testing not conducted. See Other Toxicity Data.

ORAL LD50: For a similar product oral LD50 was greater than 5g/kg; practically non-toxic for acute exposures by this route.

INHALATION LC50: Testing not conducted. See Other Toxicity Data.

OTHER TOXICITY DATA:

Middle distillate: From skin-painting studies of petroleum distillates of similar composition and distillate range, it has been shown that these types of materials often possess weak carcinogenic activity in laboratory animals. In these tests, the material is painted on the shaved backs of mice twice a week for their lifetime. The material is not washed off between applications. Therefore, there may be a potential risk of skin cancer from prolonged or repeated skin contact with this product in the absence of good personal hygiene. This particular product has not been tested for carcinogenic activity, but we have chosen to be cautious in light of the findings with other distillate streams.

Occasional skin contact with this product is not expected to have serious effects, but good personal hygiene should be practiced and repeated skin contact avoided. This product can also be expected to produce skin irritation upon prolonged or repeated skin contact. Personal hygiene measures taken to prevent skin irritation are expected to be adequate to prevent risk of skin cancer.

Materials of this type have been shown to produce kidney damage in male rats following prolonged inhalation exposures. Following extensive research, this effect appears to be unique to the male rat and is considered to be of little or no relevance in terms of human health risk.

This product has a sufficiently low vapor pressure to prevent a hazardous buildup of vapors unless the product is heated, used in a confined space with inadequate ventilation or misted. Inhalation of mist or high concentrations of vapors can produce dizziness, headache, and nausea and possibly irritation of the eye, nose and throat.

Aspiration of this product into the lungs can cause chemical pneumonia and can be fatal. Aspiration into the lungs can occur while vomiting after ingestion of this product. Do not siphon by mouth.

NIOSH has recommended that whole diesel exhaust be regarded as a potential occupational carcinogen, based on findings of carcinogenic responses in laboratory animals exposed to whole diesel exhaust. The excess cancer risk for workers exposed to diesel exhaust has not been calculated; however, exposure should be minimized to reduce potential risk.

No component of this product present at levels greater than 0.1% is identified as a carcinogen by the U.S. National Toxicology Program, the U.S. Occupational Safety and Health Act, or the International Agency on Research on Cancer (IARC).

12.0 ECOLOGICAL INFORMATION

Ecological testing has not been conducted on this product.

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13.0 DISPOSAL INFORMATION

Disposal must be in accordance with applicable federal, state, or local regulations. Enclosed-controlled incineration is recommended unless directed otherwise by applicable ordinances.

The container for this product can present explosion or fire hazards, even when emptied! To avoid risk of injury, do not cut, puncture, or weld on or near this container. Since the emptied containers retain product residue, follow label warnings even after container is emptied.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION

Shipping Name	:	Diesel Fuel
Hazard Class	:	Combustible liquid.
Identification Number	:	NA1993
Packing Group	:	III

INTERNATIONAL INFORMATION:

Sea (IMO/IMDG)

Shipping Name	:	Not determined

Air (ICAO/IATA)

Shipping Name	:	Not determined

European Road/Rail (ADR/RID)

Shipping Name	:	Not determined

Canadian Transportation of Dangerous Goods

Shipping Name	:	Not determined

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES (40 CFR PART 302.4): This product is exempt from the CERCLA reporting requirements under 40 CFR Part 302.4. However, if spilled into waters of the United States, it may be reportable under 33 CFR Part 153 if it produces a sheen.

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): This product is not regulated under Section 302 of SARA and 40 CFR Part 355.

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR PART 370): This product is defined as hazardous by OSHA under 29 CFR Part 1910.1200(d).

SARA TITLE III SECTION 313 (40 CFR PART 372): This product contains the following substance(s), which is on the Toxic Chemicals List in 40 CFR Part 372:

Component/CAS Number	Weight Percent
Xylene 1330-20-7	1
Naphthalene 91-20-3	1

U.S. INVENTORY (TSCA): Listed on inventory.

OSHA HAZARD COMMUNICATION STANDARD: Combustible liquid. Irritant.

EC INVENTORY (EINECS/ELINCS): Not determined

JAPAN INVENTORY (MITI): Not determined

AUSTRALIA INVENTORY (AICS): Not determined

KOREA INVENTORY (ECL): Not determined

CANADA INVENTORY (DSL): Not determined

PHILIPPINE INVENTORY (PICCS): Not determined

16.0 OTHER INFORMATION

BY:

Donald M. Barker, Director
Product Stewardship & Toxicology

Issued: April 08, 1994

This material Safety Data Sheet conforms to the requirements of ANSI Z400.1.

This material safety data sheet and the information it contains is offered to you in good faith as accurate. We have reviewed any information contained in this data sheet which we received from sources outside our company. We believe that information to be correct but cannot guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission or recommendation for the use of any product in a manner that might infringe existing patents. No warranty is made, either express or implied.

Resins

MATERIAL SAFETY DATA SHEET

All persons coming in contact with this product should be aware of the information contained in this MSD Sheet.

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 17-717 Techniset Activator

MANUFACTURER/SUPPLIER:

Delta Resins & Refractories
17350 Ryan Road, Detroit, MI 48212
313 - 368-7000

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC - Day or Night 800 - 424-9300

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Range % by Wt.
Aromatic 150 Solvent	64742-94-5	80-85
4-Phenyl Propyl Pyridine	2057-49-0	15-20

3.0 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Harmful by inhalation, in contact with skin and if swallowed. Slightly irritating to eyes and skin.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause irritation, redness, blurred vision, inflammation or corneal opacity.

SKIN CONTACT: May cause minor irritation. Prolonged or repeated contact may cause, defatting of skin and dermatitis.

INHALATION: May cause respiratory tract irritation, headache, nausea and dizziness.

INGESTION: May cause irritation of the mouth and stomach and central nervous system.

HMIS CODE: Health - 2, Flammability - 2 , Reactivity - 1
NFPA CODE: Health - 2, Flammability - 2 , Reactivity - 1

4.0 FIRST AID MEASURES

EYE: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower eyelids. Get immediate medical attention.

SKIN: Remove contaminated clothing and shoes. Wash affected areas with soap and water. If rash develops, seek medical attention.

INHALATION: Remove from exposure area to fresh air immediately. Get immediate medical attention.

INGESTION: Do Not induce vomiting. Get immediate medical attention.

NOTE TO PHYSICIAN: Small amounts of this material drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 145° F

UEL: 11.7 % For Aromatic 150 Solvent LEL: 1.8 % For Aromatic 150 Solvent

AUTOIGNITION TEMPERATURE: 940° F

FLAMMABILITY CLASSIFICATION: IIIA

EXTINGUISHING MEDIA: Dry chemical, water spray or regular foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderate fire hazard when exposed to heat or flame. Vapors are heavier than air and can travel a considerable distance to a source of ignition and flash back.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and full turn-out gear.

PRECAUTIONS: Take precautionary measures against static discharge.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides and unknown organic components in black smoke.

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6.0 ACCIDENTAL RELEASE MEASURES

Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For larger spills, dike ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area, ventilate closed spaces before entry.

7.0 HANDLING AND STORAGE

HANDLING: Avoid contact with liquid.
STORAGE: Store in cool dry place away from incompatible substances.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Safety glasses with side shields. If contact is possible, chemical goggles.

SKIN: Appropriate protective clothing.

INHALATION: A NIOSH approved respirator if vapors above the TLV/PEL.

ENGINEERING CONTROLS: Local exhaust or process enclosure ventilation to meet the published exposure limits.

EXPOSURE GUIDELINES:

Component	CAS Number	Exposure Limits
Aromatic 150 Solvent	64742-94-5	None Established
Contains: Naphthalene	91-20-3	OSHA TWA 20 ppm ACGIH TWA 10 ppm
4-Phenyl Propyl Pyridine	2057-49-0	OSHA & ACGIH - None Established

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9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Yellowish fluid liquid, Hydrocarbon odor
pH: Not Applicable
VAPOR PRESSURE: < 3 mm @ 100 F
BOILING POINT: 360 - 400° F
MELTING POINT: Not applicable
SOLUBILITY IN WATER: Nil
SPECIFIC GRAVITY (WATER=1): 0.9 - 1.0

10.0 STABILITY AND REACTIVITY

STABILITY: Stable under normal temperature and pressure.

CONDITIONS TO AVOID: None under normal conditions.

MATERIALS TO AVOID: Strong mineral and organic acids.

HAZARDOUS DECOMPOSITION: May yield toxic oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: moderate irritant
SKIN IRRITATION: moderate irritant
DERMAL LD50: > 3 g/kg Solvent 150 - Rabbit
ORAL LD50: 3 g/kg Solvent 150 - rat
400 mg/kg 4-PPP - Rat
INHALATION LC50: Not known

OTHER TOXICITY DATA: None known at this time.

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12.0 ECOLOGICAL INFORMATION

No additional information known.

13.0 DISPOSAL INFORMATION

Disposal must be in accordance with all applicable federal, state, and local regulations.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION: Poisonous Liquids, N.O.S., 6.1, UN 2810, PG III

INTERNATIONAL INFORMATION: Not known

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES(40 CFR PART 302.4): Naphthalene
RQ For product 1800 #

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES
(40 CFR PART 355): Not applicable

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION
(40 CFR PART 370): Not applicable

SARA TITLE III SECTION 313 (40 CFR PART 372):
Naphthalene < 9 %

U.S. INVENTORY (TSCA): All components on inventory

OSHA HAZARD COMMUNICATION STANDARD: Irritant

WHMIS CONTROLLED PRODUCT CLASSIFICATION: B3, D1B

EC INVENTORY (EINECS/ELINCS): Not known

CANADA INVENTORY (DSL): All hazardous components on inventory.

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16.0 OTHER INFORMATION

None known

This material data sheet conforms to the requirements of ANSI Z400.1. The foregoing data has been compiled from sources which the company, in good faith, believes to be dependable and is accurate and reliable to the best of our knowledge and belief. However, the company cannot make any warranty or representation respecting the accuracy or completeness of the data and assumes no responsibility for any liability or damages relating thereto or for advising you regarding the protection of your employees, customers or others. Users should also consult OSHA and other applicable safety laws/regulations before use.

Contact Name: Jonathan Stone
313 - 368-7000

Issued: 4/20/95
Supersedes: 12/1/93

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MATERIAL SAFETY DATA SHEET

All persons coming in contact with this product should be aware of the information contained in this MSD Sheet.

Product Name	Revision Date	Previous Revision Date
17-772 Techniset Activator	10-13-93	New

SECTION 1 - SOURCE AND NOMENCLATURE

Manufacturer's Name & Address:

Delta Resins & Refractories
17350 Ryan Road, Detroit, MI 48212
313 - 368-7000

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC - Day or Night
800 - 424-9300

Chemical Name and Synonyms:

Amine Solution

Chemical Family:

Cyclic Amine

SECTION 2 - HAZARDOUS INGREDIENTS

Ingredients	CAS Number	PEL	TLV
Vinyl Imidazole	1072-63-5	None Established	None Established
Aromatic Solvent 150*	64742-94-5	10 ppm TWA 15 ppm STEL as Naphthalene	10 ppm TWA 15 ppm STEL as Naphthalene

Remarks:

* Aromatic Solvent 150 contains naphthalene which is subject to the reporting requirements of Section 313 of SARA Title 313. This product contains less than 7% Naphthalene (CAS Number 91-20-3).

SECTION 3 - PHYSICAL DATA

	Entire Product or Ingredient(Name)
Boiling Point (^{0}F)	350^{0}F Aromatic 150 Solvent
Melting Point (^{0}F)(Method)	n/a
Specific Gravity (Water=1)	.96
Vapor Pressure (mm Hg)	<3 at 100^{0}F
Vapor Density (Air=1)	4.8
Evaporation Rate (n-BuAc=1)	<0.1
Volatile:	75 % wt.
Other: n/a	

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SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point	Method Used	Flammable Explosive Limits: Name: Aromatic Solvent 150	Lower	Upper
145°F	Setaflash		1.8	11.7

Fire Extinguishing Media -
Alcohol foam, dry powder, CO_2.

Special Fire Fighting Procedures -
Wear self contained breathing apparatus to protect from vapors formed from product.

Unusual Fire and Explosion Hazards -
Vapors are heavier than air and may travel along ground and can be ignited by heat, pilot lights, or other ignition sources.

SECTION 5 - PRODUCT HEALTH HAZARD DATA

Routes of Entry:

x Inhalation	x Swallowing	x Eyes
x Skin Absorption	x Skin Contact	_ Other

Possible Symptoms of Exposure:
x Eyes: Irritating to eyes and eyelids - possible cornea damage.
x Skin: Skin contact or absorption - irritating, headache, nausea, weakness.
x Breathing: Irritating to nasal and respiratory tracts. Headache, nausea, dizziness, narcosis.
x Swallowing: Toxic with all symptoms listed above.
_ Other:

Chronic Effects:
n/a

Emergency and First Aid Procedures:
x Inhalation: Remove to fresh air. Give oxygen if necessary - Seek medical attention.
x Skin Contact: Wash with soap & water. Seek medical help if irritation persists.
x Eye Contact: Rinse immediately with large amounts of water - consult a physician.
x Swallowing: Do NOT induce vomiting - Seek medical attention immediately.
x Other: Decontaminate all clothing by washing with soap & water. Leather shoes should be discarded.

SECTION 6 - REACTIVITY DATA

Stability (Check One) Conditions to Avoid : x Stable _ Unstable

Incompatibility (Materials to Avoid) -
Avoid excessive heat, strong acids, gases or oxidizing agents.

Hazardous Decomposition Products -
Cyanide, NO^2, CO_2, CO
Hazardous Polymerization (Check One) Conditions to Avoid -
x Will not occur _ Might Occur

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SECTION 7 - SPILL OR LEAK PROCEDURES

Steps to be taken if material is released or spilled -
Contain spill; ventilate area; absorb liquid on vermiculite, floor absorbent, sand, etc. Remove any ignition sources. Place in closed container.

Waste Disposal Method -
Liquid incineration with off gas-scrubber. Consult Federal, State & Local regulations for any landfill.

SECTION 8 - SPECIAL PROTECTION INFORMATION

Ventilation Requirements and Protective Equipment (Specify types):
x Local Exhaust - Recommend explosion proof equipment to maintain TLV's.
x General Exhaust - Recommend explosion proof equipment if necessary to maintain TLV's.
_ Special - n/a
x Other Protective Equipment - Chemical resistant clothing.
x Eye - Chemical goggles.
x Gloves - Chemical/solvent resistant gloves.
x Respiratory - If ventilation is inadequate, use NIOSH/MSHA approved respirators.

SECTION 9 - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storage -
Keep containers closed - Store away from heat.

Other Precautions -
Protect containers against physical damage.

Hazardous Materials Identification System (HMIS)

Health	Flammability	Reactivity	Personal Protection
3	2	1	G

The foregoing data has been compiled from sources which the company, in good faith, believes to be dependable and is accurate and reliable to the best of our knowledge and belief. However, the company cannot make any warranty or representation respecting the accuracy or completeness of the data and assumes no responsibility for any liability or damages relating thereto or for advising you regarding the protection of your employees, customers or others. Users should also consult OSHA and other applicable safety laws/regulations before use.

