ADDENDUM No. 1

RFP No. 25-55

ODOR CONTROL SYSTEM FOR SOLIDS HANDLING BUILDING TRUCKING LOADING

Due: DECEMBER 4, 2025 at 11:00 A.M. (local time)

The information contained herein shall take precedence over the original documents and all previous addenda (if any), and is appended thereto. **This Addendum includes thirty (30) pages.**

The Proposer is to acknowledge receipt of this Addendum No. 1 by signing and submitting Attachment B, including all attachments in its Proposal by so indicating in the proposal that the addendum has been received. Proposals submitted without acknowledgement of receipt of this addendum may be considered non-conforming.

The following forms provided within the RFP Document should be included in submitted proposal:

- **Attachment C - City of Ann Arbor Non-Discrimination Declaration of Compliance**
- **Attachment D - City of Ann Arbor Living Wage Declaration of Compliance**
- **Attachment E - Vendor Conflict of Interest Disclosure Form of the RFP**

Proposals that fail to provide these completed forms listed above upon proposal opening may be rejected as non-responsive and may not be considered for award.

I. QUESTIONS AND ANSWERS

The following Questions have been received by the City. Responses are being provided in accordance with the terms of the RFP. Respondents are directed to take note in its review of the documents of the following questions and City responses as they affect work or details in other areas not specifically referenced here.

Question 1: Is a full site survey needed?
Answer 1: No, a full site survey will likely not be required.

Question 2: Can alternate designs be proposed?
Answer 2: The *Area Odor Study Report*, dated July 27, 2020, and prepared by HDR recommends odor control system for the truck loading area. Alternatives to these recommendations may be presented if the the consultant feels as if there are compelling reasons.

Question 3: Based on the site walkthrough, there seems to be two levels of the truck unloading; Level 1 is the Truck Bay and Level 2 is the hopper unloading area to fill the trucks.

Should we assume that both levels will need to be incorporated into the odor control system since there are floor openings between the levels?

Answer 3: Yes, both levels will need to be incorporated into the odor control system.

Question 4: Has Ann Arbor Township requested in the past the WRRF obtain site plan permits and approvals for process equipment and / or equipment shelters located outside existing buildings?

Answer 4: Yes, In the past we have had to present projects to the Ann Arbor Township Planning Commission for a determination of whether a project is considered a major or a minor modification to the existing site plan. We are hoping that this project will not alter the footprint of the existing Solids Handling Building and that it will be deemed a minor modification.

Question 5: In the truck loading area, is the Planet Breeze applied from the second floor to the top of the filled trucks? Does the truck driver apply it working around the visqueen area?

Answer 5: The Planet Breeze Enhanced is applied using fan style misters that are mounted to the roof of the 1st floor in the load out bay. The application process is mostly automated, the truck driver simply pushes a button to start the application system and it runs off a timer. The visqueen was added in an attempt to keep the mist from traveling up to the 2nd floor and keep the deodorant on the 1st floor load out area.

Question 6: Can we review the SDS and chemical data sheets for the sludge solids deodorizing chemistry (Planet Breeze)?

Answer 6: The SDS is attached to this amendment.

Question 7: What is the pH of the Planet Breeze solution as applied?

Answer 7: The pH is 6.8-8.0 at 25 degrees C.

Question 8: The molecular weight of Planet Breeze as applied?

Answer 8: This information is not available.

Question 9: The average percent relative humidity inside the Solids Handling Building?

Answer 9: This information is not available.

Question 10: Does the WRRF have an existing Air Quality permit from EGLE? Will this be a modification of an existing AQ permit or will it be a new AQ permit? Will the successful bidder have access to past permits or correspondence with the MI EGLE to ensure consistency with past WRRF applications?

Answer 10: The WRRF does not have an existing Air Quality permit from EGLE. We have two recent permits to install from the Air Quality Division of the Michigan EGLE, which are attached to this amendment. In addition, we have attached the most recent on-site inspection performed by the Air Quality Division of EGLE.

Question 11: The scope of work requests that the consultant obtain all permits required for this project. The contractors completing this project will have to pull mechanical, electrical or plumbing permits. Are we correct in assuming that these permits are NOT the consultant's responsibility?

Answer 11: The consultants are being asked to prepare plans and specifications that will

facilitate the selected contractors to obtain the necessary mechanical, electrical or plumbing permits from Ann Arbor Township.

