Enbridge ATTN: Jennifer Brennan 222 Indianapolis Blvd Schereville, IN 46375 219-314-6769



April 4, 2024

Ms. Joyce Zhu, District Supervisor EGLE - AQD 27700 Donald Court Warren, Michigan 48092

RE: Vector Pipeline, L.P. – Washington Compressor Station (SRN N7624)

Renewable Operating Permit (ROP) – Renewal Application

Dear Ms. Zhu,

Attached please find a complete Renewable Operating Permit (ROP) renewal application and supporting documents respective to the Vector Washington Compressor Station in Washington, Michigan. The ROP application was electronically submitted to the Michigan Department of Environment, Great Lakes and Energy – Air Quality Division (EGLE-AQD) today, April 4, 2024. This package constitutes the hard copy submittal required by the EGLE-AQD to be mailed to the District Office. Documents enclosed include the following:

- ROP Renewal Application Form
- C-001 Responsible Official Signature Form
- Supplemental information (e.g., Technical Support Document)
- A clean copy of the current ROP (no mark ups as there are no proposed changes)

Please contact me at 219-314-6769 or Jennifer.Brennan@enbridge.com, or our consultant, Jennifer Calnen of GZA GeoEnvironmental, Inc. (Jennifer.Calnen@gza.com or 248-894-4891) if you have any questions or require additional information while reviewing this submittal.

Sincerely,

Jennifer Brennan

Sr. Advisor Environment

Jennifu brennan

Enclosures



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFOR	MATION								
SRN	SIC Code	NAICS Co	ode	Existing ROP Number		Section Number (if applicable)			
N7624	4922	486210		MI-ROP-N7624-2019					
Source Name		•	0, 1						
Vector Pipeline L.	.P., Washingt	on Compres	ssor Static	on					
Street Address 12708 30 Mile Ro	oad								
City			State		ZIP Code		County		
Macomb Townsh	ip		MI		48095		Macomb		
Section/Town/Range	(if address not a	vailable)					l		
Source Description Natural gas comp	ressor station	n used in tra	ansporting	pipe	eline quality na	atural	gas.		
Check here if on the market				eren	t than what a	ppeai	rs in the existin	ig ROP. Ide	ntify any changes
OWNER INFORM	MATION								
Owner Name								Section Num	nber (if applicable)
Vector Pipeline L.	.P.								
Mailing address (☐ c 38705 West Seve			s)						
	,								
City			State		ZIP Code		County		Country
Livonia			MI		48152		Oakland		
•			•		•		•		•

For Assistance 1 of 13 www/michigan.gov/egle Contact: 800-662-9278

Check here if any information in this ROP renewal application is confidential. Confidential information should be

identified on an Additional Information (Al-001) Form.

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART A: GENERAL INFORMATION (continued)
At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION							
Contact 1 Name			Title				
Jennifer Brennan			Sr. Adv	isor Environment			
Company Name & Mailing address (☐ check	if same as	source addres	s)				
Enbridge 222 Indianapolis Blvd.							
City	State	ZIP Code		County	Country		
Schererville	IN	46375		Lake	USA		
Phone number	•	E-mail ad	dress	1	1		
219.314.6769			Jennifer.Brennan@enbridge.com				
		· · · · · · · · · · · · · · · · · · ·					
Contact 2 Name (optional)			Title				
Company Name & Mailing address (☐ check	if same as	source addres	s)				
City	State	ZIP Cod	le	County	Country		
Phone number		E-mail a	address				
RESPONSIBLE OFFICIAL INFORM	IATION						
Responsible Official 1 Name	ATION		Title				
Amy Back				al Counsel			
Company Name & Mailing address (☐ check	if same as s	source addres					
Vector Pipeline L.P. 38705 West			-				
City	State	ZIP Cod		County	Country		
Livonia	MI	48152		Oakland	USA		
Phone number		E-mail a	address				
734.462.7619		Amy.B	ack@v	ector-pipeline.com			
Responsible Official 2 Name (optional)			Title				
Company Name & Mailing address (☐ check	if same as	source addres	s)				
City	State	ZIP Cod	le	County	Country		
Phone number	•	E-mail a	address	•	•		
		'					
Check here if an Al OO4 Farm:	- attacks	المصوريناء	mars !	formation for Dart A	Enter AL 004 Farms ID:		
☐ Check here if an Al-001 Form is	s allached	i to brovide	more	normation for Part A	. Enter Al-001 Form ID:		

SRN: N7624	Section Number (if applicable):

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listing of ROP Application Contents. Check the box for the items included with your application.					
Completed ROP Renewal Application Form (and any Al-001 Forms) (required)	Compliance Plan/Schedule of Compliance				
Mark-up copy of existing ROP using official version from the AQD website (required)	Stack information				
Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)	Acid Rain Permit Initial/Renewal Application				
Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations	Cross-State Air Pollution Rule (CSAPR) Information				
MAERS Forms (to report emissions not previously submitted)	Confidential Information				
Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	□ Paper copy of all documentation provided (required)				
Compliance Assurance Monitoring (CAM) Plan	⊠ Electronic documents provided (optional)				
Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)	Other, explain				
Compliance Statement					
This source is in compliance with <u>all</u> of its applicable requesting ROP, Permits to Install that have not yet been incapplicable requirements not currently contained in the exist.	corporated into that ROP, and other 🔀 Yes 🗌 No				
This source will continue to be in compliance with all of its applicable requirements, including those contained in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and other applicable requirements not currently contained in the existing ROP.					
This source will meet in a timely manner applicable requir permit term.	This source will meet in a timely manner applicable requirements that become effective during the permit term.				
The method(s) used to determine compliance for each applicable requirement is/are the method(s) specified in the existing ROP, Permits to Install that have not yet been incorporated into that ROP, and all other applicable requirements not currently contained in the existing ROP.					
If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an Al-001 Form. Provide a compliance plan and schedule of compliance on an Al-001 Form.					
Name and Title of the Responsible Official (Print or T	ype)				
Amy Back, Chief Compliance Officer and General Counsel					
As a Responsible Official, I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.					
aRall	4/3/24				
Signature of Responsible Official	Date				

For Assistance Contact: 800-662-9278

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from <u>all</u> emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have <u>not</u> been reported in MAERS for the most recent emissions reporting year? If <u>Yes</u> , identify the emission unit(s) that was/were not reported in MAERS on an AI-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes	⊠ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes	⊠ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes	⊠ No
	If <u>Yes</u> , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes	□No
C4.	Has this stationary source <u>added or modified</u> equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO ₂ , VOC, lead) emissions?	☐ Yes	⊠ No
	If <u>Yes</u> , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an Al-001 Form.		
C5.	If No, criteria pollutant potential emission calculations do not need to be included. Has this stationary source added or modified equipment since the last ROP renewal that		
00.	changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act?	☐ Yes	⊠ No
	If <u>Yes</u> , include potential emission calculations (or the PTI and/or ROP revision application		
	numbers or other references for the PTE demonstration) for the added or modified equipment on		
	an Al-001 Form. Fugitive emissions <u>must</u> be included in HAP emission calculations. If <u>No</u> , HAP potential emission calculations do not need to be included.		
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If <u>Yes</u> , identify		
00.	the specific emission unit(s) subject to CSAPR on an Al-001 Form.	☐ Yes	⊠ No
C7.	Are any emission units subject to the federal Acid Rain Program? If Yes, identify the specific	☐ Yes	⊠ No
	emission unit(s) subject to the federal Acid Rain Program on an Al-001 Form.		
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes	☐ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring (CAM)?	☐ Yes	⊠ No
	If Yes, identify the specific emission unit(s) subject to CAM on an Al-001 Form. If a CAM plan		_
	has not been previously submitted to EGLE, one must be included with the ROP renewal		
	application on an Al-001 Form. If the CAM Plan has been updated, include an updated copy.		<u> </u>
	Is a CAM plan included with this application?	☐ Yes	⊠ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan: 1. Monitoring proposed by the source based on performance of the control device, or 2. Presumptively Acceptable Monitoring, if eligible		
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan,		
	operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement?	⊠ Yes	□No
	If <u>Yes</u> , then a copy must be submitted as part of the ROP renewal application.		
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable?	☐ Yes	⊠ No
	If <u>Yes</u> , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an Al-001 Form.		
\square	Check here if an Al-001 Form is attached to provide more information for Part C. Enter Al-001 For	m ID: AI	-PMP
\bowtie			

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If <u>Yes</u> , identify the emission units in the table below.							
If <u>No,</u> go to Part E.							
	that are subject to process specific emission limi ither Part G or H of this application form. Identic s).						
Emission Unit ID	Emission Unit Description	Rule 212(4) Citation [e.g. Rule 212(4)(c)]	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]				
EU-PORTABLE ENGINES	Portable gasoline engines used at various sites along the pipeline – including a portable generator engine, portable generator, power washer, portable air compressor, snow blower, and weed trimmer.	R336.1214(d)	336.1285(2)(g)				
EU-PORTABLE TOOLS	Portable power tools (4.5 hp angle grinder, bench grinder, drill press, electric hand tools, sawz-all, and circular saw.	R336.1214(d)	336.1285(2)(I)(vi)(B)				
Comments:							

For Assistance 5 of 13 www/michigan.gov/egle Contact: 800-662-9278

Check here if an Al-001 Form is attached to provide more information for Part D. Enter Al-001 Form ID: Al-
--

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the <u>existing</u> ROP and answer the questions below as they pertain to <u>all</u> emission units and <u>all</u> applicable requirements in the existing ROP.