Contact Name: Roy L. O'Doherty
313 -368-7000

MATERIAL SAFETY DATA SHEET

All persons coming in contact with this product should be aware of the information contained in this MSD Sheet.

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 20-165 Techniset

MANUFACTURER/SUPPLIER:

Delta Resins & Refractories
17350 Ryan Road, Detroit, MI 48212
313 - 368-7000

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC - Day or Night 800 - 424-9300

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Range % by Wt.
Phenolic Resin	9003-35-4	50-55
Phenol	108-95-2	< 8
Aromatic 150 Solvent	64742-94-5	25-30
Ester Solvents	1119-40-0 & 627-93-0 & 106-65-0	15-20

3.0 HAZARD IDENTIFICATION

EMERGENCYOVERVIEW: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause irritation, redness, pain, blurred vision, inflammation or corneal opacity. Concentrations of 10 ppm in humans can be tolerated without significant eye irritation.

SKIN CONTACT: May cause moderate irritation, stinging, defatting of skin and dermatitis.

INHALATION: May cause respiratory tract irritation, headache, nausea and dizziness.

INGESTION: May cause irritation of the mouth and stomach and central nervous system.

08-0043

3.0 Con't.

HMIS CODE: Health - 1, Flammability - 2 , Reactivity - 1

NFPA CODE: Health - 1, Flammability - 2 , Reactivity - 1

4.0 FIRST AID MEASURES

EYE: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower eyelids. Get immediate medical attention.

SKIN: Remove contaminated clothing and shoes. Wash affected areas with soap and water.

INHALATION: Remove from exposure area to fresh air immediately. Get immediate medical attention.

INGESTION: Do Not induce vomiting. Get immediate medical attention.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically and supportively.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 143° F

UEL: 7.0 % For Aromatic 150 Solvent LEL: 0.8 % For Aromatic 150 Solvent

AUTOIGNITION TEMPERATURE: 915 F

FLAMMABILITY CLASSIFICATION: IIIA

EXTINGUISHING MEDIA: Dry chemical, water spray or regular foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderate fire hazard when exposed to heat or flame. Vapors are heavier than air and can travel a considerable distance to a source of ignition and flash back.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and full turn-out gear.

PRECAUTIONS: Take precautionary measures against static discharge.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide and unknown organic components in black smoke.

6.0 ACCIDENTAL RELEASE MEASURES

Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For larger spills, dike ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area, ventilate closed spaces before entry.

7.0 HANDLING AND STORAGE

HANDLING: Avoid contact with liquid.
STORAGE: Store in cool dry place away from incompatible substances.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Safety glasses with side shields. If contact is possible, chemical goggles.

SKIN: Appropriate protective clothing.

INHALATION: A NIOSH approved respirator if vapors above the TLV/PEL.

ENGINEERING CONTROLS: Local exhaust or process enclosure ventilation to meet the published exposure limits.

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15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES(40 CFR PART 302.4): Phenol
RQ For product 25000 #

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): Phenol

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR PART 370): Phenol

SARA TITLE III SECTION 313 (40 CFR PART 372):
Phenol < 8 %
Naphthalene < 3 %

U.S. INVENTORY (TSCA): All components on inventory

OSHA HAZARD COMMUNICATION STANDARD: Irritant

WHMIS CONTROLLED PRODUCT CLASSIFICATION: B3, D2B

EC INVENTORY (EINECS/ELINCS): Not known

CANADA INVENTORY (DSL): All hazardous components on inventory.

16.0 OTHER INFORMATION

None known

This material data sheet conforms to the requirements of ANSI Z400.1. The foregoing data has been compiled from sources which the company, in good faith, believes to be dependable and is accurate and reliable to the best of our knowledge and belief. However, the company cannot make any warranty or representation respecting the accuracy or completeness of the data and assumes no responsibility for any liability or damages relating thereto or for advising you regarding the protection of your employees, customers or others. Users should also consult OSHA and other applicable safety laws/regulations before use.

Contact Name: Jonathan Stone
313 - 368-7000

Issued: 2/24/95
Supersedes: New

08-0043
Page 6 of 6

MATERIAL SAFETY DATA SHEET

All persons coming in contact with this product should be aware of the information contained in this MSD Sheet.

1.0 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 23-133 Techniset Coreactant Part II

MANUFACTURER/SUPPLIER:

Delta Resins & Refractories
17350 Ryan Road, Detroit, MI 48212
313 - 368-7000

For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC - Day or Night
800 - 424-9300

2.0 COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Range % by Wt.
Isocyanic Acid, Polymethylene Polyphenylene Ester	9016-87-9	60-65
Aromatic Petroleum Distillate	64742-94-5	35-40
Kerosene	8008-20-6	2-5

3.0 HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin.

POTENTIAL HEALTH EFFECTS:

EYE CONTACT: May cause irritation, redness, pain, blurred vision, inflammation or corneal opacity.

SKIN CONTACT: May cause moderate irritation, stinging, defatting of skin and dermatitis. May cause allergic skin reactions.

INHALATION: May cause respiratory tract irritation, headache, nausea and dizziness. May cause respiratory sensitization in susceptible individuals.

INGESTION: May cause irritation of the mouth and stomach and central nervous system, vomiting and diarrhea. Aspiration of the material into the lungs can cause chemical pneumonitis which can be fatal.

3.0 Con't.

HMIS CODE: Health - 3, Flammability - 1 , Reactivity - 1

NFPA CODE: Health - 3, Flammability - 1 , Reactivity - 1

4.0 FIRST AID MEASURES

EYE: Wash eyes immediately with large amounts of water, occasionally lifting upper and lower eyelids. Get immediate medical attention. Material can react with the moisture of the eye forming a thick material which can be difficult to remove.

SKIN: Remove contaminated clothing and shoes. Wash affected areas with soap and water.

INHALATION: Remove from exposure area to fresh air immediately. Get immediate medical attention.

INGESTION: Do Not induce vomiting. Get immediate medical attention. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically and supportively. The manifestations of respiratory symptoms, including pulmonary edema, resulting from acute exposure may be delayed.

5.0 FIRE FIGHTING MEASURES

FLASHPOINT: 145° F

UEL: 7.0 % For Aromatic Solvent LEL: 0.8 % For Aromatic Solvent

AUTOIGNITION TEMPERATURE: Not Determined.

FLAMMABILITY CLASSIFICATION: IIA

EXTINGUISHING MEDIA: Dry chemical, water spray or regular foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderate fire hazard when exposed to heat or flame. Vapors are heavier than air and can travel a considerable distance to a source of ignition and flash back. The reaction of the product and water may be vigorous.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and full turn-out gear.

5.0 Con't.

PRECAUTIONS: Take precautionary measures against static discharge.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides and unknown organic components in black smoke.

6.0 ACCIDENTAL RELEASE MEASURES

Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For larger spills, dike ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area, ventilate closed spaces before entry. Do not seal containers. May be treated with neutralizing solution (Water, 3-8 % ammonia, small amount of detergent). Add about 10 parts neutralizer to 1 part material. Allow to set 48 hours letting evolved carbon dioxide to escape.

7.0 HANDLING AND STORAGE

HANDLING: Avoid contact with liquid.

STORAGE: Store in cool dry place away from incompatible substances.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Safety glasses with side shields. If contact is possible, chemical goggles.

SKIN: Appropriate protective clothing.

INHALATION: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use an approved positive-pressure supplied air respirator.

ENGINEERING CONTROLS: Local exhaust or process enclosure ventilation to meet the published exposure limits.

08-0044
Page 3 of 6

8.0 Con't.

EXPOSURE GUIDELINES:

Component	CAS Number	Exposure Limits
Isocyanic Acid, Polymethylene Polyphenylene Ester Contains:	9016-87-3	None Established
Diphenylmethyl Diisocyanate (MDI)	101-68-8	OSHA TWA 0.02 ppm Ceiling ACGIH TWA 0.005 ppm Ceiling
Aromatic 150 Solvent	64742-94-5	None Established
Contains: Naphthalene	91-20-3	OSHA TWA 20 ppm ACGIH TWA 10 ppm

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Dark liquid, Solvent odor
pH: Not Applicable
VAPOR PRESSURE: 10 mm @ 100 F
BOILING POINT: 305 - 340 F
MELTING POINT: Not applicable
SOLUBILITY IN WATER: Reacts
SPECIFIC GRAVITY (WATER=1): 1.1-1.2

10.0 STABILITY AND REACTIVITY

STABILITY: Stable under normal temperature and pressure.

CONDITIONS TO AVOID: Prolonged heating over 110° F.

MATERIALS TO AVOID: Water, acids, alcohols and metal compounds. Water reacts to form heat, CO_2 and insoluble urea. The combined effect of heat and CO_2 May be enough to rupture a sealed container.

HAZARDOUS DECOMPOSITION: May yield toxic oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

08-0044
Page 4 of 6

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: moderate irritant
SKIN IRRITATION: moderate irritant
DERMAL LD50: 9400 mg/kg (MDI) - rat
ORAL LD50: >10000 mg/kg (MDI) - rat
INHALATION LC50: Not known.

OTHER TOXICITY DATA: None known at this time.

12.0 ECOLOGICAL INFORMATION

Movement in the environment is expected to be limited.

13.0 DISPOSAL INFORMATION

Disposal must be in accordance with all applicable federal, state, and local regulations.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION: Diphenylmethane-4,4'-Diisocyanate Solution, 6.1, UN2489, PG III

INTERNATIONAL INFORMATION: Not known.

08-0044
Page 5 of 6

MATERIAL SAFETY DATA SHEET

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PRODUCT NAME: 23-134 Techniset Coreactant Part II

MANUFACTURER/SUPPLIER:

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For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC - Day or Night
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Component	CAS Number	Range % by Wt.
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Aromatic Petroleum Distillate	64742-94-5	30-35
Kerosene	8008-20-6	2-5

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3.0 Con't.

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NFPA CODE: Health - 3, Flammability - 1 , Reactivity - 1

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INGESTION: Do Not induce vomiting. Get immediate medical attention. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically and supportively. The manifestations of respiratory symptoms, including pulmonary edema, resulting from acute exposure may be delayed.

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FLASHPOINT: 145° F

UEL: 7.0 % For Aromatic Solvent LEL: 0.8 % For Aromatic Solvent

AUTOIGNITION TEMPERATURE: Not Determined.

FLAMMABILITY CLASSIFICATION: IIA

EXTINGUISHING MEDIA: Dry chemical, water spray or regular foam.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Moderate fire hazard when exposed to heat or flame. Vapors are heavier than air and can travel a considerable distance to a source of ignition and flash back. The reaction of the product and water may be vigorous.

FIRE-FIGHTING EQUIPMENT: Wear self-contained breathing apparatus and full turn-out gear.

08-0045
Page 286

5.0 Con't.

PRECAUTIONS: Take precautionary measures against static discharge.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide, nitrogen oxides and unknown organic components in black smoke.

6.0 ACCIDENTAL RELEASE MEASURES

Stop leak if you can without risk. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For larger spills, dike ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area, ventilate closed spaces before entry. Do not seal containers. May be treated with neutralizing solution (Water, 3-8 % ammonia, small amount of detergent). Add about 10 parts neutralizer to 1 part material. Allow to set 48 hours letting evolved carbon dioxide to escape.

7.0 HANDLING AND STORAGE

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STORAGE: Store in cool dry place away from incompatible substances.

8.0 EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE: Safety glasses with side shields. If contact is possible, chemical goggles.

SKIN: Appropriate protective clothing.

INHALATION: Atmospheric levels should be maintained below the exposure guidelines. When respiratory protection is required for certain operations, use an approved positive-pressure supplied air respirator.

ENGINEERING CONTROLS: Local exhaust or process enclosure ventilation to meet the published exposure limits.

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Page 3 of 6

8.0 Con't.

EXPOSURE GUIDELINES:

Component	CAS Number	Exposure Limits
Isocyanic Acid, Polymethylene Polyphenylene Ester Contains:	9016-87-3	None Established
Diphenylmethyl Diisocyanate (MDI)	101-68-8	OSHA TWA 0.02 ppm Ceiling ACGIH TWA 0.005 ppm Ceiling
Aromatic 150 Solvent	64742-94-5	None Established
Contains: Naphthalene	91-20-3	OSHA TWA 20 ppm ACGIH TWA 10 ppm

9.0 CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE AND ODOR: Dark liquid, Solvent odor
pH: Not Applicable
VAPOR PRESSURE: 10 mm @ 100 F
BOILING POINT: 305 - 340 F
MELTING POINT: Not applicable
SOLUBILITY IN WATER: Reacts
SPECIFIC GRAVITY (WATER=1): 1.1-1.2

10.0 STABILITY AND REACTIVITY

STABILITY: Stable under normal temperature and pressure.

CONDITIONS TO AVOID: Prolonged heating over 110° F.

MATERIALS TO AVOID: Water, acids, alcohols and metal compounds. Water reacts to form heat, CO_2 and insoluble urea. The combined effect of heat and CO_2 May be enough to rupture a sealed container.

HAZARDOUS DECOMPOSITION: May yield toxic oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION: Will not occur.

08-0045
Page 486

11.0 TOXICOLOGICAL INFORMATION

ACUTE TOXICITY DATA:

EYE IRRITATION: moderate irritant
SKIN IRRITATION: moderate irritant
DERMAL LD50: 9400 mg/kg (MDI) - rat
ORAL LD50: >10000 mg/kg (MDI) - rat
INHALATION LC50: Not known.

OTHER TOXICITY DATA: None known at this time.

12.0 ECOLOGICAL INFORMATION

Movement in the environment is expected to be limited.

13.0 DISPOSAL INFORMATION

Disposal must be in accordance with all applicable federal, state, and local regulations.

14.0 TRANSPORTATION INFORMATION

U.S. DEPT OF TRANSPORTATION: Diphenylmethane-4,4'-Diisocyanate Solution, 6.1, UN2489, PG III

INTERNATIONAL INFORMATION: Not known.

08-004
Page 5 of 6

15.0 REGULATORY INFORMATION

CERCLA SECTIONS 102A/103 HAZARDOUS SUBSTANCES(40 CFR PART 302.4): Naphthalene, (MDI) RQ For product 4500 #

SARA TITLE III SECTION 302 EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): Naphthalene, (MDI)

SARA TITLE III SECTIONS 311/312 HAZARDOUS CATEGORIZATION (40 CFR PART 370): Naphthalene

SARA TITLE III SECTION 313 (40 CFR PART 372):
Naphthalene < 3 %
MDI < 15 %

U.S. INVENTORY (TSCA): All components on inventory

OSHA HAZARD COMMUNICATION STANDARD: Irritant, Delayed Health

WHMIS CONTROLLED PRODUCT CLASSIFICATION: B3, D1B, D2A, D2B

EC INVENTORY (EINECS/ELINCS): Not known

CANADA INVENTORY (DSL): All hazardous components on inventory.