Question 12: What permits may be required?
Answer 12: The consultant shall submit the necessary applications to the Ann Arbor Township to amend the site plan and to the Air Quality Division of EGLE to install the odor control system. The Contractor will be required to submit applications for mechanical, electrical or plumbing permits from Ann Arbor Township.

Question 13: How long does a truck stay in the loading area while the deodorant is sprayed?
Answer 13: Truck is in the loading area for approximately 40 minutes.

Question 14: How often are trucks loading?
Answer 14: We are currently trucking 100% of our solids to a landfill for disposal. During a typically week, we will have two trucks load on Mondays and Friday and one truck load on Tuesdays, Wednesday and Thursdays.

Question 15: How often is the carbon changed out in the existing odor control system in the Solids Handling Building?
Answer 15: The carbon for the existing odor control system is changed out every 2 to 3 years.

Question 16: Can you share drawings and specifications for the HVAC system for the Solids Handling Building?
Answer 16: There are drawings and specifications for the HVAC system for the Solids Handling Building and this information will be made available to the selected consultant.

Question 17: Are there architectural, mechanical, or ventilation drawings available for this building?
Answer 17: There are drawings and specifications for the Solids Handling Building and this information will be made available to the selected consultant.

Question 18: Is there any information about the average relative humidity in the truck unloading area?
Answer 18: No, there is no information about the average relative humidity in the truck unloading area?

Question 19: Is the trucking loading area generally open to the outside air? Are the truck doors normally closed?
Answer 19: The trucking loading area doors are typically closed.

Question 20: How long has the Headworks odor control system been in operation and are we happy with system?
Answer 20: The Headworks odor control system has been in operation since August of 2024 and we are pleased with how the system is operating.

Question 21: Are there state funding requirements?
Answer 21: There are no state funding requirements for this project at this time.

Question 22: Is there any positive Air flow in the truck loading area?
Answer 22: Yes, there is duct work that is associated with the Solids Handling Building HVAC

system that provides positive air flow to the truck loading area.

Question 23: Does the WRRF have specifications regarding the height of adsorber air discharge stack?
Answer 23: No, the WRRF does not have specifications regarding the height of adsorber air discharge stack?

Question 24: Will a copy of the sign-in sheet from the pre-proposal meeting be made available?
Answer 24: Yes, see attached.

Offerors are responsible for any conclusions that they may draw from the information contained in the Addendum.

RFP25-55 - ODOR CONTROL SYSTEM FOR SOLIDS HANDLING BUILDING TRUCK LOADING
PRE-PROPOSAL MEETING
Wednesday, November 12, 2025

SIGN-IN SHEET

Name	Representing	Address	E-mail	Phone No.
Anne Warrow, Senior Engineer	City of Ann Arbor - WRRF	49 Old Dixboro Road, Ann Arbor, MI 48105	awarrow@a2gov.org	(734) 794-6410, x 43823
Keith Sanders, WRRF Manager	City of Ann Arbor - WRRF	49 Old Dixboro Road, Ann Arbor, MI 48105	ksanders@a2gov.org	(734) 794-6410, x 43822
Nick Jaworski, WRRF Assistant Manager	City of Ann Arbor - WRRF	49 Old Dixboro Road, Ann Arbor, MI 48105	njaworski@a2gov.org	(734) 794-6410, x 43821
Matt Coulthard, Engineering Manager	Black & Veatch	3550 Green Court, Ann Arbor, MI	coulthardnj@bv.com	
Sam Fellelce, Project Director	Black & Veatch	3550 Green Court, Ann Arbor, MI	fellelces@bv.com	
Oskar Nordstrom	Black & Veatch	3550 Green Court, Ann Arbor, MI	Nordstromo@bv.com	(734) 665-1000
Tate Christians	Moore & Bruggink	2020 Monroe Avenue, Grand Rapids, MI	tchristians@mbcc.com	(616) 363-9801
Emily Perrin	Moore & Bruggink	2020 Monroe Avenue, Grand Rapids, MI	eperrin@mbcc.com	(616) 363-9801
Parvez Jafri	MSG	2365 S. Haggerty Road, Canton, MI 48155	sjafri@mannicsmithgroup.com	(313)895-6961
Sean Tabacshe	OHM	200 E. Ellsworth, Suite 200, Midland, MI 48640	sean.tabacshe@ohm-advisors	(989)928-5911
Jennifer Drinan	OHM	34000 Plymouth, Livonia, MI 48150	Jennifer.Drinan@ohm-advisor	(734)323-8954
Michael VanAntwerp	Carolla	2165 Walut Avenue, Auburn Hills, MI 48326	mvanantwerp@carolla.com	(619)719-7209
Chuck Kronk	Waterworks System	PO Box 575, Lakeland, MI, 48143	ckronke@waterworkssystem.c	(810)923-7778
Tom Cobau	Cobau Engineering	20233 Michigan Avenue, Grosse Pointe, MI 48236	tom@cobauengineering.com	(313)498-5002
Joey Cobau	Cobau Engineering	20233 Michigan Avenue, Grosse Pointe, MI 48236	Joey@cobauengineering.com	
Josh Redner	Fishbeck	1515 Arboretum Drive, Grand Rapids, MI 49546	jredner@fishbeck.com	(616)464-3848
Josh Prusakiewicz	HDR	1000 Oakland Drive, Suite 200, Ann Arbor, MI 48104	Josh.Prusakiewicz@hdrinc.co	(734)332-6393
Dream Sotthiyapai	HDR	1000 Oakland Drive, Suite 200, Ann Arbor, MI 48104	Dream.Sutthiyapai@hdrinc.co	(517)974-2884
Timothy Kelly	Kelly Consulting	1454 Rochester Road, Unit 400, Rochester Hills, MI 48307		(248)330-5334