E1.	Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP?	☐ Yes	⊠ No
	If <u>Yes</u> , identify changes and additions on Part F, Part G and/or Part H.		
E2.	For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If <u>Yes</u> , identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes	⊠ No
E3.	Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI?	☐ Yes	⊠ No
	If <u>Yes</u> , complete Part F with the appropriate information.		
E4.	Have any emission units identified in the existing ROP been dismantled? If <u>Yes</u> , identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes	⊠ No
Con	mments:		
	Check here if an Al-001 Form is attached to provide more information for Part E. Enter Al-001 For	rm ID: Al-	-

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to <u>all</u> emission units with PTIs. Any PTI(s) identified below must be attached to the application.

	ated into the existing	where the applicable requirements from the PTI have not ROP? If <u>Yes</u> , complete the following table.	☐ Yes ⊠ No		
Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (Include Process Equipment, Control Devices and Monitoring Devices)	Date Emission Unit was Installed/ Modified/ Reconstructed		
emission unit affected in the	s in the existing ROF	ange, add, or delete terms/conditions to established P? If <u>Yes</u> , identify the emission unit(s) or flexible group(s) by or on an Al-001 Form and identify all changes, additions, existing ROP.	☐ Yes ☐ No		
the ROP? If Y	<u>es, submit the PTIs a</u>	entify new emission units that need to be incorporated into as part of the ROP renewal application on an AI-001 Form, s) or flexible group(s) in the mark-up of the existing ROP.	☐ Yes ☐ No		
listed above th	at were <u>not</u> reported	le requirements for emission unit(s) identified in the PTIs I in MAERS for the most recent emissions reporting year? If not reported on the applicable MAERS form(s).	☐ Yes ☐ No		
or control device	ces in the PTIs listed	tive changes to any of the emission unit names, descriptions dabove for any emission units not already incorporated into inges on an Al-001 Form.	☐ Yes ☐ No		
Comments:					
☐ Check here if	an Al-001 Form is a	attached to provide more information for Part F. Enter Al-001 F	Form ID: Al-		

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

	ny new and/or existing emission units which do <u>not</u> already appear in nich meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.							
If Yes, identify the emiss	☐ Yes ⊠ No							
Note: If several emission units were installed under the same rule above, provide a description of each and an installation/modification/reconstruction date for each.								
Origin of Applicable Requirements	Emission Unit Description – Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices	Date Emission Unit was Installed/ Modified/ Reconstructed						
Rule 281(2)(h) or 285(2)(r)(iv) cleaning operation								
Rule 287(2)(c) surface coating line								
Rule 290 process with limited emissions								
Comments:	1 Form is attached to provide more information for Part G. Enter AL-001							

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in F and G? If <u>Yes</u> , answer the questions below.	Parts ☐ Yes ⊠ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If <u>Yes</u> , describe the changes in questions H8 – H below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes ☐ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If <u>Yes</u> , identify and describe the emission unit name, process descript control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate new emission unit/flexible group into the ROP.	otion, w and
H4. Does the source propose to add new state or federal regulations to the existing ROP?	☐ Yes ☐ No
If <u>Yes</u> , on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were incorporated into the existing ROP? If <u>Yes</u> , list the CO/CJ number(s) below and add or chang conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Conditions in the mark-up of the ROP.	ge the
H6. Does the source propose to add, change and/or delete source-wide requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP an provide a justification below.	☐ Yes ☐ No d
H7. Are you proposing to streamline any requirements? If <u>Yes</u> , identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applic requirement below.	☐ Yes ☐ No able

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete emission limit requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	Yes	No
H9. Does the source propose to add, change and/or delete material limit requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H10. Does the source propose to add, change and/or delete process/operational restriction requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H11.Does the source propose to add, change and/or delete design/equipment parameter requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H12. Does the source propose to add, change and/or delete testing/sampling requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	Yes	□ No
H13. Does the source propose to add, change and/or delete monitoring/recordkeeping requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H14.Does the source propose to add, change and/or delete reporting requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE - (continued)

H15.Does the source propose to add, change and/or delete stack/vent restrictions ? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H16.Does the source propose to add, change and/or delete any other requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H17. Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If <u>Yes</u> , identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
Check here if an Al-001 Form is attached to provide more information for Part H. Enter Al-001 For	m ID: Al-	

EGLE

RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

	SRN: N7624	Section Number (if applicable):	
Additional Information ID AI-PMP			
Additional Information			
2. Is This Information Confidential?		☐ Yes ⊠ No	
Attached is the facility's Preventative Maintenance Pl	an (PMP), as indica	ated in item C.9.	
		Page of	

For Assistance 12 of 13 Contact: 800-662-9278



RENEWABLE OPERATING PERMIT RENEWAL APPLICATION FORM

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Refer to instructions for additional information to complete the Renewable Operating Permit Renewal Application Form.

GENERAL INSTRUCTIONS

This application form should be submitted as part of an administratively complete application package for renewal of a Renewable Operating Permit (ROP). This application form consists of nine parts. Parts A – H must be completed for all applications and must also be completed for each section of a sectioned ROP. Answer all questions in all parts of the form unless directed otherwise. Detailed instructions for this application form can be found at http://michigan.gov/air (select the Permits Tab, "Renewable Operating Permits (ROP)/Title V", then "ROP Forms & Templates").

PART A: GENERAL INFORMATION

Enter information about the source, owner, contact person and the responsible official.

SOURCE INFOR	MATION								
SRN	SIC Code	NAICS Co	ode	Existing ROP Number		Section Num	ber (if applicable)		
N7624	4922	486210		MI-ROP-N7624-2019					
Source Name		•	0, 1						
Vector Pipeline L.	.P., Washingt	on Compres	ssor Static	on					
Street Address 12708 30 Mile Ro	oad								
City			State		ZIP Code		County		
Macomb Townsh	ip		MI		48095		Macomb		
Section/Town/Range	(if address not a	vailable)					l		
Source Description Natural gas comp	ressor station	n used in tra	ansporting	pipe	eline quality na	atural	gas.		
Check here if on the market				eren	t than what a	ppeai	rs in the existin	ig ROP. Ide	ntify any changes
OWNER INFORM	MATION								
Owner Name								Section Num	nber (if applicable)
Vector Pipeline L.	.P.								
Mailing address (☐ c 38705 West Seve			s)						
	,								
City			State		ZIP Code		County		Country
Livonia			MI		48152		Oakland		
•			•		•		•		•

For Assistance 1 of 13 www/michigan.gov/egle Contact: 800-662-9278

Check here if any information in this ROP renewal application is confidential. Confidential information should be

identified on an Additional Information (Al-001) Form.

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART A: GENERAL INFORMATION (continued)
At least one contact and responsible official must be identified. Additional contacts and responsible officials may be included if necessary.

CONTACT INFORMATION						
Contact 1 Name			Title			
Jennifer Brennan			Sr. Adv	isor Environment		
Company Name & Mailing address (☐ check	if same as	source addres	s)			
Enbridge 222 Indianapolis Blvd.						
City	State	ZIP Code		County	Country	
Schererville	IN	46375		Lake	USA	
Phone number	•	E-mail ad	dress	1	1	
219.314.6769		Jennife	r.Brenna	an@enbridge.com		
		· ·				
Contact 2 Name (optional)			Title			
Company Name & Mailing address (☐ check	if same as	source addres	s)			
City	State	ZIP Cod	le	County	Country	
Phone number		E-mail a	address			
RESPONSIBLE OFFICIAL INFORM	IATION					
Responsible Official 1 Name	ATION		Title			
Amy Back				al Counsel		
Company Name & Mailing address (☐ check	if same as s	source addres				
Vector Pipeline L.P. 38705 West			-			
City	State	ZIP Cod		County	Country	
Livonia	MI	48152		Oakland	USA	
Phone number		E-mail a	address			
734.462.7619		Amy.B	ack@v	ector-pipeline.com		
Responsible Official 2 Name (optional)			Title			
Company Name & Mailing address (☐ check	if same as	source addres	s)			
City	State	ZIP Cod	le	County	Country	
Phone number	•	E-mail a	address	•	•	
		'				
Check here if an Al OO4 Farm:	- attacks	المصوريناء	mars !	formation for Dart A	Enter AL 004 Farms ID:	
☐ Check here if an Al-001 Form is	s allached	i to brovide	more	normation for Part A	. Enter Al-001 Form ID:	

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART B: APPLICATION SUBMITTAL and CERTIFICATION by Responsible Official

Identify the items that are included as part of your administratively complete application in the checklist below. For your application to be complete, it must include information necessary to evaluate the source and to determine all applicable requirements. Answer the compliance statements as they pertain to all the applicable requirements to which the source is subject. The source's Responsible Official must sign and date this form.

Listir	ng of ROP Application Contents. Check the box f	or th	e items included with your application.
\boxtimes	Completed ROP Renewal Application Form (and any Al-001 Forms) (required)		Compliance Plan/Schedule of Compliance
	Mark-up copy of existing ROP using official version from the AQD website (required)		Stack information
	Copies of all Permit(s) to Install (PTIs) that have not been incorporated into existing ROP (required)		
	Criteria Pollutant/Hazardous Air Pollutant (HAP) Potential to Emit Calculations		Cross-State Air Pollution Rule (CSAPR) Information
	MAERS Forms (to report emissions not previously submitted)		Confidential Information
	Copies of all Consent Order/Consent Judgments that have not been incorporated into existing ROP	\boxtimes	Paper copy of all documentation provided (required)
	Compliance Assurance Monitoring (CAM) Plan	\boxtimes	Electronic documents provided (optional)
	Other Plans (e.g., Malfunction Abatement, Fugitive Dust, Operation and Maintenance, etc.)		Other, explain:
Com	pliance Statement		
existi	source is in compliance with <u>all</u> of its applicable requing ROP, Permits to Install that have not yet been inc cable requirements not currently contained in the exis	orpor	ated into that ROP, and other ⊠ Yes □ No
conta	source will continue to be in compliance with all of its ined in the existing ROP, Permits to Install that have ther applicable requirements not currently contained	not y	ret been incorporated into that ROP, 💢 Yes 🔲 No
	source will meet in a timely manner applicable require it term.	emen	ts that become effective during the ⊠ Yes □ No
existi	nethod(s) used to determine compliance for each aping ROP, Permits to Install that have not yet been incurrently contained in the existing ROP.		ole requirement is/are the method(s) specified in the ated into that ROP, and all other applicable requirements
If any of the above are checked No, identify the emission unit(s) or flexible group(s) affected and the specific condition number(s) or applicable requirement for which the source is or will be out of compliance at the time of issuance of the ROP renewal on an Al-001 Form. Provide a compliance plan and schedule of compliance on an Al-001 Form.			
Name	e and Title of the Responsible Official (Print or Ty	rpe)	
Amy	Back, Chief Compliance Officer and General Counse	el	
	a Responsible Official, I certify that, based on in e statements and information in this application a		
<u>e:</u>	gnature of Responsible Official		Date
31	gnatare or ivesponsible Official		Date

For Assistance 3 of 13 www/michigan.gov/egle Contact: 800-662-9278

SRN: N7624 Section Number (if applicable):	cable):
--	---------

PART C: SOURCE REQUIREMENT INFORMATION

Answer the questions below for specific requirements or programs to which the source may be subject.