16.0 OTHER INFORMATION

None known

This material data sheet conforms to the requirements of ANSI Z400.1. The foregoing data has been compiled from sources which the company, in good faith, believes to be dependable and is accurate and reliable to the best of our knowledge and belief. However, the company cannot make any warranty or representation respecting the accuracy or completeness of the data and assumes no responsibility for any liability or damages relating thereto or for advising you regarding the protection of your employees, customers or others. Users should also consult OSHA and other applicable safety laws/regulations before use.

Contact Name: Jonathan Stone
313 - 368-7000

Issued: 6/27/95
Supersedes: 12/01/93

08-0045
Page 686

MAER's CHECKLIST

EG

SRN: A4646 Hayes Lemmerz

DISTRICT: LANSING / LIVONIA / BAY CITY / OTHER

Company name:
Staff Person assigned:
Type of Submittal:
Logged in Date:

EMAIL/CD-DISK/FTP VERSION: ✓
PAPER SUBMITTAL:
ANTI-VIRUS RAN: ✓
LOADED INTO MAERS TOOLKIT: ✓
CHECKED & VERIFIED PASSWORD: ✓
RUN & PRINT COMPLETENESS CHECK: ✓
RUN & PRINT SUMMARY REPORT: ✓
RUN & PRINT OWNERS REPORT:
STAFF REVIEW DONE: NA
FILED: 4/3/07

No edit

Michigan Air Emissions Reporting System (MAERS)

Completeness Check Error Report

AQD Source ID (SRN): A4646

Reporting Year: 2006

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Contact Name: David M. Miller

Contact Phone: (248) 397-2239

Michigan Air Emissions Reporting System (MAERS)

Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Michigan Air Emissions Reporting System (MAERS)

Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
CO	702.00	LB
NOX	1,169.00	LB
PM10	63.00	LB
PM10,FLTRBLE		
PM2.5,FLTRBL		
SO2	5.00	LB
SOX		
TOC		
VOC	46.00	LB
PM,FLTRBLE		

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
0.00	LB	CO
0.00	LB	NOX
		PM10
0.00	LB	PM10,FLTRBLE
0.00	LB	PM2.5,FLTRBL
		SO2
0.00	LB	SOX
0.00	LB	TOC
0.00	LB	VOC
0.00	LB	PM,FLTRBLE

****NOTE: Fees are based on source reported emissions.**

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit
EU_reverb_furnac	30400103	PM10,FLTRBLE	EI2006			EI2005	165.	LB	-100	EI2006		EI2005	63.5	TON
		PM2.5,FLTRBL					137.	LB					63.5	
		VOC					12.7	LB					63.5	
	30490033	AMMONIA	EI2006			EI2005	50.	LB	-100	EI2006		EI2005	15.51	MMCF
EU_reverb_furnac	30490033	CO	EI2006	702.	LB	EI2005	1,303.	LB	-46.12	EI2006	8.35	EI2005	15.51	MMCF
		LEAD						LB	0				15.51	MMCF
		NOX		1,169.	LB		1,551.	LB	-24.63		8.35		15.51	MMCF
		PM10		63.	LB				100	EI2006	8.35			
		PM10,FLTRBLE				EI2005	118.	LB	-100	EI2006		EI2005	15.51	MMCF
		PM2.5,FLTRBL					118.	LB					15.51	
		SO2		5.	LB		9.	LB	-44.44		8.35		15.51	MMCF
		VOC		46.	LB		85.	LB	-45.88		8.35		15.51	MMCF
RG_TEST_CELLS	20400401	CO	EI2006			EI2005	63.	LB	-100	EI2006		EI2005	.02	E3 GAL
		NOX					1.6	LB					.02	
		PM10,FLTRBLE					.1	LB					.02	
		PM2.5,FLTRBL					.1	LB					.02	
		SOX					.08	LB					.02	
		VOC					2.4	LB					.02	
	20400402	CO	EI2006			EI2005		LB	0	EI2006		EI2005		E3 GAL
		NOX						LB						
		PM10,FLTRBLE						LB						
		PM2.5,FLTRBL						LB						
		SOX						LB						
		TOC						LB						

Thruput Percent Change
-100
-100
-46.16
-100
-46.16
100
-100
-46.16
-46.16
-100
0

Michigan Air Emissions Reporting System (MAERS)
Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

The following Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	Remove/DismantleDate	
EU-101	EU00001	EU_ENGINE_TEST	12/31/2006	Emission Unit has been removed.
EU-101	EU00002	EU_HOTCOLD_TEST	12/31/2006	Emission Unit has been removed.
RG-101	RG00023	RG_TEST_CELLS	12/31/2006	Reporting Group has been removed.
SV-101	SV00016	SV00001	12/31/2006	Stack has been removed.
SV-101	SV00017	SV00002	12/31/2006	Stack has been removed.
SV-101	SV00018	SV00003	12/31/2006	Stack has been removed.
SV-101	SV00019	SV00004	12/31/2006	Stack has been removed.
SV-101	SV00020	SV00005	12/31/2006	Stack has been removed.

The following Activity SCC Codes have been removed from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Remove Date
A-101	EU00022	EU_reverb_furnac	3-04-001-03	12/31/2006
A-101	RG00023	RG_TEST_CELLS	2-04-004-01	12/31/2006
A-101	RG00023	RG_TEST_CELLS	2-04-004-02	12/31/2006

Informational Message: No Operators have been removed from the MAERS Inventory.

Michigan Air Emissions Reporting System (MAERS)

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2006

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Informational Message: No Activity SCC Codes have been added to the MAERS Inventory.

Informational Message: No Operators have been added to the MAERS Inventory.

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2006 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

RECEIVED
MAR 15 2007
AIR QUALITY DIV
SEMI OFFICE

FORM REFERENCE

1. Form Type P-101	2. AQD Source ID (SRN) A4646

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4A. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4B. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☐ E-Mail ☐ Diskette ☐ Paper ☐ CD

9. Amended Submittal ☐ Yes ☐ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10A. Clearly print name of Operator	10B. Telephone Number	10C. Telephone Extension
David M. Miller	**(248) 397-2239**	

11. E-Mail Address (if available)
dmiller@hayes-lemmerz.com

12. Signature

13. Date
3-12-2007

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

14. Password (length 4 to 8 characters)
HLIFERND

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST DISTRICT OFFICE
27700 DONALD CT
WARREN MI 48092-2793
SEMAERS@MICHIGAN.GOV
(586) 753-3700

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

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(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

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SEMI OFFICE

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dmiller@hayes-lemmerz.com

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3-12-2007

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HLIFERND

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SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST DISTRICT OFFICE
27700 DONALD CT
WARREN MI 48092-2793
SEMAERS@MICHIGAN.GOV
(586) 753-3700

HAYES LEMMERZ™
INTERNATIONAL, INC.

March 13, 2007

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
27700 Donald Court
Warren, Michigan 48092-2793

Subject: Rule 208a Annual Renewal Registration Form and 2006 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center (HLI) has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2006 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2006.

The HLI, Ferndale, Michigan, Facility is scheduled to close during CY 2007. No emissions units will be operated at the facility during CY 2007.

If you have any questions please contact me at (248) 397-2239

Sincerely,

HAYES LEMMERZ TECHNICAL CENTER, INC.

David Miller

Facility Manager

attachments

Hayes Lemmerz International, Inc.
Technical Center
1600 W. Eight Mile Road • Ferndale, MI 48220 USA
PH: 248 399•9600

ATTACHMENT 1

RULE 208A ANNUAL RENEWAL REGISTRATION FORM
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

ATTACHMENT 2

P-101 PASSWORD AND SIGNATURE FORM
2006 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

ATTACHMENT 3

SUPPORTING CALCULATIONS
2006 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: RG_TEST_CELLS

2006 Throughput: 0 gallons diesel fuel
0 gallons gasoline

MAERS Description / Activity Code	Regulated Air Pollutants						
	PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine							
SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (lb.)	0	0	0	0	0	0	--
Gasoline reciprocating engine							
SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3,940	102	5.30	148	--
Annual Emissions (lb.)	0.00	0.00	0	0.0	0.00	0.0	--
Emission Unit Totals	0	0	0	0	0	0	0

Table 2. Air pollutant emissions from the 10,000-lb. aluminum melting furnace

MAERS ID: **EU_REVERB_FURNAC**

2006 Throughput: 0.00 tons aluminum (total metal: prime, secondary, scrap, and flux)
8.352 MMscf natural gas

MAERS Description	Regulated Air Pollutants							
Activity Code	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC	Lead
Reverberatory furnace								
SCC 3-04-001-03								
Emission Factors (lb./ton metal)	4.3	2.6	2.16	--	--	--	0.2	--
Annual Emissions (lb.)	0	0	0	--	--	--	0.0	--
Secondary Metals, Natural Gas Furnace[1]								
SCC 3-04-900-33								
Emission Factor (lb./MMscf)	7.6	7.6	--	84	140	0.6	5.5	--
Annual Emissions (lb.)	63	63	--	702	1,169	5.0	46	--
Emission Unit Totals (lb.)	63	63	0	702	1,169	5	46	0

1. Emission factors from natural gas fuel fired equipment SCC 1-02-006-02

ADDITIONAL INFORMATION

Natural Gas Usage

Natural Gas Usage Data from Consumer Energy Invoices

Jan	Feb	March	April	May	Jun	
1,420	1,721	1,541	1,043	227	38	**Total**
						8,352 Mscf
Jul	Aug	Sept	Oct	Nov	Dec	**8.352 MMscf**
17	19	38	317	780	1,191	

Hayes Lemmerz operates miscellaneous natural gas-fired equipment (facility heaters, ovens, etc.) that are exempt from Air Use Permitting pursuant to Rule 282(b)(i). Natural gas usage is these devices in not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMscf/yr).

However, the aluminum melting furnace, operated under Permit to Install No. 368-99, is fired with natural gas. All of the facility's natural gas usage is recorded on one gas meter (i.e., there are not natural gas usage records for individual processes); therefore, all of the natural gas usage is reported as an activity of the permitted furnace.

Cold Cleaners

Hayes Lemmerz operates several cold cleaners (parts washers) that are exempt from Air Use Permitting pursuant to Rule 281(h). The total solvent throughput for these devices in 2004 was approximately 55 gallons (412.5 pounds).

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

RRP

MAER's CHECKLIST

SRN: A4646 Hayes-Lemmerz

DISTRICT: **LANSING / LIVONIA / BAY CITY / OTHER**

Company name:
Staff Person assigned:
Type of Submittal:
Logged in Date:

EMAIL/CD-DISK/FTP VERSION: ✓
PAPER SUBMITTAL:
ANTI-VIRUS RAN: ✓
LOADED INTO MAERS TOOLKIT: ✓
CHECKED & VERIFIED PASSWORD: ✓
RUN & PRINT COMPLETENESS CHECK: ✓
RUN & PRINT SUMMARY REPORT: ✓
RUN & PRINT OWNERS REPORT:
STAFF REVIEW DONE: 5/18/2006 (RRP)
FILED: 5/19/06 CJE uploaded

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Michigan Air Emissions Reporting System (MAERS)

Completeness Check Error Report

AQD Source ID (SRN): A4646

Reporting Year: 2005

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Contact Name: David M. Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Michig Air Emissions Reporting System (MA)

Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

AQD Source ID (SRN): A4646 **Reporting Year:** 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Michigan Air Emissions Reporting System (MAERS)

Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
AMMONIA	50.00	LB
CO	1,366.00	LB
LEAD	0.00	LB
NOX	1,552.60	LB
PM10,FLTRBLE	283.10	LB
PM2.5,FLTRBL	255.10	LB
SO2	9.00	LB
SOX	0.08	LB
TOC	0.00	LB
VOC	100.10	LB
PM,FLTRBLE		

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
		AMMONIA
78.80	LB	CO
		LEAD
2.04	LB	NOX
165.22	LB	PM10,FLTRBLE
137.28	LB	PM2.5,FLTRBL
		SO2
0.11	LB	SOX
0.00	LB	TOC
15.66	LB	VOC
273.18	LB	PM,FLTRBLE

****NOTE: Fees are based on source reported emissions.**

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit
EU_reverb_furnac	30400103	PM	EI2005			EI2004	352.	LB	-100	EI2005		EI2004	81.8	TON
		PM10					213.	LB					81.8	
EU_reverb_furnac	30400103	PM10,FLTRBLE	EI2005	165.	LB	EI2004	213.	LB	-22.54	EI2005	63.5	EI2004	81.8	TON
		PM2.5					177.	LB	-100				81.8	TON
		PM2.5,FLTRBL		137.	LB		177.	LB	-22.6		63.5		81.8	TON
		VOC		12.7	LB		16.4	LB	-22.56		63.5		81.8	TON
	30490033	AMMONIA	EI2005	50.	LB				100	EI2005	15.51			
		CO		1,303.	LB	EI2004	1,356.	LB	-3.91	EI2005	15.51	EI2004	16.15	MMCF
		LEAD		0	LB				0	EI2005	15.51			
		NOX		1,551.	LB	EI2004	2,261.	LB	-31.4	EI2005	15.51	EI2004	16.15	MMCF
		PM					123.	LB	-100				16.15	MMCF
		PM10					123.	LB					16.15	
		PM10,FLTRBLE		118.	LB				100	EI2005	15.51			
		PM2.5,FLTRBL		118.	LB									
		SO2		9.	LB	EI2004	9.7	LB	-7.22	EI2005	15.51	EI2004	16.15	MMCF
		VOC		85.	LB		89.	LB	-4.49		15.51		16.15	MMCF
RG_TEST_CELLS	20400401	CO	EI2005	63.	LB	EI2004	619.	LB	-89.82	EI2005	.02	EI2004	.16	E3 GAL
		NOX		1.6	LB		16.	LB	-90		.02		.16	E3 GAL
		PM					1.02	LB	-100				.16	E3 GAL
		PM10					.97	LB					.16	
		PM10,FLTRBLE		.1	LB		.97	LB	-89.69		.02		.16	E3 GAL
		PM2.5,FLTRBL		.1	LB		.97	LB					.16	
		SO2					.83	LB	-100				.16	E3 GAL
		SOX		.08	LB		.83	LB	-90.36		.02		.16	E3 GAL
		VOC		2.4	LB		23.2	LB	-89.66		.02		.16	E3 GAL
	20400402	CO	EI2005	0	LB	EI2004	825.	LB	-100	EI2005	.	EI2004	6.35	E3 GAL
		NOX		0	LB		3,834.	LB					6.35	
		PM					270.	LB					6.35	E3 GAL
		PM10					270.	LB					6.35	
		PM10,FLTRBLE		0	LB		270.	LB			.		6.35	E3 GAL
		PM2.5,FLTRBL		0	LB		270.	LB					6.35	

Thruput Percent Change
-100
-22.37
-100
22.37
-22.37
100
-3.96
100
-3.96
-100
100
-3.96
-3.96
-87.5
-87.5
100
-87.5
-100
-87.5
-87.5
-100
-100
-100

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646

Reporting Year: 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Category Fee:

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit
RG_TEST_CELLS	20400402	SO2	EI2005			EI2004	252.	LB	-100	EI2005		EI2004	6.35	E3 GAL
		SOX		0	LB		252.	LB					6.35	E3 GAL
		TOC		0	LB		313.	LB					6.35	
		VOC					313.	LB					6.35	E3 GAL

Michig Air Emissions Reporting System (MA)

Additions To MAERS Report

AQD Source ID (SRN): A4646

Reporting Year: 2005

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Informational Message: No Activity SCC Codes have been added to the MAERS Inventory.