SAFETY DATA SHEET

1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Planet Breeze Balance Scent**
SYNONYMS: **Balance Scents**
StinkEase

D3W Industries, Inc.
22865 Heslip Dr
Novi, MI. 48375
Product Information: 248-924-0398
Emergency Telephone #: 1-800-222-1222
(Poison Control Center)
Product Type:
Recommended Uses: Air Odor Neutralizer
Restrictions on Uses: None Known

2 - HAZARDS IDENTIFICATION

Physical Hazards: None Known

Health Hazards: Maybe Harmful if swallowed

May cause skin or eye Irritation

Precautionary Statements: Keep out of reach of children.

Response Statements:

IF SWALLOWED:
– Call a poison control center or doctor immediately for treatment advice
– Have person sip a glass of water if able to swallow.
– Do not induce vomiting unless told to by a poison control center or doctor.
– Do not give anything to an unconscious person.

IF ON SKIN OR CLOTHING:
– Take off contaminated clothing.
– Rinse skin immediately with plenty of water for 15-20 minutes.
– Call a poison control center or doctor for treatment advice.

IF IN EYES:
– Hold eye open and rinse slowly and gently with water for 15-20 minutes.
– Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.

Storage: Store in a safe place away from pets and keep out of the reach of children. Store away from excessive heat. Planet Breeze P will freeze. Always keep container closed. Store Planet Breeze P only in its original container. Keep away from galvanized pipe and any nylon storage handling equipment.

Disposal: Dispose in accordance with local, national regulations . Improper disposal of excess Planet Breeze P, spray mixture, or rinsate is a violation of Federal Law.

3. Composition/information on ingredients

Component Name	CAS
Planet Breeze P	NA
Essential/Premium Fragrance Blends	NA
Polyoxyethylenesorbitan Monooleate Food Grade	9005-65-6
Propylene Glycol Food Grade (Winter Formulations only)	57-55-6

Substance/mixture: The specific chemical identity and/or percentage of composition is being withheld as a trade secret pursuant to 29 CFR 1910.1200(i)

Section 4. First aid measures

Skin Contact: Wash skin with soap and water. Get medical attention if irritation persists.

Eye Contact: Hold eyelids open and flush with plenty of water for at least 15 minutes. If wearing contact lenses, flush for 5 minutes before removing them and then continue flushing. Seek medical attention if irritation persists.

Ingestion: DO NOT INDUCE VOMITING: Contact a Poison Control Center and seek medical attention.

Inhalation: Move person(s) to fresh air for at least 15 minutes and seek medical attention if irritation persists.

Section 5. Fire-fighting Measures

General Fire Hazards: None Water Based

Hazardous Combustion Products: NA

Extinguishing Media: CO_2 Dry chemical, foam, water

Fire Fighting Equipment/Instructions: Fire-fighters should wear appropriate protective equipment

Special protective actions for fire-fighters: Normal Procedures

Section 6. Accidental Release Measures

Small spills: Absorb with commercial absorbent material, sweep up and shovel into suitable container or place in drum for disposal.

Section 7. Handling and Storage

Handling and Storage: Wash thoroughly after handling. Keep container closed and maintain original markings and labels.

