

N7807

MANILA

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

N780737559

FACILITY: Meiden Technical Center North America, LLC		SRN / ID: N7807
LOCATION: 15810 CENTENNIAL DR, NORTHVILLE TWP		DISTRICT: Detroit
CITY: NORTHVILLE TWP		COUNTY: WAYNE
CONTACT: Bill Collet, Senior Engineering Manager		ACTIVITY DATE: 11/09/2016
STAFF: Todd Zynda	COMPLIANCE STATUS: Compliance	SOURCE CLASS: SM OPT OUT
SUBJECT: Scheduled Inspection		
RESOLVED COMPLAINTS:		

REASON FOR INSPECTION: Targeted Inspection

INSPECTED BY: Todd Zynda, AQD

PERSONNEL PRESENT: Paul Durrenberg, Vice President; Bill Collet, Senior Engineering Manager

FACILITY PHONE NUMBER: (734) 414-9190

FACILITY FAX NUMBER: (734) 414-9181

FACILITY WEBSITE: meidenamerica.com

FACILITY BACKGROUND

Meiden Technical Center North America, LLC (Meiden), is located in an 86,000 square foot (ft²) facility at 15810 Centennial Drive, Northville, Michigan. The boundaries of the facility are as follows: to south and west are industrial and commercial businesses; to the north and east are residential properties. The nearest residential properties are located approximately 250 feet to the north.

The facility has the capability to operate 24 hours a day, seven days a week, and operates as such depending on customer needs. Meiden currently has 16 employees.

Meiden was issued Permit to Install (PTI) No. 130-13 on December 23, 2013. PTI No. 130-13 is a Title V Opt-Out permit, limiting carbon monoxide emissions to less than 100 tons per year.

PROCESS OVERVIEW

Meiden is an engine testing laboratory. The facility operates five test cells (E1, E2, E3, E4, and P1) are equipped to operate a single internal combustion engine of a variety of sizes up to 800 horsepower (hp) maximum.

There is no emission control equipment for each test cell; however catalytic converters may be used based on client needs. Test fuels may be gasoline, ethanol, diesel or biodiesel, but could include gasoline-ethanol blends and/or diesel-biodiesel blends. The facility also operates two underground storage tanks (USTs) of 8,000 gallons each. Fuel loading to the USTs is conducted using a vapor balance. Within in the same building is office space for Meiden America, Inc. which provides equipment installation, sales, and service.

COMPLAINT/COMPLIANCE HISTORY

There have been no complaints for this facility.

During June 10, 2010, September 16, 2011, and March 7, 2013, the facility was inspected and was determined to be in compliance with ROP No. MI-ROP-N7807-2009. On December 23, 2013 the facility was issued PTI No. 130-13 which limited emissions to less than Title V thresholds.

OUTSTANDING CONSENT ORDERS

None

OUTSTANDING VIOLATION NOTICES

None

INSPECTION NARRATIVE

On November 9, 2016 the Michigan Department of Environmental Quality (MDEQ) Air Quality Division (AQD) inspector, Mr. Todd Zynda conducted an inspection of Meiden at 15810 Centennial Drive, Northville, Michigan. During the inspection, Mr. Paul Durrenberg, Vice President, and Mr. Bill Collet, Senior Engineering Manager, provided information and a tour of facility operations relating to air quality permits and regulations. The inspection was conducted to determine the facility's compliance with the Natural Resources and Environmental Protection Act (NREPA), Act 451, Part 55, and PTI No. 130-13.

At 8:00 AM the AQD entered the facility, stated the purpose for the inspection, and was greeted by Mr. Durrenberg and Mr. Collet. During the opening meeting the facility operations and PTI No. 130-13 conditions were discussed. Mr. Durrenberg provided a brief overview of facility operations. Mr. Durrenberg stated that no new test cells or USTs have been installed since the last inspection. Following discussion of record keeping requirements outlined in the inspection checklist, Mr. Collet presented records maintained for compliance with PTI No. 130-13 on an overhead projector.