C1.	Actual emissions and associated data from <u>all</u> emission units with applicable requirements (including those identified in the existing ROP, Permits to Install and other equipment that have not yet been incorporated into the ROP) are required to be reported in MAERS. Are there any emissions and associated data that have <u>not</u> been reported in MAERS for the most recent emissions reporting year? If <u>Yes</u> , identify the emission unit(s) that was/were not reported in MAERS on an Al-001 Form. Applicable MAERS form(s) for unreported emission units must be included with this application.	☐ Yes	⊠ No
C2.	Is this source subject to the federal regulations on ozone-depleting substances? (40 CFR Part 82)	☐ Yes	⊠ No
C3.	Is this source subject to the federal Chemical Accident Prevention Provisions? (Section 112(r) of the Clean Air Act Amendments, 40 CFR Part 68)	☐ Yes	⊠ No
	If <u>Yes</u> , a Risk Management Plan (RMP) and periodic updates must be submitted to the USEPA. Has an updated RMP been submitted to the USEPA?	☐ Yes	□No
C4.	Has this stationary source <u>added or modified</u> equipment since the last ROP renewal that changes the potential to emit (PTE) for criteria pollutant (CO, NOx, PM10, PM2.5, SO ₂ , VOC, lead) emissions?	☐ Yes	⊠ No
	If <u>Yes</u> , include potential emission calculations (or the PTI and/or ROP revision application numbers, or other references for the PTE demonstration) for the added or modified equipment on an Al-001 Form.		
	If No, criteria pollutant potential emission calculations do not need to be included.		
C5.	Has this stationary source <u>added or modified</u> equipment since the last ROP renewal that changes the PTE for hazardous air pollutants (HAPs) regulated by Section 112 of the federal Clean Air Act?	Yes	⊠ No
	If <u>Yes</u> , include potential emission calculations (or the PTI and/or ROP revision application numbers or other references for the PTE demonstration) for the added or modified equipment on an AI-001 Form. Fugitive emissions <u>must</u> be included in HAP emission calculations. If <u>No</u> , HAP potential emission calculations do not need to be included.		
-			
C6.	Are any emission units subject to the Cross-State Air Pollution Rule (CSAPR)? If <u>Yes</u> , identify the specific emission unit(s) subject to CSAPR on an Al-001 Form.	☐ Yes	⊠ No
C7.	Are any emission units subject to the federal Acid Rain Program? If <u>Yes</u> , identify the specific emission unit(s) subject to the federal Acid Rain Program on an AI-001 Form.	☐ Yes	⊠ No
	Is an Acid Rain Permit Renewal Application included with this application?	☐ Yes	☐ No
C8.	Are any emission units identified in the existing ROP subject to compliance assurance monitoring		—
	(CAM)?	Yes	⊠ No
	If <u>Yes</u> , identify the specific emission unit(s) subject to CAM on an Al-001 Form. If a CAM plan		
	has not been previously submitted to EGLE, one must be included with the ROP renewal application on an Al-001 Form. If the CAM Plan has been updated, include an updated copy.		
	Is a CAM plan included with this application?	□Vec	⊠ No
	If a CAM Plan is included, check the type of proposed monitoring included in the Plan:	□ 163	
	 Monitoring proposed by the source based on performance of the control device, or Presumptively Acceptable Monitoring, if eligible 		
C9.	Does the source have any plans such as a malfunction abatement plan, fugitive dust plan,		
	operation/maintenance plan, or any other monitoring plan that is referenced in an existing ROP, Permit to Install requirement, or any other applicable requirement?	⊠ Yes	☐ No
	If <u>Yes</u> , then a copy must be submitted as part of the ROP renewal application.		
C10.	Are there any specific requirements that the source proposes to be identified in the ROP as non-applicable?	☐ Yes	⊠ No
	If <u>Yes</u> , then a description of the requirement and justification must be submitted as part of the ROP renewal application on an Al-001 Form.		
\boxtimes	Check here if an Al-001 Form is attached to provide more information for Part C. Enter Al-001 For	m ID: Al	-PMP

4 of 13

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART D: PERMIT TO INSTALL (PTI) EXEMPT EMISSION UNIT INFORMATION Review all emission units at the source and answer the question below.

D1. Does the source have any emission units that do not appear in the existing ROP but are required to be listed in the ROP application under R 336.1212(4) (Rule 212(4)) of the Michigan Air Pollution Control Rules? If <u>Yes</u> , identify the emission units in the table below.				
If <u>No,</u> go to Part E.				
	that are subject to process specific emission limi ither Part G or H of this application form. Identic s).			
Emission Unit ID	Emission Unit Description	Rule 212(4) Citation [e.g. Rule 212(4)(c)]	Rule 201 Exemption Rule Citation [e.g. Rule 282(2)(b)(i)]	
EU-PORTABLE ENGINES	Portable gasoline engines used at various sites along the pipeline – including a portable generator engine, portable generator, power washer, portable air compressor, snow blower, and weed trimmer.	R336.1214(d)	336.1285(2)(g)	
EU-PORTABLE TOOLS	Portable power tools (4.5 hp angle grinder, bench grinder, drill press, electric hand tools, sawz-all, and circular saw.	R336.1214(d)	336.1285(2)(I)(vi)(B)	
Comments:				

For Assistance 5 of 13 www/michigan.gov/egle Contact: 800-662-9278

Check here if an Al-001 Form is attached to provide more information for Part D. Enter Al-001 Form ID: Al-
--

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART E: EXISTING ROP INFORMATION

Review all emission units and applicable requirements (including any source wide requirements) in the <u>existing</u> ROP and answer the questions below as they pertain to <u>all</u> emission units and <u>all</u> applicable requirements in the existing ROP.

E1.	Does the source propose to make any additions, changes or deletions to terms, conditions and underlying applicable requirements as they appear in the existing ROP?	☐ Yes	⊠ No
	If <u>Yes</u> , identify changes and additions on Part F, Part G and/or Part H.		
E2.	For each emission unit(s) identified in the existing ROP, <u>all</u> stacks with applicable requirements are to be reported in MAERS. Are there any stacks with applicable requirements for emission unit(s) identified in the existing ROP that were <u>not</u> reported in the most recent MAERS reporting year? If <u>Yes</u> , identity the stack(s) that was/were not reported on applicable MAERS form(s).	☐ Yes	⊠ No
E3.	Have any emission units identified in the existing ROP been modified or reconstructed that required a PTI?	☐ Yes	⊠ No
	If <u>Yes</u> , complete Part F with the appropriate information.		
E4.	Have any emission units identified in the existing ROP been dismantled? If <u>Yes</u> , identify the emission unit(s) and the dismantle date in the comment area below or on an AI-001 Form.	☐ Yes	⊠ No
Con	mments:		
	Check here if an Al-001 Form is attached to provide more information for Part E. Enter Al-001 For	rm ID: Al-	-

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART F: PERMIT TO INSTALL (PTI) INFORMATION

Review all emission units and applicable requirements at the source and answer the following questions as they pertain to <u>all</u> emission units with PTIs. Any PTI(s) identified below must be attached to the application.

	ated into the existing	where the applicable requirements from the PTI have not ROP? If <u>Yes</u> , complete the following table.	☐ Yes ⊠ No
Permit to Install Number	Emission Units/Flexible Group ID(s)	Description (Include Process Equipment, Control Devices and Monitoring Devices)	Date Emission Unit was Installed/ Modified/ Reconstructed
emission unit affected in the	s in the existing ROF	ange, add, or delete terms/conditions to established P? If <u>Yes</u> , identify the emission unit(s) or flexible group(s) by or on an Al-001 Form and identify all changes, additions, existing ROP.	☐ Yes ☐ No
the ROP? If Y	<u>es, submit the PTIs a</u>	entify new emission units that need to be incorporated into as part of the ROP renewal application on an Al-001 Form, s) or flexible group(s) in the mark-up of the existing ROP.	☐ Yes ☐ No
listed above th	at were <u>not</u> reported	le requirements for emission unit(s) identified in the PTIs I in MAERS for the most recent emissions reporting year? If not reported on the applicable MAERS form(s).	☐ Yes ☐ No
or control device	ces in the PTIs listed	tive changes to any of the emission unit names, descriptions dabove for any emission units not already incorporated into inges on an Al-001 Form.	☐ Yes ☐ No
Comments:			
☐ Check here if	an Al-001 Form is a	attached to provide more information for Part F. Enter Al-001 F	orm ID: Al-

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART G: EMISSION UNITS MEETING THE CRITERIA OF RULES 281(2)(h), 285(2)(r)(iv), 287(2)(c), OR 290

Review all emission units and applicable requirements at the source and answer the following questions.

ny new and/or existing emission units which do <u>not</u> already appear in nich meet the criteria of Rules 281(2)(h), 285(2)(r)(iv), 287(2)(c), or 290.	
sion units in the table below. If <u>No</u> , go to Part H.	☐ Yes ⊠ No
n units were installed under the same rule above, provide a description on/modification/reconstruction date for each.	
Emission Unit Description – Provide Emission Unit ID and a description of Process Equipment, Control Devices and Monitoring Devices	Date Emission Unit was Installed/ Modified/ Reconstructed
	ion units in the table below. If No, go to Part H. n units were installed under the same rule above, provide a description on/modification/reconstruction date for each. Emission Unit Description – Provide Emission Unit ID and a description of Process Equipment, Control Devices and

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE

Complete this part of the application form for all proposed additions, changes or deletions to the existing ROP. This includes state or federal regulations that the source is subject to and that must be incorporated into the ROP or other proposed changes to the existing ROP. **Do not include additions or changes that have already been identified in Parts F or G of this application form.** If additional space is needed copy and complete an additional Part H.

Complete a separate Part H for each emission unit with proposed additions and/or changes.

