Public Awareness

Involvement in surrounding Municipal events and actions:

- What are some events taking place in Windsor-Essex County where the WECEC can talk to the community
- What are the goals of participating in such events?
    - Understanding what the community wants to see done for the environment
    - What major environmental concerns are
    - Explaining the role of the WECEC
- How will participating in these events help shape the priorities of WECEC?

Awareness of local climate change impacts and threats

- How is the WECEC communicating to the community about climate change and threats for this area?
- How can the WECEC communicate these?
- Would this require the WECEC to partner with local organizations to get the proper messaging across?

Pollution and Climate Change

Pollution issues, cancer causing environmental issues

- How does the WECEC identify these issues?
    - Who on the WECEC can provide the most common pollution issues for the area?
- How does the WECEC get the messaging of these issues across
    - Do we leverage on events?
    - Partner with organizations to bring light to Windsor-Essex County Pollution
- Does the WECEC put forth a discussion solely on a single type of pollution?

Banning of Plastic Bags

- How does the WECEC start this discussion?
    - Identify challenges
    - Identify opportunities
    - Understand the implications of both single use plastic and its ban
- See attached for Canadian cities with a plastic ban or is in discussion for a ban

City	Ban	Progress	Year	Population	Lead
British Columbia					
Vancouver, British Columbia	Plastic Straws, White Foam Containers	In Effect	2018	603,502	
Victoria, British Columbia	Single-Use Plastic Bags	To come in Effect	2018	80,017	
New Westminster, British Columbia	Single-Use Plastic Bags, Plastic Straws	In Discussion	2018-2019	70,996	
Nanaimo, British Columbia	Single-Use Plastic Bags	In Discussion	2017	83,810	
Saanich, British Columbia	Single-Use Plastic Bags	In Discussion	2017	109,752	
Alberta					
Municipality of Wood Buffalo (Includes Fort McMurray), Alberta	Single-Use Plastic Bags	In Effect	2010	71,589	
Town of Drumheller, Alberta	Plastic bags	In Discussion	2018	7,982	
Revelstoke, Alberta	Single-Use Plastic Bags	Recommendation	2018	6,719	
Edmonton, Alberta	Single-Use Plastic Bags	To be discussed		932,546	Community Groups
Saskatchewan					
Manitoba					
Leaf Rapids, Manitoba	Plastic bags	In Effect	2007	453	
Thompson, Manitoba	Non-Recyclable Plastic Bags	In Effect	2010	13,123	
The Pas, Manitoba	Single-Use Plastic Bags	In Effect	2016	5,513	
Snow Lake, Manitoba	Single-Use Plastic Bags	In Effect	2016	730	
Winnipeg. Manitoba	Single-Use Plastic Bags		2018	663,617	Student led
Ontario					
Toronto, Ontario	Single-Use Plastic Bag	Voted Down	2012	2.615 Million	
Quebec					
Saint-Lambert, Quebec	Single-Use Plastic Bags	In Effect	2018	21,861	
Longueuil, Quebec	Certain types of Single-Use Plastic Bags	In Effect	2018	239,700	
Montreal, Quebec	Single-Use Plastic Bags less than 50 microns	In Effect	2018	1.705 Million	Council
New Brunswick					
Moncton, New Brunswick	Single-Use Plastic Bags	In Discussion	2018	144,810	
St. John's, Newfoundland	Single-Use Plastic Bags	In Discussion*	2018	205,955	
Nova Scotia					
Halifax, Nova Scotia	Single-Use Plastic Bags	Voted Down*	2018	403,131	
Digby, Nova Scotia	Single-Use Plastic Bags	Voted For*		2,060	
Pictou County	Single-Use Plastic Bags	Voted For*		43,784	Councillors

Potential Green Speaker Series Presenters

Priority	Speaker	Background
Awareness of local climate change impacts and threats	**Rob Shirkey**, Executive Director, Our Horizon	Rob, a lawyer from Toronto, is a recognized global authority on the subject of climate change warnings on gas pump nozzles. He has given lectures on the topic across North America and has been featured in media all over the world. Over 50 communities in Canada have voted in favour of the concept and several U.S. cities are now pursuing the idea too. He also has experience as an Assistant City Solicitor and Prosecutor. Rob's talks draw on the latest in climate change research. He gathers insights from psychology, sociology, economics, business, and law to build the case for demand-side, local action on climate change. His trial experience as a lawyer and his playful sense of humour makes him a compelling and entertaining speaker.
Tree Cutting By-Law	**Paul Giroux** Forester, City of Windsor	Can relate to "invasive species"
	Rob Davies Forester, ERCA	
Pollution issues	**Dr. Kate Parizeau** Assistant Professor Department of Geography, University of Guelph	Dr. Parizeau is interested in research questions concerning the social context of waste and its management. Having grown up with a landfill in her backyard, Kate believes a society's waste can reveal how various environmental and social concerns are prioritized. Garbage can also provide insight to the politicization and governance of everyday life
	Dr. John Howard CAPE Board Past President Professor at the Schulich Faculty of Medicine and Dentistry at Western University	Dr. Howard is a recognized speaker on health policy, medical education and institutional change – in particular, as these topics relate to the environment.
Invasive species awareness/control	**Paul Giroux** Forester, City of Windsor	Can relate to Oak Wilt and other threats to trees and relate to the "tree cutting by-law"
	Rob Davies Forester, ERCA	
	Wings Wildlife Rehabilitation OR **Erie Wildlife Rescue**	Speak to wildlife threats, climate change, pollution, human action, invasive species
Banning of Plastic Bags	**Dr. Jill Crossman** University of Windsor Professor	Dr. Crossman looks at the impacts of microplastics in the environment

WECEC Coordinator Monthly Report

– June 2018 –

Ongoing Initiatives

1. Updates

A. Earth Day with the Contents Processing Centre

WECEC participated in the first Earth Day event hosted by the Contents Processing Centre (CPC). This event brought local environmentally focused groups to talk about what they do while the CPC promoted their business with insurance brokers. The event was also captured by Snap'd. Many people were interested in the WECEC and signed up to be on the Green Speaker Series list.

Overall, the event was a great way for the WECEC to promote awareness and the environment. This added to our ongoing initiatives to promote awareness. Participating in this event also initiated talks of Climate Change as the CPC was showcasing their ability to restore household items that could be damaged in disasters such as floods.

B. Essex Children's Water Festival

The last week of May held the Children's Water Festival at the Canadian Transportation Museum and Heritage Village. This festival allows all elementary school students grades 3-5 within Windsor and Essex County the opportunity to learn about water conservation, sewer systems, pollution, and climate change. The City of Windsor ran an obstacle course that put students through a perceived water reclamation plant; ERCA ran an Eagle Survivor activity that had students understanding the implications of water pollution. Other booths tackled climate change by having children jump from iceberg to iceberg as the ice was decreasing. Plastic pollution in our lakes and rivers was another discussion topic for the students. There was a visual that showed common trash items and what can happen if they enter our lakes and rivers.

This educational event was very well received by the students. Learning happened for elementary students as well as their chaperones, whether it is teachers or parents. This was the Children Water Festivals 16th year and students who had been previous years were still excited to have come back again.

C. EWSWA Truckload Sale

The Essex Windsor Solid Waste Authority hosted its annual truckload sale allowing the community of Windsor-Essex County to purchase composters, digesters, barrels, and large and small recycle bins at a discounted price. The event was a success once again. Excess rain barrels are for sale at the Ojibway Nature Centre for $60,

D. EWSWA Open House

On June 10th the Essex Windsor Solid Waste Authority hosted its annual Open House where the community was able to tour the recycling facility, learn about proper recycling, visit environmental vendors, learn to garden, learn about microplastics, and much more. This event also held a Barbecue where the proceeds went to Computers For Kids.

E. Flooding and Damage Have Residents Worried

2018 has caused flooding and associated fears of flooding in Essex County. It has been noted that lake levels in the area are the highest since 1997. The Essex Region Conservation Authority has noted significant damage to properties and roads.

F. **Trouble for Turtles**

Recently, a warning about turtles has surfaced in the Windsor-Essex area. Drivers are being cautioned to keep an eye for turtles crossing the road. Wings Rehab has taken in more than a dozen snapping turtles from being hit by cars. Turtles are venturing onto the roads in search from breeding grounds causing many of the injuries to be to breeding females. If you encounter a turtle crossing the road, there are ways to safely help them across.

2. Reports to Council

No reports to Council.

WECEC Budget – Summary

2018 Budget			
Item	**Credit**	**Estimated Expenditure**	**Status**
2018 Budget	$8,000.00		
Pat on the Back		$2500.00	Spent
Green Speaker #1		$1000.00	
Green Speaker #2		$1000.00	
Movie Screening		$2000.00	
Website Hosting and Domain Fee		$450.00	
Earth Day		$35.00	Spent
LaSalle Night Market		$50.00	Proposed
TOTALS	$8,000	$6,985.00	
NON-ALLOCATED REMAINING		**$965.00**	

– JUNE 2018 –

List of Priority Themes and Corresponding Objectives

Transportation Including Alternative Transportation

- Walkability, complete streets, trails, active transportation
- Anti-Idling
- Bike Lanes
- Active Transportation in both the City of Windsor and Essex County

Public Awareness

- Right to Know by-law
- Awareness of local climate change impacts and threats
- Know Your City tour
- Involvement in surrounding Municipal events and actions
- Youth engagement
- Responsible sewer use for City of Windsor and Essex County

Pollution and Climate Change

- Greening the City – specifically more green roofs and green infrastructure
- Review of existing tree cutting bylaw
- Pollution issues, cancer causing environmental issues
- Parkway natural areas
- Invasive species awareness and control
- Banning of plastic bags

Current List of Subcommittees

1. Air
2. Environmentally Sensitive Lands and Issues

ECOLOGY OTTAWA ECOLOGIE OTTAWA | Environment Hamilton | TORONTO ENVIRONMENTAL ALLIANCE tea | Citizens Environment Alliance | Oakvillegreen Conservation Association

For Immediate Release

April 26, 2018

New Report: Municipal Climate Action Needs Provincial Support to Succeed

A new report card released today by the Urban Climate Alliance (UCA) shows how municipal governments in Ottawa, Toronto, Oakville, Hamilton and Windsor are getting ready for climate change and the news isn't good. A key reason? The Province needs to properly use the tools at its disposal, like carbon pricing, to help cities implement their plans.

"Cities are on the front line of dealing with climate change in Ontario. Our report shows key cities are failing in some key areas like financing the plans, meeting their implementation timelines and engaging communities," said Lynda Lukasik, Executive Director of Environment Hamilton. "That's why the Provincial Government needs to ensure enough Provincial dollars are available to municipalities to implement their plans."

The environmental groups undertook a detailed analysis of climate action planning in their municipality. "The report card results are nothing to be proud of," said Robb Barnes, Executive Director of Ecology Ottawa. "What is really striking is how all 5 cities are failing in similar ways. This suggests the problems need Provincial help to solve."

"The good news is that the City Councils in the 5 cities we looked at actually have developed plans to deal with climate change," said Derek Coronado, Executive Director Citizens Environment Alliance from Windsor. "The bad news is that City Councils aren't meeting key deadlines."

"It's clear cities need help from the Province to make buildings more energy efficient, reduce dependence on gasoline for moving people and things, and update city infrastructure to deal with severe weather," said Giuliana Casimirri, Executive Director of Oakvillegreen Conservation Association. "The Province has an extremely powerful financial tool to accomplish this with -carbon pricing- and it needs to use it more."

"These report card results are a wakeup call," said Franz Hartmann, Executive Director of the Toronto Environmental Alliance. "Cities need help and the Province has the means to help them."

-30-

For more information, contact: Derek Coronado, Executive Director, Citizens Environment Alliance
Tel. 226-344-5955

Background details available at www.citizensenvironmentalliance.org/mca.html

The Urban Climate Alliance is a collective of urban-based environmental groups made up of Ecology Ottawa, Toronto Environmental Alliance, Environment Hamilton, Oakvillegreen Conservation Association and Citizens Environment Alliance (Windsor).

7.1.1

CITY CLIMATE PLAN REPORT CARD 2018

Prepared by the Urban Climate Alliance

The Urban Climate Alliance focuses on local engagement and solutions to climate change. We have been learning from each other for over 3 years. Over recent months, we have worked together to explore similarities and differences, challenges and opportunities related to city climate action planning within each of our municipalities. The result is the first of what we hope will become an annual Urban Climate Alliance City Climate Action Plan Report Card.

Members of the Urban Climate Alliance: Citizens Environment Alliance (Windsor), Environment Hamilton, Oakvillegreen Conservation Association, Toronto Environmental Alliance, and Ecology Ottawa.

Assessment Criteria	Hamilton	Oakville	Ottawa	Toronto	Windsor
1. Does your city have a climate change action plan (or other plans that incorporate climate action into them)?	Y	Y	Y	Y	Y
2. Is it a community-wide action plan informed by BOTH corporate and community emissions data? *A community-wide plan considers gHg emission contributions from all sources - not just the municipality. Many municipalities prepare corporate climate action plans - designed to addresss gHg emissions generated directly by city operations. This is an important and laudable action. But municipalities can also play an important leadership role by pulling together diverse stakeholders to develop community climate action plans. These plans, to be meaningful, must take a holistic look at gHg emission sources in a community. The plan must be owned by all stakeholders - and that includes sharing responsibility for plan implementation.*	Y	N	Y	Y	Y
3. Are there gHg emission reduction targets in the plan and are they ambitious? *Ambitious targets EXCEED the percentage reduction targets set by higher levels of government. Ontario's targets are 37% by 2030 and 80% by 2050.*	N	N	N	Y	N
4. Is the plan accountable and open to the public? *Accountable plans include regular (at least annual) reporting back to elected officials and the public regarding progress with plan implementation.*	N	N	Y	N	N

7.1.2

Assessment Criteria	Hamilton	Oakville	Ottawa	Toronto	Windsor
5. Were there multiple efforts made to engage the community as part of the municipal process of developing plans for climate action? *(e.g. translation of materials, digital engagement opportunities, community consultations in varying locations) Municipalities using strong approaches to community engagement are those that take steps to reach out 'beyond the usual suspects'. These efforts include: translating outreach materials into other languages, going to the community rather than expecting the community to come to you (pop up outreach, for instance, in everyday locations like street corners or coffee shops), and supporting more traditional methods for engaging community in plan development (advisory committees, stakeholder meetings, working groups, etc.)*	Y	N	Y	Y	Y
6. Is there a communications strategy for the plan? *A plan with a communications strategy sets out details regarding how plan progress will be formally reported on both to elected officials and to the broader community.*	N	Y	Y	Y	Y
7. Are there on-going stakeholder and community engagement efforts as part of the process of implementing climate actions? *Municipal plans need oversight and action to ensure successful implementation. Good plans have implementation frameworks that include clear direction on how key community stakeholders and the broader community can /should play an on-going role in plan implementation. But planning for this is not enough - the proof is in the emergence of these stakeholder and community engagement efforts on the ground.*	N	N	Y	N	Y
8. Is consideration given to how the plan benefits or negatively impacts community members? *Plans that are sensitive to community impacts include critical reflection regarding the impacts - both positive and negative- of plan implementation. Some changes may negatively impact certain stakeholders, groups or individuals, while other actions may result in tangible benefits.*	N	N	Y	Y	Y
9. Does the plan explore the potential for climate action to create green jobs in the community? *Taking action on climate change can generate positive outcomes including local jobs. Plans that look at climate action as an opportunity will include innovative analysis of how a community's actions can lead to social, economic and environmental benefits concurrently.*	N	N	Y	Y	Y
10. Is your City working with other cities or collaboratives to address climate change? *The impacts of climate change know no boundaries. Municipalities seeking to partner with other jurisdictions or stakeholders are demonstrating an understanding of this reality and the need to organize in new ways to realize necessary change.*	Y	Y	Y	Y	Y

Assessment Criteria	Hamilton	Oakville	Ottawa	Toronto	Windsor
11. Do other city plans avoid contradicting or undermining the commitments in the climate action plan? *Solid climate action planning includes ensuring that no other city plans work against the goals of the climate action plan. Even better are municipalities who ensure that other city plans work to further the goals of the climate action plan.*	N	N	N	N	N
12. Do all municipal master plans incorporate all relevant commitments set out in the climate action plan? *Integration of climate action plan commitments is a powerful way to normalize climate action. Municipalities that take this step are also sending a strong message that they are serious about climate action.*	N	N	N	N	N
13. Does your city have an adaptation plan or adaptation efforts integrated into its climate action plan? *We are already grappling with the impacts of climate change. Plans that fail to recognize this reality are plans that are not doing enough to prepare and protect communities from the climate crisis.*	Y	Y	N	N	Y
14. Are the adaptation activities also helping to reduce gHg emissions? *Ideally, adaptation measures are facilitating a community's transition to a 'post carbon society'. This is the best way to ensure that a community is becoming more resilient when it comes to climate change.*	Y	Y	N	N	N
15. Does the plan consider how to create benefits for community through climate action? *Plans that are committed to generating concrete benefits for community members actually spell out what these benefits are and how they will be achieved. Benefits might include: enhanced public or active transit infrastructure, better housing, or commitments to create green jobs through climate action.*	Y	N	Y	Y	Y
16. Has the municipality committed to adequate funding for full implementation of the climate action plan? *Municipalities need to do more than facilitate plan development - they need to make sure actions are funded. There must be a budget for each action and then money set aside within each annual budget for full implementation.*	N	N	N	N	N
17. Can these commitments be tracked clearly in the annual municipal budget process? *This is something that may only become trackable when plan implementation is underway. A good tracking process should include clear indication that a budget item is directly linked to realizing goals of the climate action plan.*	N	N	N	N	N

Assessment Criteria	Hamilton	Oakville	Ottawa	Toronto	Windsor
18. Is emissions data regularly updated using a robust protocol? *Good climate action plans need reliable data on gHg emission levels in order to be able to effectively track progress. Consideration needs to be given to where data is being gathered from and whether these sources are reliable. Updating gHg emission data on an annual basis, if possible, is ideal.*	N	N	N	N	N
19. Does your plan include clear timelines for implementation? *Good climate action plans make it clear what will happen when. Dividing implementation elements up into short/medium/ long term can help to keep people motivated and to communicate variations in the size of each task set out in the plan.*	N	N	Y	Y	Y
20. Have these timelines been met so far? *Staying on track with timelines is a key indicator of whether a plan is being successfully implemented. Failure to do so is a red flag that attention and action needs to be taken to ensure that a plan doesn't fail.*	N	N	N	N	N
21. Is there a robust monitoring and reporting process for the climate actions set out in the plan? *Robust monitoring can be linked back to timelines - but should also include a way to evaluate impact on the ground. It is also important that climate action plan implementation includes clear and regular (at least annually) reporting back to community stakeholders and the broader public.*	N	N	N	N	N
22. Is there a complete pathway analysis (comprehensive strategy/plan) for how to achieve the plan? *Setting out a step-by-step plan for major actions in a climate plan helps to clarify for all involved how implementation will proceed.*	N	N	N	Y	Y

Town of Tecumseh

The Town of Tecumseh has taken on a variety of environmental initiatives in the past and continues to do so presently. Here is a list comprised of past and current actions:

- The Tecumseh Arena has a solar panel roof which has been connected to the grid
- Entered a partnership with ERCA and surrounding municipalities in establishing Intensity Duration Frequency (IDF) curves for storm events and stormwater management. The stormwater management has guidelines but needs to be finished
- Entered a partnership with ERCA and surrounding municipalities in establishing uniform stormwater standards which are close to being completed
- Put in a number of stand-by power generations with stormwater pumping station for peak energy periods
- Initiated a Stormwater Master Plan
- Converted streetlights and building lights to LED

Public Advisory Council Motion to WECEC Re: Airport Woodlands
July 12, 2018

Whereas the Essex Region Conservation Authority and the Detroit River Canadian Cleanup received permission by Windsor City Council decision M250-2013 dated June 17, 2013 to plant trees and shrubs on a 7.5 acre parcel of land between the middle and easternmost woodlots at a cost of $30,000 utilizing ERCA and DRCC professional staff, elementary school students and adult volunteers; and,

Whereas 83.9% of the trees and shrubs were reported as surviving as of Fall 2014 as per survival monitoring surveys completed by ERCA's Restoration Biologist and Acting Forester; and,

Whereas in 2015 Airport management refused ERCA permission to enter the area to maintain the planting resulting in 90% loss, as determined by Windsor Airport staff, due to wild grassland weeds taking over within the tree rows which were no longer being maintained.

