



MICHIGAN STATE
UNIVERSITY

Ms. Heidi Hollenbach
EGLE – Air Quality Division
Grand Rapids District Office
350 Ottawa Avenue NW, Unit 10
Grand Rapids, MI 49503

September 28, 2022

**RE: Renewable Operating Permit (ROP) Minor Modification Application
Michigan State University [SRN: K3249]
Lansing, Michigan**

Dear Ms. Hollenbach:

Michigan State University (MSU) is submitting this minor modification application pursuant to R 336.1216(2) of the Michigan Air Pollution Control Rules to incorporate the terms and conditions of Permit to Install (PTI) No. 175-11A into Renewable Operating Permit (ROP) No. MI-ROP-K3249-2016a. MSU submitted ROP Renewal Application No. 202100066 on March 31, 2021; therefore, this minor modification application will incorporate the terms and conditions of PTI No. 175-11A as part of MSU's ROP renewal.

On August 9, 2022, Michigan Department of Environment, Great Lakes, and Energy (EGLE) issued PTI No. 175-11A for the installation of three (3) new fume hoods and three (3) new lab exhaust fans with corresponding stacks at MSU's waste storage facility (WSF) at the East Lansing Campus in Ingham County, Michigan. Additionally, PTI No. 175-11A reduced the required frequency of conducting ambient air monitoring at the WSF. There were no changes in emission limitations with the issuance of the PTI.

The ROP application certification form (C-001), ROP modification application form (M-001), copy of PTI No. 175-11A, and the marked-up copy of associated pages of ROP No. MI-ROP-K3249-2016a are enclosed.

If there are questions regarding this ROP minor modification, please contact me at (517) 355-6651 or Ms. Mary Mello of NTH Consultants, Ltd. at (517) 484-6900.

Sincerely,

Thomas Grover, CHMM
Environmental Compliance Officer

cc: Mr. Dan McGeen, EGLE – AQD
Ms. Mary Lindsey, MSU
Ms. Mary Mello, NTH Consultants, Ltd.



**Vice President
for Research and
Graduate Studies**

Office of
Environmental
Health & Safety

4000 Collins Rd, Suite B20
Lansing, MI 48910

517-355-0153
Fax: 517-353-4871
ehs.msu.edu

App No. 202200191



Michigan Department of Environment, Great Lakes, and Energy - Air Quality Division

RENEWABLE OPERATING PERMIT APPLICATION C-001: CERTIFICATION

This information is required by Article II, Chapter 1, part 55 (Air Pollution Control) of P.A. 451 of 1994, as amended, and the Federal Clean Air Act of 1990. Failure to provide this information may result in civil and/or criminal penalties. Please type or print clearly.

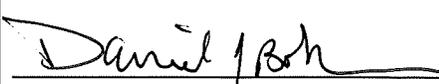
This form is completed and included as part of Renewable Operating Permit (ROP) initial and renewal applications, notifications of change, amendments, modifications, and additional information.

Form Type C-001	SRN K3249
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Stationary Source Name Michigan State University	
City Lansing	County Ingham

SUBMITTAL CERTIFICATION INFORMATION	
1. Type of Submittal <i>Check only one box.</i>	
<input type="checkbox"/> Initial Application (Rule 210)	<input checked="" type="checkbox"/> Notification / Administrative Amendment / Modification (Rules 215/216)
<input type="checkbox"/> Renewal (Rule 210)	<input type="checkbox"/> Other, describe on AI-001
2. If this ROP has more than one Section, list the Section(s) that this Certification applies to <u>1</u>	
3. Submittal Media <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> FTP <input type="checkbox"/> Disk <input checked="" type="checkbox"/> Paper	
4. Operator's Additional Information ID - Create an Additional Information (AI) ID that is used to provide supplemental information on AI-001 regarding a submittal. AI	

CONTACT INFORMATION	
Contact Name Thomas Grover, CHMM	Title Environmental Compliance Officer
Phone number 517-355-6651	E-mail address grovert@msu.edu

This form must be signed and dated by a Responsible Official.				
Responsible Official Name Dan Bollman			Title Vice President for Strategic Infrastructure Planning and Facilities	
Mailing address 1147 Chestnut Road, Room 101				
City East Lansing	State MI	ZIP Code 48824	County Ingham	Country USA
As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this submittal are true, accurate and complete.				
 Signature of Responsible Official			<u>9/26/22</u> Date	



RENEWABLE OPERATING PERMIT M-001: RULE 215 CHANGE NOTIFICATION RULE 216 AMENDMENT/MODIFICATION APPLICATION

This information is required by Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and the Federal Clean Air Act of 1990. Failure to obtain a permit required by Part 55 may result in penalties and/or imprisonment.