Informational Message: No Operators have been added to the MAERS Inventory.

RRP

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2005 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4A. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4B. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☒ E-Mail ☐ Diskette ☐ Paper ☐ CD

9. Amended Submittal ☐ Yes ☒ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10A. Clearly print name of Operator	10B. Telephone Number	10C. Telephone Extension
Gregory Guilliams	**(248) 397-2239**	

11. E-Mail Address (if available)

12. Signature

13. Date 2/9/06

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

14. Password (length 4 to 8 characters) **HLITC05**

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST DISTRICT OFFICE
27700 DONALD CT
WARREN MI 48092-2793
SEMAERS@MICHIGAN.GOV
(586) 753-3700

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HAYES LEMMERZ™
INTERNATIONAL, INC.

February 8, 2006

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
27700 Donald Court
Warren, MI 48092

Subject: Rule 208a Annual Renewal Registration Form and 2005 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2005 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2005.

If you have any questions please contact me at (248) 397-2239

Sincerely,

David Miller

Facility Manager

attachments

Hayes Lemmerz International, Inc.
Technical Center
1600 W. Eight Mile Road • Ferndale, MI 48220 USA
PH: 248 399•9600

ATTACHMENT 2

P-101 PASSWORD AND SIGNATURE FORM
2005 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

RRP

Michigan Department of Environmental Quality - Air Quality Division

Michigan Air Emissions Reporting System (MAERS)

2005 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4A. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4B. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☒ E-Mail ☐ Diskette ☐ Paper ☐ CD

9. Amended Submittal ☐ Yes ☒ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10A. Clearly print name of Operator	10B. Telephone Number	10C. Telephone Extension
Gregory Guilliams	**(248) 397-2239**	

11. E-Mail Address (if available)

12. Signature

13. Date 2/9/06

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

14. Password (length 4 to 8 characters) **HLITC05**

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST DISTRICT OFFICE
27700 DONALD CT
WARREN MI 48092-2793
SEMAERS@MICHIGAN.GOV
(586) 753-3700

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ATTACHMENT 3

SUPPORTING CALCULATIONS
2005 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: RG_TEST_CELLS

2005 Throughput: 0 gallons diesel fuel
16 gallons gasoline

MAERS Description Activity Code	Regulated Air Pollutants							
	PM	PM_{10}	PM_2	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine SCC 2-04-004-02								
Emission Factors (lb./1000 gal.)	42.5	42.5	-	130	604	39.7	49.3	--
Annual Emissions (lb.)	0	0	-	0	0	0	0	--
Gasoline reciprocating engine SCC 2-04-004-01								
Emission Factors (lb./1000 gal.)	6.47	6.20	6.20	3,940	102	5.31	148	--
Annual Emissions (lb.)	0.10	0.10	0.10	63	1.6	0.08	2.4	--
Emission Unit Totals	0	0	0	63	2	0	2	0

Table 2. Air pollutant emissions from the 10,000-lb. aluminum melting furnace

MAERS ID: **EU_REVERB_FURNAC**

2005 Throughput: 63.50 tons aluminum (total metal: prime, secondary, and scrap)
15.513 MMscf natural gas

MAERS Description / Activity Code	Regulated Air Pollutants								
	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC	Lead	Ammonia
Reverberatory furnace									
SCC 3-04-001-03									
Emission Factors (lb./ton metal)	4.3	2.6	2.16	--	--	--	0.2	--	--
Annual Emissions (lb.)	273	165	137	--	--	--	12.7	--	--
Secondary Metals, Natural Gas Furnace[1]									
SCC 3-04-900-33									
Emission Factor (lb./MMscf)	7.6	7.6	7.6	84	100	0.6	5.5	0.0005	3.2
Annual Emissions (lb.)	118	118	118	1303	1551	9	85	0	50
Emission Unit Totals	391	283	255	1,303	1,551	9	98	0	50

1. Emission factors from natural gas fuel fired equipment SCC 1-02-006-02

ADDITIONAL INFORMATION

Natural Gas Usage

Total
15,513 Mscf
15.513 MMscf

Hayes Lemmerz operates miscellaneous natural gas-fired equipment (facility heaters, ovens, etc.) that are exempt from Air Use Permitting pursuant to Rule 282(b)(i). Natural gas usage is these devices in not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMscf/yr).

However, the aluminum melting furnace, operated under Permit to Install No. 368-99, is fired with natural gas. All of the facility's natural gas usage is recorded on one gas meter (i.e., there are not natural gas usage records for individual processes); therefore, all of the natural gas usage is reported as an activity of the permitted furnace.

Cold Cleaners

Hayes Lemmerz operates several cold cleaners (parts washers) that are exempt from Air Use Permitting pursuant to Rule 281(h). The total solvent throughput for these devices in 2005 was approximately 55 gallons (415 pounds).

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

MAER's CHECKLIST

SRN: A4646 Hayes-Lemmerz

DISTRICT: LANSING / LIVONIA / BAY CITY / OTHER

Company name:
Staff Person assigned:
Type of Submittal:
Logged in Date:

EMAIL/CD-DISK/FTP VERSION: ✓
PAPER SUBMITTAL:
ANTI-VIRUS RAN: ✓
LOADED INTO MAERS TOOLKIT: ✓
CHECKED & VERIFIED PASSWORD: ✓
RUN & PRINT COMPLETENESS CHECK: ✓
RUN & PRINT SUMMARY REPORT:
RUN & PRINT OWNERS REPORT:
STAFF REVIEW DONE:
FILED: Edit Date: 5/20/05
Upload Date: 5/20/05

208a – Edit

MAK

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SEMI OFFICE

Michigan Air Emissions Reporting System (MAERS)

Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Contact Name: David M. Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
CO	2,800.00	LB
NOX	6,111.00	LB
PM10	606.97	LB
PM10,FLTRBLE	483.97	LB
PM2.5	177.00	LB
PM2.5,FLTRBL	447.97	LB
SO2	262.53	LB
SOX	252.83	LB
TOC	313.00	LB
VOC	441.60	LB
PM	746.02	LB
PM,FLTRBLE		

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
2,911.80	LB	CO
7,703.44	LB	NOX
		PM10
754.41	LB	PM10,FLTRBLE
		PM2.5
718.42	LB	PM2.5,FLTRBL
		SO2
505.89	LB	SOX
626.11	LB	TOC
63.72	LB	VOC
		PM
893.56	LB	PM,FLTRBLE

**NOTE: Fees are based on source reported emissions.

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 200

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit
EU_reverb_furnac	30400103	PM	EI2004	362.	LB				100	EI2004	61.8			
		PM,FLTRBLE				EI2003	205.	LB	-100	EI2004		EI2003	47.62	TON
		PM10		213.	LB				100	EI2004	61.8			
		PM10,FLTRBLE		213.	LB	EI2003	124.	LB	71.77	EI2004	61.8	EI2003	47.62	TON
		PM2.5		177.	LB				100	EI2004	61.8			
		PM2.5,FLTRBL		177.	LB	EI2003	103.	LB	71.84	EI2004	61.8	EI2003	47.62	TON
		VOC		16.4	LB		9.5	LB	72.63		61.8		47.62	TON
	30490033	CO	EI2004	1,356.	LB	EI2003	1,231.	LB	10.16	EI2004	16.15	EI2003	14.66	MMCF
		NOX		2,261.	LB		2,052.	LB	10.19		16.15		14.66	MMCF
		PM		123.	LB		111.	LB	10.81		16.15		14.66	MMCF
		PM10		123.	LB		111.	LB					14.66	
		SO2		9.7	LB				100	EI2004	16.15			
		SOX				EI2003	8.8	LB	-100	EI2004		EI2003	14.66	MMCF
		VOC		89.	LB		81.	LB	9.88		16.15		14.66	MMCF
RG_TEST_CELLS	20400401	CO	EI2004	819.	LB	EI2003	1,164.	LB	-46.36	EI2004	.16	EI2003	.29	E3 GAL
		NOX		16.	LB		30.	LB	-46.67		.16		.29	E3 GAL
		PM		1.02	LB				100	EI2004	.16			
		PM,FLTRBLE				EI2003	2.	LB	-100	EI2004		EI2003	.29	E3 GAL
		PM10		.97	LB				100	EI2004	.16			
		PM10,FLTRBLE		.97	LB	EI2003	2.	LB	-51.5	EI2004	.16	EI2003	.29	E3 GAL
		PM2.5,FLTRBL		.97	LB				100	EI2004	.16			
		SO2		.83	LB									
		SOX		.83	LB	EI2003	2.	LB	-58.5	EI2004	.16	EI2003	.29	E3 GAL
		VOC		23.2	LB		43.	LB	-46.05		.16		.29	E3 GAL
	20400402	CO	EI2004	825.	LB	EI2003		LB	100	EI2004	6.35	EI2003		E3 GAL
		NOX		3,834.	LB			LB						
		PM		270.	LB				100	EI2004	6.35			
		PM,FLTRBLE				EI2003		LB	0	EI2004		EI2003		E3 GAL
		PM10		270.	LB				100	EI2004	6.35			
		PM10,FLTRBLE		270.	LB	EI2003		LB	100	EI2004	6.35	EI2003		E3 GAL
		PM2.5,FLTRBL		270.	LB				100	EI2004	6.35			

Thruput Percent Change
100
-100
100
71.78
0
71.78
71.78
10.16
10.16
10.16
100
-100
10.16
-44.83
-44.83
100
-100
0
-44.83
100
-44.83
-44.83
100
100
0
100
100
100

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 200

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit
RG_TEST_CELLS	20400402	SO2	EI2004	252.	LB				100	EI2004	6.35			
		SOX		282.	LB	EI2003		LB	100	EI2004	6.35	EI2003		E3 GAL
		TOC		313.	LB			LB						
		VOC		313.	LB				100	EI2004	6.35			

Thruput Percent Change
100
100
100

Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Informational Message: **No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS inventory.**

The following Activity SCC Codes have been removed from the MAERS inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Remove Date
A-101	EU00001	EU_ENGINE_TEST	2-04-004-01	12/31/2004
A-101	EU00001	EU_ENGINE_TEST	2-04-004-02	12/31/2004

Informational Message: **No Operators have been removed from the MAERS inventory.**

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2004

Source Name: HAYES-LEMMERZ TECHNICAL CENTER, INC.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220-8220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Informational Message: No Activity SCC Codes have been added to the MAERS Inventory.

Informational Message: No Operators have been added to the MAERS Inventory.

JD

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2004 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4645**

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☐ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☐ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Gregory Gulliams

11. Signature

12. Date 3/1/05

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

13. Password (length 4 to 8 characters)
HLITC04

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
CADILLAC PLACE
3058 W. GRAND BLVD., SUITE 2-300
DETROIT MI 48202-6058
LIVMAERS@MICHIGAN.GOV
(313) 456-4700

JD

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2004 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☐ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☐ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Gregory Guilliams

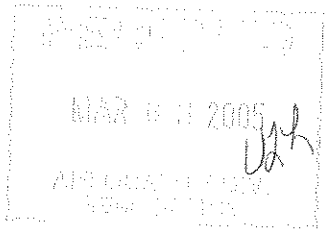
11. Signature	12. Date
	3/1/05

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.	13. Password (length 4 to 8 characters) **HLITC04**

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
CADILLAC PLACE
3058 W. GRAND BLVD., SUITE 2-300
DETROIT MI 48202-6058
LIVMAERS@MICHIGAN.GOV
(313) 456-4700



HAYES LEMMERZ™
INTERNATIONAL, INC.

March 1, 2005

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
27700 Donald Court
Warren, MI 48092

Subject: Rule 208a Annual Renewal Registration Form and 2004 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2004 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2004.

If you have any questions please contact me at (248) 397-2239

Sincerely,

David Miller

Facility Manager

attachments

Hayes Lemmerz International, Inc.
Technical Center
1600 W. Eight Mile Road • Ferndale, MI 48220 USA
PH: 248 399•9600

ATTACHMENT 1

RULE 208A ANNUAL RENEWAL REGISTRATION FORM
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

ATTACHMENT 2

P-101 PASSWORD AND SIGNATURE FORM
2004 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

ATTACHMENT 3

SUPPORTING CALCULATIONS
2004 MAERS REPORT
HAYES-LEMMERZ TECHNICAL CENTER, INC., SRN A4646

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: RG_TEST_CELLS

2004 Throughput: 6,347 gallons diesel fuel
157 gallons gasoline

MAERS Description / Activity Code	Regulated Air Pollutants						
	PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (lb.)	270	270	825	3,834	252	313	--
Gasoline reciprocating engine SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3,940	102	5.30	148	--
Annual Emissions (lb.)	1.02	0.97	619	16.0	0.83	23.2	--
Emission Unit Totals	271	271	1,444	3,850	253	336	0

Table 2. Air pollutant emissions from the 10,000-lb. aluminum melting furnace

MAERS ID: **EU_REVERB_FURNAC**

2004 Throughput: 81.80 tons aluminum (total metal: prime, secondary, scrap, and flux)
16.148 MMscf natural gas

MAERS Description / Activity Code	Regulated Air Pollutants							
	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC	Lead
Reverberatory furnace								
SCC 3-04-001-03								
Emission Factors (lb./ton metal)	4.3	2.6	2.16	--	--	--	0.2	--
Annual Emissions (lb.)	352	213	177	--	--	--	16.4	--
Secondary Metals, Natural Gas Furnace[1]								
SCC 3-04-900-33								
Emission Factor (lb./MMscf)	7.6	7.6	--	84	140	0.6	5.5	--
Annual Emissions (lb.)	123	123	--	1,356	2,261	9.7	89	--
Emission Unit Totals	474	335	177	1,356	2,261	10	105	0

1. Emission factors from natural gas fuel fired equipment SCC 1-02-006-02

ADDITIONAL INFORMATION

Natural Gas Usage

Natural Gas Usage Data from Consumer Energy Invoices

Jan	Feb	March	April	May	Jun	
2,658	2,268	1,768	1,108	759	486	**Total**
						16,148 Mscf
Jul	Aug	Sept	Oct	Nov	Dec	**16.148 MMscf**
383	462	560	1,067	2,069	2,560	

Hayes Lemmerz operates miscellaneous natural gas-fired equipment (facility heaters, ovens, etc.) that are exempt from Air Use Permitting pursuant to Rule 282(b)(i). Natural gas usage is these devices in not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMscf/yr).

However, the aluminum melting furnace, operated under Permit to Install No. 368-99, is fired with natural gas. All of the facility's natural gas usage is recorded on one gas meter (i.e., there are not natural gas usage records for individual processes); therefore, all of the natural gas usage is reported as an activity of the permitted furnace.