Therefore, be it resolved that Windsor Airport be required to underwrite the $30,000 cost to replace the lost trees and to agree that ERCA be permitted to enter the property in the future as required to maintain the planted trees, shrubs and native herbaceous groundcover.

Respectfully submitted,

Tom Henderson, Chair

Public Advisory Council, Detroit River Canadian Cleanup

THE CITY OF WINDSOR
ONTARIO, CANADA

OFFICE OF THE CITY CLERK
COUNCIL SERVICES

Phone: (519)255-6211

CITY HALL
WINDSOR, ONTARIO
N9A 6S1

Fax: (519)255-6868
E-mail: clerks@citywindsor.ca
WEBSITE: www.citywindsor.ca

City Council
Decision
Monday, June 17, 2013

M250-2013 That **Report No. 137 of the Executive Committee of Council** of its meeting held May 27, 2013 regarding "Windsor International Airport – Open Space/Buffer Area and Consent to Enter Agreement with Little River Enhancement Group for Tree Planting on Airport Lands" **BE ADOPTED** as presented.

Carried.

Report Number: 16364
Clerk's File: APM/9795

Steve Vlachodimos
Deputy City Clerk/Senior Manager of Council Services
July 5, 2018

IJC invites comment on the Governments' Progress Report under the Canada-US Air Quality Agreement

March 28, 2018

The International Joint Commission (IJC) invites public comment on the U.S. and Canadian governments' 2016 Progress Report under the Canada-United States 1991 Air Quality Agreement.

The report describes progress by Canada and the United States to reduce transboundary air pollution. It summarizes key actions undertaken by Canada and the US in the last two years to address transboundary air pollution within the context of the Agreement, as required under Article VIII. The report also presents progress made toward meeting the commitments established in the Acid Rain and Ozone Annexes of the Agreement, and key scientific and technical trends related to air pollution.

Under the Agreement, the governments established a bilateral Air Quality Committee which reports on progress under the Agreement every two years. The Governments assigned the IJC the responsibility of inviting comments on each progress report of the Air Quality Committee and providing a synthesis of comments to the governments of Canada and the United States to assist them with implementing the Agreement. This is the 13th biennial report prepared by the Canada-United States Air Quality Committee.

The IJC invites you to send comments on the latest 2016 report until **August 8, 2018**, using one of the following methods:

1. Online: https://www.participateijc.org/2016-Air-Quality
2. Email: AirQuality@ottawa.ijc.org
3. Mail at:

Canadian Section
Secretary, Canadian Section
International Joint Commission
234 Laurier Avenue West, 22nd Floor
Ottawa, Ontario K1P 6K6

United States Section
Secretary, United States Section
International Joint Commission
1717 H Street NW, Suite 801
Washington, DC 20006

Contact:

Sarah Lobrichon
Ottawa
613-992-5368
lobrichons@ottawa.ijc.org

Frank Bevacqua
Washington
202-736-9024
bevacquaf@washington.ijc.org

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

April 13, 2018

PERMIT TO INSTALL
144-17

ISSUED TO
DTE Dearborn CEP LLC

LOCATED AT
1641 Carroll Shelby Way East
Dearborn, Michigan

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
P0879

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

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **February 12, 2018**	
DATE PERMIT TO INSTALL APPROVED: **April 13, 2018**	SIGNATURE: MaryAnn Dolehanty
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Common Abbreviations / Acronyms

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	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

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

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

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

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUCTGHRSG1	A Titan 130 20501S model natural gas-fired combustion turbine generator (CTG) rated at 161.1 MMBTU/hr, coupled with a heat recovery steam generator (HRSG). The HRSG is equipped with a natural gas-fired duct burner rated at 127 MMBTU/hr to provide heat for additional steam production. The CTG/HRSG is equipped with a low NO_x burner (LNB).	TBD	FGCTGHRSG
EUCTGHRSG2	A Titan 130 20501S model natural gas-fired combustion turbine generator (CTG) rated at 161.1 MMBTU/hr, coupled with a heat recovery steam generator (HRSG). The HRSG is equipped with a natural gas-fired duct burner rated at 127 MMBTU/hr to provide heat for additional steam production. The CTG/HRSG is equipped with a low NO_x burner (LNB).	TBD	FGCTGHRSG
EUENGINE	A 125 kilowatts (kW) emergency genset that a model year of 2011 or later natural gas-fired engine, and a displacement of <10 liters/cylinder. The engine is designed with low NO_x technology (turbo charger).	TBD	NA
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

The following conditions apply to:
EUENGINE

DESCRIPTION: A 125 kilowatts (kW) emergency genset with a model year of 2011 or later natural gas-fired engine, and a displacement of <10 liters/cylinder. The engine is designed with low NO_x technology (turbo charger).

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: The engine is designed with low NO_x technology (turbo charger).

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_x	2.0 g/HP-hr OR 160 ppmvd	Hourly	EUENGINE	SC V.1, SC VI.2	R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR 60.4233(e), Table 1 of 40 CFR Part 60 Subpart JJJJ
2. CO	4.0 g/HP-hr OR 540 ppmvd	Hourly	EUENGINE	SC V.1, SC VI.2	R 336.1205(1)(a) & (b), 40 CFR 60.4233(e), Table 1 of 40 CFR Part 60 Subpart JJJJ
3. VOC[A]	1.0 g/HP-hr OR 86 ppmvd	Hourly	EUENGINE	SC V.1, SC VI.2	R 336.1702(a), 40 CFR 60.4233(e), Table 1 of 40 CFR Part 60 Subpart JJJJ

ppmvd = parts per million by volume at 15 percent oxygen and on a dry gas basis
[A]Per footnote "d" of Table 1 of 40 CFR Part 60 Subpart JJJJ, when calculating emissions of VOCs, emissions of formaldehyde should not be included.

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas in EUENGINE. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4233)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate EUENGINE for more than 500 hours per year on a 12-month rolling time period basis as determined at the end of each calendar month. The 500 hours includes the 100 hours as described in SC III.2. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee may operate EUENGINE for no more than 100 hours per calendar year for the purpose of necessary maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing. A petition is not required if the permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. EUENGINE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity, except as provided in paragraph 40 CFR 60.4243(d)(3)(i). **(40 CFR 60.4243(d))**

3. The permittee shall operate and maintain EUENGINE such that it meets the emission limits in SC I.1 through SC I.3 over the entire life of the engine. **(40 CFR 60.4234)**

4. If EUENGINE is a certified engine, according to procedures specified in 40 CFR Part 60 Subpart JJJJ, for the same model year, the permittee shall meet the following requirements for EUENGINE:
   a. Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions;
   b. Meet the requirements as specified in 40 CFR Part 1068 Subparts A through D, as applicable, including labeling and maintaining certified engines according to the manufacturer's recommendations; and
   c. Only change those engine settings that are permitted by the manufacturer.

   If the permittee does not operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions, the engine will be considered a non-certified engine and be subject to SC III.5. **(40 CFR 60.4243(a) & (b)(1))**

5. If EUENGINE is a non-certified engine and control device or a certified engine operating in a non-certified manner, per 40 CFR Part 60 Subpart JJJJ, the permittee shall keep a maintenance plan for EUENGINE and shall, to the extent practicable, maintain and operate EUENGINE in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4243(a)(2) & (b)(2))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The EUENGINE nameplate capacity shall not exceed 125 kW for the genset or 243 HP for the engine, as certified by the equipment manufacturer. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4230)**

2. The permittee shall equip and maintain EUENGINE with a non-resettable hours meter to track the operating hours. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4237(b))**

V. TESTING/SAMPLING

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

1. If EUENGINE is non-certified, is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or the permittee changes emission-related settings in a way that is not permitted by the manufacturer, the permittee must demonstrate compliance as follows:
   a. Conduct an initial performance test to demonstrate compliance with the applicable emission standards in SC I.1 through SC I.3, within 60 days after achieving the maximum production rate at which EUENGINE will be operated, but not later than 180 days after initial startup of EUENGINE, or within 1 year after EUENGINE is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after changing emission-related settings in a way that is not permitted by the manufacturer.
   b. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4244.

   If a performance test is required, no less than 30 days prior to testing, a complete test plan shall be submitted to the AQD Technical Programs Unit and District Office. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of 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(1)(a) & (b), R 336.1702(a), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d), 40 CFR 60.8, 40 CFR 60.4243(a)(2)(ii) & (b)(2)(i), 40 CFR 60.4244, 40 CFR 60.4245, 40 CFR Part 60 Subpart JJJJ)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243, 40 CFR 60.4245)**

2. The permittee shall keep, in a satisfactory manner, the following records for EUENGINE:
   a. If certified: The permittee shall keep records of the documentation from the manufacturer that EUENGINE is certified to meet the emission standards and information as required in 40 CFR Parts 90, 1048, 1054, and 1060, as applicable.
   b. If non-certified: The permittee shall keep records of testing required in SC V.1.

   The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d), 40 CFR 60.4233(e), 40 CFR 60.4243, 40 CFR 60.4245(a))**

3. The permittee shall keep, in a satisfactory manner, the following records of maintenance activity for EUENGINE:
   a. If certified: The permittee shall keep the manufacturer's emission-related written instructions and records demonstrating that EUENGINE has been maintained according to them, as specified in SC III.4.
   b. If non-certified: The permittee shall keep records of a maintenance plan, as required by SC III.5, and maintenance activities.

   The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4243, 40 CFR 60.4245(a), 40 CFR Part 60 Subpart JJJJ)**

4. The permittee shall monitor and record the total hours of operation for EUENGINE, on a monthly and 12-month rolling time period basis, in a manner acceptable to the AQD District Supervisor. The permittee shall monitor and record the number of hours individually spent for emergency and non-emergency operation, including what classified the operation as emergency, for EUENGINE, on a calendar year time period basis, in a manner acceptable to the AQD District Supervisor. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4243, 40 CFR 60.4245(b))**

5. The permittee shall keep records of all notifications submitted to comply with 40 CFR Part 60 Subpart JJJJ, and all documentation supporting any notification. **(40 CFR 60.4245(a))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of EUENGINE. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether EUENGINE will be operated in a certified or a non-certified manner to the AQD District Supervisor, in writing, within 30 days following the initial startup of EUENGINE and within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart JJJJ)**

VIII. STACK/VENT RESTRICTIONS

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. SVENGINE	3.1	5.8	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and JJJJ, as they apply to EUENGINE. **(40 CFR Part 60 Subparts A & JJJJ, 40 CFR 63.6590(c)(1))**

2. The permittee shall comply with all provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63 Subparts A and ZZZZ, as they apply to EUENGINE, upon startup. **(40 CFR Part 63 Subparts A & ZZZZ, 40 CFR 63.6595(a)(7))**

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

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
FGCTGHRSG	Two Titan 130 20501S model natural gas-fired CTG with HRSG in a 2x1 configuration with a steam turbine generator. Each CTG/HRSG is equipped with a LNB.	EUCTGHRSG1, EUCTGHRSG2

The following conditions apply to:
FGCTGHRSG

DESCRIPTION: Two Titan 130 20501S model natural gas-fired CTG with HRSG in a 2x1 configuration with a steam turbine generator. Each CTG/HRSG is equipped with a LNB.

Emission Units: EUCTGHRSG1, EUCTGHRSG2

POLLUTION CONTROL EQUIPMENT: LNB for NO_x control for each CTG/HRSG unit.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NO_x[B]	12 ppmvd	Hourly, During normal operation	Each turbine from EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.4, SC VI.2	R 336.1205(1)(a) & (b)
2. NO_x[B]	0.12 lb/MMBTU	Hourly, During normal operation	Each unit: EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.2, SC V.3, SC VI.2	R 336.1205(1)(a) & (b)
3. NOx[B]	25 ppmvd[C]	Hourly, During normal operation	Each unit: EUCTGHRSG1 and EUCTGHRSG2	SC V.2, SC V.3, SC VI.2	40 CFR 60.4320(a), Table 1 of 40 CFR Part 60 Subpart KKKK
4. NO_x	8.84 pph	Hourly, During all times	Each turbine from EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.4, SC VI.2	40 CFR 52.21(c) & (d)
5. NOx	19.04 pph	Hourly, During all times	Each unit: EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.2, SC V.3, SC VI.2	40 CFR 52.21(c) & (d)
6. NO_x	87.7 tpy	12-month rolling time period as determined at the end of each calendar month. This includes all operating modes.	FGCTGHRSG	SC VI.5	R 336.1205(1)(a) & (b)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
7. CO[B]	15 ppmvd	Hourly, During normal operation	Each turbine from EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.5, SC VI.2	R 336.1205(1)(a) & (b)
8. CO[B]	0.13 lb/MMBTU	Hourly, During normal operation	Each unit: EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.5, SC VI.2	R 336.1205(1)(a) & (b)
9. CO	89.9 tpy	12-month rolling time period as determined at the end of each calendar month. This includes all operating modes.	FGCTGHRSG	SC VI.5	R 336.1205(1)(a) & (b)
10. PM2.5	1.06 pph	Hourly, During all times	Each turbine from EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.5, SC VI.2	40 CFR 52.21(c) & (d)
11. PM2.5	2 pph	Hourly, During all times	Each unit: EUCTGHRSG1 and EUCTGHRSG2	SC V.1, SC V.5, SC VI.2	40 CFR 52.21(c) & (d)

ppmvd = parts per million by volume at 15 percent oxygen and on a dry gas basis
[B]Normal baseload operation is considered to be loads greater than 50 percent of peak load and at or above 0°F. These emission limits do not include startup and shutdown. Startup and shutdown is considered to be the ramping up or ramping down of the turbines through loads 50 percent or less; restrictions can be found in SC III.3.
[C]Table 1 of 40 CFR Part 60 Subpart KKKK allows 150 ppm at 15 percent O_2 when the turbines are operating at less than 75 percent of peak load or at temperatures less than 0°F.

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas in any unit in FGCTGHRSG. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d), 40 CFR 60.4330, Table 1 of 40 CFR Part 60 Subpart KKKK)**

2. The pipeline quality natural gas combined usage for the duct burners in FGCTGHRSG shall not exceed 600,000 MMBTU per year on a 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

3. The pipeline quality natural gas shall not have a total sulfur content in excess of 1 grain of sulfur per 100 standard cubic feet of gas based on a 12-month rolling time period. This condition subsumes the 40 CFR Part 60 Subpart KKKK requirement of 20 grains of sulfur per 100 standard cubic feet of gas. **(R 336.1205(1)(a) & (b), 40 CFR 60.4365(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate any unit in FGCTGHRSG unless a malfunction abatement plan (MAP) as described in Rule 911(2), has been submitted within 180 days of initial startup, and is implemented and maintained. The MAP shall, at a minimum, specify the following:
   a. A complete preventative maintenance program including identification of the supervisory personnel responsible for overseeing the inspection, maintenance, and repair of air-cleaning devices, a description of the items or conditions that shall be inspected, the frequency of the inspections or repairs, and an identification of the major replacement parts that shall be maintained in inventory for quick replacement.

b. An identification of the source and air-cleaning device operating variables that shall be monitored to detect a malfunction or failure, the normal operating range of these variables, and a description of the method of monitoring or surveillance procedures.
c. A description of the corrective procedures or operational changes that shall be taken in the event of a malfunction or failure to achieve compliance with the applicable emission limits.
d. An identification of the situations that may lead to the low NO_x burners ceasing to operate, a description of the procedures that will be performed should that occur and how the situations will be minimized, and a description of how each situation will be recorded should it occur.