1. SRN K3249	2. ROP Number MI-ROP-K3249-2016a	3. County Ingham
4. Stationary Source Name Michigan State University		
5. Location Address 4000 Collins Rd., Suite B20		6. City Lansing
<p>7. Submittal Type - <i>The submittal must meet the criteria for the box checked below. Check only one box. Attach a mark-up of the affected ROP pages for applications for Rule 216 changes.</i></p> <p><input type="checkbox"/> Rule 215(1) Notification of change. Complete Items 8 – 10 and 14</p> <p><input type="checkbox"/> Rule 215(2) Notification of change. Complete Items 8 – 10 and 14</p> <p><input type="checkbox"/> Rule 215(3) Notification of change. Complete Items 8 – 11 and 14</p> <p><input type="checkbox"/> Rule 215(5) Notification of change. Complete Items 8 – 10 and 14</p> <p><input type="checkbox"/> Rule 216(1)(a)(i)-(iv) Administrative Amendment. Complete Items 8 – 10 and 14</p> <p><input type="checkbox"/> Rule 216(1)(a)(v) Administrative Amendment. Complete Items 8 – 14. Results of testing, monitoring & recordkeeping must be submitted. See detailed instructions.</p> <p><input checked="" type="checkbox"/> Rule 216(2) Minor Modification. Complete Items 8 – 12 and 14</p> <p><input type="checkbox"/> Rule 216(3) Significant Modification. Complete Items 8 – 12 and 14, and provide any additional information needed on ROP application forms. See detailed instructions.</p> <p><input type="checkbox"/> Rule 216(4) State-Only Modification. Complete Items 8 – 12 and 14</p>		
8. Effective date of the change. (MM/DD/YYYY) <i>See detailed instructions.</i> ____/____/____		9. Change in emissions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>10. Description of Change - <i>Describe any changes or additions to the ROP, including any changes in emissions and/or pollutants that will occur. If additional space is needed, complete an Additional Information form (AI-001).</i></p> <p>Incorporate the terms and conditions of PTI No. 175-11A into ROP No. MI-ROP-K3249-2016a for the installation of three (3) new fume hoods and three (3) new lab exhaust fans with corresponding stacks at MSU's Waste Storage Facility (WSF). There are no changes in emission limitations with the issuance of the PTI.</p>		
11. New Source Review Permit(s) to Install (PTI) associated with this application? If Yes, enter the PTI Number(s) <u>175-11A</u> - - - -		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<p>12. Compliance Status - <i>A narrative compliance plan, including a schedule for compliance, must be submitted using an AI-001 if any of the following are checked No.</i></p> <p>a. Is the change identified above in compliance with the associated applicable requirement(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>b. Will the change identified above continue to be in compliance with the associated applicable requirement(s)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>c. If the change includes a future applicable requirement(s), will timely compliance be achieved? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>		
13. Operator's Additional Information ID - <i>Create an Additional Information (AI) ID for the associated AI-001 form used to provide supplemental information.</i>		AI
14. Contact Name Thomas Grover, CHMM	Telephone No. 517-355-6651	E-mail Address grovert@msu.edu
15. This submittal also updates the ROP renewal application submitted on <u>03/31/2021</u> <i>(If yes, a mark-up of the affected pages of the ROP must be attached.)</i>		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> N/A

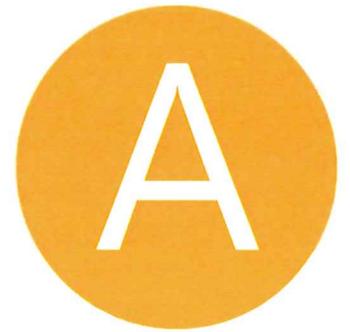
NOTE: A CERTIFICATION FORM (C-001) SIGNED BY A RESPONSIBLE OFFICIAL MUST ACCOMPANY ALL SUBMITTALS