Cold Cleaners

Hayes Lemmerz operates several cold cleaners (parts washers) that are exempt from Air Use Permitting pursuant to Rule 281(h). The total solvent throughput for these devices in 2004 was approximately 120 gallons (900 pounds).

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

MAER's CHECKLIST

SRN: A4646

DISTRICT: LANSING / LIVONIA / BAY CITY / OTHER

Company name:
Staff Person assigned:
Type of Submittal:
Logged in Date:

EMAIL/CD-DISK/FTP VERSION:
PAPER SUBMITTAL:
ANTI-VIRUS RAN:
LOADED INTO MAERS TOOLKIT:
CHECKED & VERIFIED PASSWORD:
RUN & PRINT COMPLETENESS CHECK:
RUN & PRINT SUMMARY REPORT:
RUN & PRINT OWNERS REPORT:
STAFF REVIEW DONE: Date: 4-30-04
FILED: Upload Date: 4-30-04

RECEIVED
APR - 1 2004
AIR QUALITY DIV.
SEMI OFFICE

CAM NO

Edit - 208a

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Contact Name: David M. Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Michigan Air Emissions Reporting System (MAERS)

Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

Michigan Air Emissions Reporting System (MAERS)
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_reverb_furnac	30400103	PM,FLTRBLE	EI2003	205.	LB	EI2002	115.	LB	78.26	EI2003	47.62	EI2002	26.72	TON	78.22
		PM10,FLTRBLE		124.	LB		69.	LB	79.71		47.62		26.72	TON	78.22
		PM2.5,FLTRBL		103.	LB		58.	LB	77.59		47.62		26.72	TON	78.22
		VOC		9.5	LB		5.3	LB	79.25		47.62		26.72	TON	78.22
	30490033	CO	EI2003	1,231.	LB	EI2002	1,294.	LB	-4.87	EI2003	14.66	EI2002	15.41	MMCF	-4.87
		NOX		2,052.	LB		2,157.	LB					15.41		
		PM		111.	LB				100	EI2003	14.66				100
		PM,TOTAL				EI2002	117.	LB	-100	EI2003		EI2002	15.41	MMCF	-100
		PM10		111.	LB				100	EI2003	14.66				100
		PM10,TOTAL				EI2002	117.	LB	-100	EI2003		EI2002	15.41	MMCF	-100
		SO2					9.2	LB					15.41		
		SOX		8.8	LB				100	EI2003	14.66				100
		VOC		81.	LB	EI2002	85.	LB	-4.71	EI2003	14.66	EI2002	15.41	MMCF	-4.87
RG_TEST_CELLS	20400401	CO	EI2003	1,154.	LB	EI2002		LB	100	EI2003	.29	EI2002		E3 GAL	100
		NOX		30.	LB			LB							
		PM,FLTRBLE		2.	LB			LB							
		PM10,FLTRBLE		2.	LB			LB							
		SOX		2.	LB			LB							
		VOC		43.	LB			LB							
	20400402	CO	EI2003	0	LB	EI2002		LB	0	EI2003	.	EI2002		E3 GAL	0
		NOX		0	LB			LB							
		PM,FLTRBLE		0	LB			LB							
		PM10,FLTRBLE		0	LB			LB							
		SOX		0	LB			LB							
		TOC		0	LB			LB							

Michigan Air Emissions Reporting System (MAERS)
Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **			AQD CALCULATED EMISSIONS		
Pollutant	**Amount**	**Unit**	**Amount**	**Unit**	**Pollutant**
CO	2,385.00	LB	1,142.60	LB	CO
NOX	2,082.00	LB	29.58	LB	NOX
PM10	111.00	LB			PM10
PM10,FLTRBLE	126.00	LB	125.61	LB	PM10,FLTRBLE
PM2.5,FLTRBL	103.00	LB	102.86	LB	PM2.5,FLTRBL
SOX	10.80	LB	1.54	LB	SOX
TOC	0.00	LB	0.00	LB	TOC
VOC	133.50	LB	52.44	LB	VOC
PM	111.00	LB			PM
PM,FLTRBLE	207.00	LB	206.64	LB	PM,FLTRBLE

****NOTE: Fees are based on source reported emissions.**

Michigan Air Emissions Reporting System (MAERS)

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2003

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Informational Message: No Activity SCC Codes have been added to the MAERS Inventory.

Informational Message: No Operators have been added to the MAERS Inventory.

FL

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2003 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 West Eight Mile Road

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☐ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☐ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Greg Guilliams

11. Signature

12. Date
3/9/04

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

13. Password (length 4 to 8 characters)
HLTCM03

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS
38980 SEVEN MILE ROAD
LIVONIA MI 48152-1006
LIVMAERS@MICHIGAN.GOV
(734) 953-1449

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MAR 10 2004
AIR QUALITY DIV.
SEMI OFFICE

March 4, 2004

Southeast Michigan District Office
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
38980 Seven Mile Road
Livonia, MI 48152

Subject: Rule 208a Annual Renewal Registration Form and 2003 MAERS report
Hayes-Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes-Lemmerz Technical Center, Inc. has electronically submitted a Michigan Air Emissions Reporting System (MAERS) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2003 reporting year.

Attached please find:

- A signed Rule 208a Annual Renewal Registration form.
- A signed P-101 Password and Signature form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for calendar year 2003.

If you have any questions please contact me at (248) 397-2239

Sincerely,

HAYES-LEMMERZ TECHNICAL CENTER, INC.

David Miller
Facilities Manager

attachments

ATTACHMENT 1

P-101 SIGNATURE AND PASSWORD FORM

ATTACHMENT 2

RULE 208A REGISTRATION FORM

ATTACHMENT 3

SUPPORTING CALCULATIONS FOR
THE 2003 MAERS REPORT

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: RG_TEST_CELLS

2003 Throughput: 0 gallons diesel fuel
293 gallons gasoline

MAERS Description	Regulated Air Pollutants						
Activity Code	PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine							
SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (lb.)	0	0	0	0	0	0	--
Gasoline reciprocating engine							
SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3,940	102	5.3	148	--
Annual Emissions (lb.)	2	2	1,154	30	2	43	--
Emission Unit Totals	2	2	1,154	30	2	43	0

ADDITIONAL INFORMATION

Natural Gas Usage

Natural Gas Usage Data from Consumer Energy Invoices

Jan	Feb	March	April	May	Jun	
2,619	2,581	1,554	1,138	626	485	**Total**
						14,655 Mcf
Jul	Aug	Sept	Oct	Nov	Dec	**14.655 MMcf**
391	248	99	622	1,758	2,534	

Hayes Lemmerz operates miscellaneous natural gas-fired equipment (facility heaters, ovens, etc.) that are exempt from Air Use Permitting pursuant to Rule 282(b)(i). Natural gas usage is these devices in not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMcf/yr).

However, the aluminum melting furnace, operated under Permit to Install No. 368-99, is fired with natural gas. All of the facility's natural gas usage is recorded on one gas meter (i.e., there are not natural gas usage records for individual processes); therefore, all of the natural gas usage is reported as an activity of the permitted furnace.

Cold Cleaners

Hayes Lemmerz operates several cold cleaners (parts washers) that are exempt from Air Use Permitting pursuant to Rule 281(h). The total solvent throughput for these devices in 2003 was approximately 300 gallons (2,250 pounds).

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

JD

FL

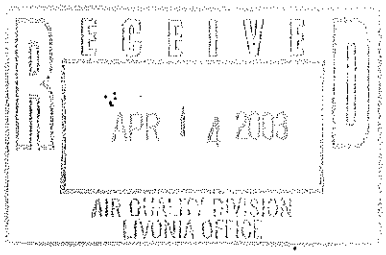
Hayes Lemmerz

MAER's CHECKLIST

SRN: A4646

DISTRICT: SHIAWASSEE / LIVONIA / BAY CITY / GAY_CAD

Company Name:
Staff Person Assigned:
Type of Submittal
Logged in Date



E-Mail / CD-Disk / FTP version: ✓

Paper Submittal:

Run Norton Anti-Virus Scan: ✓

loaded into MAER's Toolkit ✓

Checked and Verified Password: ✓

Run and Print Completeness Check: ✓

Run and Print Summary Report ✓

Run and Print Owners Report ✓

* Staff Review Done Date: 5/6/03

* ~~Filed~~ Upload Date

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Contact Name: David M. Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Michigan Air Emissions Reporting System (MAERS)
Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

Michigan Air Emissions Reporting System (MAERS)
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_reverb_furnac	30400103	PM,FLTRBLE	EI2002	115.	LB	EI2001	168.	LB	-31.55	EI2002	26.72	EI2001	39.	TON	-31.49
		PM10,FLTRBLE		69.	LB		101.	LB	-31.68		26.72		39.	TON	-31.49
		PM2.5,FLTRBL		58.	LB		84.2	LB	-31.12		26.72		39.	TON	-31.49
		VOC		5.3	LB		7.8	LB	-32.05		26.72		39.	TON	-31.49
	30490033	CO	EI2002	1,294.	LB	EI2001	1,344.	LB	-3.72	EI2002	15.41	EI2001	16.	MMCF	-3.69
		NOX		2,157.	LB		2,240.	LB	-3.71		15.41		16.	MMCF	-3.69
		PM,TOTAL		117.	LB		122.	LB	-4.1		15.41		16.	MMCF	-3.69
		PM10,TOTAL		117.	LB		122.	LB					16.		
		SO2		9.2	LB		10.	LB	-8		15.41		16.	MMCF	-3.69
		VOC		85.	LB		88.	LB	-3.41		15.41		16.	MMCF	-3.69
RG_TEST_CELLS	20400401	CO	EI2002	0	LB	EI2001	3,207.	LB	-100	EI2002	.	EI2001	.81	E3 GAL	-100
		NOX		0	LB		83.	LB					.81		
		PM,FLTRBLE		0	LB		5.	LB					.81		
		PM10,FLTRBLE		0	LB		5.	LB					.81		
		SOX		0	LB		4.	LB					.81		
		VOC		0	LB		120.	LB					.81		
	20400402	CO	EI2002	0	LB	EI2001	309.	LB	-100	EI2002	.	EI2001	2.38	E3 GAL	-100
		NOX		0	LB		1,437.	LB					2.38		
		PM,FLTRBLE		0	LB		101.	LB					2.38		
		PM10,FLTRBLE		0	LB		101.	LB					2.38		
		SOX		0	LB		94.	LB					2.38		
		TOC		0	LB		117.	LB					2.38		

Michigan Air Emissions Reporting System (MAERS)
Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
CO	1,294.00	LB
NOX	2,157.00	LB
PM10,FLTRBLE	69.00	LB
PM10,TOTAL	117.00	LB
PM2.5,FLTRBL	58.00	LB
SO2	9.20	LB
SOX	0.00	LB
TOC	0.00	LB
VOC	90.30	LB
PM,FLTRBLE	115.00	LB
PM,TOTAL	117.00	LB

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
0.00	LB	CO
0.00	LB	NOX
69.47	LB	PM10,FLTRBLE
		PM10,TOTAL
57.72	LB	PM2.5,FLTRBL
		SO2
0.00	LB	SOX
0.00	LB	TOC
5.34	LB	VOC
114.90	LB	PM,FLTRBLE
		PM,TOTAL

****NOTE: Fees are based on source reported emissions.**

Michigan Air Emissions Reporting System (MAERS)
Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

Informational Message: No Activity SCC Codes have been removed from the MAERS Inventory.

Informational Message: No Operators have been removed from the MAERS Inventory.

Michigan Air Emissions Reporting System (MAERS)

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2002

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 West Eight Mile Road FERNDALE, MI 48220

Informational Message: **No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.**

Informational Message: **No Activity SCC Codes have been added to the MAERS Inventory.**

Informational Message: **No Operators have been added to the MAERS Inventory.**

HAYES LEMMERZ™
INTERNATIONAL, INC.

FL

February 28, 2003

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road Livonia, MI 48152

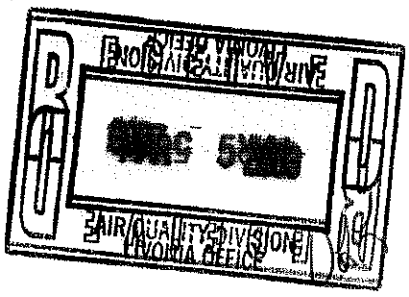
Subject: Rule 208a Annual Renewal Registration Form and 2002 MAERS report Hayes Lemmerz Technical Center, Inc., State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2002 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- A signed Rule 208a Annual Renewal Registration form.
- Supporting calculations and technical data that were used to calculate regulated air pollutant emissions for the calendar year 2002.

If you have any questions please contact me at (248) 397-2239



Sincerely,

David Miller

Facility Manager

attachments

Hayes Lemmerz International, Inc.
Technical Center
1600 W. Eight Mile Road • Ferndale, MI 48220 USA
PH: 248 399•9600

ATTACHMENT 1

RULE 208A ANNUAL RENEWAL REGISTRATION FORM

ATTACHMENT 2

P-101 PASSWORD AND SIGNATURE FORM

ATTACHMENT 3

SUPPORTING CALCULATIONS

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: RG_TEST_CELLS

2002 Throughput: 0 gallons diesel fuel
0 gallons gasoline

MAERS Description / Activity Code	Regulated Air Pollutants						
	PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine							
SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (lb.)	0	0	0	0	0	0	--
Gasoline reciprocating engine							
SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3940	102	5.3	148	--
Annual Emissions (lb.)	0	0	0	0	0	0	--
Emission Unit Totals	0	0	0	0	0	0	0

Table 2. Air pollutant emissions from the 10,000-lb. aluminum melting furnace

MAERS ID: **EU_REVERB_FURNAC**

2002 Throughput 26.72 tons aluminum
15.41 MMcf natural gas

MAERS Description Activity Code	Regulated Air Pollutants							
	PM	PM_{10}	$PM_{2.5}$	CO	NO_X	SO_2	VOC	Lead
Reverberatory furnace								
SCC 3-04-001-03								
Emission Factors (lb./ton metal)	4.3	2.6	2.16	--	--	--	0.2	--
Annual Emissions (lb.)	115	69	58	--	--	--	5.3	--
Secondary Metals, Natural Gas Furnace[1]								
SCC 3-04-900-33								
Emission Factor (lb./MMcf)	7.6	7.6	--	84	140	0.6	5.5	--
Annual Emissions (lb.)	117	117	--	1294	2157	9.2	85	--
Emission Unit Totals	232	187	58	1294	2157	9	90	0

1. Emission factors from natural gas fuel fired equipment SCC 1-02-006-02

ADDITIONAL INFORMATION

Natural Gas Usage

Natural Gas Usage Data from Consumer Energy Invoices

Jan	Feb	March	April	May	Jun	
2348	2289	2205	1902	942	612	**Total**
						15,409 Mcf
Jul	Aug	Sept	Oct	Nov	Dec	**15.409 MMcf**
423	583	643	652	1153	1657	

Hayes Lemmerz operates miscellaneous natural gas-fired equipment (facility heaters, ovens, etc.) that are exempt from Air Use Permitting pursuant to Rule 282(b)(i). Natural gas usage is these devices in not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMcf/yr).