H1. Are there changes that need to be incorporated into the ROP that have not been identified in F and G? If <u>Yes</u> , answer the questions below.	Parts ☐ Yes ⊠ No
H2. Are there any proposed administrative changes to any of the existing emission unit names, descriptions or control devices in the ROP? If <u>Yes</u> , describe the changes in questions H8 – H below and in the affected Emission Unit Table(s) in the mark-up of the ROP.	☐ Yes ☐ No
H3. Does the source propose to add a new emission unit or flexible group to the ROP not previously identified in Parts F or G? If <u>Yes</u> , identify and describe the emission unit name, process descript control device(s), monitoring device(s) and applicable requirements in questions H8 – H16 below in a new Emission Unit Table in the mark-up of the ROP. See instructions on how to incorporate new emission unit/flexible group into the ROP.	otion, w and
H4. Does the source propose to add new state or federal regulations to the existing ROP?	☐ Yes ☐ No
If <u>Yes</u> , on an AI-001 Form, identify each emission unit/flexible group that the new regulation applies to and identify <u>each</u> state or federal regulation that should be added. Also, describe the new requirements in questions H8 – H16 below and add the specific requirements to existing emission units/flexible groups in the mark-up of the ROP, create a new Emission Unit/Flexible Group Table, or add an AQD template table for the specific state or federal requirement.	
H5. Has a Consent Order/Consent Judgment (CO/CJ) been issued where the requirements were incorporated into the existing ROP? If <u>Yes</u> , list the CO/CJ number(s) below and add or chang conditions and underlying applicable requirements in the appropriate Emission Unit/Flexible Conditions in the mark-up of the ROP.	ge the
H6. Does the source propose to add, change and/or delete source-wide requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP an provide a justification below.	☐ Yes ☐ No d
H7. Are you proposing to streamline any requirements? If <u>Yes</u> , identify the streamlined and subsumed requirements and the EU ID, and provide a justification for streamlining the applic requirement below.	☐ Yes ☐ No able

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE – (continued)

H8. Does the source propose to add, change and/or delete emission limit requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	Yes	No
H9. Does the source propose to add, change and/or delete material limit requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H10. Does the source propose to add, change and/or delete process/operational restriction requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H11.Does the source propose to add, change and/or delete design/equipment parameter requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H12. Does the source propose to add, change and/or delete testing/sampling requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H13. Does the source propose to add, change and/or delete monitoring/recordkeeping requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H14.Does the source propose to add, change and/or delete reporting requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No

SRN: N7624	Section Number (if applicable):
------------	---------------------------------

PART H: REQUIREMENTS FOR ADDITION OR CHANGE - (continued)

H15.Does the source propose to add, change and/or delete stack/vent restrictions ? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□ No
H16.Does the source propose to add, change and/or delete any other requirements? If <u>Yes</u> , identify the addition/change/deletion in a mark-up of the corresponding section of the ROP and provide a justification below.	☐ Yes	□No
H17.Does the source propose to add terms and conditions for an alternative operating scenario or intra-facility trading of emissions? If <u>Yes</u> , identify the proposed conditions in a mark-up of the corresponding section of the ROP and provide a justification below.	Yes	□ No
Check here if an Al-001 Form is attached to provide more information for Part H. Enter Al-001 Form	m ID: Al-	

EGLE

RENEWABLE OPERATING PERMIT APPLICATION AI-001: ADDITIONAL INFORMATION

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 obtain a permit required by Part 55 may result in penalties and/or imprisonment. Please type or print clearly. Refer to instructions for additional information to complete this form.

SRN: N7624	Section Number (if applicable):	
<u></u>		
	☐ Yes ⊠ No	
(PMP), as indica	ated in item C.9.	
	ı (PMP), as indica	☐ Yes ☑ No In (PMP), as indicated in item C.9.

For Assistance 12 of 13 Contact: 800-662-9278

REDLINE COPY OF ROP - NO CHANGES REQUESTED

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

EFFECTIVE DATE: November 5, 2019

ISSUED TO

Vector Pipeline L.P., Washington Compressor Station

State Registration Number (SRN): N7624

LOCATED AT

12708 30 Mile Road, Macomb Township, Michigan 48095

RENEWABLE OPERATING PERMIT

Permit Number: MI-ROP-N7624-2019

Expiration Date: November 5, 2024

Administratively Complete ROP Renewal Application Due Between May 5, 2023 and May 5, 2024

This Renewable Operating Permit (ROP) is issued in accordance with and subject to Section 5506(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Pursuant to Rule 210(1) of the administrative rules promulgated under Act 451, this ROP constitutes the permittee's authority to operate the stationary source identified above in accordance with the general conditions, special conditions and attachments contained herein. Operation of the stationary source and all emission units listed in the permit are subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

SOURCE-WIDE PERMIT TO INSTALL

Permit Number: MI-PTI-N7624-2019

This Permit to Install (PTI) is issued in accordance with and subject to Section 5505(1) of Act 451. Pursuant to Rule 214a of the administrative rules promulgated under Act 451, the terms and conditions herein, identified by the underlying applicable requirement citation of Rule 201(1)(a), constitute a federally enforceable PTI. The PTI terms and conditions do not expire and remain in effect unless the criteria of Rule 201(6) are met. Operation of all emission units identified in the PTI is subject to all applicable future or amended rules and regulations pursuant to Act 451 and the federal Clean Air Act.

Michigan Department of Environment, Great Lakes, and Energy

ROP No: MI-ROP-N7624-2019 Expiration Date: November 5, 2024 PTI No: MI-PTI-N7624-2019

Joyce Zhu, Warren District Supervisor

ROP No: MI-ROP-N7624-2019 Expiration Date: November 5, 2024 PTI No: MI-PTI-N7624-2019

TABLE OF CONTENTS

AUTHORITY AND ENFORCEABILITY	<u>4</u> 3
A. GENERAL CONDITIONS	<u>5</u> 4
Permit Enforceability	54
General Provisions.	
Equipment & Design	
Emission Limits	<u>6</u> 5
Testing/Sampling	_
Monitoring/Recordkeeping	
Certification & Reporting	
Permit Shield	
Revisions	
Reopenings	-
Renewals Stratospheric Ozone Protection	
Risk Management Plan	
Emission Trading	
Permit to Install (PTI)	
B. SOURCE-WIDE CONDITIONS	
	_
C. EMISSION UNIT SPECIAL CONDITIONS	<u>15</u> 14
EMISSION UNIT SUMMARY TABLE	15 14
EUSPU3	<u>16</u> 15
D. FLEXIBLE GROUP SPECIAL CONDITIONS	18 17
FLEXIBLE GROUP SUMMARY TABLE	1917
FGTURBINES	
	
E. NON-APPLICABLE REQUIREMENTS	<u>23</u> 22
APPENDICES	<u>24</u> 23
Appendix 1. Acronyms and Abbreviations	2423
Appendix 2. Schedule of Compliance	
Appendix 3. Monitoring Requirements	
Appendix 4. Recordkeeping	
Appendix 5. Testing Procedures	
Appendix 6. Permits to Install	
Appendix 7. Emission Calculations	
Appendix 8. Reporting	27 2 6

PTI No: MI-PTI-N7624-2019

AUTHORITY AND ENFORCEABILITY

For the purpose of this permit, the **permittee** is defined as any person who owns or operates an emission unit at a stationary source for which this permit has been issued. The **department** is defined in Rule 104(d) as the Director of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) or his or her designee.

The permittee shall comply with all specific details in the permit terms and conditions and the cited underlying applicable requirements. All terms and conditions in this ROP are both federally enforceable and state enforceable unless otherwise footnoted. Certain terms and conditions are applicable to most stationary sources for which an ROP has been issued. These general conditions are included in Part A of this ROP. Other terms and conditions may apply to a specific emission unit, several emission units which are represented as a flexible group, or the entire stationary source which is represented as a Source-Wide group. Special conditions are identified in Parts B, C, D and/or the appendices.

In accordance with Rule 213(2)(a), all underlying applicable requirements are identified for each ROP term or condition. All terms and conditions that are included in a PTI are streamlined, subsumed and/or is state-only enforceable will be noted as such.

In accordance with Section 5507 of Act 451, the permittee has included in the ROP application a compliance certification, a schedule of compliance, and a compliance plan. For applicable requirements with which the source is in compliance, the source will continue to comply with these requirements. For applicable requirements with which the source is not in compliance, the source will comply with the detailed schedule of compliance requirements that are incorporated as an appendix in this ROP. Furthermore, for any applicable requirements effective after the date of issuance of this ROP, the stationary source will meet the requirements on a timely basis, unless the underlying applicable requirement requires a more detailed schedule of compliance.

Issuance of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

PTI No: MI-PTI-N7624-2019

A. GENERAL CONDITIONS

Permit Enforceability

- All conditions in this permit are both federally enforceable and state enforceable unless otherwise noted.
 (R 336.1213(5))
- Those conditions that are hereby incorporated in a state-only enforceable Source-Wide PTI pursuant to Rule 201(2)(d) are designated by footnote one. (R 336.1213(5)(a), R 336.1214a(5))
- Those conditions that are hereby incorporated in a federally enforceable Source-Wide PTI pursuant to Rule 201(2)(c) are designated by footnote two. (R 336.1213(5)(b), R 336.1214a(3))

General Provisions

- 1. The permittee shall comply with all conditions of this ROP. Any ROP noncompliance constitutes a violation of Act 451, and is grounds for enforcement action, for ROP revocation or revision, or for denial of the renewal of the ROP. All terms and conditions of this ROP that are designated as federally enforceable are enforceable by the Administrator of the United States Environmental Protection Agency (USEPA) and by citizens under the provisions of the federal Clean Air Act (CAA). Any terms and conditions based on applicable requirements which are designated as "state-only" are not enforceable by the USEPA or citizens pursuant to the CAA. (R 336.1213(1)(a))
- 2. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this ROP. (R 336.1213(1)(b))
- 3. This ROP may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any ROP term or condition. This does not supersede or affect the ability of the permittee to make changes, at the permittee's own risk, pursuant to Rule 215 and Rule 216. (R 336.1213(1)(c))
- 4. The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities: (R 336.1213(1)(d))
 - a. Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the ROP.
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the ROP.
 - c. Inspect, at reasonable times, any of the following:
 - i. Any stationary source.
 - ii. Any emission unit.
 - iii. Any equipment, including monitoring and air pollution control equipment.
 - iv. Any work practices or operations regulated or required under the ROP.
 - d. As authorized by Section 5526 of Act 451, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the ROP or applicable requirements.
- 5. The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the ROP or to determine compliance with this ROP. Upon request, the permittee shall also furnish to the department copies of any records that are required to be kept as a term or condition of this ROP. For information, which is claimed by the permittee to be confidential, consistent with the requirements of the 1976 PA 442, MCL §15.231 et seq., and known as the Freedom of Information Act, the person may also be required to furnish the records directly to the USEPA together with a claim of confidentiality. (R 336.1213(1)(e))

PTI No: MI-PTI-N7624-2019

6. A challenge by any person, the Administrator of the USEPA, or the department to a particular condition or a part of this ROP shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this ROP. (R 336.1213(1)(f))

- 7. The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Section 5522 of Act 451. (R 336.1213(1)(q))
- 8. This ROP does not convey any property rights or any exclusive privilege. (R 336.1213(1)(h))

Equipment & Design

- 9. Any 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).2 (R 336.1370)
- 10. Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law. (R 336.1910)

Emission Limits

- 11. Unless otherwise specified in this ROP, the permittee shall comply with Rule 301, which states, in part, "Except as provided in Subrules 2, 3, and 4 of this rule, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of the following:"2 (R 336.1301(1))
 - a. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
 - b. A limit specified by an applicable federal new source performance standard.