Other Precautions: None known

Section 8. Exposure Controls / Personal Protection

Appropriate Engineering Controls: No applicable occupational exposure limits. Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual Protection Measures:

Hygiene measures: Handle in accordance to good industrial hygiene and safety practices. Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Protective Gloves: None required under normal conditions.

Eye Protection: Splash goggles.

Other Protective Equipment: None required under normal conditions.

Respiratory Protection : Follow the OSHA respirator regulations found in 29 CFR 1910.134 . Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Exposure Guidelines: At this time, the relevant constituents at the produced concentrations have no known exposure limits.

Section 9. Physical and Chemical properties

Physical State:	Water Based **NON– Aerosol**
Boiling Point (degrees Fahrenheit):	218
Specific Gravity (H2O = 1):	1.002— 1.100
Solubility in Water:	Miscible
pH:	6.8—8.0 @ 25 degrees C.
pH Range:	6.8—8.0

Section 10. Stability and Reactivity

Reactivity:	None known
Stability:	Stable
Incompatibility (materials to avoid):	No notable incompatibilities

Section 11. Toxicological Information

Product Information: *Information on likely routes of exposure*

Delayed and immediate effects as well as chronic effects: *short and long-term exposure*

Inhalation:	No known effect
Skin contact:	No known effect
Ingestion:	No known effect
Acute toxicity:	No known effect
Skin corrosion/irritation:	No known effect
Serious eye damage/eye irritation:	No known effect
Skin sensitization:	No known effect
Respiratory sensitization:	No known effect
Germ cell mutagenicity:	No known effect
Neurological Effects:	No known effect
Reproductive toxicity:	No known effect
Developmental toxicity:	No known effect
Teratogenicity:	No known effect
STOT - single exposure:	No known effect
STOT - repeated exposure:	No known effect
Target Organ Effects:	No known effect
Aspiration hazard:	No known effect

Section 12. Ecological Information

Ecotoxicity: This product is not expected to be hazardous to the environment.

Bio accumulative potential: No information is available

Other adverse effects: None known

Section 13. Disposal Considerations

Waste treatment methods:

Waste Disposal Method: This material as supplied is not a hazard according to Federal regulations (40 CFR 261). Consult federal, state and local regulations for additional requirements

Contaminated Packaging: Disposal should be in accordance with applicable regional, national and local laws.

California Hazards Waste Codes: 331 (Non-Household Setting)

Section 14. Transport Information—DOT

Proper Shipping Name: Not regulated

US DOT Hazard Class: Not regulated

Section 15. US Regulatory Information

SARA 313: Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CERCLA: This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to the release of this material.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61):

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42

Section 16. Other Information

Abbreviations :

CFR - Code of Federal Regulations

EPA - Environmental Protection Agency

DOT - US Department of Transportation

GHS – Globally Harmonized System of Classification and Labeling Chemicals

The technical information presented here is believed to be accurate. D3W industries shall not be responsible for the use of any information, product, method, presented herein, and you must make your own determination as to its suitability and completeness for you own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of the information's reliability. In no event shat D3W Industries, Inc. be responsible for damages of any nature whatsoever resulting from use of this product or products, or reliance upon this information. D3W Industries can neither control the method or manner by which you use, handle, or store D3W industries , Inc. products. Appropriate safety precautions should always be observed. This information could include technical inaccuracies or typographical errors, and is given without warranty or guarantee, expressed or implied, and we assume no responsibility for losses or damage, either direct