However, the aluminum melting furnace, operated under Permit to Install No. 368-99, is fired with natural gas. All of the facility's natural gas usage is recorded on one gas meter (i.e., there are not natural gas usage records for individual processes); therefore, all of the natural gas usage is reported as an activity of the permitted furnace.

Cold Cleaners

Hayes Lemmerz operates several cold cleaners (parts washers) that are exempt from Air Use Permitting pursuant to Rule 281(h). The total solvent throughput for these devices in 2002 was approximately 300 gallons (2,250 pounds).

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2002 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☐ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☐ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Greg Guilliams

11. Signature

12. Date
2/28/03

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

13. Password (length 4 to 8 characters)
HLIFOZ

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AIR QUALITY DIVISION
SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS
38980 SEVEN MILE ROAD
LIVONIA MI 48152-1006
LIVMAERS@MICHIGAN.GOV
(734) 953-1449

RECEIVED
MAR 5 2003
AIR QUALITY DIVISION
LIVONIA OFFICE

Noyes Kemmerz Tech. Center

MAER's CHECKLIST

FL

SRN: A4646

DISTRICT: SHIAWASSEE / LIVONIA / BAY CITY / GAY_CAD

Company Name:
Staff Person Assigned:
Type of Submittal
Logged in Date

RECEIVED
APR 1 2002
AIR QUALITY DIVISION
LIVONIA OFFICE

E-Mail / CD-Disk / FTP version: ✓

Paper Submittal:

Run Norton Anti-Virus Scan: ✓

loaded into MAER's Toolkit ✓

Checked and Verified Password: ✓

Run and Print Completeness Check: ✓

Run and Print Summary Report ✓

Run and Print Owners Report ✓

Staff Review Done

Filed Done 5-21-02

Uploaded 5-21-02

total - > 20 %
10

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Contact Name: DAVID, M Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Michigan Air Emissions Reporting System (MAERS)
Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

Michigan Air Emissions Reporting System (MAERS)
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_ENGINE_TEST	20400401	CO	EI2001			EI2000	2.9	TON	-100	EI2001		EI2000	1.46	E3 GAL	-100
		NOX					.07	TON					1.46		
		PM,FLTRBLE						TON	0				1.46	E3 GAL	-100
		PM10,FLTRBLE						TON					1.46		
		SOX						TON					1.46		
		VOC					.11	TON	-100				1.46	E3 GAL	-100
	20400402	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000	5.71	E3 GAL	-100
		NOX					0	TON					5.71		
		PM,FLTRBLE					0	TON					5.71		
		PM10,FLTRBLE					0	TON					5.71		
		SOX					0	TON					5.71		
		TOC					0						5.71		
		VOC					0	TON					5.71		
EU_HOTCOLD_TEST	20400401	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000		E3 GAL	0
		NOX					0	TON							
		PM,FLTRBLE					0	TON							
		PM10,FLTRBLE					0	TON							
		SOX					0	TON							
		VOC					0	TON							
	20400402	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000		E3 GAL	0
		NOX					0	TON							
		PM,FLTRBLE					0	TON							
		PM10,FLTRBLE					0	TON							
		SOX					0	TON							
		TOC					0								
		VOC					0	TON							
EU_reverb_furnac	30400103	PM,FLTRBLE	EI2001	168.	LB				100	EI2001	39.				100
		PM10,FLTRBLE		101.	LB										
		PM2.5,FLTRBL		84.2	LB										
		VOC		7.8	LB										
	30490033	CO	EI2001	1,344.	LB				100	EI2001	16.				100

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_reverb_furnac	30490033	NOX	EI2001	2,240.	LB				100	EI2001	16.				100
		PM,TOTAL		122.	LB										
		PM10,TOTAL		122.	LB										
		SO2		10.	LB										
		VOC		88.	LB										
	39990003	NOX	EI2001			EI2000	.29	TON	-100	EI2001		EI2000	4.09	MMCF	-100
		SOX						TON	0				4.09	MMCF	-100
		VOC					.01	TON	-100				4.09	MMCF	-100
RG_TEST_CELLS	20400401	CO	EI2001	3,207.	LB				100	EI2001	.81				100
		NOX		83.	LB										
		PM,FLTRBLE		5.	LB										
		PM10,FLTRBLE		5.	LB										
		SOX		4.	LB										
		VOC		120.	LB										
	20400402	CO	EI2001	309.	LB				100	EI2001	2.38				100
		NOX		1,437.	LB										
		PM,FLTRBLE		101.	LB										
		PM10,FLTRBLE		101.	LB										
		SOX		94.	LB										
		TOC		117.	LB										

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_ENGINE_TEST	20400401	CO	EI2001			EI2000	2.9	TON	-100	EI2001		EI2000	1.46	E3 GAL	-100
		NOX					.07	TON					1.46		
		PM,FLTRBLE						TON	0				1.46	E3 GAL	-100
		PM10,FLTRBLE						TON					1.46		
		SOX						TON					1.46		
		VOC					.11	TON	-100				1.46	E3 GAL	-100
	20400402	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000	5.71	E3 GAL	-100
		NOX					0	TON					5.71		
		PM,FLTRBLE					0	TON					5.71		
		PM10,FLTRBLE					0	TON					5.71		
		SOX					0	TON					5.71		
		TOC					0						5.71		
		VOC					0	TON					5.71		
EU_HOTCOLD_TEST	20400401	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000		E3 GAL	0
		NOX					0	TON							
		PM,FLTRBLE					0	TON							
		PM10,FLTRBLE					0	TON							
		SOX					0	TON							
		VOC					0	TON							
	20400402	CO	EI2001			EI2000	0	TON	0	EI2001		EI2000		E3 GAL	0
		NOX					0	TON							
		PM,FLTRBLE					0	TON							
		PM10,FLTRBLE					0	TON							
		SOX					0	TON							
		TOC					0								
		VOC					0	TON							
EU_reverb_furnac	30400103	PM,FLTRBLE	EI2001	168.	LB				100	EI2001	39.				100
		PM10,FLTRBLE		101.	LB										
		PM2.5,FLTRBL		84.2	LB										
		VOC		7.8	LB										
	30490033	CO	EI2001	1,344.	LB				100	EI2001	16.				100

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc. **Category Fee:**

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator Id	Scc Ams Code	Material Code	Current Year	Current Amt	Current Unit	Previous Year	Previous Amt	Previous Unit	Percent Change	Thruput Current Year	Thruput Current Amt	Thruput Previous Year	Thruput Previous Amt	Thruput Previous Unit	Thruput Percent Change
EU_reverb_furnac	30490033	NOX	EI2001	2,240.	LB				100	EI2001	16.				100
		PM,TOTAL		122.	LB										
		PM10,TOTAL		122.	LB										
		SO2		10.	LB										
		VOC		88.	LB										
	39990003	NOX	EI2001			EI2000	.29	TON	-100	EI2001		EI2000	4.09	MMCF	-100
		SOX						TON	0				4.09	MMCF	-100
		VOC					.01	TON	-100				4.09	MMCF	-100
RG_TEST_CELLS	20400401	CO	EI2001	3,207.	LB				100	EI2001	.81				100
		NOX		83.	LB										
		PM,FLTRBLE		5.	LB										
		PM10,FLTRBLE		5.	LB										
		SOX		4.	LB										
		VOC		120.	LB										
	20400402	CO	EI2001	309.	LB				100	EI2001	2.38				100
		NOX		1,437.	LB										
		PM,FLTRBLE		101.	LB										
		PM10,FLTRBLE		101.	LB										
		SOX		94.	LB										
		TOC		117.	LB										

Michigan Air Emissions Reporting System (MAERS)
Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **			AQD CALCULATED EMISSIONS		
Pollutant	Amount	Unit	Amount	Unit	Pollutant
CO	4,860.00	LB	3,500.80	LB	CO
NOX	3,760.00	LB	1,520.14	LB	NOX
PM,FLTRBLE	274.00	LB	274.09	LB	PM,FLTRBLE
PM,TOTAL	122.00	LB			PM,TOTAL
PM10,FLTRBLE	207.00	LB	207.57	LB	PM10,FLTRBLE
PM10,TOTAL	122.00	LB			PM10,TOTAL
PM2.5,FLTRBL	84.20	LB	84.24	LB	PM2.5,FLTRBL
SO2	10.00	LB			SO2
SOX	98.00	LB	98.79	LB	SOX
VOC	215.80	LB	127.68	LB	VOC
TOC	117.00	LB	117.33	LB	TOC

****NOTE: Fees are based on source reported emissions.**

Michigan Air Emissions Reporting System (MAERS)
Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

The following Activity SCC Codes have been removed from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Remove Date
A-101	EU00001	EU_ENGINE_TEST	2-04-004-01	12/31/2001
A-101	EU00001	EU_ENGINE_TEST	2-04-004-02	12/31/2001
A-101	EU00002	EU_HOTCOLD_TEST	2-04-004-01	12/31/2001
A-101	EU00002	EU_HOTCOLD_TEST	2-04-004-02	12/31/2001
A-101	EU00022	EU_reverb_furnac	3-99-900-03	12/31/2001

Informational Message: No Operators have been removed from the MAERS Inventory.

Michigan Air Emissions Reporting System (MAERS)

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2001

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Form Type	AQD ID	Operator's Id	Operator's Description
RG-101	RG00023	RG_TEST_CELLS	Reporting group for the engine dynamometer test cells and hot-cold test cells.

The following Activity SCC Codes have been added to the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Operator's Description
A-101	EU00022	EU_reverb_furnac	3-04-001-03	Reverberatory furnace, aluminum throughput
A-101	EU00022	EU_reverb_furnac	3-04-900-33	Natural gas use in metal production furnace
A-101	RG00023	RG_TEST_CELLS	2-04-004-01	Gasoline use in reciprocating engines
A-101	RG00023	RG_TEST_CELLS	2-04-004-02	Diesel fuel use in reciprocating engines

Informational Message: No Operators have been added to the MAERS Inventory.

FL

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2001 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☒ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☒ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Diane M Zekind

11. Signature Diane M. Zekind

12. Date 3/5/2002

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

13. Password (length 4 to 8 characters)
HLI001

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AQD QUALITY DIVISION
SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS
38980 SEVEN MILE ROAD
LIVONIA MI
LIVMAERS@STATE.MI.US
(734) 953-1449

RECEIVED
MAR 7 2002
AIR QUALITY DIVISION
LIVONIA OFFICE

ATTACHMENT 3

SUPPORTING CALCULATIONS

ATTORNEY GEN LIVONIA Fax:734-432-1275

**** Transmit Conf.Report ****

P.1 Mar 13 2002 12:04

Telephone Number	Mode	Start	Time	Pages	Result	Note
915176255000	NORMAL	13,12:00	3'36"	19	# O K	

Time: _____

FACSIMILE COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

Name: **JAIME WINSTEAD**

Dept./Co: **AGD**

Fax Number: **517-625-5000**

FROM:

Name: **VICKIE LUMB**

Phone: **734-953-1449**

Fax: **734-432-1278**

Total number of pages (including cover sheet): 19

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL BACK AS SOON AS POSSIBLE.

COMMENTS:

FL

Hayes Lemmerz

MAER's CHECKLIST

SRN: A4646

DISTRICT: SHIAWASSEE / LIVONIA / BAY CITY / GAY_CAD

Company Name:
Staff Person Assigned:
Type of Submittal
Logged in Date

E-Mail / CD-Disk / FTP version: ✓

Paper Submittal:

Run Norton Anti-Virus Scan: ✓

loaded into MAER's Toolkit ✓

Checked and Verified Password: ✓

Run and Print Completeness Check: ✓

Run and Print Summary Report ✓

Run and Print Owners Report ✓

Staff Review Done

Filed DONE 5-4-01 upload

To Chris only 13 tons increase in emissions.

-208a- Source

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Contact Name: DAVID, M Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Emission Inventory Toolkit System
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

AQD Id	Operator Id	Scc Code	Material Code	Material Throughput	Unit Code	SCC Reference Material Code	SCC Reference Unit Code	MAERS Emission Factors
EU00001	EU_ENGINE_TEST	2-04-004-02	DIESEL FUEL	5.71	E3 GAL	KEROSENE	E3 GAL	Yes
EU00002	EU_HOTCOLD_TEST	2-04-004-02	DIESEL FUEL	.00	E3 GAL	KEROSENE	E3 GAL	Yes

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
EU_ENGINE_TEST	2-04-004-02	PM10,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-01	PM10,FLTRBLE	EI2000	0	TONS	EI1999	0	TONS	0
	2-04-004-01	PM,FLTRBLE	EI2000	0	TONS	EI1999	0	TONS	0
	2-04-004-01	SOX	EI2000	0	TONS	EI1999	0	TONS	0
	2-04-004-02	PM,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	NOX	EI2000		TONS	EI1999	7	TONS	-100
	2-04-004-01	NOX	EI2000	0.07	TONS	EI1999	0	TONS	100
	2-04-004-01	VOC	EI2000	0.11	TONS	EI1999	0	TONS	100
	2-04-004-02	TOC	EI2000		TONS		0	TONS	0
	2-04-004-02	SOX	EI2000		TONS	EI1999	0	TONS	0
EU_ENGINE_TEST	2-04-004-01	CO	EI2000	2.9	TONS	EI1999	8	TONS	-63.75
	2-04-004-02	VOC	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	CO	EI2000		TONS	EI1999	1	TONS	-100
EU_HOTCOLD_TEST	2-04-004-01	NOX	EI2000		TONS	EI1999	0	TONS	0
EU_HOTCOLD_TEST	2-04-004-01	CO	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	VOC	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	TOC	EI2000		TONS		0	TONS	0
	2-04-004-02	SOX	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	PM,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	NOX	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	CO	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-02	PM10,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-01	VOC	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-01	SOX	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-01	PM10,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0
	2-04-004-01	PM,FLTRBLE	EI2000		TONS	EI1999	0	TONS	0

Michigan Air Emissions Reporting System (MAERS)
Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes Lemmerz International, Inc

Mailing Address (Street Number and Name or P.O. Box)

15300 Centennial Drive

Address Continued

City Northville **State/Province** MI **Country** USA **Zip or Postal Code** 48167

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
EU_reverb_furnac	3-99-900-03	VOC	EI2000	0.01	TONS		0	TONS	100
	3-99-900-03	SOX	EI2000	0	TONS		0	TONS	0
EU_reverb_furnac	3-99-900-03	NOX	EI2000	0.29	TONS		0	TONS	100

Emission Inventory Toolkit System
Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Red Text - Indicates Criteria Pollutants

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
CO		
CO	2.90	TON
NOX		
NOX	0.36	TON
PM,FLTRBLE		
PM,FLTRBLE	0.00	TON
PM10,FLTRBLE		
PM10,FLTRBLE	0.00	TON
SOX		
SOX	0.00	TON
VOC		
VOC	0.12	TON

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
5,752.40	LB	CO
		CO
721.52	LB	NOX
		NOX
9.45	LB	PM,FLTRBLE
		PM,FLTRBLE
9.05	LB	PM10,FLTRBLE
		PM10,FLTRBLE
10.21	LB	SOX
		SOX
227.53	LB	VOC
		VOC

****NOTE: Fees are based on source reported emissions.**

Michiga[illegible]ir Emissions Reporting System (MAER[illegible])
[illegible]moved From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Informational Message: No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

Informational Message: No Activity SCC Codes have been removed from the MAERS Inventory.