If at any time the MAP fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall amend the MAP within 45 days after such an event occurs. The permittee shall also amend the MAP within 45 days, if new equipment is installed or upon request from the District Supervisor. The permittee shall submit the MAP and any amendments to the MAP to the AQD District Supervisor for review and approval. If the AQD does not notify the permittee within 90 days of submittal, the MAP or amended MAP shall be considered approved. Until an amended plan is approved, the permittee shall implement corrective procedures or operational changes to achieve compliance with all applicable emission limits. **(R 336.1910, R 336.1911, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate any unit in FGCTGHRSG unless the AQD District Supervisor has approved a plan that describes how emissions will be minimized during startup and shutdown, and the plan is implemented. The plan shall incorporate procedures recommended by the equipment manufacturer as well as incorporating standard industry practices. Unless notified by the District Supervisor within 30 business days after plan submittal, the plan shall be deemed approved. **(R 336.1911, R 336.1912, 40 CFR 60.4333(a))**

3. The permittee shall not have a combined total of more than 136 events (startup or shutdown) for FGCTGHRSG per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d))**

4. The permittee shall operate and maintain EUCTGHRSG1 and EUCTGHRSG2 of FGCTGHRSG, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice. **(40 CFR 60.4333(a))**

5. The permittee shall not operate the duct burners of EUCTGHRSG1 and EUCTGHRSG2 such that the sum of the combined heat input shall not exceed 127 MMBTU/hr. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The maximum nominal heat input capacity for each turbine in FGCTGHRSG shall not exceed, on a fuel heat input basis, 161.1 MMBTU per hour and the design heat input capacity for each duct burner in FGCTGHRSG shall not exceed, on a fuel heat input basis, 127.0 MMBTU per hour. **(R 336.1205(1)(a) & (b), R 336.1225, 40 CFR 52.21(c) & (d))**

2. The permittee shall not operate EUCTGHRSG1 or EUCTGHRSG2 of FGCTGHRSG unless the associated low NOx burners are installed, maintained, and operated in a satisfactory manner, unless otherwise allowed in SC III.3 and/or also operation during sub-zero degree Fahrenheit temperatures. Satisfactory manner includes operating and maintaining each control device in accordance with an approved MAP for FGCTGHRSG as required in SC III.1. **(R 336.1205(1)(a) & (b), R 336.1910, 40 CFR 52.21(c) & (d))**

3. The permittee shall install, calibrate, maintain and operate in a satisfactory manner, a device to monitor and record the hourly natural gas usage individually for each duct burner of FGCTGHRSG and monthly natural gas usage individually for each turbine of FGCTGHRSG, on a continuous basis. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

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

1. The permittee shall conduct testing to verify NOx, CO, and PM2.5 emission rates from each turbine of EUCTGHRSG1 and EUCTGHRSG2 and from the CTG/HRSG train of EUCTGHRSG1 and EUCTGHRSG2 at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements, according to the following schedule:
   a. Within 180 days after commencement of initial startup.
   b. Once every three months following the initial test for a total of four tests within a 12-month period. The results of the four tests shall determine the worst-case season for each pollutant. The worst-case season is determined by reviewing which season produced the highest emissions.
   c. Thereafter, subsequent testing shall be performed as laid out in the following testing conditions in the worst-case season, unless the AQD District Supervisor determines otherwise based upon operating scenarios or unless a test method requires otherwise.
   d. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
CO	40 CFR Part 60, Appendix A
NOx	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(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

2. Within 60 days after achieving the maximum production rate, but not later than 180 days after commencement of initial startup, the permittee shall verify NO_x emission rates from EUCTGHRSG1 and EUCTGHRSG2 of FGCTGHRSG, as required by federal Standards of Performance for New Stationary Sources and SC I.2, SC I.3, and SC I.5, by testing at owner's expense, in accordance with 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK. 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. Verification of emission rates includes the submittal of 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(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d), 40 CFR 60.4340(a), 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60 Subpart KKKK)**

3. To demonstrate continuous compliance, the permittee shall perform subsequent performance tests to verify NO_x emission rates from EUCTGHRSG1 and EUCTGHRSG2 of FGCTGHRSG, as required by federal Standards of Performance for New Stationary Sources and SC I.2, SC I.3, and SC I.5, by testing at owner's expense in accordance with 40 CFR 60.4400 of 40 CFR Part 60 Subparts A and KKKK:
   a. If the previous performance test exceeded 75 percent of the NO_x emission limit, SC I.3, then the permittee shall perform annual performance tests which are no more than 14 calendar months apart.
   b. If the previous performance test was less than or equal to 75 percent of the NO_x emission limit, SC I.3, then the permittee shall perform subsequent performance tests once every two years which are no more than 26 calendar months apart.

   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. Verification of emission rates includes the submittal of 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(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d), 40 CFR 60.4340(a), 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60 Subpart KKKK)**

4. Once every two years of operation, unless annual testing is required to comply with 40 CFR Part 60 Subpart KKKK, then once every year, the permittee shall verify NO_x emission rates from each turbine of EUCTGHRSG1 and EUCTGHRSG2 at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements. Upon approval of the AQD District Supervisor, subsequent testing may be conducted upon EUCTGHRSG1 or EUCTGHRSG2 as a representative unit. However, the permittee shall not test the same representative unit in subsequent tests unless approved or requested by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

Pollutant	Test Method Reference
NOx	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(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

5. Once every five years of operation, the permittee shall verify CO and PM2.5 emission rates from each turbine of EUCTGHRSG1 and EUCTGHRSG2 and from the CTG/HRSG train of EUCTGHRSG1 and EUCTGHRSG2 at maximum routine operating conditions, by testing at owner's expense, in accordance with Department requirements. Upon approval of the AQD District Supervisor, subsequent testing may be conducted upon EUCTGHRSG1 or EUCTGHRSG2 as a representative unit. However, the permittee shall not test the same representative unit in subsequent tests unless approved or requested by the AQD District Supervisor. Testing shall be performed using an approved EPA Method listed in (use Test Method Table).

Pollutant	Test Method Reference
PM10/PM2.5	40 CFR Part 51, Appendix M
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(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 30th day of the calendar month, for the previous calendar month, unless otherwise specified in any monitoring/recordkeeping special condition. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

2. The permittee shall keep, in a satisfactory manner, all test reports for any portion(s) of FGCTGHRSG, as required by SC V.1 through SC V.5 on file at the facility and make them available to the Department upon request. **(R 336.1205(1)(a) & (b), R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d), 40 CFR 60.4340(a), 40 CFR 60.4375(b), 40 CFR 60.4400(a), 40 CFR Part 60 Subpart KKKK)**

3. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for each duct burner of FGCTGHRSG on an hourly basis. The permittee shall calculate and keep the total natural gas usage for both duct burners of FGCTGHRSG combined on an hourly, monthly, and 12-month rolling time period basis. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), 40 CFR 52.21(c) & (d))**

4. The permittee shall monitor and record, in a satisfactory manner, the natural gas usage for each turbine of FGCTGHRSG on a monthly basis. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (b))**

5. The permittee shall calculate and keep, in a satisfactory manner, records of monthly and 12-month rolling total NO_x and CO mass emissions for FGCTGHRSG, as required by SC I.6 and SC I.9, respectively. The permittee shall keep all records on file and make them available to the Department upon request. **(R 336.1205(1)(a) & (b))**

6. The permittee shall keep, in a satisfactory manner, a record of the number of events (startup and shutdown) per month for FGCTGHRSG. The permittee shall calculate and keep, in a satisfactory manner, records of the 12-month rolling number of events. The permittee shall keep all records on file at the facility in a format acceptable to the AQD District Supervisor to demonstrate compliance with SC III.3. **(R 336.1205(1)(a) & (b), 40 CFR 52.21(c) & (d))**

7. The permittee shall maintain records of all information necessary for all notifications and reports as specified in these special conditions as well as that information necessary to demonstrate compliance with the emission limits of this permit for FGCTGHRSG. This information shall include, but shall not be limited to the following:
   a. Compliance tests and any testing required under the special conditions of this permit;
   b. Monitoring data;
   c. Total sulfur content of the natural gas as required by 40 CFR 60.4365(a);
   d. Verification of heat input capacity;
   e. Identification, type, and amount of fuel combusted on a calendar month basis;
   f. All records required by 40 CFR 60.7, including the initial startup notification and performance tests;
   g. Records of the duration, dates and times of startup and shutdown events;
   h. All calculations necessary to show compliance with the limits contained in this permit;
   i. All records related to, or as required by, the MAP and the startup and shutdown plan.

   All of the above information shall be stored in a format acceptable to the AQD District Supervisor and shall be consistent with the requirements of 40 CFR 60.7. **(R 336.1205(1)(a) & (b), R 336.1225, R 336.1702(a), R 336.1912, 40 CFR 52.21(c) & (d), 40 CFR 60.7, 40 CFR 60.4365(a), 40 CFR Part 60 Subpart KKKK)**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of trial operation of each unit in FGCTGHRSG. **(R 336.1201(7)(a))**

2. The permittee shall provide written notification of the date construction commences and the actual date of initial startup of each unit in FGCTGHRSG, in accordance with 40 CFR 60.7. The permittee shall submit this notification to the AQD District Supervisor within the time frames specified in 40 CFR 60.7. **(40 CFR 60.7)**

VIII. STACK/VENT RESTRICTIONS

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. SVCTGHRSG1	72.1	105	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVCTGHRSG2	72.1	105	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all provisions of the federal Standards of Performance for New Stationary Sources as specified in 40 CFR Part 60 Subparts A and KKKK, as they apply to each unit in FGCTGHRSG. **(40 CFR Part 60 Subparts A & KKKK)**

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

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

C. HEIDI GRETHER
DIRECTOR

April 13, 2018

Dear Interested Party:

Thank you for your interest regarding the Permit to Install (PTI) application submitted by DTE Dearborn CEP LLC, to the Michigan Department of Environmental Quality (MDEQ), requesting installation and operation of two new natural gas-fired combined cycle combustion turbine generators with associated heat recovery steam generators and duct burners and an emergency engine, for the facility located at 1641 Carroll Shelby Way East, Dearborn, Michigan.

Pursuant to state and federal requirements, the MDEQ held a public comment period that ended with a public hearing on March 27, 2018, on its proposed conditional approval of the permit. The Air Quality Division (AQD) received 38 written comments during the public comment period and 25 verbal comments were presented at the public hearing.

After careful consideration of the issues and pursuant to the delegation of authority from the Director of the MDEQ, I have approved PTI No. 144-17 with modifications made to the proposed permit conditions.

The Response to Comments (RTC) Document provides our responses to comments received during the public comment period and at the public hearing. It also identifies special conditions which have been modified and provides our rationale for modifying the proposed special conditions. The changes are listed in Section II of the RTC Document. The RTC Document and the Permit Terms and Conditions are available at http://www.deq.state.mi.us/aps/cwerp.shtml.

Thank you for your input regarding our review of this permit application. If you have any questions, please contact Ms. Catherine Asselin, AQD, at 517-284-6788; asselinc@michigan.gov; or MDEQ, P.O. Box 30260, Lansing, Michigan 48909-7760; or you may contact me.

Sincerely,

Mary Ann Dolehanty

Mary Ann Dolehanty, Acting Director
Air Quality Division
517-284-6773

cc: Senator Morris W. Hood III, District 3
Representative Abdullah Hammoud, House District 15
Mayor John B. O'Reilly, Jr, City of Dearborn
Mayor Mike Duggan, City of Detroit
Mayor Drew Dilkens, City of Windsor
Dr. Joneigh Khaldun, City of Detroit, Executive Director and Health Officer
Mr. Raymond Scott, City of Detroit, Buildings, Safety Engineering and Environmental Department (BSEED)
Mr. Paul Max, City of Detroit, BSEED
Ms. Madeleine Godwin, Ministry of the Environment, Ontario
Mr. Mike Moroney, Ministry of the Environment, Ontario
Mr. Mark Smith, Ministry of the Environment, Ontario
Ms. Karen Clark, Ministry of the Environment, Ontario
Mr. Chris Manzon, Pollution Control Services, City of Windsor
Ms. Averil Parent, City of Windsor
Mr. Mark J. Burrows, International Joint Commission
Ms. Cathy Garrett, Wayne County Clerk
Ms. Ilona Varga, Wayne County Commissioner
Mr. Scott Klipa, DTE Energy Services
Mr. Rob Streight, Permit Manager, Ford Motor Company
Ms. Genevieve Damico, U.S. Environmental Protection Agency, Region 5
Mr. Constantine Blathras, U.S. Environmental Protection Agency, Region 5
Ms. Stephanie Diaz, U.S. Environmental Protection Agency, Region 5
Ms. C. Heidi Grether, Director, MDEQ
Mr. Michael McClellan, Environment Deputy Director, MDEQ
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Ms. Tiffany Brown, Public Information Officer, MDEQ
Ms. Wilhemina McLemore, MDEQ
Mr. Jeffrey Korniski, MDEQ
Ms. Catherine Asselin, MDEQ

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

C. HEIDI GRETHER
DIRECTOR

April 13, 2018

Mr. Scott D. Geordt, Director of Operations, Onsite
DTE Dearborn CEP LLC
414 South Main Street
Ann Arbor, Michigan 48104

Dear Mr. Geordt:

This letter is in reference to your Permit to Install (PTI) application identified as No. 144-17, State Registration Number P0879, for two new natural gas-fired combined cycle combustion turbine generators with associated heat recovery steam generators and duct burners and an emergency engine located at 1641 Carroll Shelby Way East, Dearborn, Michigan.

The public comment period ended on March 27, 2018, following a public hearing held at the Edsel Ford High School in Dearborn, Michigan. Comments were received during the comment period and at the public hearing.

After careful consideration of the issues and pursuant to the delegation of authority from the Director of the Michigan Department of Environmental Quality (MDEQ), I have approved PTI No. 144-17. As a part of this approval, the Air Quality Division (AQD) staff has revised and added conditions to the permit to address certain information received during the public participation process and the subsequent analysis of that information.

The AQD has prepared the enclosed Response to Comments (RTC) Document, which provides our responses to comments received during the public comment period and at the public hearing. It also identifies the special conditions that have been modified and provides our rationale for modifying the proposed special conditions. These changes are listed in Section II of the RTC Document.

This approval is based upon and subject to compliance with all administrative rules of the MDEQ and conditions stipulated in the enclosed supplement. Please review these conditions thoroughly so that you may take the actions necessary to ensure compliance with all of these conditions.

To help us improve the service we provide our customers, we encourage you to complete a *Permit to Install Customer Service Survey* on the following Web page:

https://www.surveymonkey.com/s/aqdptics

If you have any questions regarding this permit, please contact Ms. Catherine Asselin, AQD, Permit Section, at 517-284-6786; asselinc@michigan.gov; or MDEQ, P.O. Box 30260, Lansing, Michigan 48909-7760; or you may contact me.

Sincerely,

Mary Ann Dolehanty

Mary Ann Dolehanty, Acting Director
Air Quality Division
517-284-6773

Enclosures
cc/enc: Senator Morris W. Hood III, District 3
Representative Abdullah Hammoud, House District 15
Mayor John B. O'Reilly, Jr, City of Dearborn
Mayor Mike Duggan, City of Detroit
Mayor Drew Dilkens, City of Windsor
Dr. Joneigh Khaldun, City of Detroit, Executive Director and Health Officer
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Ms. Stephanie Diaz, U.S. Environmental Protection Agency, Region 5
Ms. C. Heidi Grether, Director, MDEQ
Mr. Michael McClellan, Environment Deputy Director, MDEQ
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Ms. Tiffany Brown, Public Information Officer, MDEQ
Ms. Wilhemina McLemore, MDEQ
Mr. Jeffrey Korniski, MDEQ
Ms. Catherine Asselin, MDEQ

DTE Dearborn CEP LLC

RESPONSE TO COMMENTS DOCUMENT

April 13, 2018

PERMIT No. 144-17

Rick Snyder, Governor

Air Quality Division
Michigan Department of Environmental Quality

INTERNET: http://www.michigan.gov/air

Mary Ann Dolehanty, Acting Director
Air Quality Division
Constitution Hall, 2nd Floor, South Tower
525 West Allegan Street
P.O. Box 30260
Lansing, Michigan 48909-7760
Phone: 800-662-9278
Fax: 517-335-3122

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I. PUBLIC PARTICIPATION PROCESS

Permit to Install application (PTI) No. 144-17, for DTE Dearborn CEP LLC (DTE) is for a combined heat and power plant for location at 1641 Carroll Shelby Way East, Dearborn, Michigan. The public participation process involved providing information for public review including a fact sheet, a proposed project summary, proposed permit terms and conditions, a public comment period, an informational meeting, a public hearing, and the receipt of written and verbal public comments on staff's analysis of the application and the proposed permit.

On February 14, 2018, copies of the Notice of Air Pollution Comment Period and Public Hearing, the Fact Sheet, the Proposed Project Summary, and the proposed permit terms and conditions were placed on the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) Home Page (http://www.michigan.gov/air). Also on that date, the AQD e-mailed or mailed approximately 1,240 letters to persons who had previously expressed interest and had provided contact information. In addition, a notice announcing the public comment period, public informational meeting, and public hearing was placed in the *Dearborn Press and Guide* on February 14, 2018; in the *Arab American News* on February 24, 2018; and in the *Yemeni American News* on March 3, 2018. The notice provided pertinent information regarding the proposed action; the locations of available information; a telephone number to request additional information; the date, time, and location of the public informational meeting and public hearing; the closing date of the public comment period; and the address where written comments were being received.

The Informational Meeting was held on March 27, 2018, at the Edsel Ford High School Auditorium, 20601 Rotunda Drive, Dearborn, Michigan. This location was selected due to its proximity to the facility and the size of the room. Approximately 120 people attended the informational meeting. A presentation about the proposed project was made and a panel of representatives from the AQD was available to answer questions. The meeting began at 5:30 p.m. and concluded at approximately 7:00 p.m.

A public hearing followed the informational meeting, at the Edsel Ford High School Auditorium, 20601 Rotunda Drive, Dearborn, Michigan. The hearing began at 7:00 p.m. with Ms. Tracy Kecskemeti of the MEDQ as the hearings officer and Acting AQD Director, Mary Ann Dolehanty as the decision maker. Only comments on the proposed permit action were received. In addition, staff of the AQD were available outside the auditorium to answer any questions. Approximately 120 people were in attendance at the public hearing with 24 providing oral comments. The public hearing concluded at 8:30 p.m.

A total of approximately 29 written comments were received during the public comment period and the hearing.

The remainder of this document is a listing of the significant comments received during the public comment period and hearing regarding the proposed permit and the AQD's response. The first section discusses the comments received that resulted in changes to the final permit terms and conditions and the basis for each change. The last section discusses the AQD's response to all other significant comments that did not result in changes to the final permit.

II. SUMMARY OF COMMENTS RESULTING IN CHANGES TO THE PERMIT

Comment
Several comments were received stating that additional stack testing should be required. The requirements in the proposed permit to test particulates and carbon monoxide (CO) once every five years and to test nitrogen oxides (NOx) once a year is not enough.