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

January 27, 2014

PERMIT TO INSTALL
7-14

ISSUED TO
City of Ann Arbor, Wastewater Treatment Plant

LOCATED AT
49 Old Dixboro Road
Ann Arbor, Michigan

IN THE COUNTY OF
Washtenaw

STATE REGISTRATION NUMBER
B2060

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: **January 8, 2014**	
DATE PERMIT TO INSTALL APPROVED: **January 27, 2014**	SIGNATURE:
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	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO_2e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	g	Gram
EPA	Environmental Protection Agency	gr	Grain
EU	Emission Unit	Hg	Mercury
FG	Flexible Group	hr	Hour
GACS	Gallon of Applied Coating Solids	H_2S	Hydrogen Sulfide
GC	General Condition	hp	Horsepower
GHGs	Greenhouse Gases	lb	Pound
HAP	Hazardous Air Pollutant	kW	Kilowatt
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	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	ng	Nanogram
MDEQ	Michigan Department of Environmental Quality (Department)	NO_x	Oxides of Nitrogen
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM10	PM with aerodynamic diameter ≤10 microns
NSPS	New Source Performance Standards	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSR	New Source Review	pph	Pounds per hour
PS	Performance Specification	ppm	Parts per million
PSD	Prevention of Significant Deterioration	ppmv	Parts per million by volume
PTE	Permanent Total Enclosure	ppmw	Parts per million by weight
PTI	Permit to Install	psia	Pounds per square inch absolute
RACT	Reasonably Available Control Technology	psig	Pounds per square inch gauge
ROP	Renewable Operating Permit	scf	Standard cubic feet
SC	Special Condition	sec	Seconds
SCR	Selective Catalytic Reduction	SO_2	Sulfur Dioxide
SRN	State Registration Number	THC	Total Hydrocarbons
TAC	Toxic Air Contaminant	tpy	Tons per year
TEQ	Toxicity Equivalence Quotient	µg	Microgram
VE	Visible Emissions	VOC	Volatile Organic Compound
		yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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
EUGENERATOR1	Nominally rated 2,922 hp diesel-fueled reciprocating internal combustion engine used for emergency purposes. Engine is subject to 40 CFR Part 60, Subpart IIII.	PTI Issuance	FGGENERATORS
EUGENERATOR2	Nominally rated 2,922 hp diesel-fueled reciprocating internal combustion engine used for emergency purposes. Engine is subject to 40 CFR Part 60, Subpart IIII.	PTI Issuance	FGGENERATORS
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
FGGENERATORS	Two nominally rated 2,922 hp diesel-fueled reciprocating internal combustion engines used for emergency purposes. Each engine is subject to 40 CFR Part 60, Subpart IIII.	EUGENERATOR1, EUGENERATOR2

The following conditions apply to: FGGENERATORS

DESCRIPTION: Two nominally rated 2,922 hp diesel-fueled reciprocating internal combustion engines used for emergency purposes. Each engine is subject to 40 CFR Part 60, Subpart IIII.

Flexible Group ID: FGGENERATORS

POLLUTION CONTROL EQUIPMENT: N/A

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. NMHC + NOx	6.4 g/kW-hr	Test Protocol will specify averaging time	Each engine in FGGENERATORS	SC V.1, SC VI.2	40 CFR 60.4202(a)(2), 40 CFR 89.112
2. CO	3.5 g/kW-hr	Test Protocol will specify averaging time	Each engine in FGGENERATORS	SC V.1, SC VI.2	40 CFR 60.4202(a)(2), 40 CFR 89.112
3. PM	0.20 g/kW-hr	Test Protocol will specify averaging time	Each engine in FGGENERATORS	SC V.1, SC VI.2	40 CFR 60.4202(a)(2), 40 CFR 89.112

II. MATERIAL LIMITS

1. The permittee shall burn only diesel fuel, in FGGENERATORS with the maximum sulfur content of 15 ppm (0.0015 percent) by weight. **(R 336.1402(1), 40 CFR 60.4207, 40 CFR 80.510(b))**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall not operate each engine of FGGENERATORS 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 hours for the purpose of necessary maintenance checks and readiness testing as described in SC III.2. **(R 336.1225, R 336.1702(a), R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. The permittee may operate each engine of FGGENERATORS 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. 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 owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency internal combustion engines beyond 100 hours per calendar year. Each engine of FGGENERATORS may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply non-emergency power as part of a financial arrangement with another entity. **(40 CFR 60.4211)**

3. If the permittee purchased a certified engine, according to procedures specified in 40 CFR Part 60 Subpart IIII, for the same model year, the permittee shall meet the following requirements for each engine of FGGENERATORS:
   a) Operate and maintain the certified engine and control device according to the manufacturer's emission-related written instructions,
   b) Keep a maintenance plan and the permittee may only change those engine settings that are permitted by the manufacturer. If you do 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
   c) Meet the requirements as specified in 40 CFR 89, as it applies to you.
   (40 CFR 60.4211(a))

4. If the permittee purchased a non-certified engine or a certified engine operating in a non-certified manner, the permittee shall keep a maintenance plan for FGGENERATORS and shall, to the extent practicable, maintain and operate each engine in a manner consistent with good air pollution control practice for minimizing emissions. **(40 CFR 60.4211(g)(3))**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall equip and maintain each engine of FGGENERATORS with non-resettable hours meters to track the operating hours. **(R 336.1225, 40 CFR 60.4209)**