For Assistance
Contact: 800-662-9278

www.michigan.gov/egle

EQP 5775 (Rev.04-2019)

ATTACHMENT



// COPY OF PTI NO. 175-11A

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

August 9, 2022

**PERMIT TO INSTALL
175-11A**

**ISSUED TO
Michigan State University**

**LOCATED AT
3634 East Jolly Road
Lansing, Michigan 48910**

**IN THE COUNTY OF
Ingham**

**STATE REGISTRATION NUMBER
K3249**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: June 30, 2022	
DATE PERMIT TO INSTALL APPROVED: August 9, 2022	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO _{2e}	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM ₁₀	Particulate Matter equal to or less than 10 microns in diameter
PM _{2.5}	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to Rule 210 (R 336.1210), operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to Rule 219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal condition or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of Rule 301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with Rule 303 (R 336.1303). **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.
12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-CHEM1	Chemical room bench fume hood located on Jolly Road. Consolidation of small waste containers is conducted under this hood.	TBD	FG-WSF
EU-FUMEHOOD1	Walk-in fume hood #1 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	TBD	FG-WSF
EU-FUMEHOOD2	Walk-in fume hood #2 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	TBD	FG-WSF
EU-FUMEHOOD3	Walk-in fume hood #3 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	TBD	FG-WSF

Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1291.

FLEXIBLE GROUP SPECIAL CONDITIONS

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-WSF	Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal.	EU-CHEM1, EU-FUMEHOOD1, EU-FUMEHOOD2. EU-FUMEHOOD3

FG-WSF FLEXIBLE GROUP CONDITIONS

DESCRIPTION

Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal.

Emission Units: EU-CHEM1, EU-FUMEHOOD1, EU-FUMEHOOD2, EU-FUMEHOOD3

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not consolidate waste in FG-WSF for more than 350 hours per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Every 5 years, the permittee shall conduct an ambient air monitoring study in a manner and with instrumentation approved by the AQD Air Monitoring Unit. Upon approval of the AQD District Supervisor, the permittee may change the frequency of the ambient air monitoring. All ambient air monitoring data shall be kept on file at the facility and made available to the Department upon request. ¹ **(R 336.1225)**
2. The permittee shall keep, in a satisfactory manner, a log of the waste. The log will state the classification of the waste by chemical name, intake date, storage unit ID, disposal shipping date, and number of hours that waste is consolidated in FG-SWF. The log will be tracked via 12-month rolling time period, as determined at the end of each calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1225, R 336.1702(a))**
3. The permittee shall keep, in a satisfactory manner, a log of each constituent evaluation occurrence. The permittee shall keep all records on file at the facility and make them available to the Department upon request. ¹ **(R 336.1225)**

4. The permittee shall keep, in a satisfactory manner, the waste tags for the containers that have been consolidated in FG-WSF. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1225)

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-CHEM1	6 ¹	18 ¹	R 336.1225
2. SV-FUMEHOOD1	12 ¹	30 ¹	R 336.1225
3. SV-FUMEHOOD2	12 ¹	30 ¹	R 336.1225
4. SV-FUMEHOOD3	12 ¹	30 ¹	R 336.1225

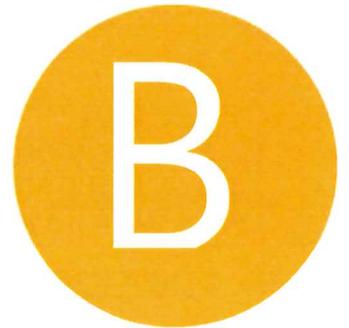
IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

ATTACHMENT



// MARK-UP COPY OF ASSOCIATED PAGES
OF ROP NO. MI-ROP-K3249-2016a

Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a
 Expiration Date: October 21, 2021
 PTI No: MI-PTI-K3249-2016a