AQD Response
The stack testing within the proposed permit has been changed. In the final permit, DTE is required to perform quarterly NOx, CO, and particulate matter equal to or less than 2.5 microns in diameter (PM2.5) testing from each turbine and from each CTG/HRSG train within a 12-month period following initial startup. After the initial 12-month period, the required stack test shall remain as was included in the proposed permit.

Condition Change
A new testing condition, No. V.1, was added to FGCTGHRSG. The testing condition requires four tests within a 12-month period and requires that the worst-case season for emissions be determined. It also requires that subsequent testing be performed for the worst-case season for each pollutant.

The other testing conditions (except for the New Source Performance Standards condition) were modified to remove the initial testing requirement, as it is now covered in the new condition.

The other testing conditions were renumbered and all references to the testing conditions were updated with the appropriate numbering.

Comment
A comment was received stating that the proposed permit didn't actually require DTE to follow the startup and shutdown plan (SSP).

AQD Response
The AQD agrees that it is not explicitly stated.

Condition Change
The SSP condition, No. III.2, has been modified to include ", and the plan is implemented".

Comment
DTE has requested that special condition No. IV.1 for FGCTGHRSG be changed to have the maximum design heat input capacity for each turbine at a nominal heat input rating of 175 million British Thermal Units per hour (MMBtu/hr).

AQD Response
The temperature of the combustion air affects the efficiency of a turbine and how much fuel can be burned at any given time. Under warmer ambient temperature conditions, a turbine cannot burn as much fuel as it can under lower temperature conditions. Therefore, the maximum design heat input capacity (amount of fuel capable of being burned) may fluctuate depending on ambient temperature conditions.

In their application, DTE performed their calculations based upon 161.1 MMBTU/hr for the turbines, hence the restriction in the proposed conditions. The calculations were not based upon low ambient temperature conditions, so it is possible that the maximum design heat input may be higher. This is a common situation with turbines around the state. In order to accommodate this fluctuation, the permit limit can be written as a nominal heat input, where the heat input is accurate for a typical set of conditions, which includes an average Michigan temperature. In Michigan, temperatures will not stay in the lower range all year round, therefore the average design heat input is often used for long-term calculations.

In order to allow higher heat input in lower temperatures, the application review must include short-term emissions evaluated at the higher heat input. With their comment, DTE provided a revised toxics analysis and criteria pollutant modeling. The updated toxics analysis continued to show compliance with all allowed health-based screening levels. However, the AQD decided not to increase the hourly emission limits for NOx, CO, and PM.2.5 as a result of DTE's requested change.

Condition Change
The word "design" was changed to "nominal" in FGCTGHRSG SC IV.1.

III. SUMMARY OF SIGNIFICANT COMMENTS

A. Public Health and Environment Concerns

Comment
There is already too much pollution in the area. The area has a large vulnerable population – children, elderly, those with respiratory problems, those who are obese, and those below the poverty level. The area also contains several schools and one hospital. This assertion is supported by the report, "500 Cities Project: Local Data for Better Health Summary of Data for Dearborn, MI". If approved, the permit will result in more asthma and cancer in one of the most polluted areas in the state. Are the proposed emission levels safe for the citizens of the local community?

AQD Response
Detroit and all of Michigan is in attainment with the health based National Ambient Air Quality Standards (NAAQS) for fine particulate matter equal to or less than 10 microns in diameter (PM10), PM2.5, NOx, CO, and lead. Part of eastern Wayne County including Dearborn is designated nonattainment for sulfur dioxide (SO_2), although more recent monitored levels show that levels have declined and are meeting the standard. The United States Environmental Protection Agency (USEPA) is expected to designate Wayne County as nonattainment with the ozone NAAQS. The permit review for the DTE project did not indicate that the facility emissions would cause or contribute to nonattainment with any of the NAAQS.

The AQD is unaware of credible evidence that the DTE project emissions would cause health effects in the community. The permitted air emissions meet all state and federal requirements, including those requirements that are designed to protect the public health. The air monitoring of cumulative air pollution levels at the Dearborn monitor does not indicate that the current air toxics levels would cause observable health effects in the community. Cumulative air pollution health risks in the Detroit area have been evaluated by the AQD and the USEPA, as described further in the next comment and AQD response.

The AQD has reviewed the "500 Cities Project" report for Dearborn which was submitted by a commenter. The report states that many of Dearborn's census tracts have higher asthma rates than the national average. However, the Michigan Department of Health and Human Services (MDHHS) has reported to us that the asthma rate in Dearborn is lower than the rate in Michigan overall. Asthma is a multi-factorial disease, with many indoor and outdoor triggers and risk factors. Our review of the DTE project emissions and modeled ambient air impacts does not suggest that the facility emissions would be a significant risk factor for asthma aggravation. The other community health statistics in the "500 Cities Project" report have unclear applicability to the DTE project permit review, but again, our permit review did not indicate that the facility emissions would pose a public health concern.

Comment
An environmental justice study/review should be performed as a part of the review of this application.

AQD Response
Environmental justice means the fair, non-discriminatory treatment and meaningful involvement of Michigan residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by the state. The two "pillars" of environmental justice are the fair treatment of all people and providing for meaningful public involvement in government decision-making.

For the proposed permit for the DTE project, the MDEQ provided for meaningful public involvement in several ways. The MDEQ translated documents about the proposal to Arabic, provided summary documents about the permit applications that were less technical, held an extended public comment period of 41 days, published the public notice in three local newspapers, provided a short presentation about the project before the hearing, held a public information session before the hearing, had several staff available for discussion outside of the hearing room, had an Arabic translator available at the public information session and hearing, and held the hearing in the local community (Dearborn) in an auditorium with ample space. All individuals who attended the public hearing were provided an opportunity to speak. In addition, the MDEQ staff encouraged citizens to provide written comments as an alternative to providing verbal comment during the hearing. This outreach, education and comment process for the permit application was consistent with the environmental justice principle of providing opportunities for enhanced public participation. As with any public hearing, a mailing list is developed of interested citizens. Because of the interest shown for this project, we now have a more robust list of interested parties for this locale for planning and outreach purposes.

The environmental justice principle of fair treatment means that no group of people, including racial, ethnic or low-income populations should bear a disproportionately greater burden resulting from environmental laws, regulations, policies and decision-making. The MDEQ strives to protect the health and welfare of all citizens of the State of Michigan equally. In addition, the state and federal air quality standards that have been established are designed to be protective for all segments of society, including the most sensitive. Therefore, the MDEQ has not attempted to determine the economic or racial demographics of the area, but has determined that the permit, as approved, will meet all applicable air quality standards and health protective requirements and is not expected to have a negative impact on the community.

B. Air Toxics and Risk Assessment

Comment:
A cumulative evaluation of all emissions in the community should be performed as a part of the review of this application and all future applications in this area. While DTE itself may not exceed the Clean Air Act or the NAAQS levels, when you combine the emissions from AK Steel, Ford, and the DTE emissions (not to mention the four other factories located in Dearborn) the sum does create a problematic air quality issue.

AQD Response:
The permit review included a cumulative assessment of PM2.5 and NOx, including proposed emissions from the DTE Dearborn facility, background levels, and other facilities' emissions (including DTE River Rouge Power Plant, Detroit Renewable Power, US Steel Great Lakes Works, Carmeuse Lime, Dearborn Industrial Generation, Marathon Petroleum Company, AK Steel, and Ford Motor Company). This assessment did not suggest that the facility emissions would cause or contribute to nonattainment with the health-based NAAQS standards. The USEPA and the states do not have a scientifically credible and available method for grouping all of the six NAAQS pollutants into a cumulative assessment.

It is possible to evaluate the air toxic pollutants in a cumulative way. Although this was not done specifically for this permit review and is not routinely done as a part of permit review, the USEPA and the AQD have evaluated the cumulative impacts of air toxic pollutants in Dearborn and Detroit based on either air quality monitoring studies or emissions data and modeling exercises. The Detroit Air Toxics Initiative (DATI) 2005 and 2010 studies of the cumulative air toxics levels are available at: http://www.michigan.gov/deq/0,4561,7-135-3310---,00.html. The USEPA's National Air Toxics Assessment (NATA) studies are available at: https://www.epa.gov/national-air-toxics-assessment. And, the USEPA's Detroit Exposure and Aerosol Research Study (DEARS) is available at: https://archive.epa.gov/heasd/archive-dears/web/html/index.html.

These cumulative air pollution studies have found that Dearborn and Detroit air pollutant levels are typical for large urban areas in the U.S., due to vehicle emissions and industrial emissions. The USEPA's NATA study includes an evaluation of cumulative cancer risk and cumulative noncancer hazards for air toxics. The national average lifetime cancer risk estimate for air toxics is 40 in one million, and this is similar to Dearborn and Detroit according to the DATI and NATA studies. For perspective, the overall risk in the U.S. for having cancer in one's lifetime is 40 percent, which is equal to 400,000 in one million. Therefore, outdoor air pollution levels in Dearborn, Detroit, and the U.S. generally, are not believed to be a major contributor to cancer incidence rates. The available cumulative air toxics studies do not suggest that ambient air toxics levels are a major cause of observed cancer rates in Detroit. Further, these studies do not suggest that respiratory, neurological, or other noncancer health effects would be expected due to the air toxics levels in Dearborn or Detroit

The AQD believes that the permit review process addressed all of the proposed air pollutant emissions. The AQD must review permit applications within their regulatory authority, which includes many provisions to protect the public health from emissions of criteria pollutants and air toxics.

C. Best Available Control Technology (BACT) Review

Comment
Several Comments were received indicating that the Rule 702 BACT analysis done for volatile organic compounds (VOC) was either incomplete or done improperly. Specifically, the commenters indicated that USEPA's five step top-down process should have been used to complete the BACT analysis. The commenters also indicated that BACT for this proposed plant should include add-on VOC control equipment such as is installed on similar plants in California and Massachusetts.

AQD Response
Michigan Air Pollution Control (MAPC) Rule 336.1702 (Rule 702) only applies to VOCs, not other pollutants such as NOx and CO. In the State of Michigan, other pollutants such as NOx and CO could only be subject to BACT under federal regulations for the Prevention of Significant Deterioration (PSD). In response to the comments received, DTE provided an updated MAPC Rule 702 BACT analysis evaluating control of the approximate 11.5 tons of VOC emissions which may be emitted from the new plant. The updated review followed USEPA's five step top-down process. In the updated analysis, both an oxidation catalyst and EMx (formerly SCONOx) technology were determined to be technically feasible control options. However, neither was determined to be economically feasible. The cost of control using the oxidation catalyst was greater than $400,000 per ton of VOCs destroyed, while the cost of control using the EMx (formerly SCONOx) technology was greater than $600,000 per ton of VOCs destroyed. Per the top-down BACT process, control options that are not found to be economical are not required to be installed. Based upon the updated analysis, MAPC Rule 702 BACT for the new plant remains good combustion practices as was discussed in the MDEQ Fact Sheet.

Comment
The best available control technology analysis for toxics (TBACT) analysis portion of the application was done incorrectly and should be redone.

AQD Response
MAPC Rule 336.1224 (Rule 224) requires best available control technology for toxics (TBACT). However, the requirements of MAPC Rule 224 do not apply to any process subject to a federal National Emissions Standard for Hazardous Air Pollutants (NESHAP). In addition, the requirements of MAPC Rule 224 do not apply to toxic air containments (TACs) that are particulates or VOCs and are in compliance with BACT. As the proposed engine is subject to NESHAP Subpart ZZZZ for stationary reciprocating internal combustion engines, it is not subject to TBACT. Hazardous Air Pollutants from natural gas combustion in turbines and duct burners are considered to be VOCs and are subject to BACT under MAPC Rule 702, therefore they are not subject to TBACT.

D. Permit Requirements

Emissions

Comment
Several comments were received indicating that the emissions evaluated in the application and upon which the proposed permit was written were too low. Specifically, it was indicated that emissions from both startup & shutdown events and from the emergency natural gas-fired engine were not included.

AQD Response
The evaluation of the DTE PTI application included all emissions from the entire new facility. This includes startup and shutdown emissions from the turbines, as shown in the Emissions Limits section FGCTGHRSG where in several places it references "all operating modes". The projected maximum yearly NOx and CO emissions from FGCTGHRSG are 87.7 tons per year (tpy) and 89.9 tpy, respectively. These values are based upon a maximum combined total of 136 startups and shutdowns per year combined for both turbines, and a 10-minute cycle for each startup and shutdown. Which means that there is less than 23 total hours of allowed startup and shutdown operation throughout an entire 12-month rolling time period. The 136 value is included in the permit as a restriction. Also included in both evaluating the PTI application and in writing the proposed permit were all emissions from the emergency natural gas-fired engine. The projected maximum yearly NOx and CO emissions from the engine are 0.27 tpy and 0.57 tpy, respectively. These values are based upon a maximum yearly operating schedule of 500 hours, which is included in the permit as a restriction.

Comment
What is the capacity of the proposed plant compared to that of the existing Ford boilers? If the capacity of the new plant is larger, why is it required to be?

AQD Response
The Ford Elm Street Boilerhouse (Ford Boilerhouse) contains 5 boilers. Boilers 1 and 2 are each rated at 108 MMBTU/hr, boiler 3 is rated at 158 MMBTU/hr, and boilers 4 and 5 are each rated at 99.8 MMBTU/hr. The total rating for the Ford Boilerhouse is 573.6 MMBTU/hr. Each of DTE's turbines will have a nominal rating of 161.1 MMBTU/hr and each duct burner will be 127.0 MMBTU/hr for a total plant rating of 576.2 MMBTU/hr. Therefore, for roughly the same heat input (natural gas usage), DTE is expected to produce all the steam needs currently being met by the Ford Boilerhouse and also to produce electricity for the grid. This is because the new turbine plant will be much more efficient than the existing boilers at the Ford Boilerhouse.

Comment
Will overall emissions in the community increase or decrease as a result of this project? Both the documents and the informational meeting were unclear on this fact.

AQD Response
The total emissions (150 tpy of NOx and 250 tpy of CO) currently allowed to be emitted from the Ford Boilerhouse are greater than the total emissions (87.97 tpy of NOx and 90.47 tpy of CO) allowed to be emitted from the DTE project. The highest actual emissions from the Ford Boilerhouse over the last several years (2015) were 138.4 tpy of NOx and 40.46 tpy of CO. As the DTE plant has yet to operate, it is impossible to know exactly what their actual emissions will

be. However, by law, they cannot be greater than the allowed values of 87.97 tpy of NOx and 90.47 tpy of CO. A comparison of the 2015 actual emissions from the Ford Boilerhouse to the allowed emissions from the DTE project shows that the emissions difference between the two is a 50.43 tpy decrease of NOx and a 50.01 tpy increase of CO.

Comment
The public comment documents only appear to address the pollutants which have National Ambient Air Quality Standards (NAAQS). Were the emissions of any other pollutants evaluated?

AQD Response
In addition to evaluating the criteria pollutants against their respective allowed NAAQS and PSD Increment Standards, the AQD also evaluated DTE's proposed emissions of 67 different TACs against respective allowed screening levels. The allowed screening levels are established by the State and are intended to be health protective of sensitive populations, including those with respiratory problems, children, and the elderly. The review found that all TACs show impacts less than their respective allowed screening levels.

Formaldehyde was the TAC that passed its screening levels at the highest percentage at 19.5 percent of the 24-hour Initial Threshold Screening Level (ITSL) and 96.0 percent of the Initial Risk Screening Level (IRSL). An ITSL is protective for noncancer and an IRSL is protective for long-term carcinogenic risk. A large component of the formaldehyde impacts is due to the emergency engine. The emergency engine is not expected to operate the vast majority of the time, so the actual impact from formaldehyde from the facility is expected to be less than the evaluated impact.

Comment
The facility should be considered a major source, not a minor one.

AQD Response
The terms both major and minor source are defined with both the state and federal air pollution control rules and regulations. These definitions/values apply the same to all sources throughout the state.

In this case, by accepting federally enforceable limits and restrictions to limit their emissions of each regulated pollutant to less than 100 tpy, the DTE project is considered, by definition, a minor source under the PSD and Title V Regulations.

Monitoring and On-going Compliance Demonstration

Comment
A continuous emissions monitoring system (CEMS) should be required to record the emissions of NOx, CO, and PM2.5 from the facility. Without a CEMS, the permit as proposed is not enforceable as a practical matter and the facility will not be able to demonstrate compliance on an on-going basis.

AQD Response
While NOx and CO CEMS may be available for the turbine exhausts, the AQD does not believe they are warranted based on the low pollutant emission rates of 87.7 tpy and 89.9 tpy, respectively. There are not CEMS systems available for PM2.5.

The final permit includes several emission limits, operational restrictions, testing, and record keeping requirements that will allow the facility to demonstrate on-going compliance and the fact that its potential emissions of each regulated pollutant remain less than 100 tpy. The final permit limits the amount of natural gas that may be burned in the duct burners on an annual basis and the hours per year that the emergency natural gas-fired engine may operate. It also limits heat input capacity of each turbine and duct burner and requires that each turbine be equipped with low NOx burners. Emissions testing to measure NOx, CO, and PM2.5 is included in the permit. Within a 180 days of initial operation of the plant, NOx, CO, and PM2.5 testing must be performed quarterly over the first year of operation. Finally, the permit requires record keeping and emissions calculations to demonstrate on-going compliance with the allowed usage limits and emission limits.

An AQD inspector is assigned to inspect the equipment and to review the records required by the permit. The AQD will inspect the facility a minimum of once every five years and AQD staff will be on site to observe the stack testing required by the permit. In addition, AQD staff will respond to complaints about the facility, which typically includes a visit to the facility.

E. Permit Review Process

Comment
Multiple comments were received that DTE's application did not do an adequate job of justifying the determination that their proposed plant and the Ford complex at which it will operate are separate stationary sources. Specifically, more information/justification should be provided on the relationship between the two companies and why the proposed DTE plant should not be considered a support facility for Ford. Also, more information/justification should be provided on how and why the two facilities will not operate under common control.

AQD Response
Determining if a new facility is part of an existing stationary source can have far reaching effects on the review performed for a project. DTE originally submitted application No. 107-17 in July 2017, stating that their facility should be considered the same stationary source as Ford. They were requesting to use the decreases in emissions from Ford over the past few years to avoid being subject to PSD. Based upon the information submitted, past historical decisions made at the facility, and USEPA guidance, the AQD did not concur with their request to be the same stationary source. As such, DTE withdrew the application and resubmitted the project as separate stationary sources under application No. 144-17.