2. The nameplate capacity of each engine of FGGENERATORS shall not exceed 2,922 hp, as certified by the equipment manufacturer. **(40 CFR 60.4202, 40 CFR 89.112(a))**

V. TESTING/SAMPLING

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

1. The permittee shall conduct an initial performance test for each engine of FGGENERATORS within one year after startup of the engine to demonstrate compliance with the emission limits in 40 CFR 60.4205 unless the engines have been certified by the manufacturer and the permittee maintains the engine as required by 40 CFR Part 60 Subpart IIII. If a performance test is required, the performance tests shall be conducted according to 40 CFR 60.4212. No less than 30 days prior to testing, a complete test plan shall be submitted to the AQD. The final plan must be approved by the AQD prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(40 CFR 60.4211, 40 CFR 60.4212, 40 CFR Part 60 Subpart IIII)**

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 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d))**

2. For each engine of FGGENERATORS, the permittee shall keep, in a satisfactory manner, records of testing required in SC V.1 or manufacturer certification documentation indicating that FGGENERATORS meets the applicable emission limitations contained in the federal Standards of Performance for New Stationary Sources 40 CFR Part 60 Subpart IIII. If any engine of FGGENERATORS becomes uncertified then the permittee must also keep records of a maintenance plan and maintenance activities. The permittee shall keep all records on file and make them available to the Department upon request. **(40 CFR 60.4211)**

3. The permittee shall monitor and record the total hours of operation and the hours of operation during non-emergencies for each engine of FGGENERATORS, on a monthly and 12-month rolling time period basis, in a manner acceptable to the District Supervisor, Air Quality Division. The permittee shall document how many hours are spent for emergency operation for each engine of FGGENERATORS, including what classified the operation as emergency and how many hours are spent for non-emergency operation. **(R 336.1225, 0 CFR 60.4211, 40 CFR 60.4214)**

4. The permittee shall keep, in a satisfactory manner, fuel supplier certification records or fuel sample test data, for each delivery of diesel fuel oil used in FGGENERATORS, demonstrating that the fuel sulfur content meets the requirement of 40 CFR 80.510(b). The certification or test data shall include the name of the oil supplier or laboratory, and the sulfur content of the fuel oil. **(R 336.1402(1), 40 CFR 80.510(b))**

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 FGGENERATORS. **(R 336.1201(7)(a))**

2. The permittee shall submit a notification specifying whether any engine of FGGENERATORS 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 the engine and within 30 days of switching the manner of operation. **(40 CFR Part 60 Subpart IIII)**

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. SVGENERATOR1	16.0	22.0	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)
2. SVGENERATOR2	16.0	22.0	R 336.1225, R 336.2803, R 336.2804, 40 CFR 52.21 (c) & (d)

IX. OTHER REQUIREMENTS

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

2. The permittee shall comply with the provisions of the National Emission Standards for Hazardous Air Pollutants, as specified in 40 CFR, Part 63, Subpart A and Subpart ZZZZ, as they apply to each engine of FGGENERATORS. **(40 CFR Part 63 Subparts A and ZZZZ, 40 CFR 63.6595)**

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

November 16, 2007

PERMIT TO INSTALL
No. 238-07

ISSUED TO
City of Ann Arbor, Wastewater Treatment Plant

LOCATED AT
49 Old Dixboro Road
Ann Arbor, Michigan 48105

IN THE COUNTY OF
Washtenaw

STATE REGISTRATION NUMBER
B2060

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: **8/21/2007**	
DATE PERMIT TO INSTALL APPROVED: **11/16/2007**	SIGNATURE:
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	Btu	British Thermal Unit
ANSI	American National Standards Institute	°C	Degrees Celsius
BACT	Best Available Control Technology	CO	Carbon Monoxide
CAA	Clean Air Act	dscf	Dry standard cubic foot
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H_2S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure*	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO_x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM-10	Particulate Matter less than 10 microns diameter
MSDS	Material Safety Data Sheet	pph	Pound per hour
NESHAP	National Emission Standard for Hazardous Air Pollutants	ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	psia	Pounds per square inch absolute
PSD	Prevention of Significant Deterioration	psig	Pounds per square inch gauge
PTE	Permanent Total Enclosure	scf	Standard cubic feet
PTI	Permit to Install	sec	Seconds
RACT	Reasonably Available Control Technology	SO_2	Sulfur Dioxide
ROP	Renewable Operating Permit	THC	Total Hydrocarbons
SC	Special Condition	tpy	Tons per year
SCR	Selective Catalytic Reduction	µg	Microgram
SRN	State Registration Number	VOC	Volatile Organic Compounds
TAC	Toxic Air Contaminant	yr	Year
TEQ	Toxicity Equivalence Quotient		
VE	Visible Emissions		