The grading of visible emissions shall be determined in accordance with Rule 303.

- 12. The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:
 - a. Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.¹
 - b. Unreasonable interference with the comfortable enjoyment of life and property. (R 336.1901(b))

Testing/Sampling

- 13. The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner's or operator's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001(1).² (R 336.2001)
- 14. Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003. (R 336.2001(2), R 336.2001(3), R 336.2003(1))
- 15. Any required test results shall be submitted to the Air Quality Division (AQD) in the format prescribed by the applicable reference test method within 60 days following the last date of the test. (R 336.2001(5))

PTI No: MI-PTI-N7624-2019

Monitoring/Recordkeeping

16. Records of any periodic emission or parametric monitoring required in this ROP shall include the following information specified in Rule 213(3)(b)(i), where appropriate. (R 336.1213(3)(b))

- a. The date, location, time, and method of sampling or measurements.
- b. The dates the analyses of the samples were performed.
- c. The company or entity that performed the analyses of the samples.
- d. The analytical techniques or methods used.
- e. The results of the analyses.
- f. The related process operating conditions or parameters that existed at the time of sampling or measurement.
- 17. All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the ROP. (R 336.1213(1)(e), R 336.1213(3)(b)(ii))

Certification & Reporting

- 18. Except for the alternate certification schedule provided in Rule 213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this ROP shall contain an original certification by a Responsible Official which state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R 336.1213(3)(c))
- 19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The USEPA address is: USEPA, Air Compliance Data Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. (R 336.1213(4)(c))
- 20. The certification of compliance shall be submitted annually for the term of this ROP as detailed in the special conditions, or more frequently if specified in an applicable requirement or in this ROP. (R 336.1213(4)(c))
- 21. The permittee shall promptly report any deviations from ROP requirements and certify the reports. The prompt reporting of deviations from ROP requirements is defined in Rule 213(3)(c)(ii) as follows, unless otherwise described in this ROP. (R 336.1213(3)(c))
 - a. For deviations that exceed the emissions allowed under the ROP, prompt reporting means reporting consistent with the requirements of Rule 912 as detailed in Condition 25. All reports submitted pursuant to this paragraph shall be promptly certified as specified in Rule 213(3)(c)(iii).
 - b. For deviations which exceed the emissions allowed under the ROP and which are not reported pursuant to Rule 912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
 - c. For deviations that do not exceed the emissions allowed under the ROP, prompt reporting means the reporting of all deviations in the semiannual reports required by Rule 213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

PTI No: MI-PTI-N7624-2019

22. For reports required pursuant to Rule 213(3)(c)(ii), prompt certification of the reports is described in Rule 213(3)(c)(iii) as either of the following: **(R 336.1213(3)(c))**

- a. Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- b. Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the ROP were submitted to the department pursuant to Rule 213(3)(c)(ii), a certification by a Responsible Official which states that; "based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete." The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to Rule 213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.
- 23. Semiannually for the term of the ROP as detailed in the special conditions, or more frequently if specified, the permittee shall submit certified reports of any required monitoring to the appropriate AQD District Office. All instances of deviations from ROP requirements during the reporting period shall be clearly identified in the reports. (R 336.1213(3)(c)(i))
- 24. On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in Rule 212(6) for each emission unit utilizing the emissions inventory forms provided by the department. (R 336.1212(6))
- 25. 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 appropriate AQD District Office. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under Rule 912, must be submitted to the appropriate AQD District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5) and shall be certified by a Responsible Official in a manner consistent with the CAA.² (R 336.1912)

Permit Shield

- 26. Compliance with the conditions of the ROP shall be considered compliance with any applicable requirements as of the date of ROP issuance if either of the following provisions is satisfied. (R 336.1213(6)(a)(i), R 336.1213(6)(a)(ii))
 - a. The applicable requirements are included and are specifically identified in the ROP.
 - b. The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.

Any requirements identified in Part E of this ROP have been identified as non-applicable to this ROP and are included in the permit shield.

- 27. Nothing in this ROP shall alter or affect any of the following:
 - a. The provisions of Section 303 of the CAA, emergency orders, including the authority of the USEPA under Section 303 of the CAA. (R 336.1213(6)(b)(i))
 - b. The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this ROP issuance. (R 336.1213(6)(b)(ii))
 - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA. (R 336.1213(6)(b)(iii))

PTI No: MI-PTI-N7624-2019

d. The ability of the USEPA to obtain information from a source pursuant to Section 114 of the CAA. (R 336.1213(6)(b)(iv))

- 28. The permit shield shall not apply to provisions incorporated into this ROP through procedures for any of the following:
 - a. Operational flexibility changes made pursuant to Rule 215. (R 336.1215(5))
 - b. Administrative Amendments made pursuant to Rule 216(1)(a)(i)-(iv). (R 336.1216(1)(b)(iii))
 - c. Administrative Amendments made pursuant to Rule 216(1)(a)(v) until the amendment has been approved by the department. (R 336.1216(1)(c)(iii))
 - d. Minor Permit Modifications made pursuant to Rule 216(2). (R 336.1216(2)(f))
 - e. State-Only Modifications made pursuant to Rule 216(4) until the changes have been approved by the department. (R 336.1216(4)(e))
- 29. Expiration of this ROP results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the ROP, but the department fails to take final action before the end of the ROP term, the existing ROP does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original ROP term until the department takes final action. (R 336.1217(1)(c), R 336.1217(1)(a))

Revisions

- 30. For changes to any process or process equipment covered by this ROP that do not require a revision of the ROP pursuant to Rule 216, the permittee must comply with Rule 215. (R 336.1215, R 336.1216)
- 31. A change in ownership or operational control of a stationary source covered by this ROP shall be made pursuant to Rule 216(1). (R 336.1219(2))
- 32. For revisions to this ROP, an administratively complete application shall be considered timely if it is received by the department in accordance with the time frames specified in Rule 216. (R 336.1210(10))
- 33. Pursuant to Rule 216(1)(b)(iii), Rule 216(2)(d) and Rule 216(4)(d), after a change has been made, and until the department takes final action, the permittee shall comply with both the applicable requirements governing the change and the ROP terms and conditions proposed in the application for the modification. During this time period, the permittee may choose to not comply with the existing ROP terms and conditions that the application seeks to change. However, if the permittee fails to comply with the ROP terms and conditions proposed in the application during this time period, the terms and conditions in the ROP are enforceable. (R 336.1216(1)(c)(iii), R 336.1216(2)(d), R 336.1216(4)(d))

Reopenings

- 34. A ROP shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:
 - a. If additional requirements become applicable to this stationary source with three or more years remaining in the term of the ROP, but not if the effective date of the new applicable requirement is later than the ROP expiration date. (R 336.1217(2)(a)(i))
 - b. If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source. (R 336.1217(2)(a)(ii))
 - c. If the department determines that the ROP contains a material mistake, information required by any applicable requirement was omitted, or inaccurate statements were made in establishing emission limits or the terms or conditions of the ROP. (R 336.1217(2)(a)(iii))
 - d. If the department determines that the ROP must be revised to ensure compliance with the applicable requirements. (R 336.1217(2)(a)(iv))

PTI No: MI-PTI-N7624-2019

Renewals

35. For renewal of this ROP, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the ROP. (R 336.1210(9))

Stratospheric Ozone Protection

- 36. If the permittee is subject to Title 40 of the Code of Federal Regulations (CFR), Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (MVAC), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.
- 37. If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon-22 refrigerant.

Risk Management Plan

- 38. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the USEPA the required data related to the risk management plan for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under 40 CFR Part 68, do not limit in any way the general duty provisions under Section 112(r)(1).
- 39. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68, no later than the latest of the following dates as provided in 40 CFR 68.10(a):
 - a. June 21, 1999,
 - b. Three years after the date on which a regulated substance is first listed under 40 CFR 68.130, or
 - c. The date on which a regulated substance is first present above a threshold quantity in a process.
- 40. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
- 41. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) as detailed in Rule 213(4)(c)). **(40 CFR Part 68)**

Emission Trading

42. Emission averaging and emission reduction credit trading are allowed pursuant to any applicable interstate or regional emission trading program that has been approved by the Administrator of the USEPA as a part of Michigan's State Implementation Plan. Such activities must comply with Rule 215 and Rule 216. (R 336.1213(12))

PTI No: MI-PTI-N7624-2019

Permit to Install (PTI)

43. The process or process equipment included in this permit shall not be reconstructed, relocated, or modified unless a PTI authorizing such action is issued by the department, except to the extent such action is exempt from the PTI requirements by any applicable rule.² (R 336.1201(1))

- 44. The department may, after notice and opportunity for a hearing, revoke PTI terms or conditions if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of the PTI or is violating the department's rules or the CAA.² (R 336.1201(8), Section 5510 of Act 451)
- 45. The terms and conditions of a PTI 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 the PTI. If a new owner or operator submits a written request to the department pursuant to Rule 219 and the department approves the request, this PTI 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. The written request shall be sent to the appropriate AQD District Supervisor, EGLE.² (R 336.1219)
- 46. If the installation, reconstruction, relocation, or modification of the equipment for which PTI terms and conditions have been approved has not commenced within 18 months of the original PTI issuance date, or has been interrupted for 18 months, the applicable terms and conditions from that PTI, as incorporated into the ROP, shall become void unless otherwise authorized by the department. Furthermore, the person to whom that PTI was issued, or the designated authorized agent, shall notify the department via the Supervisor, Permit Section, EGLE, AQD, P. O. Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or modification of the equipment allowed by the terms and conditions from that PTI.² (R 336.1201(4))

Footnotes:

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

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

PTI No: MI-PTI-N7624-2019

B. SOURCE-WIDE CONDITIONS

Part B outlines the Source-Wide Terms and Conditions that apply to this stationary source. The permittee is subject to these special conditions for the stationary source in addition to the general conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply to this source, NA (not applicable) has been used in the table. If there are no Source-Wide Conditions, this section will be left blank.

