

State Registration Number

A5937

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number

MI-ROP-A5937-2020

Howard Miller Company

State Registration Number (SRN): A5937

Located at

860 East Main Street, Zeeland, Ottawa County, Michigan 49464

Permit Number: MI-ROP-A5937-2020

Staff Report Date: May 4, 2020

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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May 4, 2020 - STAFF REPORT

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan's Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source's applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	Howard Miller Company 860 East Main Street Zeeland, Michigan 49464
Source Registration Number (SRN):	A5937
North American Industry Classification System (NAICS) Code:	321999
Number of Stationary Source Sections:	1
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201900121
Responsible Official:	Michael Wallace, Vice President 616-772-7277
AQD Contact:	Chris Robinson, Environmental Quality Analyst 616-286-0083
Date Application Received:	July 16, 2019
Date Application Was Administratively Complete:	July 16, 2019
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	May 4, 2020
Deadline for Public Comment:	June 3, 2020

Source Description

Howard Miller is a wood furniture manufacturer in Zeeland, Ottawa County, Michigan located near both residential and industry. The processes located at this facility consist of several wood finishing lines, several adhesive stations, woodworking equipment, a wood fired boiler, maintenance parts washer and a urethane foam molding packaging line. The wood finishing lines are made up of coating booths 1 through 15. Coatings applied in the operations are stains, washcoats and sealers, fillers, glazes and lacquers. Exhaust from coating booths are vented through dry fabric filters. The emissions are then vented externally to the ambient air through a stack. The coating lines include six natural gas ovens that are not externally vented and were installed in 1966. The wood waste boiler burns only wood based material from the wood working operations.

The flexible group FGWOODEQUIP consists of machinery used in wood furniture manufacturing and a dust collection system. Exhaust from the woodworking machining operations is directed to the dust collection system. The woodworking equipment consists of carving, cutting, routing, turning, drilling, sawing, sanding, planing and buffing wood components. The dust collection system consists of a silo, cyclonic dust collectors, and four baghouses all in series.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2018**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	1.99
Lead (Pb)	0.002
Nitrogen Oxides (NO _x)	1.63
Particulate Matter (PM)	2.82
Sulfur Dioxide (SO ₂)	0.08
Volatile Organic Compounds (VOCs)	28.79

The following table lists Hazardous Air Pollutant emissions as calculated for the year 2018 by the company:

Individual Hazardous Air Pollutants (HAPs) **	Tons per Year
Methyl Alcohol (Methanol)	0.12
Ethyl Benzene	0.15
Methyl Isobutyl Ketone (MIBK)	0.18
Methyl Benzene (Toluol/Tolulene)	1.17
Xylene (mixed isomers)	0.63
Total Hazardous Air Pollutants (HAPs)	2.52

**As listed pursuant to Section 112(b) of the federal Clean Air Act.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Ottawa County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70, because the potential to emit of volatile organic compounds exceeds 100 tons per year.

The stationary source is a "synthetic minor" source regarding HAP emissions because the stationary source accepted a legally enforceable permit condition limiting the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, to less than 10 tons per year and the potential to emit of all HAPs combined to less than 25 tons per year.

The owner/operator of Howard Miller Company has requested removal of the provisions of the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Wood Furniture Manufacturing Operations promulgated in 40 CFR Part 63, Subpart JJ with this ROP renewal. The stationary source accepted legally enforceable emission limits limiting the potential to emit of HAPs to below major source thresholds. The AQD processed this request but recognizes that USEPA's withdrawal of its "once in, always in" policy is being challenged in court.

No emission units at the stationary source are currently subject to the Prevention of Significant Deterioration (PSD) regulations of The Michigan Air Pollution Control Rules Part 18, Prevention of Significant Deterioration of Air Quality or 40 CFR 52.21 because the process equipment was constructed/installed prior to June 19, 1978, the promulgation date of the PSD regulations.

EUSPRAYBOOTH1 was installed prior to August 15, 1967. As a result, this equipment is considered "grandfathered" and is not subject to New Source Review (NSR) permitting requirements. However, future modifications of this equipment may be subject to NSR. Since EUSPRAYBOOTH1 is "grandfathered" and 40 CFR Part 63, Subpart JJ no longer applies to the source, there are no applicable requirements for this emission unit. Therefore, EUSPRAYBOOTH1 has been removed from the ROP.