There are three main criteria that are reviewed when determining if two or more facilities should be considered the same stationary source: contiguous property, common control, and industrial grouping (or support facility). All three of the criteria must be met in order to consider the facilities one stationary source.

As the DTE plant will be located within the property of the Ford R&E Center, the property is considered contiguous.

The easiest way to consider common control is if the same company owns or operates both facilities. Ford and DTE are separate companies, so a deeper look into common control was warranted. Common control may also be determined based upon the sharing of certain things, such as workforce, equipment, or money. DTE and Ford are two separate business entities that will be bound through a contractual obligation of DTE to provide steam to Ford. DTE will have its own employees and will have a fence around its facility that will limit Ford's access to its property. Ford will still have some access as the leaser of the property, but not all of Ford's employees will be able to access the DTE plant. DTE will be responsible for their own Permit to Install, and will be held accountable should violations occur. DTE is obligated to provide steam to Ford, but it is in the same way that any service provider is obligated to provide the service they are paid for.

Industrial grouping is a way of categorizing facility types. In this case Ford's research and development facility is in a different industrial grouping than DTE's power plant. However, a facility may be considered the same industrial grouping for the purposes of this determination if it is considered to be a support facility. A support facility is generally considered to be a facility whose main purpose is to provide support to the primary facility at the source. Often a support facility takes product or byproduct from the primary facility, processes it, and returns it. Power plants or boilerhouses have at times been considered support facility when they only provide steam or electricity to the primary facility. However, in the 1990s the USEPA determined that boilerhouses be considered a separate facility from the research and development facility that they served. The USEPA even provided a determination that the Ford Boilerhouse be considered its own stationary source. To this day, that determination is still active, and the Ford Boilerhouse and the Ford R&E Center are considered two separate stationary sources. DTE will provide less than half of its product to Ford in the form of steam, the rest will be provided as electricity to the grid completely independently of Ford.

F. Nonattainment Issues

Comment
The area is not in attainment for SO_2 and will soon not be in attainment for ozone, so how can more of each of these pollutants be allowed to be emitted?

AQD Response
Both the commenter and the MDEQ Fact Sheet prepared for this application are incorrect, the new DTE plant will not be located within the portion of Wayne County that is currently in nonattainment for SO_2. The location of the DTE plant is however within a couple of miles of the SO_2 nonattainment area.

There is no legal authority for the MDEQ to deny an air permit application on the basis that the facility is located in or near a nonattainment area. Both the state and federal nonattainment new source review rules and regulations specifically allow for the installation of new sources of SO_2 in nonattainment areas when the increase is less than 100 tpy. The projected SO_2 increase from the DTE plant is 4.97 tpy.

Under both state and federal law an air use permit application must be evaluated against the regulations which are in place at the time of its decision, not those which may apply in the future. Thus, even though DTE's requested increase in NOx (an ozone precursor) emissions is greater than the significant emissions level of 40 tpy, it must be approved because it meets the current regulations in place as of today.

Comment
What is the current SO_2 concentration in Dearborn and how far above the standard is it?

AQD Response
The closest AQD air monitoring station, located at Salina Elementary School in Dearborn, does not monitor for SO_2. However, several stations nearby are monitoring for SO_2 and the levels have been decreasing for several years. Currently all of the SO_2 monitors in the Detroit area are below the NAAQS of 75 parts per billion (ppb), which is based on a 4th highest 1-hour value averaged over 3-years. The monitoring site in the area with the highest SO_2 values is located near the former Southwestern High School in Detroit. The 3-year value at the former Southwestern High School site is 61 ppb for the period of 2015-2017.

Comment
If the area around the proposed plant becomes nonattainment for ozone, would a PSD review for greenhouse gases be required?

AQD Response
No, the plant will not become subject to PSD for greenhouses gases if the Dearborn area becomes nonattainment for ozone. The PSD regulations apply in attainment areas, not in nonattainment areas. Also, a change in attainment status does not result in already permitted facilities being retroactively subject to new regulations or requirements. The requirements which were in place at the time of permit issuance apply to a facility until such time as they wish to make future changes. At that point, the new regulations come into play. In addition, ozone and greenhouse gases are different pollutants and must be looked at individually for PSD applicability. Just because a facility is subject to PSD for one does not automatically mean it is subject to PSD for the other.

G. Public Participation Process

Comment
Several comments were received that the public comment period should be extended.

AQD Response
The proposed permit was subject to the public participation process specified in section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451. In accordance with the law, the MDEQ is required to provide at least 30 days for public comment, in this case the comment period was 41 days. The law also requires that the public comment period be noticed in one local newspaper, in this case the comment period was noticed in three local newspaper. Two of those papers were Arabic newspapers.

The actions taken by the MDEQ to notify the public regarding this proposed permit met or exceeded the minimum public participation requirements of state and federal law. This included providing information for public review (a fact sheet, a proposed project summary, and proposed permit terms and conditions), a public comment period, an informational meeting with citizens, a public hearing, and the receipt of written and verbal public comments on staff's analysis of the application and the proposed permit. Also, over 1,240 Letters to Interested Parties were mailed to provide notification and information on the proposed permit. Based on all of this, an extension to the comment period is not warranted.

Comment
Several comments were received questioning why the citizens were not told about the proposed project sooner. Specifically, that MDEQ should notify interested parties upon receipt of an application, not at the start of the comment period. Also, as Ford knew about this project long ago, why were the citizens not told about it sooner?

AQD Response
There is no legal requirement that the AQD notify interested parties upon receipt of an application. Section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451 only requires that certain applications undergo public comment before a decision is made on them. Those certain applications are the only ones the AQD is required to provide notice on and that notice is only required at the start of the comment period.

Monthly, the AQD posts on its website a list of all permit to install applications received. The list is by county and is available at the following link: http://www.deq.state.mi.us/aps/downloads/permits/finpticon/Pending%20PTI%20Applications.pdf. This list is available for anyone to review. Likewise, anyone is able to contact the AQD to ask questions about and to request information on any application on the list.

Comment
Several comments were received stating that the MDEQ needs to provide more and better translation services. Specifically, all public comment documents, including the proposed permit, should be provided in Arabic, Spanish, and English. By only translating some public comment materials, the MDEQ is violating USEPA nondiscrimination regulations, which apply to all recipients of USEPA assistance, including the MDEQ.

AQD Response
The proposed permit was subject to the public participation process specified in section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451. In accordance with the law, the MDEQ is required to notice the public comment period in one local newspaper. In this case the comment period was noticed in three local newspapers, two of which were Arabic newspapers. There is no requirement within Part 55 that the MDEQ notice in foreign language newspapers and/or provide public comment documents in foreign languages.

Arabic versions of the Notice of the Hearing, the Interested Party Letter, and the Proposed Project Summary were all posted on the AQD website and passed out at the public information meeting and public hearing on March 27th. Throughout the entire 41-day comment period, the AQD did not receive a single request from an individual citizen that additional documents be provided in Arabic or Spanish. Two Arabic translators were available at the public meeting and public hearing

on March 27th to help people in understanding the proposed project; to get their questions asked and answered; and to make public comments about the proposed plant.

Comment
Several commenters stated the conditions of the proposed permit which allow the applicant to submit a malfunction abatement plan (MAP) and an SSP for approval after the permit to install has been issued and after the public comment period is improper and in violation of Michigan Air Pollution Control Rule R 336.1205(1) and MCL 324.5511(3). The commenters believe that both the MAP and SSP should be subject to public comment.

AQD Response
The MAP and SSP will both be written to the specifics of the DTE plant as designed and constructed, it is not practical to require DTE to submit them prior to this occurring. Earlier submittals would result in much more generic plans instead of more detailed ones specifically written for the facility in question.

The permit requires that the facility not be operated until the AQD has approved the SSP. It also requires that the MAP be submitted to the AQD for review and approval within 180 days of initial start-up of the facility. This additional time will allow DTE to incorporate into the MAP specific issues and needs observed during the actual shakedown of the facility and to ultimately produce a more complete and accurate plan, thus improving the overall operation of the plant.

Comment
Why was the hearing held the same date as the Dearborn City Council Meeting? Why were elected officials not in attendance?

AQD Response
Air permits are issued by the State independent of local authorities. While the AQD makes local authorities aware of applications undergoing public comment and of public meeting and public hearing dates, there is no legal requirement that local authorities attend the meetings and/or the hearings.

At least three local City of Dearborn officials, US Congresswoman Debbie Dingell, and State Representatives Stephanie Chang and Abdullah Hammoud were all in attendance for all or part of the public meeting and/or the public hearing.

H. Ambient Air Monitoring

Comment
How and why are air monitors located many miles from the proposed facility representative of the air around the proposed facility?

AQD Response
The AQD conducts air monitoring around the state, and especially in populated areas, to evaluate air pollution. The monitoring regulations determine how many and what types of monitors are required. The sites where monitors are located are intended to be representative based on different industrial source types, population centers, and major highways. Whenever possible, the MDEQ locates air monitoring stations at schools because of the concern for children's health.

The closest air monitoring station to the proposed DTE project in Dearborn is located at the Salina Elementary School in Dearborn. Since air monitoring stations are not used for industrial compliance and cannot be located in every neighborhood, the AQD uses air modeling to estimate the pollution impacts from specific industrial source prior to its construction to ensure that all applicable air quality standards will be met.

I. Miscellaneous

Comment
When will the existing Ford boilers be shut down? Approval of this permit should be contingent on making the shutdown of the Ford boilers enforceable.

AQD Response
As the application for the new plant is from DTE and Ford has a valid permit to continue to operate their existing boilers, the AQD has no legal authority to require that the Ford Boilerhouse be taken out of service and shut down by a specific date. However, Ford has provided the AQD with a letter indicating their intention to retire all five of their existing boilers over a period of time, dependent upon the operational timing of the new DTE plant.

Comment
Several Comments were received questioning the need for a new electrical generating plant in Dearborn, especially in a residential area. Many felt that Dearborn does not require more electricity and questioned why DTE is producing more than Ford requires. The commenters also question why alternative types of energy production could not be used or why Ford could not get their power elsewhere.

AQD Response
The AQD does not have authority to determine whether a type of industry is warranted for a specific area. Also, the AQD review of a permit application deals only with air quality issues and does not have the authority to regulate where the electricity is produced or will be sold. The air permitting process involves a thorough review of the proposal and its impacts on the environment including whether or not the emissions will comply with state and federal health standards. Emissions from the plant will meet the NAAQS and the AQD health-based screening levels.

Comment
Several comments were received concerning items outside of the legal authority of the MDEQ. Those items included property values; noise; the source of the gas used in the plant; the location of the gas lines feeding the plant; zoning; the emergency procedure for shutting down the plant in the event of a gas leak; and Ford not keeping promises to the local community.

AQD Response
As was stated above, the MDEQ has no legal authority to regulate items such as property values; noise; the source of the gas used in the plant; the location of the gas lines feeding the plant; zoning; the emergency procedure for shutting down the plant in the event of a gas leak; and Ford not keeping promises to the local community. Both noise and zoning in the area are covered by City of Dearborn ordinances. The following is a link to the City website which includes their local ordinances: https://library.municode.com/index.aspx?clientId=12465.

Comment
What is the cost benefits of replacing Ford's existing boilers with the proposed new DTE plant?

AQD Response
As a cost benefit analysis is not a required component of an air use permit application, the AQD has no information concerning the cost benefits of replacing Ford's Boilerhouse with the new DTE plant.

Comment

What will be the operating schedule of the new DTE plant?

AQD Response
The review of DTE's application was based upon a continuous operating schedule of 8,760 hours per year for the turbines and 500 hours per year for the emergency engine. Based upon fuel use restrictions, the operation of the two duct burners will be less than 8,760 hours per year. As all requested emissions were found approvable at the operating schedules proposed by DTE, no hours restrictions on the turbines were included within the permit. Therefore, DTE may operate the turbines on whatever schedule they choose.

Comment
What is the primary purpose of the proposed plant – electricity or steam production? Will the plant operate continuously or only when Ford requires steam?

AQD Response
Approximately 46 percent of the energy produced at the plant will be provided to Ford in the form of steam, the remaining 54 percent of the energy produced will be electricity which will be sent to the electrical grid. The plant will operate continuously, not only while Ford requires steam.

Comment
Are the air quality standards/requirements the same in school/neighborhood areas as compared to industrial areas?

AQD Response
All processes that have the potential to emit an air contaminant are required to comply with all applicable state and federal rules and regulations. Most air pollution control laws are based on the amount of emissions from the process. As a result, larger facilities are often subject to more regulations that are often quite stringent. In addition, all facilities that go through the permit review process must comply with national health standards and the AQD health-based screening levels regardless of the location. These standards were developed to protect sensitive populations living in any area, including residential ones. Maximum impacts from the DTE facility are below all applicable health standards.

Comment
We do not want these permits approved now or ever. We want fewer facilities, less emissions, and greater investments in sustainable and green technologies. If this is not within the purview of the MDEQ, then the MDEQ should put us in contact with those whose purview it is.

AQD Response
It is a legal requirement that the AQD grant an air use permit to any applicant that has demonstrated that their proposed operation will comply with all applicable state and federal air quality rules and regulations. In addition, the AQD does not have authority to determine whether or not a type of industry is warranted for a specific area or where and how electricity is produced and is sold. Only state and federal legislators have the authority to change the current air quality rules and regulations, and current state and federal energy policies.

Comment
Health affects must be weighed against corporate profits.

AQD Response
No facility has the right, or has the priority to violate a NAAQS, a state rule, or a federal regulation, or to jeopardize anyone's right to clean air.

IV. SUMMARY OF COMMENTS RECEIVED IN SUPPORT

Two written comments and one oral comment were received in support of the proposed facility.

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

RICK SNYDER
GOVERNOR

C. HEIDI GRETHER
DIRECTOR

April 25, 2018

Mr. Matthew Gower, Site Operations Manager
Carmeuse Lime & Stone
11 Stanwix Street, 21st Floor
Pittsburgh, Pennsylvania 15222

Dear Mr. Gower:

This letter is in reference to your Permit to Install (PTI) application identified as No. 128-17 (State Registration Number B2169) requesting the ability to burn used oil on a permanent basis and biosolids on a temporary basis in the kilns located at 25 Marion Avenue, River Rouge, Michigan.

The public comment period ended on March 28, 2018, following a public hearing held at the River Rouge City Hall Council Chambers. Comments were received during the comment period and at the public hearing.

After careful consideration of the issues and pursuant to the delegation of authority from the Director of the Michigan Department of Environmental Quality (MDEQ), I have approved PTI No. 128-17. As a part of this approval, the Air Quality Division (AQD) staff revised conditions of the permit to address certain information received during the public participation process and the subsequent analysis of that information.

The AQD has prepared the enclosed Response to Comments (RTC) Document, which provides our responses to comments received during the public comment period and at the public hearing. It also identifies the special conditions that have been modified and provides our rationale for modifying the proposed special conditions. These changes are listed in Section II of the RTC Document.

This approval is based upon and subject to compliance with all administrative rules of the MDEQ and conditions stipulated in the enclosed supplement. Please review these conditions thoroughly so that you may take the actions necessary to ensure compliance with all of these conditions.

The equipment covered by this permit is also subject to the requirements of the Renewable Operating Permit Program. Submittal of the M-001 and C-001 forms may be required prior to commencing operation. A change that is subject to Rule 215 subrules (1), (2), or (3), promulgated pursuant to Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, requires the submittal of the forms to the appropriate AQD District Office. If a change is made pursuant to Rule 216, please submit the required forms to the Cadillac District Office at the address provided in the M-001 form instructions. Also, you must notify the Detroit Field Office, in writing, within 30 days after completion of the installation, construction, reconstruction, relocation, or modification of the process or process equipment covered by this PTI.

Additional information is included in the M-001 form instructions which are available on the Internet or can be obtained by contacting the Detroit Field Office at 313-456-4688. The AQD permit Web page is located at http://www.michigan.gov/air, click the "Permits" tab, and click the link at the first bullet entitled "Air Quality Division Permits."

Carmeuse Lime & Stone

RESPONSE TO COMMENTS DOCUMENT

April 25, 2018

PERMIT No. 128-17

Rick Snyder, Governor

Air Quality Division
Michigan Department of Environmental Quality

INTERNET: http://www.michigan.gov/air

Mary Ann Dolehanty, Acting Director
Air Quality Division
Constitution Hall, 2nd Floor, South Tower
525 West Allegan Street
P.O. Box 30260
Lansing, Michigan 48909-7760
Phone: 800-662-9278
Fax: 517-335-3122

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I. PUBLIC PARTICIPATION PROCESS

Permit to Install (PTI) application No. 128-17, for Carmeuse Lime & Stone (Carmeuse), is for adding used oil as a permanent fuel and biosolids as a temporary fuel in the existing lime kilns located at 25 Marion Avenue, River Rouge, Michigan. The public participation process involved providing information for public review including a technical fact sheet, a proposed project summary, proposed permit terms and conditions, a public comment period, an informational meeting, a public hearing, and the receipt of written and verbal public comments on staff's analysis of the application and the proposed permit.

On February 7, 2018, copies of the Notice of Air Pollution Comment Period and Public Hearing, the Technical Fact Sheet, the Proposed Project Summary, and the proposed permit terms and conditions were placed on the Michigan Department of Environmental Quality (MDEQ), Air Quality Division (AQD) Home Page (http://www.michigan.gov/air). Also on that date, the AQD e-mailed or mailed 27 letters to persons who had previously expressed interest and had provided contact information. In addition, a notice announcing the public comment period, public informational meeting, and public hearing was placed in *The News Herald*. The notice provided pertinent information regarding the proposed action; the locations of available information; a telephone number to request additional information; the date, time, and location of the public informational meeting and public hearing; the closing date of the public comment period; and the address where written comments were being received.

The informational meeting was held on March 28, 2018, at the River Rouge City Hall Council Chambers, 10600 West Jefferson Avenue, River Rouge, Michigan. This location was selected due to its proximity to the facility and the size of the room. Approximately 40 people attended the informational meeting. A panel of representatives from the AQD was available to answer questions. The meeting began at 6:00 p.m. and concluded at approximately 7:00 p.m.