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (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, 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 AQD District Supervisor shall be notified, in writing, of a change in ownership or operational control of the stationary source or emission unit(s) authorized by this Permit to Install pursuant to R 336.1219. The notification shall include all of the information required by R 336.1219(1)(a) and (b). In addition, a new owner or operator must submit a written statement pursuant to R 336.1219(1)(c), agreeing to and accepting the terms and conditions of this Permit to Install, and shall notify the AQD District Supervisor of any change in the contact person for this Permit to Install. **(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 nor does it affect any liability for past violations under the Natural Resources and Environmental Protection Act, 1994 PA 451.

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 Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EUMANHOLEPUMPSTA	Man hole pumping station	SVCARBONCONTROL
EULIMESILOS	Two 720 cubic feet silos storing lime	SVSILO
EUODORCONTROL	Odor control system consisting of a wet scrubber and carbon adsorption	SVODORCONTROL
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: EUMANHOLEPUMPSTA

Equipment

1.1 The permittee shall operate the carbon canister odor control system associated with EUMANHOLEPUMPSTA according to the odor management plan described in the Operation and Maintenance Manual. **(R 336.1901, R 336.1910)**

The following conditions apply to: EULIMESILOS

Equipment

2.1 The permittee shall not operate EULIMESILOS unless the dust collectors are installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the dust collectors is described in the Operation and Maintenance Manual kept on site. **(R 336.1331, R 336.1901, R 336.1910)**

The following conditions apply to: EUODORCONTROL

Process/Operational Limits

3.1 The permittee shall operate the EUODORCONTROL according to the odor management plan described in the Operation and Maintenance Manual. **(R 336.1901, R 336.1910)**

DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION
Activity Report: On-Site Inspection

FACILITY: ANN ARBOR WASTEWATER TREATMT PLT (B2060)		**SRN / ID:** B2060
LOCATION: 49 S DIXBORO RD		**DISTRICT:** Jackson
CITY: ANN ARBOR		**COUNTY:** Washtenaw
CONTACT:		**ACTIVITY DATE:** September 12, 2023
STAFF: Mike Kovalchick	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:**
SUBJECT: On-site inspection of a sewage treatment plant with the focus on odors.		
RESOLVE COMPLAINTS:		

Minor Source: True minor source for all pollutants. SRN: B2060

Facility Contacts

Keith Sanders, Manager ph 734.794.6450 ksanders@a2gov.org|

Nicholas K. Jaworski, Assistant Manager ph 248.770.6691 Njaworski@a2go.org

Purpose

On September 12, 2023, I conducted an unannounced compliance inspection of Ann Arbor Wastewater Treatment Plant (A2WWTP) located in Ann Arbor, Michigan in Washtenaw County. The purpose of the inspection was to determine the facility's compliance status with the applicable federal and state air pollution regulations, particularly Michigan Act 451, Part 55, Air Pollution Control Act and administrative rules, Permit to Install (PTI) # 238-07 and PTI # 7-14.

Facility Location

The facility is located along the Huron river with several subdivisions and a hospital located 1000+ feet away.

Facility Background

The facility provides wastewater treatment services for approximately 130,000 people. The collection area includes the city of Ann Arbor, portions of three surrounding townships and the University of Michigan. The plant provides, primary, secondary, and tertiary treatment of wastewater prior to ultraviolet light disinfection and discharge to the Huron River.

Here is a copy of email note written in September 2022 that provides some additional background info for the site.

"I contacted Keith Sanders who is the Wastewater Treatment Services Manager with the City of Ann Arbor Wastewater Treatment Plant, reviewed a January 2020 odor study for the facility, looked at AQD PTI 238-07 for the facility, facility inspection reports and odor logs.

No other recent odors complaints about this facility have been received by AQD.

NAME _____ DATE _____ SUPERVISOR _____

Keith indicated that they have received 4 complaints in 2022 and 5 complaints in 2021 with several coming from a single individual. He indicated that they always immediately investigate any odor complaints that are received.

Keith indicated that on September 14th, they drained part of the headworks portion of the facility so that it could be inspected. This may have caused some offsite odors. No other upset conditions were noted in September.