The four spray booths covered under EUSPRAYBOOTH2 were initially permitted under PTI No. 657-77 (voided 8/2/1999). There was one requirement which was to operate with an opacity of less than or equal to 20%. Other than through General Condition No. 11, this requirement was never incorporated into the ROP. Therefore, an Emission Unit table has been created for EUSPRAYBOOTH2.

Although EUGLUE was installed after August 15, 1967, this equipment was exempt from New Source Review (NSR) permitting requirements at the time it was installed. However, future modifications of this equipment may be subject to NSR. EUGLUE is included in the FGRULE287(2)(c) table.

The emergency generator (EUGENERATOR) consists of an 18KW (0.16 MMBTU/hr) generator and a Briggs and Stratton 25HP natural gas fired engine. Based on the Code stamped on the engine (07041812) the engine was manufactured on April 18, 2007. This engine is subject to the NESHAP for Area Sources: Reciprocating Internal Combustion Engines promulgated in 40 CFR Part 63, Subparts A and ZZZZ. Due to the size and the age of this Emission Unit, the only provisions of 40 CFR Part 63, Subpart ZZZZ (40 CFR 63.6590(c)(1)), require the Emission Unit to comply with the New Source Performance Standards (NSPS) for Stationary Spark Ignition Internal Combustion Engines promulgated in 40 CFR Part 60, Subparts A and JJJJ. However, based upon the manufacture date, Subpart JJJJ doesn't impose any requirements because Subpart JJJJ does not apply to engines of this size and type that are manufactured prior to July 1, 2008.

FGAREASOURCEBOILER at the stationary source is a wood waste boiler and subject to the National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boilers promulgated in 40 CFR Part 63, Subparts A and JJJJJJ (Area Source MACT). The ROP contains special conditions provided by Howard Miller Company in their application for applicable requirements from 40 CFR Part 63, Subparts A and JJJJJJ. The AQD is not delegated the regulatory authority for this

area source MACT. The description for EUWOODBOILER1 was updated in both the Emission Unit Summary Table and the EUWOODBOILER1 table to identify it as being 2,910 kw with a revised heat rating of 9,929,332 BTU/hr (<10 MMBTU/hr). A 20% Visible Emission Limit and a requirement to dispose of collected air contaminants in a manner to minimize introduction to the outer air, which originated from PTI No. 299-83 (voided 8/2/1999) were incorporated into the ROP under EUWOODBOILER1, SC I.2 and SC III.1. SC III.3 was footnoted with a No. 2 since this condition originated from PTI 299-83. The "Time Period/Operating Scenario" for EUWOODBOILER1, SC I.1 was changed to "Hourly" and testing requirements were added under EUWOODBOILER, SC V.1 and SC VII.4. The "Monitoring/Testing Method" Citations in EUWOODBOILER1, SC I.1 were updated.

The AQD's Rules 287 and 290 were revised on December 20, 2016. FGRULE287(2)(c) and FGRULE290 are flexible group tables created for emission units subject to these rules. Emission units installed before December 20, 2016, can comply with the requirements of Rule 287 and Rule 290 in effect at the time of installation or modification as identified in the tables. However, emission units installed or modified on or after December 20, 2016, must comply with the requirements of the current rules as outlined in the tables.

The "Time Period/Operating Scenario" for EUSILO, SC I.1, FGWOODEQUIP, SC I.1 and SC I.2 were changed to "Hourly" and testing/reporting requirements were added for EUSILO and FGWOODEQUIP under SC V.1 and SC VII.4. The "Monitoring/Testing Method" Citations listed in EUSILO, SC I.1, and FGWOODEQUIP, SC I.1 and SC I.2 were updated.

PTI opacity limits for EUSILO (PTI No. 299-83, voided 8/2/1999), and FGWOODEQUIP (PTI No. 656-77 & 484-87, both voided on 8/2/1999) were incorporated into the ROP under EUSILO, SC I.2 and FGWOODEQUIP, SC I.2 and SC I.3. A visible emission limit was also added for EUWOODEQUIP1 under SC I.5. Since EUWOODEQUIP1 was added during an ROP Renewal and not through a PTI this VE requirement is separate and has not been footnoted.