A public hearing followed the informational meeting. The hearing began at approximately 7:00 p.m. with Ms. Tracy Kecskemeti of the MDEQ as the hearings officer and Acting AQD Director, Mary Ann Dolehanty as the decision maker. Only comments on the proposed permit action were received. In addition, staff of the AQD were available outside the council chambers to answer any questions. Approximately 40 people were in attendance at the public hearing with 12 providing oral comments. The public hearing concluded at approximately 7:45 p.m.

One written comment was received during the public comment period and the hearing.

The remainder of this document is a listing of the significant comments received during the public comment period and hearing regarding the proposed permit and the AQD's response. The first section discusses the comments received that resulted in changes to the final permit terms and conditions and the basis for each change. The last section discusses the AQD's response to all other significant comments that did not result in changes to the final permit.

II. SUMMARY OF COMMENTS RESULTING IN CHANGES TO THE PERMIT

Comment
What heating value was used to determine the material limit of 2,185 gallons per hour (gal/hr) of used oil that may be burned included in the proposed permit? Our emission calculations based upon a heat rate of 1,740,871 million British thermal units per year (MMBtu/yr) and oil heating values between 150 million British thermal units per gallon (MMBtu/gal) and 140 MMBtu/gal, show a maximum hourly oil usage rate between 1,325 gal/hr and 1,419 gal/hr instead of the 2,185 gal/hr allowed in the proposed permit.

AQD Response
One step in the review of this permit was a prevention of significant deterioration (PSD) applicability determination. Carmeuse determined applicability by using an actual to projected actuals (A2A) analysis and was able to avoid PSD by doing so. In calculating their projected actual emissions, Carmeuse used a heat rate of 1,740,871 MMBtu/yr (the same value used by the commenter).

The maximum yearly heat capacity of the kilns is 3,232,545 MMBtu/yr. This is based upon a maximum production rate of 48.3 tons of lime per hour; a heat requirement of 7.64 MMBtu per ton of lime produced; and 8,760 hours per year. The maximum amount of used oil allowed is 65 percent of this total heat input, or 2,101,154 MMBtu/yr (240 MMBtu/hr).

To calculate the used oil fuel restriction on an hourly basis, a heating value of 109.84 MMBtu/gal was used. It is within the range of values obtained from suppliers. However, it is lower than the 140 MMBtu/gal to 150 MMBtu/gal value often used for virgin oil and used by the commenter. Using the 240 MMBtu/hr divided by 109.84 MMBtu/gal, the limit of 2,185 gal/hr was calculated.

As a result of this comment, the calculation for converting the heating value to gallons of used fuel oil was reevaluated. During this reevaluation, it was noticed that although the Btu/gal value used was within the range of heat content for the sampled fuel, it would be more appropriate to use the average heat content of the samples which was 130.61 MMBtu/gal. Using the same calculation method but using this average heat content, the limit of 1,838 gal/hr was calculated. This revised limit shall be reflected in the final conditions.

Condition Change
The used oil material limit in special condition No. II.8 has been reduced from 2,185 gal/hr to 1,838 gal/hr.

Comment
Several comments were received stating that additional stack testing should be required. The requirements in the proposed permit are not enough.

AQD Response
The stack testing within the proposed permit has been changed. In the final permit, Carmeuse is required to test for particulate matter (PM), particulate matter equal to or less than 10 microns in diameter (PM10), particulate matter equal to or less than 2.5 microns in diameter (PM2.5), nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOCs) while burning biosolids.

Condition Change
The requirements for NOx, CO, and VOCs to be tested have been added to special condition No. V.2.

Comment
Carmeuse has stated that their kilns do not generate excess emissions during periods of startup or shutdown. However, the proposed permit appears to provide an exception from the emission limits during periods of startup and shutdown. If Carmeuse's statement is true, the permit should reflect it.

AQD Response
One of the several state and federal air quality rules and regulations, that the kilns are subject to, is the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart AAAAA for Lime Manufacturing Plants. Included in the permit are the requirements for the facility to specifically demonstrate compliance with this regulation.

Subpart AAAAA contains emission limits which do not apply during periods of startup, shutdown, and malfunction, and the AQD does not have the authority to change this requirement. Part of the intention of special condition III.1 in the proposed permit was to address this issue. In reexamining the version of special condition III.1 in the proposed permit, it is understandable how the commenter could infer that all emission limits, not just those included within Subpart AAAAA, do not apply during periods of startup, shutdown, and malfunction. As such, the AQD has modified the wording of special condition III.1 included in the final permit.

Condition Change
The following words have been eliminated from special condition No. III.1: "above (I. EMISSION LIMITS), and any other emission".

III. SUMMARY OF SIGNIFICANT COMMENTS

A. Public Health and Environment Concerns

Comment
The AQD should not approve this permit because it will allow an increase in NOx, CO, and VOC as shown in Table A of the fact sheet.

AQD Response
Detroit and all of Michigan is in attainment with the health-based National Ambient Air Quality Standards (NAAQS) for PM10, PM2.5, NOx, CO, and lead. Part of eastern Wayne County including a portion of Dearborn is designated nonattainment for sulfur dioxide (SO_2), although more recent monitored levels show that levels have declined and are meeting the standard. The United States Environmental Protection Agency (USEPA) is expected to designate Wayne County as nonattainment with the ozone NAAQS. The permit review for the Carmeuse project did not indicate that the facility emissions would cause or contribute to nonattainment with any of the NAAQS.

The AQD is unaware of credible evidence that the Carmeuse project emissions would cause health effects in the community. The permitted air emissions meet all state and federal requirements, including those requirements that are designed to protect the public health. The air monitoring of cumulative air pollution levels at the Dearborn monitor does not indicate that the current toxic air contaminants (TAC) levels would cause observable health effects in the community. Cumulative air pollution health risks in the Detroit area have been evaluated by the AQD and the USEPA, as described further in the next comment and AQD response.

Comment
Several comments were received regarding asthma and cancer in the area. They included concerns about the current health of individuals in the area and recent increases in asthma, autism, and cancer; questions about how pollution was reviewed to ensure protection of the health of the people in the area; a request that the MDEQ perform a health study in this area; and that the permit should be denied because the area has higher rates of asthma and cancer than the rest of Michigan.

AQD Response
The MDEQ reviewed all chemical emissions from the Carmeuse Lime kilns. We evaluated how much could be in the air that people breathe. These levels are below their health-based screening levels. The emissions from this process meet the health-based permitting requirements and are not expected to cause adverse health effects.

We are aware of sources of health statistics for asthma and cancer rates in River Rouge, although this data was not directly applied in developing or applying the health-based screening levels for this permit review. River Rouge has been reported to have a higher rate of asthma per capita than the rest of the State of Michigan. According to the Michigan Department of Health and Human Services (MDHHS), 2012-2014 age-adjusted hospitalization rates per 10,000 by Zip Code for Michigan and Detroit, the asthma hospitalization rate for River Rouge is 33.21 per 10,000, where the Michigan average asthma hospitalization rate is 12.54 per 10,000 people.

There are many potential asthma triggers, including indoor and outdoor factors. Outdoor air pollution is just one factor which can potentially aggravate asthmatic conditions or cause asthma attacks. Some other environmental causes include household dust mites, other insects, pet dander, tobacco smoke, molds, pollen, and indoor volatile organic chemicals. More information on asthma can be found at: http://getasthmahelp.org/. The NAAQS and the MDEQ Initial Threshold Screening Levels are designed to be health-protective for the public, including sensitive populations, such as asthmatics. The proposed emission impacts from Carmeuse were evaluated against these health-protective standards and are below the screening levels for these chemicals.

The MDEQ applies health-based screening levels for carcinogens in proposed air emissions so that they pose a minimal risk of cancer. In contrast, the American Chemical Society reports that cancer is quite prevalent in the U.S, at a rate of 40 percent of all people developing some form of cancer in their lifetime (https://www.cancer.org/research/cancer-facts-statistics/all-cancer-facts-figures/cancer-facts-figures-2018.html). The MDHHS has cancer incidence trends in Michigan by county for 2012-2014 (available at: http://www.mdch.state.mi.us/pha/osr/cancer/Race/CountyLst.asp). The MDHHS has provided the following general information about cancer causes (http://www.michigan.gov/documents/mdch/Southwest_Detroit_Cancer_Incidence_and_Mortality_Report10_18_12_402088_7.pdf):

> "Cancer is likely to be caused by a combination of factors that act together over many years. These factors can include features of our lifestyle, genetics, and exposure to cancer-causing agents (carcinogens). There are many different carcinogens including viruses, medicines, and chemicals, and the various factors can modify each other over many years in ways that are not well understood. Even so, the American Cancer Society (ACS) estimates that 30% of cancer could be prevented by eliminating tobacco use. In terms of other chemical exposures, the ACS estimates that exposure to chemicals in workplaces accounts for about 4% of cancer and exposure to pollutants in non-work settings accounts for about 2%. Cancers today are usually related to events that happened many years ago. There are generally many years between an exposure to a carcinogen and a diagnosis of cancer."

Comment
Environmental justice should be taken into consideration during permit review.

AQD Response
Environmental justice means the fair, non-discriminatory treatment and meaningful involvement of Michigan residents regarding the development, implementation, and enforcement of environmental laws, regulations, and policies by the state. The two "pillars" of environmental justice are the fair treatment of all people and providing for meaningful public involvement in government decision-making.

For the proposed permit of the Carmeuse project, the MDEQ provided for meaningful public involvement in several ways. The MDEQ provided summary documents about the proposed permit that were less technical, held an extended public comment period of 49 days, published the public notice in a local newspaper, held a public information session before the hearing, had several staff available for discussion outside of the hearing room, and held the hearing in the local community (Dearborn) in a facility with ample space. All individuals who attended the public hearing were provided an opportunity to speak. In addition, the MDEQ staff encouraged

citizens to provide written comments as an alternative to providing verbal comment during the hearing. This outreach, education, and comment process for the proposed permit was consistent with the environmental justice principle of providing opportunities for enhanced public participation. As with any public hearing, a mailing list is developed of interested citizens. Because of the interest shown for this project, we now have a more robust list of interested parties for this locale for planning and outreach purposes.

The environmental justice principle of fair treatment means that no group of people, including racial, ethnic or low-income populations should bear a disproportionately greater burden resulting from environmental laws, regulations, policies and decision-making. The MDEQ strives to protect the health and welfare of all citizens of the State of Michigan equally. In addition, the state and federal air quality standards that have been established are designed to be protective for all segments of society, including the most sensitive. Therefore, the MDEQ has not attempted to determine the economic or racial demographics of the area, but has determined that the permit, as approved, will meet all applicable air quality standards and health protective requirements and is not expected to have a negative impact on the community.

B. Air Toxics and Risk Assessment

Comment
The MDEQ should review the cumulative impacts of other emission sources in the area.

AQD Response:
The permit review included an assessment of CO and nitrogen dioxide. This assessment showed that the modeled ambient air impacts of each were less than their respective significant impact levels (SILs). The SILs, which are much lower than the NAAQS, are used as an initial screening tool: modeled impacts that are less than the SIL are not expected to cause a violation of the NAAQS or to exceed the allowable PSD increments. The USEPA and the states do not have a scientifically credible and available method for grouping all of the six NAAQS pollutants into a cumulative assessment.

It is possible to evaluate the TACs in a cumulative way. Although, this was not done specifically for this permit review and is not routinely done as a part of permit review, the USEPA and the AQD have evaluated the cumulative impacts of TACs in Dearborn and Detroit based on either air quality monitoring studies or emissions data and modeling exercises. The Detroit Air Toxics Initiative (DATI) 2005 and 2010 studies of the cumulative TAC levels are available at: http://www.michigan.gov/deq/0,4561,7-135-3310---,00.html. The USEPA's National Air Toxics Assessment (NATA) studies are available at: https://www.epa.gov/national-air-toxics-assessment. Also, the USEPA's Detroit Exposure and Aerosol Research Study (DEARS) is available at: https://archive.epa.gov/heasd/archive-dears/web/html/index.html.

These cumulative air pollution studies have found that Dearborn and Detroit air pollutant levels are typical for large urban areas in the U.S., due to vehicle and industrial emissions. The USEPA's NATA study includes an evaluation of cumulative cancer risk and cumulative noncancer hazards for TACs. The national average lifetime cancer risk estimate for TACs is 40 in one million, similar to Dearborn and Detroit according to the DATI and NATA studies. For perspective, the overall risk in the U.S. for having cancer in one's lifetime is 40 percent, which is equal to 400,000 in one million. Therefore, outdoor air pollution levels in Dearborn, Detroit, and

the U.S. generally, are not believed to be a major contributor to cancer incidence rates. The available cumulative TAC studies do not suggest that ambient TAC levels are a major cause of observed cancer rates in Detroit. Further, these studies do not suggest that respiratory, neurological, or other noncancer health effects would be expected due to the TAC levels in Dearborn or Detroit.

The AQD believes that the permit review process addressed all of the proposed air pollutant emissions. The AQD must review permit applications within their regulatory authority, which includes many provisions to protect the public health from emissions of criteria pollutants and TACs.

Comment
The MDEQ should do a health impact assessment study in this area prior to permit approval since there are a lot of people with asthma, cardiac arrest, stroke, cancer, and low birth weight. The 500 cities project is not appropriate to determine the impact to this community.

AQD Response
According to the Centers for Disease Control (CDC): "A health impact assessment (HIA) is used to evaluate the public health consequences of proposed decisions in non-health sectors. It is a systematic process that uses an array of data sources and analytic methods and considered input from stakeholders to determine the potential effects of a proposed policy, plan, program, or project on the health of a population and whether the health effects are distributed evenly within the population. An HIA can provide practical recommendations for how to minimize negative health effects and maximize beneficial health effects."

The MDEQ performs human health risk assessments related to ambient air exposures. Human health risk assessments may be described as, "quantitative, analytic processes to estimate the nature and risk of adverse human health effects associated with exposure to specific chemical contaminants or other hazards in the environment" (CDC-Healthy Places available at: https://www.cdc.gov/healthyplaces/types_health_assessments.htm). The MDEQ does not perform "health impact assessments" as described above but does perform human health risk assessments related to air exposures.

C. Dispersion Modeling

Comment
What is considered in modeling and how does it work?

AQD Response
Computer models are used to predict emissions concentrations and exposure levels for those located near a facility. The model simulates the properties of the emissions exhausting the stack(s) including velocity, stack height, concentration, and temperature. It also uses information like wind speed and precipitation from past meteorological data. The model uses this information to determine the ground level concentrations in the area. The maximum concentrations found by the model are then compared against the health-based screening levels for reviewing application emissions.

D. Best Available Control Technology (BACT) Review

Comment
The kilns should be required to use the best available control technology (BACT).

AQD Response
The requirement to use BACT is contained within both the State of Michigan and the federal air pollution control rules and regulations. These rules are very specific as to when it is required and for which pollutants. Michigan Air Pollution Control Rule 336.1702 (Rule 702) only applies to VOCs, not other pollutants such as NOx and CO. In the State of Michigan, other pollutants such as NOx and CO could only be subject to BACT under federal regulations for PSD.

As this application was not subject to PSD for any pollutants, the application was only subject to BACT for VOCs under Rule 702. As a part of their application, Carmeuse included a Rule 702 BACT analysis. The analysis determined BACT to be the implementation of work practice standards to ensure the efficient combustion of fuels. The AQD reviewed and concurred with this determination.

E. Permit Requirements

General

Comment
What kind of oil will Carmeuse be burning? They should test for chemicals and metals in the oil.

AQD Response
The used oil product that will be burned by Carmeuse will be produced by several different used oil recyclers. Production includes the re-distillation and blending of collected used oils. Samples from the different suppliers were analyzed for contents, including chemicals and metals. This information was used as a basis for potential emission and those emissions were evaluated against applicable health-based standards. This analysis showed that all standards will be met.

The permit allows only non-waste used oil to be burned in the kilns. Carmeuse must maintain records demonstrating that the used oil does not contain impurities which would classify the oil as a waste. The permit also requires composite samples of the oil to be tested at least once a month to determine the sulfur content of the used oil.

Emissions

Comment
Several comments indicated that the facility should have included startups, shutdowns, and malfunctions in the emission calculations. One comment also stated that emission calculations should have considered temperature changes.

AQD Response
The efficiency of certain types of pollution control equipment is often reduced during periods of startup and shutdown thus leading to greater emissions during those periods. An example of this is a selective catalytic reduction (SCR) unit installed on a natural gas turbine. In addition, temperature also affects the control efficiency of an SCR.

The kilns operated at Carmeuse are controlled by a baghouse dust collector. The efficiency of a baghouse is not affected by temperature or startup and shutdown. Rather the maximum emissions from the kilns occur when they are operating at maximum capacity. Both the emissions calculations and the review of this application were based upon the kilns operating at maximum capacity.

Comment
Several comments were received asking if the community would see an actual emissions increase or decrease as a result of Carmeuse being allowed to burn the additional fuels. They felt that both the documents and the informational meeting were unclear on this fact.

AQD Response
Under their current permit Carmeuse is allowed to burn coal, syngas, glycerin, and natural gas. The maximum emissions they could emit burning those fuels are shown in Table A:

Table A

Pollutant	Maximum Emissions (tpy)
NOx	918.2
CO	118.9
SO_2	2058.6
VOCs	4.6
PM	102.8
PM10	102.8
PM2.5	102.8

The recent actual emissions (2013 - 2016) from the facility, as shown in Table B, have been:

Table B

Pollutant	Actual Emissions (tpy)
NOx	650.7
CO	84.3
SO_2	772.3
VOCs	3.24
PM	40.2
PM10	40.2
PM2.5	40.2

These actual emissions were based upon a production rate of 305,020 tons per year of lime.

Regardless of Carmeuse's request to burn additional fuels, they are planning to increase lime production at the facility. This will result in an increase in actual emissions from the facility. Their new anticipated production rate is 350,558 tons per year of lime. Carmeuse is able to accommodate this increase in production under their current permit by continuing to burn the fuels they are allowed. The fuel which produces the most emissions is coal. So, if they were to burn coal only at their anticipated production rate, the actual emissions from the facility would be as shown in Table C:

Table C

Pollutant	Possible Emissions Burning Current Fuels (tpy)
NOx	757.7
CO	98.6
SO_2	655.2
VOCs	3.9
PM	54.2
PM10	54.2
PM2.5	54.2

As these values are within what is allowed by their current permit, Carmeuse is free to do this.