PTI No: MI-PTI-N7624-2019

SOURCE-WIDE CONDITIONS

POLLUTION CONTROL EQUIPMENT

NA

I. <u>EMISSION LIMIT(S)</u>

Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. CO	219.18 Tons ²	Rolling 12-month time period	Source-Wide	Appendix 7	R 336.1205(3)
2. NOx	81.34 Tons ²	Rolling 12-month time period	Source-Wide	Appendix 7	R 336.1205(3)

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. For venting natural gas, for routine maintenance or relocation of transmission and distribution systems, or for venting field gas, for routine maintenance or relocation of gathering pipelines, each in amounts greater than 1,000,000 standard cubic feet, the venting shall include, at a minimum, measure to assure safety of employees and the public, minimize impacts to the environment, and provide necessary notification in accordance with the Michigan gas safety standards, the federal pipeline and hazardous materials safety administration standards, and the federal energy regulation administration standards, as applicable. (R 336.1285(2)(mm))

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

VI. MONITORING/RECORDKEEPING

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

NA

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual 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))

PTI No: MI-PTI-N7624-2019

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))

- 4. For venting natural gas, for routine maintenance or relocation of transmission and distribution systems, or for venting of field gas, for routine maintenance or relocation of gathering pipelines, each in amounts greater than 1,000,000 standard cubic feet, the facility shall notify the AQD Warren District Office prior to scheduled pipeline venting. (R 336.1285(2)(mm))
- 5. For an emergency venting of natural gas or field gas in amounts greater than 1,000,000 standard cubic feet per event, the facility shall notify the pollution emergency alert system (PEAS) within 24 hours of an emergency pipeline venting. For purposes of this requirement, an emergency is considered an unforeseen event that disrupts normal operating conditions and poses a threat to human life, health, property or the environment if not controlled immediately. (R 336.1285(2)(mm))

See Appendix 8

VIII. STACK/VENT RESTRICTION(S)

NA

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

PTI No: MI-PTI-N7624-2019

C. EMISSION UNIT SPECIAL CONDITIONS

Part C outlines terms and conditions that are specific to individual emission units listed in the Emission Unit Summary Table. The permittee is subject to the special conditions for each emission unit in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no conditions specific to individual emission units, this section will be left blank.

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
EUTURBINE1	Solar Mars 110S natural gas fired No. 1 rated at 15,000 HP and maximum heat input of 120 MMBTU/hr with low NOx controls.	11-13-2006	FGTURBINES
EUTURBINE2	Solar Mars 110S natural gas fired No. 1 rated at 15,000 HP and maximum heat input of 120 MMBTU/hr with low NOx controls.	11-13-2006	FGTURBINES
EUSPU3	Standby power unit with rating 924 hp max and provides back-up power in the event of a local utility power interruption. Limited to 5,000 hours of operation per year.	02-2007	NA

PTI No: MI-PTI-N7624-2019

EUSPU3 EMISSION UNIT CONDITIONS

DESCRIPTION

Standby power unit burning natural gas with rating of 924 HP (Maximum) and provides back-up power in the event of the local utility power interruption.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall not operate EUSPU3 for more than 500 hours per calendar year.² (R 336.1205(1)(a)(ii))
- 2. The permittee shall only burn natural gas in EUSPU3.1 (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

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall record the total operating hours for EUSPU3 on a calendar year basis.² (R 336.1205(1)(a)(ii))
- 2. The permittee shall monitor and record the usage of natural gas fired in EUSPU3 during each calendar day when in operation.² (R 336.1205(1)(a)(ii))

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual 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

PTI No: MI-PTI-N7624-2019

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV1-SPU	11.8 ²	22 ²	40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

PTI No: MI-PTI-N7624-2019

D. FLEXIBLE GROUP SPECIAL CONDITIONS

Part D outlines the terms and conditions that apply to more than one emission unit. The permittee is subject to the special conditions for each flexible group in addition to the General Conditions in Part A and any other terms and conditions contained in this ROP.

The permittee shall comply with all specific details in the special conditions and the underlying applicable requirements cited. If a specific condition type does not apply, NA (not applicable) has been used in the table. If there are no special conditions that apply to more than one emission unit, this section will be left blank.

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
FGTURBINES	FGTURBINES includes the emission units EUTURBINE1 and EUTURBINE2, which are both Solar Mars 110S natural gas fired turbines.	EUTURBINE1 EUTURBINE2

PTI No: MI-PTI-N7624-2019

FGTURBINES FLEXIBLE GROUP CONDITIONS

DESCRIPTION

The flexible group includes two Solar Mars 110S natural gas fired turbines, EUTURBINE1 and EUTURBINE2.

Emission Units: EUTURBINE1, EUTURBINE2

POLLUTION CONTROL EQUIPMENT

Low NOx Combustion System

I. EMISSION LIMIT(S)

	Pollutant	Limit	Time Period/Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1.	NOx	25 ppm at 15%	Hourly	FGTURBINESd	Annual	40 CFR
		O ₂ ²			performance test as specified in SC V.1	60.4320(a)
2.	SO2	0.06 lb/MMBTU ²	NA	FGTURBINES	Fuel quality characteristics	40 CFR 60.4330 40 CFR 60.4335
3.	CO	800 pounds per hour ²	Hourly	FGTURBINES ^{a,b}	SC V.2, Appendix 7	R 336.1205(1)(a)
4.	CO	18.8 pounds per hour ²	Hourly	FGTURBINES ^{a,c}	SC V.2, Appendix 7	R 336.1205(1)(a)

a. Represents the total emission limit for both turbines. Individual turbine limits are one half the listed values.

II. MATERIAL LIMIT(S)

NA

III. PROCESS/OPERATIONAL RESTRICTION(S)

- 1. The permittee shall only burn natural gas in FGTURBINES.¹ (R 336.1225)
- 2. Except for periods of startup and shutdown, the permittee shall not operate the turbines at less than 87 percent of NGP.² (R 336.1205(a)(ii))
- 3. The permittee shall operate FGTURBINES at all times within the range of gas producer speed, based on an hourly average, established by the permittee to assure compliance with the applicable NOx and CO emission limits. (R 336.1213(3)(b))
- 4. The permittee shall operate and maintain each stationary turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including startup, shutdown, and malfunction. (40 CFR 60.4333(a))

b. This limit is applicable at any time that the turbine is operating in the range of 87% to 92% of NGP. An exceedance of this hourly limitation will further restrict operating hours under SoLoNOx-OFF mode but will not constitute a violation. NGP is defined as the rotational speed [measured in revolutions per minute (RPM)] of the gas producer. Startup is defined as the period of time from first ignition to when the turbine reaches 87% of NGP. Shutdown is defined as that period of time from the initial lowering of the turbine's speed to below with the intent to shut down.

c. This limit is applicable any time the turbines are operating at or above 92% of NGP.

d. 40 CFR 60 Subpart KKKK limits emissions to 25 ppm NOx at 15% O₂ at any turbine load.

PTI No: MI-PTI-N7624-2019

IV. DESIGN/EQUIPMENT PARAMETER(S)

1. The permittee shall equip and maintain FGTURBINES with dry low-NO_x combustors.² (40 CFR 52.21(c) and (d))

V. TESTING/SAMPLING

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

- 1. The permittee shall verify CO emission rates from FGTURBINES by testing at owner's expense, in accordance with the Department requirements. The permittee shall verify NOx emissions and oxygen concentration of the exhaust from each turbine in FGTURBINES by testing at the owner's expense, in accordance with the 40 CFR 60.8, 40 CFR 60.4400, and 40 CFR 60.4340(a). The permittee shall conduct both of the following:
 - a. Three separate test runs, at least 20 minutes each, at ambient temperature greater than 0°F, and at 75 percent of 100 percent peak load.
 - b. Three separate test runs, at least 20 minutes each, at ambient temperatures at the lowest percent load condition of the operating range of the turbine.

Testing shall be performed using an approved EPA Method listed in:

Pollutant	Test Method Reference	
NOx	40 CFR Part 60, Appendix A	
CO	40 CFR Part 60, Appendix A	

An alternate method, or a modification to the approved EPA Method, may be specified in an AQD-approved Test Protocol. No less than 30 days prior to testing, the permittee shall submit a complete test plan to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing, including any modifications to the method in the test protocol that are proposed after initial submittal. The permittee must submit a complete report of the test results to the AQD Technical Programs Unit and District Office within 60 days following the last date of the test. (R 336.1205(a), R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)

- 2. The permittee shall verify the CO emission rates from FGTURBINES at a minimum, every five years from the date of the last test. (R 336.1213(3), R 336.2001, R 336.2003, R 336.2004)
- 3. The permittee shall verify NOx emission rates and oxygen concentrations from FGTURBINES annually (at least every 14 calendar months). If the stack test result is less than or equal to 75 percent of the NOx limit in SC 1.1a, the frequency of the subsequent performance test can be changed to once every two years (at least every 26 calendar months). If subsequent test results yield NOx emissions greater than 75 percent of the NOx limit in SC 1.1a, annual testing must be resumed. (R 336.1201(3), 40 CFR 60.8, 40 CFR 60.4400, 40 CFR 60.4340(a))
- 4. The permittee shall conduct initial performance test and subsequent annual performance using one of the three methodologies described in 40 CFR 60.4415(1), (2), or (3). (40 CFR 60.4415)
- 5. The permittee shall notify the AQD Technical Programs Unit Supervisor and the District Supervisor not less than 30 days of the time and place before performance tests are conducted. (R 336.1213(3))

VI. MONITORING/RECORDKEEPING

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

- 1. The permittee shall continuously monitor the SoloNOx on/off bit ("ST_SoloNOx_Mode_Active") to indicate whether or not the turbines are operating in the lean pre-mixed (low-NOx or "SoloNOx") combustion mode.² (R 336.1205(1)(a)(ii))
- 2. Except as provided in Appendix 3, the permittee shall monitor the total sulfur content of the fuel fired in FGTURBINES using total sulfur methods described in 40 CFR 60.4415. Alternatively, if the total sulfur content of the gaseous fuel during the most recent performance test was less than half the applicable limit, ASTM D4084,

PTI No: MI-PTI-N7624-2019

D4810, D5504, or D6228, or Gas Processors Association Standard 2377 (all of which are incorporated by reference, see 40 CFR 60.17), which measure the major sulfur compounds, may be used.² **(40 CFR 60.4360)**