The underlying applicable requirement (UAR) R 336.1213(2)(d) was removed from FGWOODEQUIP, SC III.2 because there are no applicable requirements and the PSD UAR (40 CFR 52.21) listed under FGWOODEQUIP, SC I.2 was removed since this facility is not subject to PSD.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

The following Emission Units/Flexible Groups are subject to the federal Compliance Assurance Monitoring (CAM) rule under 40 CFR Part 64. These emission units have control devices and potential pre-control emissions of particulate greater than the major source threshold level.

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
EUSILO	Particulate Matter (PM) / 0.1 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis	R 336.1331(1)(a), Table 31(J)	Baghouse and Cyclone	Differential Pressure (0-10" wc)	FGPMCAM PLAN	No

Emission Unit/Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM? *
EUWOOD EQUIP1 / FGWOOD EQUIP	PM / 0.01 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis.	R 336.1213(2)(d) 40 CFR 52.21	Baghouse and Cyclone	Differential Pressure (0-10" wc)	FGPMCAM PLAN	No
EUWOOD EQUIP2 / FGWOOD EQUIP	PM / 0.01 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis.	R 336.1331(1)(c)	Baghouse and Cyclone	Differential Pressure (0-10" wc)	FGPMCAM PLAN	No
EUWOOD EQUIP3 / FGWOOD EQUIP	PM / 0.01 pound per 1,000 pounds of exhaust gases, calculated on a dry gas basis.	R 336.1331(1)(c)	Baghouse and Cyclone	Differential Pressure (0-10" wc)	FGPMCAM PLAN	No

*Presumptively Acceptable Monitoring (PAM)

Howard Miller uses differential pressure as an indicator for compliance with the PM emission limits for demonstrating compliance with the CAM requirements. Monitoring differential pressure provides a means of detecting a change in the operational status of the baghouse/cyclones which could be indicative of an issue with the system that could possibly lead to increased emissions. The control devices are also monitored by an electronic Building Maintenance System (BMS) for operating parameters listed in the CAM Plan. The BMS is available to view on a monitor in the maintenance area and has visual readouts that correspond to the layout of the system. The BMS is equipped with audible and visual alarms that can be triggered at remote locations 24-hours a day. The facility has decided to separate both the CAM and Preventative Maintenance Plans from the ROP. Revised Plans were provided and ROP references were updated to reflect this change.

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-Wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-A5937-2015 are identified in Appendix 6 of the ROP.

PTI Number			
484-87	299-83	753-80	657-77
656-77	51-03		

Streamlined/Subsumed Requirements

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists processes that were included in the ROP Application as exempt devices under Rule 212(4). These processes are not subject to any process-specific emission limits or standards in any applicable requirement.

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUBOILER1	Johnston Brothers gas fired boiler - 3.45 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUBOILER2	Johnston Brothers gas fired boiler - 4.0 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUBOILER3	Johnston Brothers gas fired boiler - 3.2 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-1	Natural gas fired or hot water supplied Hastings air makeup unit 2.49 MMBTU	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-2	Natural gas fired or hot water supplied Applied air makeup unit 4.05 MMBTU	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-3	Natural gas fired or hot water supplied Hastings air makeup unit 2.49 MMBTU	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-4	Natural gas fired or hot water supplied Hastings air makeup unit 2.49 MMBTU	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-5	Natural gas fired (RUPP) air makeup unit - 4.34 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUAMU-6	Natural gas fired (RUPP) air makeup unit - 4.34 MMBTU/hr	Rule 212(4)(c)	Rule 282(2)(b)(i)
EUGENERATOR	Natural gas fired electric generator - 0.16 MMBTU/hr	Rule 212(4)(e)	Rule 285(2)(g)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by EGLE, AQD

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Heidi Hollenbach, Grand Rapids District Supervisor. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

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RENEWABLE OPERATING PERMIT

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2020

June 11, 2020 - STAFF REPORT ADDENDUM

Purpose

A Staff Report dated May 4, 2020, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Michael Wallace, Vice President 616-772-7277
AQD Contact:	Chris Robinson, Environmental Quality Analyst 616-286-0083

Summary of Pertinent Comments

No pertinent comments were received during the 30-day public comment period.

Changes to the May 4, 2020 Draft ROP

No changes were made to the draft ROP.