If, however, Carmeuse was to increase production as planned and were to burn biosolids and used oil at the rates outlined in this permit as a part of their fuel mix, the emissions from the facility would be as shown in Table D:

Table D

Pollutant	Possible Emissions Burning New Fuels (tpy)
NOx	461.8
CO	83.4
SO_2	546
VOCs	9.3
PM	40.9
PM10	40.9
PM2.5	40.9

As shown in the above tables C and D, Carmeuse's planned increase in production will result in an increase in actual emissions of most pollutants from the facility. The increases for all but VOCs however will be less if the facility is allowed to burn the new fuels in addition to their current ones. Not knowing the specific fuel blends that will be burned and the actual production rates that will occur, it is impossible to indicate the exact actual emissions going forward.

Comment
Comments were received questioning why the values used by Carmeuse in their actual to projected actual (A2A) analysis were not included in the permit as limits.

AQD Response
Based upon its current allowed emissions, the Carmeuse facility is considered to be a major source under both the State of Michigan and the federal PSD rules. Therefore, as part of the permit review process for all future projects at the facility an applicability determination must be done to determine if that project is subject to PSD. In this case, Carmeuse performed an A2A analysis. The A2A analysis allows a facility to compare the emissions the facility is capable of emitting prior to the proposed project against their projected emissions after the proposed project. This is done on a pollutant by pollutant basis and if the difference between the two is less than significant for a specific pollutant, then the application is not subject to PSD for that pollutant.

In many applications involving an A2A analysis the projected emissions after the project are less than the emissions the facility is already allowed under their current permit, which is true for this application. For such cases, neither the State of Michigan or the federal PSD regulations require that the projected emissions after the project be included in the permit as emission limits. This is because the facility is allowed to emit at emission levels higher than they are projecting to emit. The projected emissions after the project are only used in the review to determine if the application is subject to PSD.

Comment
In determining baseline actual emissions and excludable emissions, the applicant did not exclude noncompliant particulate matter emissions at kiln 2, that occurred from August 20, 2016 through September 2016. According to the Michigan Administrative Code, the average rate must be adjusted downward to exclude noncompliant emissions that occurred while the source was operating above an emission limitation that was legally enforceable.

AQD Response
The noncompliant emissions were excluded from the emission calculations. The tested value was 0.33 pounds per ton of stone feed (lb/TSF) and the permit limit was 0.12 lb/TSF. The 0.33 lb/TSF value translates into an hourly emission rate of 14.78 pounds per hour (lb/hr) and the 0.12 lb/TSF value translates into an hourly emission rate of 5.37 lb/hr. The 5.37 lb/hr value was used in determining both the baseline actual emissions and excludable emissions.

Comment
Glycerin should have been included in the emission estimates or it should be removed from the fuels Carmeuse is allowed to burn.

AQD Response
The purpose of this permit is to allow Carmeuse to also burn used oil and processed biosolids, as fuel, in their existing kilns. These two fuels are in addition to the glycerin, syngas, coal, and natural gas that they are already allowed to burn.

As was described above, one step in the review of this permit was a PSD applicability determination. Carmeuse performed an A2A analysis and was able to avoid PSD by doing so. This A2A analysis involved the combination of the emissions the facility was able to achieve while burning their already permitted fuels of glycerin, syngas, coal, and natural gas against the emissions they expect to emit from burning the new allowed fuels of used oil and biosolids. As the highest actual emissions from the facility have occurred while burning coal, those emissions and not those from burning another fuel were used in the A2A analysis.

As Carmeuse was previously allowed to burn other fuels, including glycerin, and the review of this application did not affect that, it is appropriate and required by law that Carmeuse continue to be allowed to burn glycerin and the other fuels going forward.

Comment
There were several comments concerning the following two questions regarding the basis for the assumed emissions from the burning of biosolids. They include: Why were wood residue emission factors used instead of sewage sludge emission factors? Why were emission factors from DTE used to determine biosolid emissions for Carmeuse, when the facilities have different control technologies?

AQD Response
Detailed emission factors for the burning of biosolids are not available for criteria pollutants. In this permit, Carmeuse is only allowed to burn biosolids on a 90-day trial basis and is required to perform stack testing to measure the actual emissions which will occur. At the end of the 90-day trial period, if Carmeuse decides that they would like to burn biosolids on a long-term basis, the test data collected will then be used to evaluate a new PTI request.

As a basis for the trial burn permit, emissions factors for bark/wood residue were used for criteria pollutants. Emissions from criteria pollutants are generally more dependent on the conditions of combustion than the fuel contaminants. Both Carmeuse and the AQD felt that the conditions of combustion for bark/wood residue was more representative of biosolids than that of sewage sludge. Sewage sludge has a heating value between 1,000 and 2,000 MMBtu/lb. The bark/wood residue has a heating value of 8,000 MMBtu/lb which is in the range used for biosolids (7,500 to 8,000 MMBtu/lb). The moisture content of the biosolids at 5 percent moisture is similar to that of the wood residue. The moisture content of sewage sludge is approximately 75 percent to 80 percent. The emission factors for the wood residue is based on boiler combustion which is more similar to the Carmeuse lime kilns than the multiple hearth, electric infrared, or fluidized bed incinerator on which the sewage sludge emission factors were based.

The emissions of TACs are based more upon the fuel contaminants. To project some of the TAC emissions, the emission factors for coal were used. The basis for this was a 2012 letter from the USEPA to DTE Energy Services, Inc. indicating that the contaminants of biosolids are less than or comparable to coal. Emissions from DTE were not used to determine emissions for Carmeuse.

Monitoring and On-going Compliance Demonstration

Comment
The MDEQ should require a continuous emission monitor system (CEMS) for the kilns during testing or other times. How will the facility demonstrate compliance with the permit?

AQD Response
CEMS are intended for long term emissions monitoring. Due to their large expense, complicated and time consuming installation period, and lack of portability, they are not used for "testing" purposes. Rather, actual stack testing, as is required by the permit, is used.

While NOx and CO CEMS may be available for long term monitoring of the emissions from kilns, the AQD does not believe they are warranted in this case. There are not CEMS systems available for PM2.5.

The final permit includes several emission limits, operational restrictions, testing, and record keeping requirements that will allow the facility to demonstrate on-going compliance. The final permit will limit the amount of used oil, biosolids, glycerin, and syngas that may be burned in the kilns. It also limits the burning of biosolids to a maximum of 90 days. In addition, it requires that each kiln be equipped with a baghouse dust collector. Emissions testing to measure NOx, CO, VOCs, PM, PM10, and PM2.5 when burning biosolids is included in the permit. Carmeuse must also operate according to an approved operations, maintenance, and monitoring plan and an approved startup, shutdown, and malfunction plan. Finally, the permit requires record keeping and emissions calculations to demonstrate on-going compliance with the allowed usage limits and emission limits.

An AQD inspector is assigned to inspect the equipment and to review the records required by the permit. The AQD will inspect the facility a minimum of once every two years and AQD staff will be on site to observe the stack testing required by the permit. In addition, AQD staff will respond to complaints about the facility, which typically includes a visit to the facility.

F. Permit Review Process

Comment
The USEPA's determination letter to DTE that the biosolids are a fuel and not a waste should not be applicable to Carmeuse because the kilns are not equipped with a low-NOx firing system. This is because the USEPA's letter states that "total nitrogen is not an appropriate contaminant to consider for your processed biosolids, but this finding only applies in a situation where the combustion unit receiving the fuel is equipped with a low NOx firing system."

AQD Response
At their River Rouge Power Plant, DTE had previously planned to burn biosolids from the same supplier as Carmeuse is planning to use. DTE requested and received, from the USEPA, a determination letter which stated the biosolids would be considered a fuel and not a waste. Different requirements apply to the burning of a fuel vs. a waste. The USEPA compared the contaminants of biosolids to coal and determined that biosolids are a comparable fuel.

As cited in the comment, a non-hazardous secondary material must contain contaminants at levels comparable in concentration to or lower than those in traditional fuels that the combustion unit is designed to burn, such as coal. This statement is a comparison of the contaminants of biosolids and coal and is not impacted by the type of equipment which can burn the fuels. The biosolid contaminants were found to be less than or equal to those of coal except for nitrogen which could react with oxygen and release NOx emissions.

The AQD does not agree that the low-NOx firing system at DTE should have an impact on the fuel determination. As previously stated, the contaminant portion of the determination is based on a comparable fuel and is independent of the emission controls for the equipment in which it is burned.

G. Public Participation Process

Comment
Explain how MDEQ's public involvement process regarding the Carmeuse proposed permit provided an opportunity for meaningful involvement in accordance with the goals stated in its current policy given that the public hearing for the proposed permit is being held the day after a public hearing for another proposed permit in the same area. Also, please explain how its public involvement process regarding the proposed permit incorporated the recommendations for public involvement offered in USEPA's Recipient Guidance.

AQD Response
The public participation process is a very important portion of the permit review process. Both the MDEQ and the AQD take it very seriously and continuously strive to improve and to provide more opportunities for meaningful involvement by the public.

The proposed permit was subject to the public participation process specified in section 5511(3) of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451. In accordance with the law, the MDEQ is required to provide at least 30 days for public comment, in this case the comment period was 49 days. Part of the reason for having a public comment period of more than 30 days was due to the fact that two applications in nearby communities were public noticed simultaneously.

The actions taken by the MDEQ to notify the public regarding this proposed permit met or exceeded the minimum public participation requirements of state and federal law. This included providing information for public review (a technical fact sheet, a proposed project summary, and proposed permit terms and conditions), a public comment period, an informational meeting with citizens, a public hearing, and the receipt of written and verbal public comments on staff's analysis of the application and the proposed permit. Also, 27 letters were mailed to interested parties to provide notification and information on the proposed permit.

H. Miscellaneous

Comment
Why are economics being chosen over health?

AQD Response
The profitability of a project and the potential number of jobs created is not considered when reviewing a PTI application. Each application is subject to the same requirements and must meet the same health-based screening levels. No facility has the right or the priority to violate a NAAQS, a state rule, or a federal regulation, or to jeopardize anyone's right to clean air.

Comment
The USEPA has lowered their standards with this administration. Would this have been allowed before?

AQD Response
None of the recent changes to the USEPA requirements or guidelines had any impact on the review of Carmeuse's PTI application.

RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING

C. HEIDI GRETHER
DIRECTOR

April 25, 2018

Dear Interested Party:

Thank you for your interest regarding the Permit to Install (PTI) application, submitted by Carmeuse Lime & Stone to the Michigan Department of Environmental Quality (MDEQ), requesting the ability to burn used oil on a permanent basis and biosolids on a temporary basis in the kilns at their facility located at 25 Marion Avenue, River Rouge, Michigan.

Pursuant to state and federal requirements, the MDEQ held a public comment period that ended with a public hearing on March 28, 2018, on its proposed conditional approval of the permit. The Air Quality Division (AQD) received one set of written comments during the public comment period and twelve individuals provided verbal comments at the public hearing.

After careful consideration of the issues and pursuant to the delegation of authority from the Director of the MDEQ, I have approved PTI No. 128-17 with modifications made to the proposed permit conditions.

The Response to Comments (RTC) Document provides our responses to comments received during the public comment period and at the public hearing. It also identifies special conditions which have been modified and provides our rationale for modifying the proposed special conditions. The changes are listed in Section II of the RTC Document. The RTC Document and the Permit Terms and Conditions are available at http://www.deq.state.mi.us/aps/cwerp.shtml.

Changes made to the permit include:

- Changing the used oil fuel restriction from 2,185 gallons per hour to 1,838 gallons per hour.
- Adding nitrogen dioxide, carbon monoxide, and volatile organic compounds to the list of pollutants required to be tested during the biosolids trial burn.
- Modified language clarifying which emission limits do not apply during startup, shutdown, or malfunction conditions.

Thank you for your input regarding our review of this permit application. If you have any questions regarding this permit, please contact Ms. Ambrosia Brown, AQD, Permit Section, at 517-284-6788; browna39@michigan.gov; or MDEQ, P.O. Box 30260, Lansing, Michigan 48909-7760; or you may contact me.

Sincerely,

Mary Ann Dolehanty

Mary Ann Dolehanty, Acting Director
Air Quality Division
517-284-6773

cc: Senator Coleman Young II, District 1
Representative Stephanie Chang, House District 6
Mayor Michael D Bowdler, City of River Rouge
Mayor Pro-Tem Karen Ward, City of River Rouge
Mayor Mike Duggan, City of Detroit
Mayor Drew Dilkens, City of Windsor
Dr. Joneigh Khaldun, City of Detroit, Executive Director and Health Officer
Mr. Raymond Scott, City of Detroit, Buildings, Safety Engineering and Environment Department (BSEED)
Mr. Paul Max, City of Detroit, BSEED
Ms. Madeleine Godwin, Ministry of the Environment, Ontario
Mr. Mike Moroney, Ministry of the Environment, Ontario
Mr. Mark Smith, Ministry of the Environment, Ontario
Ms. Karen Clark, Ministry of the Environment, Ontario
Mr. Chris Manzon, Pollution Control Services, City of Windsor
Ms. Averil Parent, City of Windsor
Mr. Mark J. Burrows, International Joint Commission
Ms. Cathy Garrett, Wayne County Clerk
Ms. Ilona Varga, Wayne County Commissioner
Mr. Stephen Zervas, Trinity Consultants
Ms. Genevieve Damico, U.S. Environmental Protection Agency, Region 5
Mr. Constantine Blathras, U.S. Environmental Protection Agency, Region 5
Ms. Stephanie Diaz, U.S. Environmental Protection Agency, Region 5
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Ms. Tiffany Brown, Public Information Officer, MDEQ
Ms. Wilhemina McLemore, MDEQ
Mr. Jeffrey Korniski, MDEQ
Ms. Ambrosia Brown, MDEQ

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

April 25, 2018

PERMIT TO INSTALL
128-17

ISSUED TO
Carmeuse Lime & Stone

LOCATED AT
25 Marion Avenue
River Rouge, Michigan

IN THE COUNTY OF
Wayne

STATE REGISTRATION NUMBER
B2169

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

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **August 28, 2017**	
DATE PERMIT TO INSTALL APPROVED: **April 25, 2018**	SIGNATURE: MaryAnn Docekalty
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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Common Abbreviations / Acronyms

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	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

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

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

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

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

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

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUKILNNUMBER1	Horizontal rotary lime kiln identified as Kiln No. 1. The kiln is 300 feet long with a 10.6 foot diameter. Exhaust from the kiln is vented through a positive pressure reverse air baghouse with a monovent-type ambient discharge. The monovent-type ambient discharge will be replaced with a 120 ft stack venting both EUKILNNUMBER1 and EUKILNNUMBER2 pursuant to the requirements of PTI No. 193-14A.	1/1/1968	FG-MACT-AAAAA
EUKILNNUMBER2	Horizontal rotary lime kiln identified as Kiln No. 2. The kiln is 300 feet long with a 10.6 foot diameter. Exhaust from the kiln is vented through a positive pressure reverse air baghouse with a monovent-type ambient discharge. The monovent-type ambient discharge will be replaced with a 120 ft stack venting both EUKILNNUMBER1 and EUKILNNUMBER2 pursuant to the requirements of PTI No. 193-14A.	1/1/1968	FG-MACT-AAAAA
EUPSHFUGITIVE	Equipment for handling of stone after the stone bin and prior to introduction to the lime kilns. The processed stone handling (PSH) equipment includes all conveyors prior to the lime kilns for which the only emissions are fugitive dust emissions.	1/1/1968	FG-MACT-AAAAA
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

FLEXIBLE GROUP SUMMARY TABLE

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

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG-MACT-AAAAA	The affected source is an existing lime manufacturing plant (LMP), that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. The kilns have historically been fired using pulverized coal and natural gas. Some alternate fuels have been approved for use: syngas and glycerin. These alternate fuels were proposed for use at the facility to offset a portion of the coal burned by the kilns and their use was approved under PTI No. 330-07D. PTI 128-17 is for the combustion of used oil as an additional alternate fuel and a 90 day trial burn using Processed Biosolids fuel.	EUKILNNUMBER1, EUKILNNUMBER2, EUPSHFUGITIVE

The following conditions apply to: FG-MACT-AAAAA

DESCRIPTION:
The affected source is an existing lime manufacturing plant (LMP), that is (or is part of) a major source of hazardous air pollutant (HAP) emissions. The kilns have historically been fired using pulverized coal and natural gas. Some alternate fuels have been approved for use: syngas and glycerin. These alternate fuels were proposed for use at the facility to offset a portion of the coal burned by the kilns and their use was approved under PTI No. 330-07D.

PTI 128-17 is for the combustion of used oil as an additional alternate fuel and a 90 day trial burn using Processed Biosolids fuel.

Emission Units: EUKILNNUMBER1, EUKILNNUMBER2, EUPSHFUGITIVE

POLLUTION CONTROL EQUIPMENT: Emissions from EUKILNNUMBER1 and EUKILNNUMBER2 are controlled by a positive pressure reverse air baghouse.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.12 pounds per ton of stone feed (lb/tsf)*	Hourly	EUKILNNUMBER1, EUKILNNUMBER2***	SC V.1, SC V.2	40 CFR 63.7090(a)
2. PM10	23.45 pph	Hourly	EUKILNNUMBER1, EUKILNNUMBER2***	SC V.1, SC V.2	40 CFR 52.21(c)&(d)
3. PM2.5	23.45 pph	Hourly	EUKILNNUMBER1, EUKILNNUMBER2***	SC V.1, SC V.2	40 CFR 52.21(c)&(d)
4. PM	0.05 grams per dry standard cubic meter	Hourly	Stack or building vent emissions from EUPSHFUGITIVE	SC V.1, SC V.2	40 CFR 63.7090(a)
5. VE	7 percent opacity	Six-minute average	Stack or building vent emissions from EUPSHFUGITIVE	SC VI.6	40 CFR 63.7090(a)
6. VE	10 percent opacity	Six-minute average	Fugitive emissions from operations associated with EUPSHFUGITIVE that are not enclosed in a building.	SC VI.6	40 CFR 63.7090(a)
7. VE	No visible emissions, or zero percent opacity	Instantaneous	Fugitive emissions from the building containing operations associated with EUPSHFUGITIVE, except for emissions from a vent.	SC VI.6	40 CFR 63.7090(a)
8. SO_2	300 ppm in exhaust gas corrected to 50% excess oxygen**	Hourly	EUKILNNUMBER1, EUKILNNUMBER2***	SC V.1, SC V.2	R 336.1402(1)
9. SO_2	2.4 pounds per million BTU of heat input when coal is used as a fuel	Hourly	EUKILNNUMBER1, EUKILNNUMBER2***	SC V.1, SC V.2	R 336.1402(1)

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
10. VE	15% opacity	6 minute average opacity for any 6 minute block period when a bag leak detection system (BLDS) or particulate matter (PM) detector is not used	EUKILNNUMBER1, EUKILNNUMBER2***	40 CFR 63.7113(f) and SC VI.1.	40 CFR 63.7090(b)

* Compliance with this particulate matter limit shall be considered compliance with the limits of R 336.1331(1)(a) using coal and also the limits of Consent Order SIP No. 22-1993, Exhibit B specifying 0.5 lb/tsf, both of which have been subsumed under this streamlined requirement.