Emission Unit ID	Emission Unit Description (Including Process Equipment & Control Device(s))	Installation Date/ Modification Date	Flexible Group ID
EU-DIENGINE	One new uncertified, non-emergency, spark ignition, stationary, 510 horsepower (380kilowatt), 4 stroke lean burn (4SLB), reciprocating internal combustion engine (RICE), used to produce electricity, fired by digester gas, manufactured on February 27, 2013 and rebuilt on April 15, 2016, subject to 40 CFR Part 60, Subpart JJJJ and 40 CFR Part 63, Subpart ZZZZ. Located at the Dairy Cattle Teaching and Research facility on College Road.	7/01/2013	NA
EU-CHEM1	Chemical room bench fumelab hood located on Jolly Road. Consolidation of small waste containers is conducted under this hood.	January 1982TBD	FG-WSF
EU- CONSOL1FUMEHOOD1	Consolidation booth drum hood #1. Consolidation of waste containers is conducted under this hood, located on Jolly Road. Walk-in fume hood #1 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	January 1982TBD	FG-WSF
EU- CONSOL2FUMEHOOD2	Consolidation booth drum hood #2. Consolidation of waste containers is conducted under this hood located on Jolly Road. Walk-in fume hood #2 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	January 1982TBD	FG-WSF
EU-FUMEHOOD3	Walk-in fume hood #3 located on Jolly Road. Consolidation of waste containers is conducted under this hood.	TBD	FG-WSF
EU-ENCLSD-FLARE	An enclosed digester gas flare used as back up for the anaerobic digester EU-DIENGINE located at the dairy facility. The flare is capable of burning up to 150 scfm giving a Heat Input Capacity of 5,400,000 Btu/hr when using the estimated higher heating value of the digester gas of 600 Btu/scf.	8/01/2012 8/01/2016	NA
EU-ETO	Ethylene oxide sterilization process located at the Veterinary Medical Center on Wilson Road.	11/26/2003	FG-STERILIZERS
EU-453DEG01	Parts washer, University Farms	2/1/1994	FG-COLDCLEANER
EU-DEGLANDS1-2	2 parts washers, Landscape Services	2/3/2000	FG-COLDCLEANER
EU-DEGPHYS	Parts washer, Physical Plant	8/9/1989	FG-COLDCLEANER
EU-DEGTRANS	Parts washer, Transportation Services garage	7/1/2015	FG-COLDCLEANER
EU-DEGGOLFC	Parts washer, Forest Akers garage	5/1/1984	FG-COLDCLEANER
EU-SPRAYBOOTH1	Paint spray booth, Physical Plant	5/15/1988	FG-RULE 287(c)
EU-SPRAYBOOTH2	Paint spray booth, Kresge Art Center	4/21/1987	FG-RULE 287(c)
EU-596GEN01	495HP Cummins natural gas generator Model: GTA-19G1 located at Farm Lane underpass #2.	10/01/2009	FG-NSPS-JJJJ

Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a
 Expiration Date: October 21, 2021
 PTI No: MI-PTI-K3249-2016a

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-EMERGEN≤500ZZZZ	Existing stationary spark ignition (SI) or compression ignition (CI) emergency reciprocating internal combustion engines (RICE), with a rating of less than or equal to 500 HP and constructed prior to June 12, 2006.	EU-003GEN01, EU-006GEN01, EU-016GEN01, EU-022GEN01, EU-028GEN01, EU-049GEN01, EU-077GEN01, EU-080GEN01, EU-081GEN01, EU-081GEN02, EU-083GEN01, EU-085GEN01, EU-086GEN01, EU-086GEN02, EU-087GEN01, EU-132GEN01, EU-133GEN01, EU-160GEN01, EU-163GEN01, EU-170GEN01, EU-170GEN02, EU-170GEN03, EU-175GEN01, EU-178GEN01, EU-181GEN01, EU-186GEN01, EU-186GEN02, EU-200GEN01, EU-203GEN02, EU-203GEN01, EU-210-PORGEN-1, EU-210-PORGEN-10, EU-210-PORGEN-2, EU-210-PORGEN-5, EU-210-PORGEN-6, EU-210-PORGEN-7, EU-210-PORGEN-8, EU-210-PORGEN-9, EU-210-PORGEN-3, EU-210GEN-CT85, EU-210-PORGEN-11, EU-211GEN01, EU-216GEN01, EU218GEN01, EU-219GEN01, EU-222GEN01, EU-472DGEN01, EU-479GEN01, EU-577GEN01, EU-601GEN01
FG-WSF	Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal.	EU-CHEM1, EU-CONSOL1, and EU-CONSOL2 FUMEHOOD1, EU-FUMEHOOD2, EU-FUMEHOOD3
FG-BOILERMACT	Boilers/process heaters located at the Main Campus that are designed to burn gas 1 fuels and subject to 40 CFR Part 63, Subpart DDDDD ("Boiler MACT").	Various (See Appendix 11-1)
FG-TESTCELLS	2 engine test cells capable of testing engines up to 750 HP for unleaded gasoline/ethanol engines and 1,000 HP for No.2 diesel engines. Emissions are controlled by catalytic converters.	EU-TESTCELL1, EU-TESTCELL2

Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a
Expiration Date: October 21, 2021
PTI No: MI-PTI-K3249-2016a

**FG-WSF
FLEXIBLE GROUP CONDITIONS**

DESCRIPTION

Waste Storage Facility (WSF) that receives, stores, and consolidates laboratory waste before sending it out for disposal. (PTI 175-11A)

Emission Units: EU-CHEM¹, EU-CONSOL¹, and EU-CONSOL²FUMEHOOD¹, EU-FUMEHOOD², EU-FUMEHOOD³

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
NA	NA	NA	NA	NA	NA

II. MATERIAL LIMIT(S)

1. ~~The permittee shall not consolidate benzyl chloride, ethylene dibromide, or hexachlorobutadiene in FG-WSF.¹ (R 336.1225)~~

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. ~~The permittee shall not consolidate waste in more than one FG-WSF unit at a time.¹ (R 336.1225)~~

2. The permittee shall not consolidate waste in FG-WSF for more than 3500 hours per 12-month rolling time period as determined at the end of each calendar month.² (R 336.1225, R 336.1702(a))

3. ~~The permittee shall post, in a conspicuous place in FG-WSF, a notice stating that benzyl chloride, ethylene dibromide, or hexachlorobutadiene are not allowed to be consolidated in FG-WSF.⁴ (R 336.1225)~~

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

NA

See Appendix 5-1

Section 1 - MSU Main Campus

ROP No: MI-ROP-K3249-2016a
 Expiration Date: October 21, 2021
 PTI No: MI-PTI-K3249-2016a

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. (R 336.1213(3)(b)(ii))

1. Every ~~5 years, 12 months~~ the permittee shall conduct an ambient air monitoring study in a manner and with instrumentation approved by the AQD Air Monitoring Unit. Upon approval of the AQD District Supervisor, the permittee may change the frequency of the ambient air monitoring. All ambient air monitoring data shall be kept on file at the facility and made available to the Department upon request.¹ (R 336.1225)
2. The permittee shall keep, in a satisfactory manner, a log of the waste. The log will state the classification of the waste by chemical name, intake date, storage unit ID, disposal shipping date, and number of hours that waste is consolidated in FG-~~S~~WSF. The log will be tracked via 12-month rolling time period, as determined at the end of each calendar month. The permittee shall keep all records on file at the facility and make them available to the Department upon request.² (R 336.1225, R 336.1702(a))
3. The permittee shall keep, in a satisfactory manner, a log of each constituent evaluation occurrence. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1225)
4. The permittee shall keep, in a satisfactory manner, the waste tags for the containers that have been consolidated in FG-WSF. The permittee shall keep all records on file at the facility and make them available to the Department upon request.¹ (R 336.1225)

VII. REPORTING

1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
2. Semi-annual reporting of monitoring and deviations pursuant to General Condition 23 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for reporting period July 1 to December 31 and September 15 for reporting period January 1 to June 30. (R 336.1213(3)(c)(i))
3. Annual certification of compliance pursuant to General Conditions 19 and 20 of Part A. The report shall be postmarked or received by the appropriate AQD District Office by March 15 for the previous calendar year. (R 336.1213(4)(c))

See Appendix 8-1

VIII. STACK/VENT RESTRICTION(S)

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-CHEM ¹	6 ¹	18 ¹	R 336.1225
2. SV-FUMEHOOD1CONSOL ¹	12 ¹	16 ¹ 30 ¹	R 336.1225
3. SV-FUMEHOODCONSOL ²	12 ¹	16 ¹ 30 ¹	R 336.1225
4. SV-FUMEHOOD ³	12 ¹	30 ¹	R 336.1225

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IX. OTHER REQUIREMENT(S)

NA

Footnotes:

¹This condition is state only enforceable and was established pursuant to Rule 201(1)(b).