- 3. The permittee shall maintain the following records for FGTURBINES onsite:
 - a. Turbine Natural Gas Producer Speed (%NGP) for each turbine, recorded on an averaging period not exceeding an hourly basis.² (R 336.1205(1)(a)(ii))
 - b. Hourly calculated CO and NOx emissions, as specified in Appendix 7.2 (R 336.1205(1)(a)(ii))
 - c. An indicator as to whether or not each turbine is operating in SoloNOx or non-SoloNOx mode.² (R 336.1205(1)(a)(ii))
 - d. The carbon monoxide (CO) and nitrogen oxides (NOx) emissions for each turbine, calculated on a monthly basis. The 12-month rolling time period CO and NOx emissions shall be calculated in accordance with the procedures specified in Appendix 7.² (R 336.1205(1)(a)(ii))
 - e. A current and valid Federal Energy Regulatory Commission Gas Tariff for the facility.² (40 CFR 60.4365(a))
 - f. Monitor and record the number of startups and shutdowns of each turbine on a daily basis.² (R 336.1205(1)(a)(ii))
 - g. Amount of natural gas combusted in FGTURBINES, recorded on a daily basis.2 (R 336.1205(1)(a)(ii))
 - h. Operating hours of each turbine, recorded on a daily basis.² (R 336.1205(1)(a)(ii))

See Appendices 3 and 7

VII. REPORTING

- 1. Prompt reporting of deviations pursuant to General Conditions 21 and 22 of Part A. (R 336.1213(3)(c)(ii))
- 2. Semiannual 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))
- 4. Semiannual reporting of monitoring and deviations pursuant to Special Condition 23 of Part A, to include recordkeeping requirements for FGTURBINES. The semiannual report shall be received by 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))
- 5. The permittee shall submit a complete written report of all test results including annual performance tests conducted in accordance with 40 CFR 60.4340(a) to the AQD District Supervisor, within 60 days following the last date of the test. (R 336.1213(3)(c), 40 CFR 60.4375(b))

See Appendix 8

PTI No: MI-PTI-N7624-2019

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVTURBINE1	103.5 x 103.5 ²	50^{2}	40 CFR 52.21(c) and (d)
2. SVTURBINE2	103.5 x 103.5 ²	50 ²	40 CFR 52.21(c) and (d)

IX. OTHER REQUIREMENT(S)

- 1. The permittee shall operate FGTURBINES in accordance with the requirements of 40 CFR Part 60, Subparts A and KKKK, unless otherwise stated. (40 CFR Part 60, Subparts A and KKKK)
- 2. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of FGTURBINES. (40 CFR 60.7(b), R 336.1213(3))
- 3. The permittee shall maintain on site and implement a preventative maintenance plan (PMP) that ensures FGTURBINES can operate in compliance with the above emission limits. (R 336.1213(3)(a))

Footnotes:

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

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).

PTI No: MI-PTI-N7624-2019

E. NON-APPLICABLE REQUIREMENTS

At the time of the ROP issuance, the AQD has determined that no non-applicable requirements have been identified for incorporation into the permit shield provision set forth in the General Conditions in Part A pursuant to Rule 213(6)(a)(ii).

PTI No: MI-PTI-N7624-2019

APPENDICES

Appendix 1. Acronyms and Abbreviations

	Common Acronyms		Pollutant / Measurement Abbreviations
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	СО	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO ₂ e	Carbon Dioxide Equivalent
CEMS	Continuous Emission Monitoring System	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
СОМ	Continuous Opacity Monitoring	°F	Degrees Fahrenheit
Department/	Michigan Department of Environment,	gr	Grains
department	Great Lakes, and Energy	HAP	Hazardous Air Pollutant
EGLE	Michigan Department of Environment,	Hg	Mercury
	Great Lakes, and Energy	hr	Hour
EU	Emission Unit	HP	Horsepower
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallons of Applied Coating Solids	kW	Kilowatt
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
IRSL	Initial Risk Screening Level	MM	Million
ITSL	Initial Threshold Screening Level	MW	Megawatts
LAER	Lowest Achievable Emission Rate	NMOC	Non-methane Organic Compounds
MACT	Maximum Achievable Control Technology	NO _x	Oxides of Nitrogen
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	Particulate Matter equal to or less than 10
NA	Not Applicable		microns in diameter
NAAQS	National Ambient Air Quality Standards	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NESHAP	National Emission Standard for Hazardous	pph	Pounds per hour
NODO	Air Pollutants	ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS PSD	Performance Specification	% 	Percent
PTE	Prevention of Significant Deterioration	psia	Pounds per square inch absolute
PTI	Permanent Total Enclosure	psig	Pounds per square inch gauge
	Permit to Install	scf	Standard cubic feet
RACT	Reasonable Available Control Technology	sec	Seconds Sulfur Dioxide
ROP	Renewable Operating Permit	SO ₂	
SC	Special Condition	TAC	Toxic Air Contaminant
SCR	Selective Catalytic Reduction	Temp	Temperature
SNCR	Selective Non-Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	μg	Microgram
USEPA/EPA	United States Environmental Protection	μm	Micrometer or Micron
\/F	Agency	VOC	Volatile Organic Compounds
VE	Visible Emissions	yr	Year

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

PTI No: MI-PTI-N7624-2019

Appendix 2. Schedule of Compliance

The permittee certified in the ROP application that this stationary source is in compliance with all applicable requirements and the permittee shall continue to comply with all terms and conditions of this ROP. A Schedule of Compliance is not required. (R 336.1213(4)(a), R 336.1119(a)(ii))

Appendix 3. Monitoring Requirements

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in FGTURBINES.

Exemption from Monitoring Total Sulfur Content of the Fuel-Developed Pursuant to 40 CFR Part 60, Subpart KKKK

If the permittee elects to not monitor the total sulfur content of the fuel combusted in the turbines, then the permittee must demonstrate that potential sulfur emissions from combusting the fuel will not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input. One of the following sources of information must be used to make the required demonstration:

- a. The fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel, specifying that the maximum total sulfur content for oil use in continental areas is 0.05 weight percent (500 ppmw) or less and 0.4 weight percent (4,000 ppmw) or less for non-continental areas, the total sulfur content for natural gas use in continental areas is 20 grains of sulfur or less per 100 standard cubic feet and 140 grains of sulfur or less per 100 standard cubic feet for non-continental areas, has potential sulfur emissions of less than 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas and has potential sulfur emissions of less than 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for non-continental areas; or
- b. Representative fuel sampling data which show that the sulfur content of the fuel does not exceed 26 ng SO2/J (0.060 lb SO2/MMBtu) heat input for continental areas or 180 ng SO2/J (0.42 lb SO2/MMBtu) heat input for non-continental areas. At a minimum, the amount of fuel sampling data specified in section 2.3.1.4 or 2.3.2.4 of Appendix D to Part 75 of this chapter is required.

Appendix 4. Recordkeeping

Specific recordkeeping requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, this appendix is not applicable.

Appendix 5. Testing Procedures

There are no specific testing requirement plans or procedures for this ROP. Therefore, this appendix is not applicable.

Appendix 6. Permits to Install

The following table lists any PTIs issued or ROP revision applications received since the effective date of the previously issued ROP No. MI-ROP-N7624-2014. Those ROP revision applications that are being issued concurrently with this ROP renewal are identified by an asterisk (*). Those revision applications not listed with an asterisk were processed prior to this renewal.

Source-Wide PTI No MI-PTI-N7624-2014 is being reissued as Source-Wide PTI No. MI-PTI-N7624-2019.

PTI No: MI-PTI-N7624-2019

Permit to Install Number	ROP Revision Application Number	Description of Equipment or Change	Corresponding Emission Unit(s) or Flexible Group(s)
NA	NA	NA	NA

Appendix 7. Emission Calculations

The permittee shall use the following calculations in conjunction with monitoring, testing or recordkeeping data to determine compliance with the applicable requirements referenced in FGTURBINES.

Determination of 12-Month Rolling Time Period Emissions

Compliance with the CO and NOx rolling 12-month time period emission limits in Source-Wide Table. (R 336.1205(1)(a))

1. Monitoring System

a. The permittee shall utilize an automated data acquisition system (ADAS) to track natural gas producer speed (NGP) as a percentage of maximum design producer speed at the Vector Pipeline L.P. - Romeo (Macomb Township) Compressor Station for each of the natural gas turbines (EUTURBINE1 and EUTURBINE2), and will track operating hours of the backup generator (EUSPU3). NGP of the gas turbines will be logged on an averaging period not exceeding an hourly basis within the ADAS. Maximum design gas producer speed (103 percent) of EUTURBINE1 and EUTURBINE2 will be defined as the operation of each of the two (2) gas producer turbines at a rotational speed of 10,780 revolutions per minute (RPM).

2. Method of Calculation

- a. The 12-month rolling time period Source-Wide CO and NOx emissions will be calculated cumulatively for EUTURBINE1, EUTURBINE2, and EUSPU3. The 12-month rolling time period sum also includes those emissions associated with startup and shutdown of the turbines, as defined in footnote "b" of Source-Wide Section 1: Emission Limits.
- b. For each turbine, two modes of operation are defined by the turbine manufacturer. These modes of operation are designated as "SoloNOx-ON" and "SoloNOx-OFF" modes. The "SoloNOx-ON" mode is defined as those gas producer operating ranges, as defined by NGP in which NOx emissions are controlled by the lean burn natural gas combustion process within the combustor of the turbines and, coincidentally, CO emissions in the effluent do not exceed the 9.4 pounds per hour emission factor assigned to each turbine, as determined by the hourly NGP and previous stack testing of the gas producer turbines. Conversely, "SoloNOx-OFF" mode refers to those periods of time, as determined by NGP, in which NOx emissions are not controlled by the lean burn natural gas combustion process within the combustor of the turbines and, coincidentally, CO emission in the effluent exceed the 9.4 pound per hourly emission factor, but not the 400 pounds per hour assigned to each turbine, again as determined by the hourly NGP and previous stack testing of the gas producer turbines.
- c. Stack testing over a range of turbine loads (as measured by NGP) has been performed by the permittee to differentiate between "SoloNOx-ON" mode and "SoloNOx-OFF" mode for EUTURBINE1 and EUTURBINE2. Based on this testing EUTURBINE1 and EUTURBINE2 are assumed to be in "SoloNOx-ON" mode at turbine speeds of 92 percent or greater NGP. At NGP of less than 92 percent, the turbines are assumed to be in "SoloNOx-OFF" mode. In the event that additional stack testing is performed, the results of that stack testing shall be used to establish new emission factors for step **2b** above, upon review and approval of the district inspector.
- d. The permittee shall record total calculated emissions from the operation of FGTURBINES (EUTURBINE1 and EUTURBINE2) for each hourly time period. The permittee shall record hourly NGP for each gas producer within the ADAS, identifying whether EUTURBINE1 and EUTURBINE2 are operating within SoloNOx-ON or SoloNOx-OFF mode for the recorded hour. The permittee shall assign a CO emission rate of 9.4 pounds per hour per turbine for SoloNOx-ON mode (92 percent NGP and above), and a CO emission rate of 400

PTI No: MI-PTI-N7624-2019

pounds per hour per turbine for SoloNOx-OFF mode (less than 92 percent NGP), or emission factors based on the most recent stack test data. The permittee shall record those times that EUSPU3 is in operation, and multiply hours of operation by an appropriate carbon monoxide emission rate (e.g. stack test data, AP-42 emission factor)

3. Schedule

a. The permittee shall maintain a 12-month rolling time period sum of Source-Wide CO and NOx emissions calculated at the end of each calendar month. The 12-month rolling time period Source-Wide CO and NOx emissions will be calculated by the 15th day of each month for the previous 12-month period ending with the previous month.