Informational Message: No Operators have been removed from the MAERS Inventory.

Michiga Air Emissions Reporting System (MAER

Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 2000

Source Name: Hayes Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.

Form Type	AQD ID	Operator's Id	Operator's Description
EU-101	EU00022	EU_reverb_furnac	aluminum melting furnace for research and devolpment projects
SV-101	SV00021	SV00006	Aluminum Melting Furnace

The following Activity SCC Codes have been added to the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Operator's Description
A-101	EU00022	EU_reverb_furnac	3-99-900-03	Aluminum Melting Furnace

Informational Message: No Operators have been added to the MAERS Inventory.

FL

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2000 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name
Hayes Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

8. Submittal Method ☒ E-Mail ☐ Diskette ☐ Paper

9. Amended Submittal ☐ Yes ☒ No

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

10. Clearly print name of Operator
Diane M Zekind

11. Signature Diane M. Zekind

12. Date 3/21/2001

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

13. Password (length 4 to 8 characters)
HLTC319

DISTRICT INFORMATION

SOUTHEAST MICHIGAN
AQD QUALITY DIVISION
SOUTHEAST MICHIGAN DISTRICT HEADQUARTERS
38980 SEVEN MILE ROAD
LIVONIA MI
LIVMAERS@STATE.MI.US
(734) 953-8905

RECEIVED
MAR 23 2001
AIR QUALITY DIVISION
LIVONIA OFFICE

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

2000 S-101 SOURCE

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

GENERAL INSTRUCTIONS: Verify the accuracy of all information on the summary report and make any necessary additions or corrections.
Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **S-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name	4. Primary SIC Code
Hayes Lemmerz Technical Center, Inc.	**8734**

5A. Portable **NO**

6A. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

6B. Address Continued

7. County	8. City	9. Zip Code
OAKLAND	**FERNDALE**	**48220-**

10. UTM Zone	11. UTM - East	12. UTM - North	13. Number of Employess
17	**323465**	**4701260**	**230**

14. Principal Product **ENGINE TESTING**

15. Employer Federal Identification Number **382257519**

OWNER INFORMATION

16. Owner Name
Hayes Lemmerz International, Inc

17A. Mailing Address (Street Number and Name or P.O. Box)
15300 Centennial Drive

17B. Address Continued

18. City	19. State/Province	20. Country	21. Zip or Postal Code
Northville	**MI**	**USA**	**48167**

HAYES LEMMERZ™
INTERNATIONAL, INC.

March 21, 2001

Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road Livonia, MI 48152

Subject: 2000 MARES report for Hayes Lemmerz Technical Center, Inc.

State Registration No. A4646

Hayes Lemmerz Technical Center has electronically submitted a completed Michigan Air Emissions Reporting System (MARES) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 2000 reporting year.

Attached please find:

- A signed P-101 Password and Signature form
- S-101 Source form

If you have any questions please contact me at (248) 397-2239

Sincerely,

David Miller

Facility Manager

enclosure

Hayes-Lemerz

MAER's CHECKLIST

SRN: A4646 FL

DISTRICT: **SHIAWASSEE / LIVONIA**

Company Name:
Staff Person Assigned:
Type of Submittal
Logged in Date

E-Mail / CD-Disk / FTP version: ✓

Paper Submittal:

Run Norton Anti-Virus Scan: ✓

loaded into MAER's Toolkit ✓

Checked and Verified Password: ✓

Run and Print Completeness Check: ✓

Run and Print Summary Report ✓

Run and Print Owners Report ✓

Staff Review Done 5-18-00

Filed

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Contact Name: David Miller

Contact Phone: (248) 397-2239

Total Errors Found: 0

Michigan Air Emissions Reporting System (MAERS)

Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

Hayes-Lemmerz Technical Center, Inc.

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

ission Inventory Toolkit System
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

AQD Id	Operator Id	Scc Code	Material Code	Material Throughput	Unit Code	SCC Reference Material Code	SCC Reference Unit Code	MAERS Emission Factors
DV00001	DV_ENGINE_TEST	2-04-004-02	DIESEL FUEL	25.98	E3 GAL	KEROSENE	E3 GAL	Yes
DV00002	DV_HOTCOLD_TEST	2-04-004-02	DIESEL FUEL	.00	E3 GAL	KEROSENE	E3 GAL	Yes

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
DV_ENGINE_TEST	2-04-004-02	VOC	EI1999	0.6	TONS		0	TONS	100
	2-04-004-01	PM10,FLTRBLE	EI1999	0.01	TONS		0	TONS	100
	2-04-004-01	VOC	EI1999	0.33	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	NOX	EI1999	0.23	TONS		0	TONS	100
	2-04-004-02	SOX	EI1999	0.5	TONS		0	TONS	100
	2-04-004-02	PM,FLTRBLE	EI1999	0.6	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	CO	EI1999	8.7	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	SOX	EI1999	0.01	TONS		0	TONS	100
	2-04-004-01	PM,FLTRBLE	EI1999	0.01	TONS		0	TONS	100
	2-04-004-02	CO	EI1999	1.7	TONS		0	TONS	100
	2-04-004-02	PM10,FLTRBLE	EI1999	0.6	TONS		0	TONS	100
	2-04-004-02	NOX	EI1999	7.8	TONS		0	TONS	100
DV_HOTCOLD_TEST	2-04-004-02	CO	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	VOC	EI1999	0	TONS		0	TONS	0
	2-04-004-02	VOC	EI1999	0	TONS		0	TONS	0
	2-04-004-02	PM10,FLTRBLE	EI1999	0	TONS		0	TONS	0
	2-04-004-01	PM,FLTRBLE	EI1999	0	TONS		0	TONS	0
	2-04-004-01	SOX	EI1999	0	TONS		0	TONS	0
	2-04-004-01	NOX	EI1999	0	TONS		0	TONS	0
	2-04-004-02	PM,FLTRBLE	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	CO	EI1999	0	TONS		0	TONS	0
	2-04-004-02	SOX	EI1999	0	TONS		0	TONS	0
	2-04-004-02	NOX	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	PM10,FLTRBLE	EI1999	0	TONS		0	TONS	0
DV00007	2-03-002-02	SOX	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	VOC	EI1999	0	TONS	EI1998	0	TONS	0

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
DV00007	2-03-002-02	PM10,TOTAL	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	PM,TOTAL	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	NOX	EI1999	0	TONS	EI1998	0	TONS	0
DV00007	2-03-002-02	CO	EI1999	0	TONS	EI1998	0	TONS	0

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
DV_ENGINE_TEST	2-04-004-02	VOC	EI1999	0.6	TONS		0	TONS	100
	2-04-004-01	PM10,FLTRBLE	EI1999	0.01	TONS		0	TONS	100
	2-04-004-01	VOC	EI1999	0.33	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	NOX	EI1999	0.23	TONS		0	TONS	100
	2-04-004-02	SOX	EI1999	0.5	TONS		0	TONS	100
	2-04-004-02	PM,FLTRBLE	EI1999	0.6	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	CO	EI1999	8.7	TONS		0	TONS	100
DV_ENGINE_TEST	2-04-004-01	SOX	EI1999	0.01	TONS		0	TONS	100
	2-04-004-01	PM,FLTRBLE	EI1999	0.01	TONS		0	TONS	100
	2-04-004-02	CO	EI1999	1.7	TONS		0	TONS	100
	2-04-004-02	PM10,FLTRBLE	EI1999	0.6	TONS		0	TONS	100
	2-04-004-02	NOX	EI1999	7.8	TONS		0	TONS	100
DV_HOTCOLD_TEST	2-04-004-02	CO	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	VOC	EI1999	0	TONS		0	TONS	0
	2-04-004-02	VOC	EI1999	0	TONS		0	TONS	0
	2-04-004-02	PM10,FLTRBLE	EI1999	0	TONS		0	TONS	0
	2-04-004-01	PM,FLTRBLE	EI1999	0	TONS		0	TONS	0
	2-04-004-01	SOX	EI1999	0	TONS		0	TONS	0
	2-04-004-01	NOX	EI1999	0	TONS		0	TONS	0
	2-04-004-02	PM,FLTRBLE	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	CO	EI1999	0	TONS		0	TONS	0
	2-04-004-02	SOX	EI1999	0	TONS		0	TONS	0
	2-04-004-02	NOX	EI1999	0	TONS		0	TONS	0
DV_HOTCOLD_TEST	2-04-004-01	PM10,FLTRBLE	EI1999	0	TONS		0	TONS	0
DV00007	2-03-002-02	SOX	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	VOC	EI1999	0	TONS	EI1998	0	TONS	0

Emission Inventory Toolkit System

Emission Comparison - Previous Year

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Operator ID	SCC AMS Code	Material Code	Current Year	Current Amount	Current Unit	Previous Year	Previous Amount	Previous Unit	Percent Change
DV00007	2-03-002-02	PM10,TOTAL	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	PM,TOTAL	EI1999	0	TONS	EI1998	0	TONS	0
	2-03-002-02	NOX	EI1999	0	TONS	EI1998	0	TONS	0
DV00007	2-03-002-02	CO	EI1999	0	TONS	EI1998	0	TONS	0

Emission Inventory Toolkit System
Emission Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Red Text - Indicates Criteria Pollutants (reported in TONS by AQD calculations)

SOURCE REPORTED EMISSIONS **		
Pollutant	**Amount**	**Unit**
CO	10.40	TON
NOX	8.03	TON
PM,FLTRBLE	0.61	TON
PM10,FLTRBLE	0.61	TON
SOX	0.51	TON
VOC	0.93	TON

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
8.7074	TON	CO
0.2254	TON	NOX
0.0143	TON	PM,FLTRBLE
0.0137	TON	PM10,FLTRBLE
0.0117	TON	SOX
0.3271	TON	VOC

Michigan Air Emissions Reporting System (MAERS)
Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Exempt Devices, Emission Units, Reporting Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	Remove/DismantleDate	
EU-101	DV00007	DV00007	12/31/1999	Exempt Device has been removed.

The following Activity SCC Codes have been removed from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Remove Date
A-101	DV00007	DV00007	2-03-002-02	12/31/1999

Informational Message: No Operators have been removed from the MAERS Inventory.

Michi Air Emissions Reporting System (MAE)

Additions To MAERS Report

AQD Source ID (SRN): A4646

Reporting Year: 1999

Source Name: Hayes-Lemmerz Technical Center, Inc.

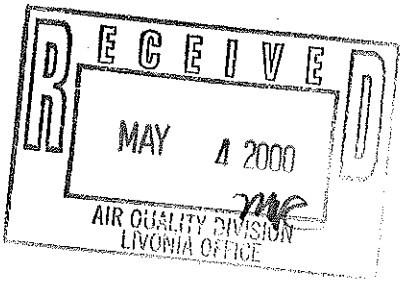
Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Informational Message: **No Exempt Devices, Emission Units, Reporting Groups, or Stacks have been added to the MAERS Inventory.**

Informational Message: **No Activity SCC Codes have been added to the MAERS Inventory.**

Informational Message: **No Operators have been added to the MAERS Inventory.**

March 22, 2000



Air Quality Division
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
Southeast Michigan District
38980 Seven Mile Road
Livonia, MI 48152

Subject: 1999 MAERS report for Hayes-Lemmerz Technical Center, Inc.
State Registration No. A4646

Hayes-Lemmerz Technical Center, Inc. has electronically submitted a completed Michigan Air Emissions Reporting System (MAERS) file to the Michigan Department of Environmental Quality, Air Quality Division (MDEQ-AQD) Southeast Michigan District Office for the 1999 reporting year.

Attached please find:

- A signed P-101 Password and Signature form.
- Supporting calculations and technical information that was used in completing the E-101 Emissions forms.

If you have any questions please contact me at (248) 397-2239.

Sincerely,

HAYES-LEMMERZ TECHNICAL CENTER, INC.

David Miller
Facilities Manager

attachments

ATTACHMENT 1

P-101 PASSWORD AND SIGNATURE FORM
AND
S-101 SOURCE INFORMATION FORM

Copy to Jenie

FL

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

1999 P-101 SIGNATURE AND PASSWORD

(Required Form)

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

General Instructions: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **P-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

RECEIVED
MAY 4 2000
AIR QUALITY DIVISION
LIVONIA OFFICE

3. Source Name
Hayes-Lemmerz Technical Center, Inc.

4. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

4A. Address Continued

5. County	6. City	7. Zip Code
OAKLAND	**FERNDALE**	**48220**

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements in this submittal are true, accurate, and complete.

8. Clearly print name of Operator
Diane M Zekind

9. Signature Diane M. Zekind

10. Date 3/31/2000

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division.
Please keep a record of your Password for future reference.

11. Password (length 4 to 8 characters)	12. Submittal Method			
DHLT99	☒ E-Mail	☐ FTP	☐ CD	
	☐ Zipdisk	☐ Windows 95/98 backup		

Michigan Department of Environmental Quality - Air Quality Division

Michigan Air Emissions Reporting System (MAERS)

1999 S-101 SOURCE

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalities possible for providing false information.