Following discussion of operations and PTI No. 130-13 record keeping requirements, Mr. Durrenberg and Mr. Collet provided a tour of the facility. During the inspection all five test cells (E1 through E4, and P1) were observed. The test cells are set up similarly. The engine to be tested is secured in a cradle in the middle of the room. The dynamometer measures engine characteristics and transmits the data to monitors outside the rooms. Exhaust gases for each test cell are combined and vented through one stack. The stack was observed during the inspection and appeared to meet PTI requirements. Measurements were not collected.

Additionally during the inspection, a sixth test cell installation was observed. The new cell (P2) will be used strictly for electrical spin testing. No emissions are expected with the installation of P2.

Additionally the USTs were observed. The USTs are equipped with hose connections to form an operable vapor balance system for fuel deliveries. Mr. Durrenberg demonstrated that fuel volumes are monitored daily by an electronic monitoring system. Fuel volumes are recorded each day by printing out an inventory report.

During the inspection, a small machining work area (grinders, drill press, etc) was also observed. Any emissions from this area are released to the general in-plant environment.

A cold cleaner was observed during the inspection. The cold cleaner was approximately 2 feet by 3.5 feet. The Safety Data Sheet (SDS) was provided for the material used in the cold cleaner.

APPLICABLE RULES/PERMIT CONDITIONS

PTI No. 130-13

For brevity, permit conditions and the language of federal and state rules have been paraphrased.

FGTESTCELLS

SCs I.1 and 3, SCs VI. 3 and 4. **COMPLIANCE.** NOx emissions not to exceed 38.6 pph. CO emissions not to exceed 883.7 pph. Both limits allow for compliance to be demonstrated using monthly record keeping prorated to an hourly rate unless the prorated rate exceeds 90% of the limit, at which time hourly records are required. The highest NOx emission rate from October 2014 through October 2016 occurred at the end of June 2015 at 1.7 pph. The highest CO emission rate from October 2014 through October 2016 occurred at the end of November 2015 at 17.3 pph.

SCs I. 2, 4, 5, and 6, SCs VI. 5 and 6. **COMPLIANCE.** Emissions not to exceed the following on a 12 month rolling basis: NOx – 18.8 tpy, CO – 89.2 tpy, VOC – 7.9 tpy, and formaldehyde – 0.2 tpy. The highest NOx emissions from October 2014 through October 2016 occurred at the end of November 2015 at 2.4 tpy. The highest CO emissions from October 2014 through October 2016 occurred at the end of June 2016 at 30.3 tpy. The highest VOC emissions from October 2014 through October 2016 occurred at the end of November 2015 and at the end of December 2015 at 1.7 tpy. The highest formaldehyde emissions from October 2014 through October 2016 occurred at the end of June 2016 at 0.07 tpy.

SCs II. 1. and 3, SC VI. 2. **COMPLIANCE.** Gasoline/ethanol usage shall not exceed 6992.9 gallons per day. Diesel/bio-diesel usage shall not exceed 4,085.2 gallons per day. Both limits allow for compliance to be

demonstrated using monthly record keeping prorated to a daily rate unless the prorated rate exceeds 90% of the limit, at which time daily records are required. According to Mr. Collet, the facility has not used ethanol or biodiesel. The highest gasoline usage from October 2014 through October 2016 occurred at the end of November 2015 at 135.7 gallons per day. The highest diesel usage from October 2014 through October 2016 occurred at the end of June 2015 at 175.1 gallons per day.

SCs II. 3 and 4 and SC VI. 7. **COMPLIANCE.** Gasoline/ethanol usage shall not exceed 56,300 gallons per year based on a 12-month rolling time period. Diesel/bio-diesel usage shall not exceed 150,000 gallons per year based on a 12-month rolling time period. According to Mr. Collet, the facility has not used ethanol or biodiesel. The highest 12-month rolling gasoline usage occurred at the end of November 2015 at 17,936 gallons. The highest 12-month rolling diesel usage occurred at the end of July 2015 and at the end of September 2015 at 16,304 gallons.

SC V. 1. **NOT REQUESTED.** Upon request of the AQD, the permittee may be required to verify the CO and NOx emission rates from EUTESTCELLS. At this time the AQD has not requested testing.