Appendix 8. Reporting

A. Annual, Semiannual, and Deviation Certification Reporting

The permittee shall use EGLE, AQD, Report Certification form (EQP 5736) and EGLE, AQD, Deviation Report form (EQP 5737) for the annual, semiannual and deviation certification reporting referenced in the Reporting Section of the Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Alternative formats must meet the provisions of Rule 213(4)(c) and Rule 213(3)(c)(i), respectively, and be approved by the AQD District Supervisor.

B. Other Reporting

Specific reporting requirement formats and procedures are detailed in Part A or the appropriate Source-Wide, Emission Unit and/or Flexible Group Special Conditions. Therefore, Part B of this appendix is not applicable.

Preventative Maintenance Plan

Washington Compressor Station

Vector Pipeline L.P. Macomb, Michigan

Prepared for:

Vector Pipeline L.P. 12708 30 Mile Road Macomb Township, MI 48095

Developed: December 2012

Prepared by:
Merjent, Inc.
800 Washington Avenue N
Suite 315
Minneapolis, MN 55401

Revised: March 2020

Revised by:

GZA GeoEnvironmental, Inc. 19500 Victor Parkway Suite 300 Livonia, Michigan 48152

Last Reviewed: March 2024

TABLE OF CONTENTS

Section	<u>Page</u>
1.0 INTRODUCTION	3
2.0 GENERAL PLAN INFORMATION	3
2.1 Description of Malfunction	3
2.2 Description of Equipment / Limitations	
2.3 Contact Names	
2.4 Inspections and Maintenance Schedule	5
2.5 Parameters to be Monitored	5
2.5.2 Horsepower Levels for FGTURBINES	5
2.5.3 Startup, Shutdown or Malfunction	5
2.5.4 Operating Hours	6
2.5.5 Fuel Usage	6
2.5.6 Sulfur Content of Fuel	6
2.6 Corrective Action Measures	6
3.0 OPERATING CONDITIONS	6

<u>Tables</u>

Table 1. Permitted Emission Sources and Limits

Table 2. Individuals Responsible for Maintenance

1.0 INTRODUCTION

Vector Pipeline L.P. operates a natural gas compressor station in Macomb County, Michigan (Washington Compressor Station), herein referred to as the "Facility". The station equipment includes two natural gas fired turbines and a standby generator.

This Preventative Maintenance Plan, herein referred to as the "Plan", meets the requirements of implementing a preventative maintenance plan as required by Section IX of Part D of the Facility's Renewable Operating Permit (No. MI-ROP-N7624-2019). The Plan has been developed to reflect facility operations with regards to the air emissions generating equipment operation and maintenance. The Plan will be updated as deemed necessary based on future plant operations.

2.0 GENERAL PLAN INFORMATION

The Facility's emission unit and pollution control equipment consists of two (2) Solar Turbine Incorporated Mars 100 natural gas fired turbines each rated at 15,000 horsepower and controlled by dry low nitrogen oxide (DLN) emission controls. This facility also includes a natural gas fired stand-by power unit rated at 8.43 million British thermal units (MMBtu) per hour.

The following information pertains to the equipment covered under the Plan, including limits or operating capacities as required by the air permit.

2.1 <u>Description of Malfunction</u>

Malfunction in this case means any disorder, operational change, or abnormal conditions, mechanical or operational that could raise pollutant emission above permitted levels.

2.2 Description of Equipment / Limitations

The Solar Turbines, identified as EUTURBINE1 and EUTURBINE2, are fired with natural gas and discharged to the atmosphere from stacks SV-TURBINE1 and SV-TURBINE2, respectively and use DLN control technology. EUTURBINE1 and EUTURBINE2 are collectively identified as FGTURBINES. A continuous monitoring system for measuring natural gas producer (NGP) speed shall be maintained and operated for each turbine.

The standby generator, identified as EUSPU3, is fired with natural gas and discharged to the atmosphere from stack SV1-SPU. An annual operating limitation of 500 hours per year is provided by the permit; however, starting in 2013 the generator will need to meet the definition of an emergency stationary spark ignition internal combustion engine to avoid the unit changing status such that the emission limits and work practices in NSPS Subpart JJJJ become applicable. To meet this definition of emergency engine, EUSPU3 operation during non-emergency maintenance checks and readiness testing is limited to 100 hours per year.

Nitrogen Oxide (NOx) and Carbon Monoxide (CO) emission limitations apply to EUTURBINE1 and EUTURBINE2 and annual emission limits for NOx and CO apply to the Facility. These limitations are summarized in Table 1.

Table 1: Permitted Emission Sources and Limits

Unit Number / Plant	Equipment / Item	Control	NO _x Limit	CO Limit	PM Limit	SO ₂ Limit	Annual Hours of Operation
FGTURBINES	EUTURBINE1 & EUTURBINE2 rated at 15,000 HP and 120 MMBtu	Dry low NO _x burners	25 ppm at 15% O ₂	18.8 lb/hr ⁽²⁾		0.06 lb/MMBTU	8,760
FGFACILITY	All equipment at the facility including equipment covered by other permits or grand-fathered or exempt equipment	NA	81.34 tpy	219.18 tpy	6-minute average of 20 percent opacity ⁽³⁾	NA	
Emergency Generator (SPU)	Natural gas-fired stand-by generator 8.43 MMBtu/hr	Max Annual Operation = 500 hours	Part of FGFACILITY	Part of FGFACILITY		NA	500 ⁴

Notes:

- 1. 40 CFR 60 Subpart KKKK limits emissions to 25 ppm NOx at 15 % O2 at any turbine load.
- 2. This limit is applicable any time the turbines are operating at or above 92% Natural Gas Producer (NGP) and represents the total emission limit for both turbines. Individual turbine limits are one half the listed values. Except for startup and shutdown, the turbine shall not operate at loads less than 87% NGP. During startup or low-load operation [87% to 92% of NGP Speed], the CO emissions of each turbine shall not exceed 400 pounds per hour (lb/hr).
- 3. A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
- 4. The 500 hrs/yr is allowed by permit; however, beginning in 2013, the facility will also need to meet the definition of emergency generator under Part 60 Subpart JJJJ, which is required by Part 63 Subpart ZZZZ which includes restrictions on hours of operation.

2.3 Contact Names

Air pollution control equipment is inspected and maintained by various plant personnel as the Facility operates twenty-four hours a day, seven days a week. On any given day, the process operator(s) or maintenance personnel will complete the inspections during their normal course of facility operation. Table 2 summarizes the individuals responsible for inspecting, maintaining, and repairing the emission sources and emission controls.

Table 2. Individuals Responsible for Maintenance

Title	Phone Number
Operations Manager	269-729-4419
Operations Coordinator	586-336-5086
Instrument and operations Technician	586-336-5086

2.4 <u>Inspections and Maintenance Schedule</u>

The turbines and standby generator will follow the inspection and maintenance schedule recommended in the manufacturer's operation and maintenance manuals and based on equipment history. The manufacturer's manuals for the turbines and the standby generator are located at the facility. Routine maintenance includes engine washes, filter replacements, coil cleaning, belt changing, bearing greasing, oil analysis, etc. as recommended by Solar, the Turbine manufacturer. Routine maintenance for the standby generator includes filter changes, fluid level checks, battery checks, and belt replacements as recommended by the manufacturer.

2.5 Parameters to be Monitored

The Facility is taking an active role to ensure complete compliance with regards to their permit. The parameters to be monitored to ensure compliance include:

2.5.1 Turbine Natural Gas Producers Speed for FGTURBINES

The average NGP for each turbine recorded on an average period not to exceeding an hourly basis using an automated data acquisition system.

2.5.2 Horsepower Levels for FGTURBINES

The average horsepower levels for each turbine shall be recorded on an hourly basis.

2.5.3 Startup, Shutdown or Malfunction

The facility shall record the occurrence and duration of any startup, shutdown, or malfunction for each turbine and any air pollution control equipment.

2.5.4 Operating Hours

The Facility shall record the total operating hours for each turbine during each calendar day and the total operating hours for the standby generator during each calendar month using a non-resettable hour meter.

2.5.5 Fuel Usage

The Facility shall monitor and record the amount of fuel combusted in FGTURBINES during each calendar day and EUSPU3 each calendar month.

2.5.6 Sulfur Content of Fuel

The Facility shall monitor the total sulfur content of the fuel fired in FGTURBINES using methods described in 40 CFR 60.4415 and shall not exceed 0.8 percent by weight. Alternatively, the Facility may demonstrate the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contact for the fuel that specify the maximum total sulfur content of the fuel.

2.6 Corrective Action Measures

The Facility will implement preventative maintenance practices recommended in the manufacturer's manuals and based on equipment history to limit unit malfunctions. In the event a control unit malfunctions to the point operational conditions are not met, the facility staff will take corrective actions to restore the unit to proper operations. In addition, if emissions from the facility exceed the permitted limit, the turbines will be shut down until they are able to achieve the appropriate levels.

3.0 OPERATING CONDITIONS

As part of the Facility's air permits, there are a number of operating conditions that must be followed. As part of this Plan, the following conditions need to be followed, maintained, and appropriately documented:

- An automated data acquisition system shall be calibrated, maintained, and operated on each turbine for measuring NGP. The NGP shall be monitored continuously and recorded on an average period not to exceeding an hourly basis when either of the turbines is in operation.
- To document compliance, the facility shall maintain monthly records that include: the total number of hours each turbine operated, the operating hours and fuel consumption of EUTURBINES and EUSPU3, and calculate the amount of CO and NO_x emitted by the 15th day of each month for the previous month and previous 12 months ending with the previous month.

The above conditions are tracked and recorded on an electronic spreadsheet.