GENERAL INSTRUCTIONS: Verify the accuracy of all information on the summary report and make any necessary additions or corrections. Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE

1. Form Type **S-101**	2. AQD Source ID (SRN) **A4646**

SOURCE IDENTIFICATION

3. Source Name	4. Primary SIC Code
Hayes-Lemmerz Technical Center, Inc.	**8734**

5A. Portable **NO**	5B. Portable Start Date (MM/DD/YYYY) **00/00/0000**	5C. Portable Stop Date (MM/DD/YYYY) **00/00/0000**

6A. Street Number and Name (where emission unit(s) is located)
1600 W EIGHT MILE RD

6B. Address Continued

7. County	8. City	9. Zip Code
OAKLAND	**FERNDALE**	**48220-**

10. UTM Zone	11. UTM - East	12. UTM - North	13. Number of Employess
17	**323465**	**4701260**	**230**

14. Principal Product **ENGINE TESTING**

15. Employer Federal Identification Number **382257519**

OWNER INFORMATION

16. Owner Name
Hayes-Lemmerz Technical Center, Inc.

17A. Mailing Address (Street Number and Name or P.O. Box)
1600 West Eight Mile Road

17B. Address Continued

18. City	19. State/Province	20. Country	21. Zip or Postal Code
Ferndale	**MI**	**USA**	**48220**

ATTACHMENT 2

SUPPORTING CALCULATIONS FOR THE 1999 MAERS REPORT

Table 1. Air pollutant emissions from the engine dynamometer test cells

MAERS ID: DV_ENGINE_TEST

1999 Throughput: 25,981 gallons diesel fuel
4,417 gallons gasoline

MAERS Description / Activity Code	Regulated Air Pollutants PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine							
SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (TpY)	0.6	0.6	1.7	7.8	0.5	0.6	--
Gasoline reciprocating engine							
SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3940	102	5.3	148	--
Annual Emissions (TpY)	0.01	0.01	8.70	0.23	0.01	0.33	--
Emission Unit Totals	0.57	0.57	10.39	8.07	0.53	0.97	0.00

Table 2. Air pollutant emissions from the hot/cold engine dynamometer test cells

MAERS ID: DV_HOTCOLD_TEST

1999 Throughput: 0 gallons diesel fuel
0 gallons gasoline

MAERS Description	Regulated Air Pollutants						
Activity Code	PM	PM_{10}	CO	NO_X	SO_2	VOC	Lead
Diesel fuel reciprocating engine							
SCC 2-04-004-02							
Emission Factors (lb./1000 gal.)	42.5	42.5	130	604	39.7	49.3	--
Annual Emissions (TpY)	0.0	0.0	0.0	0.0	0.0	0.0	--
Gasoline reciprocating engine							
SCC 2-04-004-01							
Emission Factors (lb./1000 gal.)	6.47	6.20	3940	102	5.3	148	--
Annual Emissions (TpY)	0.00	0.00	0.00	0.00	0.00	0.00	--
Emission Unit Totals	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 3. Natural gas usage in exempt facility heaters
MAERS ID: None

Month 1999	Usage[1] (Mcf)
Jan	1969
Feb	1778
Mar	1438
Apr	663
May	180
Jun	34
Jul	0
Aug	13
Sep	200
Oct	594
Nov	1138
Dec	2953
Total	10,960 Mcf
	10.96 MMcf

1. As determined from Consumers Energy invoices

Natural gas fired heaters and ovens exempt from permitting pursuant to Rule 282(b)(i) are not subject to MAERS reporting unless the aggregated natural gas throughput exceeds 50 million cubic feet per year (50 MMcf)

Table 4. Solvent usage in exempt parts washers
MAERS ID: None

	Estimated Solvent Usage in RPM Parts Washers[1]			
Cleaner:	No. 1	No. 2	No. 3	No. 4
Capacity:	30 gallon	30 gallon	30 gallon	30 gallon
Serviced:	monthly	quarterly	quarterly	semi-annually
Jan	30			
Feb	30			
Mar	30	30	30	
Apr	30			
May	30			
Jun	30	30	30	50
Jul	30			
Aug	30			
Sep	30	30	30	
Oct	30			
Nov	30			
Dec	30	30	30	50
Total	360	120	120	100

Total Solvent Usage for 1999: 700 gallons

1. Solvent throughput based on RMT maintenance frequency for individual parts washers

Cold solvent cleaners exempt from permitting pursuant to Rule 281(h) are not subject to MAERS reporting unless the aggregated cleaner throughput exceeds 1,000 gallons.

1K

MAERS CHECKLIST

A4646

COMPANY NAME:
SRN:
STAFF PERSON ASSIGNED:
TYPE OF SUBMITTAL:
LOGGED IN DATE:

A small R&D facility Dyno/testing

ELECTRONIC/FTP VERSION ATTACHED TO C: DRIVE _____

PAPER SUBMITTAL LOCATE AND ATTACH TO C: DRIVE _____

RUN NORTON ANTI VIRUS SCAN _____

UPLOAD INTO MAERS TOOLKIT _____

CHECK AND VERIFY PASSWORD _____

RUN AND PRINT COMPLETNESS CHECKER _____

RUN AND PRINT SUMMARY REPORT _____

RUN AND PRINT OWNER REPORT _____

STAFF REVIEW DONE _____

FILED _____

Diane M. Zekind
Director - Tech. Services
(248) 399-9607

File Green Folder
A4646
CMI Tech Center

Updated 5/18/99

Michigan Air Emissions Reporting System (MAERS)
Completeness Check Error Report

AQD Source ID (SRN): A4646

Reporting Year: 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Total Errors Found: 0

Emission Inventory Toolkit System
Material/Unit Comparison Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

AQD Id	Operator Id	Scc Code	Material Code	Material Throughput	Unit Code	SCC Reference Material Code	SCC Reference Unit Code	MAERS Emission Factors
DV00001	DV00001	2-04-004-01	GASOLINE	.00	GAL-YR	GASOLINE	E3 GAL	Yes
DV00001	DV00001	2-04-004-02	DIESEL FUEL	4,765.00	GAL-YR	KEROSENE	E3 GAL	Yes
DV00002	DV00002	2-04-004-01	GASOLINE	.00	GAL-YR	GASOLINE	E3 GAL	Yes
DV00002	DV00002	2-04-004-02	DIESEL FUEL	.00	GAL-YR	KEROSENE	E3 GAL	Yes

Emission Inventory Toolkit System

E. ..ssion Comparison - Source Totals

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

SOURCE REPORTED EMISSIONS		
Pollutant	**Amount**	**Unit**
CO	0.31	TON
NOX	1.45	TON
PM	0.10	TON
PM,FLTRBLE	0.00	TON
PM,TOTAL	0.00	TON
PM10	0.10	TON
PM10,FLTRBLE	0.00	TON
PM10,TOTAL	0.00	TON
SOX	0.10	TON
VOC	0.12	TON

AQD CALCULATED EMISSIONS		
Amount	**Unit**	**Pollutant**
		CO
		NOX
		PM
		PM,FLTRBLE
		PM,TOTAL
		PM10
		PM10,FLTRBLE
		PM10,TOTAL
		SOX
		VOC

Michigan Air Emissions Reporting System (MAERS)
Removed From MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Exempt Devices, Emission Units, Flexible Groups, or Stacks have been removed or dismantled from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	Remove/DismantleDate	
EU-101	DV00003	DV00003	12/31/1998	Exempt Device has been removed.
EU-101	DV00004	DV00004	12/31/1998	Exempt Device has been removed.
EU-101	DV00005	DV00005	12/31/1998	Exempt Device has been removed.
EU-101	DV00006	DV00006	12/31/1998	Exempt Device has been removed.
EU-101	DV00008	DV00008	12/31/1998	Exempt Device has been removed.
EU-101	DV00009	DV00009	12/31/1998	Exempt Device has been removed.
EU-101	DV00010	DV00010	12/31/1998	Exempt Device has been removed.
EU-101	DV00011	DV00011	12/31/1998	Exempt Device has been removed.
EU-101	DV00012	DV00012	12/31/1998	Exempt Device has been removed.
EU-101	DV00013	DV00013	12/31/1998	Exempt Device has been removed.
EU-101	DV00014	DV00014	12/31/1998	Exempt Device has been removed.
EU-101	DV00015	DV00015	12/31/1998	Exempt Device has been removed.
SV-101	SV00021	SV00010	12/31/1998	Stack has been removed.
SV-101	SV00022	SV00011	12/31/1998	Stack has been removed.

The following Activity SCC Codes have been removed from the MAERS Inventory.

Form Type	AQD ID	Operator's Id	SCC Code	Remove Date
A-101	DV00003	DV00003	3-04-003-50	12/31/1998
A-101	DV00004	DV00004	1-03-006-03	12/31/1998
A-101	DV00005	DV00005	1-05-001-06	12/31/1998
A-101	DV00006	DV00006	1-05-001-06	12/31/1998
A-101	DV00008	DV00008	3-04-001-14	12/31/1998
A-101	DV00009	DV00009	3-04-001-14	12/31/1998
A-101	DV00010	DV00010	3-04-001-99	12/31/1998
A-101	DV00011	DV00011	3-04-001-99	12/31/1998
A-101	DV00012	DV00012	3-04-001-02	12/31/1998
A-101	DV00012	DV00012	3-04-001-04	12/31/1998
A-101	DV00012	DV00012	3-04-900-03	12/31/1998
A-101	DV00013	DV00013	3-04-001-02	12/31/1998
A-101	DV00013	DV00013	3-04-001-04	12/31/1998
A-101	DV00013	DV00013	3-04-900-03	12/31/1998
A-101	DV00014	DV00014	4-04-001-21	12/31/1998
A-101	DV00014	DV00014	4-04-001-22	12/31/1998
A-101	DV00014	DV00014	4-04-004-03	12/31/1998
A-101	DV00014	DV00014	4-04-004-04	12/31/1998
A-101	DV00015	DV00015	4-04-001-21	12/31/1998
A-101	DV00015	DV00015	4-04-001-22	12/31/1998

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Informational Message: **No Operators have been removed from the MAERS Inventory.**

Michigan Air Emissions Reporting System (MAERS)
Additions To MAERS Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

Informational Message: No Exempt Devices, Emission Units, Flexible Groups, or Stacks have been added to the MAERS Inventory.

Informational Message: No Activity SCC Codes have been added to the MAERS Inventory.

The following Operators have been added to the MAERS Inventory.

Form Type	First Name	Last Name
O-101	Diane M	Zekind

Michigan Air Emissions Reporting System (MAERS)
Owner Maintenance Report

AQD Source ID (SRN): A4646 **Reporting Year:** 1998

Source Name: CMI-Tech Center Inc.

Source Location: 1600 W EIGHT MILE RD FERNDALE, MI 48220

The following Owner Information has been added to the MAERS Inventory.

Owner Name

CMI-Tech Center Inc.-A subsidiary of Hayes Lemmerz

Mailing Address (Street Number and Name or P.O. Box)

1600 West Eight Mile Road

Address Continued

City Ferndale **State/Province** MI **Country** USA **Zip or Postal Code** 48220

(IK)

DEQ

Michigan Department of Environmental Quality - Air Quality Division
Michigan Air Emissions Reporting System (MAERS)

1998 P-101 PASSWORD AND SIGNATURE

Authorized under 1994 P.A. 451, as amended. Completion of information is required. Civil and/or criminal penalties possible for providing false information.

GENERAL INSTRUCTIONS: Refer to the General Instructions Booklet for more detailed instructions.

FORM REFERENCE	
1. Form Type **P-101**	2. AQD Source ID (SRN) A4646

PASSWORD AUTHORIZATION FOR ELECTRONIC SUBMITTAL

For electronic submittal, Password authorization is required to confirm that the data is securely available for receipt by the Air Quality Division. Please keep a record of your Password for future reference.

3. Password (length 4 to 8 characters) LM990051	4. Submittal Method ☐ E-Mail ☒ FTP

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

5. Clearly print name of Operator Diane M. Zekind	
6. Signature Diane M. Zekind	7. Date MAY 3, 1999

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

5. Clearly print name of Operator	
6. Signature	7. Date

OPERATOR'S CERTIFICATION

Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

5. Clearly print name of Operator	
6. Signature	7. Date

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Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

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Based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate, and complete.

5. Clearly print name of Operator	
6. Signature	7. Date

EQP 5755 (7/98)

HP OfficeJet
Personal **Printer/Fax/Copier**

Fax Log Report for
MDEQ LIVONIA OFFICE
734 432 1278
May-10-99 03:14 PM

Identification	Result	Pages	Type	Date	Time	Duration	Diagnostic
915176255000	OK	02	Sent	May-10	03:13P	00:01:06	002586030022

1.3.0 2.8

DEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
SOUTHEAST MICHIGAN DISTRICT OFFICE
38980 SEVEN MILE ROAD
LIVONIA, MICHIGAN 48152-1006

Date: 5/10/99

Time: 3:00 pm

FACSIMILE COVER SHEET

PLEASE DELIVER THE FOLLOWING PAGES TO:

Name: Jamie Winstead

Dept./Co: AQD

Fax Number: 517-625-5000

FROM:

Name: Vickie Lumb

Phone: 734-953-1449

Fax: 734-432-1278

Total number of pages (including cover sheet): 2

IF YOU DO NOT RECEIVE ALL PAGES, PLEASE CALL BACK AS SOON AS POSSIBLE

****

COMMENTS:

EU-101 EMISSION UNIT

AQD Source ID (SRN): A4646

AQD Source Name: CMI-Tech Center Inc.

Operator's ID	SIC Code	Operator's Emission Unit Description	AQD ID	Removed Date
DV00001		ENGINE TEST CELLS	DV00001	
DV00002		HOT-COLD TEST CELLS	DV00002	
DV00003		MIXER-ALUMINUM CASTING	DV00003	12/31/1998
DV00004		HOT WATER HEATERS	DV00004	12/31/1998
DV00005		SPACE HEATERS.	DV00005	12/31/1998
DV00006		BOILERS-SPACE HEATING	DV00006	12/31/1998
DV00007		NATURAL GAS COMPRESSOR	DV00007	
DV00008		BUHLER CASTING MACHINE	DV00008	12/31/1998
DV00009		UBE CASTING MACHINE	DV00009	12/31/1998
DV00010		1000 LB ELEC HOLDING FURN	DV00010	12/31/1998
DV00011		2000 LB ELEC HOLDING FURN	DV00011	12/31/1998
DV00012		DIP FURNACE	DV00012	12/31/1998
DV00013		TILT FURNACE	DV00013	12/31/1998
DV00014		UNDERGROUND STORAGE TANKS	DV00014	12/31/1998
DV00015		DIESEL STORAGE	DV00015	12/31/1998

A-101 ACTIVITY

AQD Source ID (SRN): A4646

AQD Source Name: CMI-Tech Center Inc.

5/18/99

17:04:01

Operator's ID	Description
DV00001	ENGINE TEST CELLS
DV00002	HOT-COLD TEST CELLS
DV00003	MIXER-ALUMINUM CASTING
DV00004	HOT WATER HEATERS
DV00005	SPACE HEATERS.
DV00006	BOILERS-SPACE HEATING
DV00007	NATURAL GAS COMPRESSOR
DV00008	BUHLER CASTING MACHINE
DV00009	UBE CASTING MACHINE
DV00010	1000 LB ELEC HOLDING FURN
DV00011	2000 LB ELEC HOLDING FURN
DV00012	DIP FURNACE
DV00013	TILT FURNACE
DV00014	UNDERGROUND STORAGE TANKS
DV00015	DIESEL STORAGE

E-101 EMISSIONS

AQD Source ID (SRN): A4646

AQD Source Name: CMI-Tech Center Inc.

Operator's ID	SCC Code	Remove Date
DV00001	2-04-004-01	
DV00001	2-04-004-02	
DV00002	2-04-004-01	
DV00002	2-04-004-02	
DV00003	3-04-003-50	12/31/98
DV00004	1-03-006-03	12/31/98
DV00005	1-05-001-06	12/31/98
DV00006	1-05-001-06	12/31/98
DV00007	2-03-002-02	
DV00008	3-04-001-14	12/31/98
DV00009	3-04-001-14	12/31/98
DV00010	3-04-001-99	12/31/98
DV00011	3-04-001-99	12/31/98
DV00012	3-04-001-02	12/31/98
DV00012	3-04-001-04	12/31/98
DV00012	3-04-900-03	12/31/98
DV00013	3-04-001-02	12/31/98
DV00013	3-04-001-04	12/31/98
DV00013	3-04-900-03	12/31/98
DV00014	4-04-001-21	12/31/98
DV00014	4-04-001-22	12/31/98
DV00014	4-04-004-03	12/31/98
DV00014	4-04-004-04	12/31/98
DV00015	4-04-001-21	12/31/98
DV00015	4-04-001-22	12/31/98