** Compliance with this limit shall be considered compliance with the limits of R 336.1402(3) using coal, which has been subsumed under this streamlined requirement.

***Compliance with this limit shall be determined for the combined emissions from EUKILNNUMBER1 and EUKILNNUMBER2 after the completion of the installation of SVKILN1&2, on and after October 1, 2018 or earlier if construction is completed.

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. Glycerin	2.5 tons per hour*	Calendar day	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.10	R 336.1205(1)(a)(ii)
2. Glycerin	21,900 tons per year*	12-month rolling time period as determined at the end of each calendar month	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.10	R 336.1205(1)(a)(ii), R 336.1205(3)
3. Glycerin	0.24% sulfur, by weight, on a dry basis	Instantaneous	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.11	R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
4. Glycerin	4.25% ash content, on a dry basis	Instantaneous	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.11	R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
5. Syngas	24.9 MMBTU per hour*	Calendar day	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.12	R 336.1205(1)(a)(ii)
6. Syngas	218,124 MMBTU per year*	12-month rolling time period as determined at the end of each calendar month	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.12	R 336.1205(1)(a)(ii), R 336.1205(3)

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
7. Syngas	0.14% sulfur, by weight	Instantaneous	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.13	R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
8. Used Oil fuel	1,838 gallons per hour*	Calendar Day	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.15	R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
9. Allowed fuels**	No waste material or fuel shall be combusted	Instantaneous	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.9, 10, 12, 14, 15, 17	R 336.1205(1)(a)(ii)(D), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d), 40 CFR 60.2010
10. Processed Biosolids fuel	13,750 pounds per hour*	Calendar Day	EUKILNNUMBER1, EUKILNNUMBER2	SC VI.17	R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d)
* This limit applies to the combined total fuel usage for EUKILNNUMBER1 and EUKILNNUMBER2. ** Allowed fuels are limited to Coal, Natural Gas, Glycerin, Syngas, Used Oil fuel, and Processed Biosolids fuel.					

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall comply with the emission limits and operating limits put forth in 40 CFR Part 63 Subpart AAAAA, at all times, except during periods of startup, shutdown, or malfunction. **(40 CFR 63.7100(a))**

2. The permittee shall operate FG-MACT-AAAAA in compliance with the opacity and visible emission limits in 40 CFR Part 63 Subpart AAAAA during the times specified in 40 CFR Part 63.6(h)(1). **(40 CFR 63.6(h)(1), 40 CFR 63.7100(b))**

3. The permittee shall submit to the AQD District Supervisor, for review and approval, a written operations, maintenance and monitoring (OM&M) plan for the facility. Any subsequent changes to the plan must be submitted to the AQD District Supervisor for review and approval. The plan shall contain the following information:
   a. Process and control device parameters to be monitored to determine compliance, along with established operating limits or ranges, as applicable, for each emission unit. **(40 CFR 63.7100(d)(1))**
   b. A monitoring schedule for each emission unit. **(40 CFR 63.7100(d)(2))**
   c. Procedures for the proper operation and maintenance of each emission unit and each air pollution control device used to meet the applicable emission limitations and operating limits in Tables 1 and 2 of 40 CFR, Part 63 Subpart AAAAA, respectively. **(40 CFR 63.7100(d)(3))**
   d. Procedures for the proper installation, operation and maintenance of monitoring devices or systems used to determine compliance, including:
      i. Calibration and certification of accuracy of each measuring device.
      ii. Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems.
      iii. Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3) and (4)(ii).
      iv. Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d). **(40 CFR 63.7100(d)(4))**
   e. Procedures for monitoring process and control device parameters. **(40 CFR 63.7100(d)(5))**
   f. Corrective actions to be taken when process or operating parameters or add-on control device parameters deviate from the operating limits specified in Table 2 of 40 CFR, Part 63 Subpart AAAAA, including:

i. Procedures to determine and record the cause of a deviation or excursion, and the time the deviation or excursion began and ended.
ii. Procedures for recording the corrective action taken, the time corrective action was initiated, and the time and date the corrective action was completed.
(40 CFR 63.7100(d)(6))

g. A maintenance schedule for each emission unit and control device that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.
(40 CFR 63.7100(d)(7))

4. The permittee shall develop and implement a written startup, shutdown and malfunction plan (SSMP) in accordance with 40 CFR 63.6(e)(3). **(40 CFR 63.7100(e), 40 CFR 63.6(e)(3))**

5. Except as allowed in SC III.6, the permittee shall only fire coal, natural gas, syngas, glycerin and/or non-waste used oil as fuels in EUKILNNUMBER1 and EUKILNNUMBER2. **(R 336.1205(1)(a)(ii)(D) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d), 40 CFR 60.2010)**

6. In addition to the fuels in Special Condition III.5, the permittee shall burn non-waste Processed Biosolids fuel for a period up to 90 calendar days following completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install as defined in SC VII.2 for purposes of Biosolids fuel. **(R 336.1205(1)(a)(ii)(D), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d), 40 CFR 60.2010)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUKILNNUMBER1 and/or EUKILNNUMBER2 unless the baghouses are installed, maintained, and operated in a satisfactory manner. **(R 336.1224, R 336.1225, R 336.1301, R 336.1331, R 336.1910, R 336.2803, R 336.2804, 40 CFR 52.21(c) and (d), 40 CFR Part 63, Act 451, Part 55 324.5524, Consent Order SIP No.22-1993, Exhibit B)**

2. For each emission unit equipped with an add-on air pollution control device, such as the positive pressure reverse air baghouses associated with EUKILNNUMBER1 and EUKILNNUMBER2, the permittee shall do the following:
   a. Vent captured emissions through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to the baghouses.
   b. Operate each capture/collection system according to the procedures and requirements in the OM&M plan in Special Condition III.3.
   (40 FR 63.7090(b))

V. TESTING/SAMPLING

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

1. Within 180 days after commencement of initial startup using used oil fuel, the permittee shall verify PM, PM10, PM2.5, and SO_2 emission rates from FG-MACT-AAAAA by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the Reference Test Method Table. Compliance with the hourly emission limits shall be based on three 1 hour test runs.

Reference Test Method Table

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules Table 4 to Subpart AAAAA requires Method 5D for compliance with this limit.
PM10/PM2.5	40 CFR Part 51, Appendix M
SO2	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, R 336.1224, R 336.1225, R 336.1702, R 336.1902, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

2. Within 50 days after the notification date specified in SC VII.2 for the initial use of Processed Biosolids fuel in EUKILNNUMBER1 or EUKILNNUMBER2, the permittee shall verify PM, PM10, PM2.5, SO_2, NO_2, CO, and VOC emission rates from FG-MACT-AAAAA by testing at owner's expense, in accordance with Department requirements. Testing shall be performed using an approved EPA Method listed in the Reference Test Method Table. Compliance with the hourly emission limits shall be based on three 1 hour test runs.

Reference Test Method Table

Pollutant	Test Method Reference
PM	40 CFR Part 60, Appendix A; Part 10 of the Michigan Air Pollution Control Rules Table 4 to Subpart AAAAA requires Method 5D for compliance with this limit.
PM10/PM2.5	40 CFR Part 51, Appendix M
SO2	40 CFR Part 60, Appendix A
NO2	40 CFR Part 60, Appendix A
CO	40 CFR Part 60, Appendix A
VOC	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, R 336.1224, R 336.1225, R 336.1702, R 336.1902, R 336.2001, R 336.2003, R 336.2004, R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

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

1. For each emission unit equipped with an add-on air pollution control device, the permittee shall inspect each capture/collection and closed vent system, at least once each calendar year to ensure that each system is operating in accordance with the operating requirements in Special Condition III.3 and record the results of each inspection. **(40 CFR 63.7113(f))**

2. The permittee shall keep the following records:
   a. A copy of each notification and report that was submitted to comply with 40 CFR Part 63 Subpart AAAAA, including all documentation supporting and Initial Notification or Notification of Compliance Status that was submitted in accordance with the requirements of 40 CFR 63.10(b)(2)(xiv).
   b. Records in accordance with 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown and malfunction.
   c. Records of performance tests, performance evaluations, and opacity and visible emission observations as required in 40 CFR 63.10(b)(2)(viii).
   d. Records of visible emission observations as required by 40 CFR 63.6(h)(6).
   e. Records required by Tables 5 and 6 of 40 CFR Part 63 Subpart AAAAA that demonstrate continuous compliance of FG-MACT AAAAA-LIMEMANUFACTURING PLANTS with each applicable emission limitation in Subpart AAAAA.
   f. Records which document the basis for the initial applicability determination as required by 40 CFR 63.7081.

All of these records shall be kept for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record, and each record must be kept onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report or record in accordance with 40 CFR 63.10(b)(1). **(40 CFR 63.7132, 40 CFR 63.7133)**

3. The permittee must install, operate and maintain each continuous parameter monitoring system (CPMS) according to the OM&M plan required by 40 CFR 63.7100(d) and 40 CFR 63.7113(a). **(40 CFR 63.7113(a))**

4. For each flow measurement device, the permittee must meet the requirements in paragraphs (a)(1) through (5) and (b)(1) through (4) of 40 CFR 63.7113. **(40 CFR 63.7113(b))**

5. For each pressure measurement device, the permittee must meet the requirements in paragraphs (a)(1) through (5) and (c)(1) through (7) of 40 CFR 63.7113. **(40 CFR 63.7113(c))**

6. For each processed stone handling (PSH) operation subject to an opacity limit as specified in 40 CFR Part 63 Subpart AAAAA, and any vents from buildings at the facility subject to an opacity limit, the permittee must conduct a visible emissions check according to Item 1 of Table 6 of Subpart AAAAA, and as follows :
   a. Conduct visible inspections that consist of a visual survey of each stack or process emission point over the test period to identify if there are visible emissions, other than condensed water vapor.
   b. Select a position at least 15 but not more than 1,320 feet from the affected emission point with the sun or other light source generally at your back.
   c. The observer conducting the visible emission checks need not be certified to conduct EPA Method 9 in appendix A to Part 60 of this chapter, but must meet the training requirements as described in EPA Method 22 of appendix A to 40 CFR Part 60.
   (40 CFR 63.7121(e))

7. The permittee shall continuously monitor and record, in a satisfactory manner, the daily limestone feed rate to EUKILNNUMBER1 and EUKILNNUMBER2. **(R 336.1331(1)(a), Consent Order SIP No. 22-1993, (Exhibit B) R 336.1205(1)(a)(ii), R 336.1205(3), R 336.2803, R 336.2804, 40 CFR 52.21(c)&(d))**

8. The permittee shall keep records of the determinations of the BTU/hr heat input rates of coal to EUKILNNUMBER1 and EUKILNNUMBER2. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1205, 40 CFR Part 63 Subpart AAAAA, R 336.1402(1))**

9. The permittee shall keep records of monthly coal consumption rates by EUKILNNUMBER1 and EUKILNNUMBER2. The permittee shall keep all records on file at the facility and make them available to the Department upon request. **(R 336.1331(3))**

10. The permittee shall continuously monitor, in a satisfactory manner, the glycerin fuel usage rates for EUKILNNUMBER1 and EUKILNNUMBER2 using respective fuel flow meters on a daily, monthly and 12-month rolling time period basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205 (1)(a)(ii) & (3); R 336.1224; R 336.1225; R 336.1702(a); R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

11. The permittee shall keep records of the ash content and sulfur content, in percent by weight, of the glycerin fuels determined based on composite samples of all received glycerin fuels used in EUKILNNUMBER1 and EUKILNNUMBER2 with such composite samples analyzed no less frequent than monthly in months where glycerin fuels is used. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a)(ii) & (3); R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

12. The permittee shall continuously monitor, in a satisfactory manner, the syngas fuel usage rates for EUKILNNUMBER1 and EUKILNNUMBER2 using respective fuel flow meters on a daily, monthly and 12-month rolling time period basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205 (1)(a)(ii) & (3); R 336.1224; R 336.1225; R 336.1702(a); R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

13. The permittee shall keep records of the sulfur content, in percent by weight, of the syngas fuel used in EUKILNNUMBER1 and EUKILNNUMBER2. The permittee shall keep a separate record of the sulfur content of syngas fuel received no less frequent than monthly in months where syngas fuel is used. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205 (1)(a)(ii) & (3); R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

14. The permittee shall continuously monitor, in a satisfactory manner, the natural gas fuel usage rates for EUKILNNUMBER1 and EUKILNNUMBER2 on a monthly and 12-month rolling time period basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205 (1)(a)(ii) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

15. The permittee shall continuously monitor, in a satisfactory manner, the used oil fuel usage rates for EUKILNNUMBER1 and EUKILNNUMBER2 using respective fuel flow meters on a daily, monthly and 12-month rolling time period basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205 (1)(a)(ii) & (3), R 336.1224, R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21(c) & (d))**

16. The permittee shall keep records of the sulfur content (percent by weight) of the used oil fuels used in EUKILNNUMBER1 and EUKILNNUMBER2 determined based on composite samples of all received used oil fuels with such composite samples analyzed no less frequent than monthly in months where used oil fuels is used. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a)(ii) & (3); R 336.1224; R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

17. The permittee shall calculate and keep records of the Processed Biosolids usage rate on a mass basis in EUKILNNUMBER1 and EUKILNNUMBER2 on a daily, monthly and 12-month rolling time period basis. **(R 336.1205(1)(a)(ii) & (3); R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

VII. REPORTING

1. Within 30 days after completion of the installation, construction, reconstruction, relocation, or modification authorized by this Permit to Install, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the completion of the activity. Completion of the installation, construction, reconstruction, relocation, or modification is considered to occur not later than commencement of initial startup of FG-MACT-AAAAA using Processed Biosolids fuel. **(R 336.1201(7)(a))**

2. Not less than 15 days prior to the initial use of Processed Biosolids fuel in EUKILNNUMBER1 or EUKILNNUMBER2, the permittee or the authorized agent pursuant to Rule 204, shall notify the AQD District Supervisor, in writing, of the startup date. **(R 336.1201(7)(a))**

VIII. STACK/VENT RESTRICTIONS

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. SVKILN1&2[a]	108	120	R 336.2804, 40 CFR 52.21(d), Section 110 CAA
2. SVAKG120[b]	696 x 92.3	70.9	R 336.1201(3)
3. SVAKG220[b]	696 x 92.3	70.9	R 336.1201(3)

[a] Required on and after October 1, 2018 or earlier if construction is completed. Test Date is April 1, 2019 but SO_2 records are required October 1,2018 in PTI 193-14A

[b] Not acceptable/authorized after October 1, 2018 or earlier if construction is completed on SVKILN1&2

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR Part 63, Subpart A and Subpart AAAAA for Lime Manufacturing Plants by the compliance date. **(40 CFR Part 63, Subparts A and AAAAA)**

2. Visible emissions from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal associated with the equipment addressed by this Flexible Group shall not exceed 20 percent opacity, per the requirements specified in 40 CFR Part 60, Subpart Y (Standards of Performance for Coal Preparation and Processing Plants). **(40 CFR 60.254)**

3. The authorization of the use of processed biosolids as a fuel (SC II.10) in this permit shall be terminated 90 days after the date of initial startup as defined in SC VII.2 of this PTI. To continue combustion of Processed Biosolids fuel in FG-MACT AAAAA after the 90-day trial period, the permittee must apply for and receive a new Permit To Install. **(Act 451 324.5503(c))**

To help us improve the service we provide our customers, we encourage you to complete a *Permit to Install Customer Service Survey* on the following Web page:

https://www.surveymonkey.com/s/aqdptics

If you have any questions regarding this permit, please contact Ms. Ambrosia Brown, AQD, Permit Section, at 517-284-6788; browna39@michigan.gov; or MDEQ, P.O. Box 30260, Lansing, Michigan 48909-7760; or you may contact me.

Sincerely,

Mary Ann Dolehanty, Acting Director
Air Quality Division
517-284-6773

Enclosures
cc/enc: Senator Coleman Young II, District 1
Representative Stephanie Chang, House District 6
Mayor Michael D Bowdler, City of River Rouge
Mayor Pro-Tem Karen Ward, City of River Rouge
Mayor Mike Duggan, City of Detroit
Mayor Drew Dilkens, City of Windsor
Dr. Joneigh Khaldun, City of Detroit, Executive Director and Health Officer
Mr. Raymond Scott, City of Detroit, Buildings, Safety Engineering and Environment Department (BSEED)
Mr. Paul Max, City of Detroit, BSEED
Ms. Madeleine Godwin, Ministry of the Environment, Ontario
Mr. Mike Moroney, Ministry of the Environment, Ontario
Mr. Mark Smith, Ministry of the Environment, Ontario
Ms. Karen Clark, Ministry of the Environment, Ontario
Mr. Chris Manzon, Pollution Control Services, City of Windsor
Ms. Averil Parent, City of Windsor
Mr. Mark J. Burrows, International Joint Commission
Ms. Cathy Garrett, Wayne County Clerk
Ms. Ilona Varga, Wayne County Commissioner
Mr. Stephen Zervas, Trinity Consultants
Ms. Genevieve Damico, U.S. Environmental Protection Agency, Region 5
Mr. Constantine Blathras, U.S. Environmental Protection Agency, Region 5
Ms. Stephanie Diaz, U.S. Environmental Protection Agency, Region 5
Ms. Sarah M. Howes, Legislative Liaison, MDEQ
Ms. Tiffany Brown, Public Information Officer, MDEQ
Ms. Wilhemina McLemore, MDEQ
Mr. Jeffrey Korniski, MDEQ
Ms. Ambrosia Brown, MDEQ