SC VI. 1. **COMPLIANCE.** Shall complete all required calculations in an acceptable format by the last day of the calendar month. Records and calculations provided are acceptable.

SC VIII. **COMPLIANCE.** Stack for test cells (SVTESTCELLS) has a maximum diameter of 42 inches, and a minimum height of 48 feet. During the inspection the stack appeared to meet this requirement. Measurements were not collected.

FGTANKS

SC III.1 and SC IV 2. **COMPLIANCE.** Vapor balance system is installed, maintained and operated in a satisfactory manner. The facility appears to meet these requirements.

SC III. 2. **COMPLIANCE.** Written procedures for the operation the vapor balance system is available in an accessible location near the transfer equipment.

SC IV. 1. **COMPLIANCE.** Tanks are equipped with a permanent submerged pipe.

SC VI. 1. **COMPLIANCE.** Facility shall record the type of fuel stored in FGTANKS. Records are maintained.

SC IX. 1. **COMPLIANCE.** Records shall be maintained of dimensions and capacity of each tank. The facility maintains the records.

FGFACILITY

SC I. 1. SCs VI. 1 and 2. **COMPLIANCE.** CO emissions shall not exceed 89.9 tpy on a 12-month rolling basis. The facility maintains records that demonstrate compliance with this limit. The facility includes natural gas usage (for heaters) in 12-month rolling calculations. The highest 12-month rolling CO emissions on a facility wide basis occurred at the end of June 2016 at 30.3 tpy.

Permit to Install Exempt Equipment

Natural Gas Heaters

Thirty three (33) natural gas heating units, rooftop mounted. The largest unit is rated at 250,000 British thermal units (Btu) per hour. The natural gas heaters are exempt from PTI requirements under the following Rule.

R336.1282(b)(i): "Permit to install does not apply to.. Sweet natural gas, liquefied petroleum gas, or a combination thereof and the equipment has a rated heat input capacity of not more than 50,000,000 Btu per hour."

The summation of the rated heat input capacity for the natural gas heaters is 3.92 MMBtu per hour which is significantly less than the threshold specified in the above Rule.

Cold Cleaner

The cold cleaner at the facility is exempt from PTI requirements under the following rule.

R336.1281(h): "The requirement to obtain a PTI does not apply to cold cleaners that have an air/vapor interface of not more than 10 square feet."

The facility provided the SDS for the cold cleaner. The cold cleaner is not heated during use and has a vapor pressure of "nil" as indicated on the SDS. During the inspection the cold cleaner appeared to be in compliance with the applicable requirements of R336.1707.

Machining Equipment

The machining equipment at the facility is exempt from PTI requirements under the following Rule.

R336.1285(l)(vi)(B): "Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, ... which has emissions that are released only into the general in-plant environment."

NESHAP/MACT

40 CFR Part 63, Subpart T – National Emission Standards for Halogenated Solvent Cleaning

According to 40 CFR 63.460(a), this standard applies to units that use solvents with concentrations of 5% or more by weight of halogenated compounds (methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform). The SDS provided indicates that material used in the cold cleaner at the facility does not contain the above listed halogenated compounds. Therefore, this standard does not apply.

40 CFR Part 63, Subpart P – National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards

40 CFR Part 63, Subpart P establishes emission limits for new engine test cells at a source that is major for hazardous air pollutants (HAPs). Meiden is not major for HAPs

40 CFR 63, Subpart C – National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities

Subpart C was not evaluated during the inspection. The AQD is not the delegated authority for this regulation.

APPLICABLE FUGITIVE DUST CONTROL PLAN CONDITIONS:

Not applicable. All lots are paved.

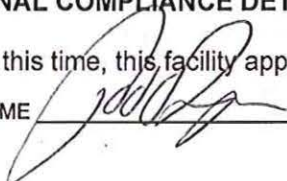
MAERS REPORT REVIEW:

The 2015 MAERS report was submitted on time. Throughputs reported in MAERS were consistent with throughput records provided at the time of inspection.

FINAL COMPLIANCE DETERMINATION:

At this time, this facility appears to be in compliance with PTI No. 130-13 and federal and state regulations.

NAME



DATE

11/10/16

SUPERVISOR

JK