The January 2020 odor report concluded the following:

"As a result of the technology evaluation, one activated carbon adsorption system is recommended for the co-located Influent Lift Station and Screenings and Grit Building and one activated carbon adsorption system is recommended for the SHB Truck Bay. Manhole odor control inserts are recommended at the offsite manholes."

I asked Keith if the recommendations are being implemented.

Keith indicated that the "co-located influent lift station and Screenings and Grit Building" recommendations is part of their headworks project which recently has started. They will be controlling emissions with a carbon cannister system. It is estimated that it will take 18 months to complete. Refer to this link for details about this project: https://www.mlive.com/news/ann-arbor/2022/04/15m-ann-arbor-wastewater-plant-project-to-address-deficiencies-odor-control.html

The SHB Truck bay is scheduled to be addressed in 2025/2026. (Keith noted this process is only used in the Winter and not associated any odor complaints with this process in the past.). Keith indicated that he didn't know the status of the manhole odor control inserts since they are located in Ann Arbor Township and not associated with their treatment plant. He indicated that he knows that Ann Arbor Township knows about them.

Keith indicated that the PTI emission units EUMANHOLEPUMPSTA and EUODORCONTROL are active emissions units and are being properly controlled. EULIMESILO is there but no longer active.

Based on the odor study and the close distance of the Senior center (1500 feet to the NW), it appears the potential for significant odor impacts are present although the lack of other complaints suggests that the odor impacted area maybe be small."

Regulatory Applicability

PTI 238-07 covers odor control facilities for centrifuges, screw conveyors, cake hoppers, cake lime stabilization equipment, liquid sludge holding tanks, scum concentration room, gravity thickener tan and blend tanks. Three granular activated carbon towers and a water scrubber are associated with the Solids Handling Building for treatment of collected air streams. Also covers lime storage silos and a manhole pumping station that is controlled by a barrel carbon cannister system.

PTI 7-14 covers two (2) 2922 hp diesel fueled reciprocating internal combustion engines used for emergency power purposes.

40 CFR Part 60 Subparts A & IIII as it applies to each engine.

40 CFR Part 63 Subparts A & ZZZZ as it applies to each engine.

Arrival & Facility Contact

No odors were noted upon approach to the facility. I arrived at 10:00 am, proceeded to the Admin building and met with Nicholas Jaworski (NJ) who I informed about the purpose of the inspection.

NJ extended his full cooperation and fully addressed my questions.

Onsite Inspection

NJ gave me a tour of the facility which included the Raw Sewage Lift Station, Screening and Grit Building, Primary and Secondary Clarifiers, Aeration Basins, lime solos, manhole cover building, Truck Bay area, and other areas of plant. Part of the facility was actively under construction during the inspection. This construction was prompted by recommendations of January 2020 odor report which recommended an activated carbon adsorption system be installed for the influent Lift Station/Screenings and Grit Building. NJ indicated that this construction project should be completed by June 2024. A similar project is scheduled for 2026 to add odor control for the SHB Truck Bay where sludge is loaded into trucks for offsite disposal at the Woodland Meadows landfill. Currently, one 40-ton truck per day on average is being loaded with sludge. It is pre-treated with a type of antibacterial compound that prevents bacteria from causing the conversion of sulfates in the waste into H2S. An odor masking agent is also included. NJ indicated that this has significantly reduced odors from this process, but they still intend to move forward with a carbon control system.

Overall, minor odors were observed with a few odors of moderate odors. None of the odors were of sufficient intensity during the inspection to suggest that they would impactful offsite. H2S type odors were barely present. Nevertheless, it is suspected that odors would be at a higher intensity during periods of low flows or upset conditions and during the night/early morning inversion conditions especially till the odor improvement project is completed.

As part of the inspection, a SEM5000 and MethaneLaser Smart device were used to detect ambient methane emissions around the facility. Overall, methane concentrations were found to be mostly at background levels outside building and a little higher inside building with no concentrations exceeding 20 ppm. This further supports the notion that relatively minor levels of gas(odorous/non-odorous) is escaping into the vicinity near the facility.)

Carbon column/wet scrubbers all appeared to be functioning normally with little odor associated with them.

Recordkeeping/Permit Requirements Review

The facility provided an odor complaint log for 2022 and 2023. Seven (7) complaints were logged each year. In 2022, it appears that odors were likely associated with H2S emissions associated with the Screening and Grit Building. In 2023, only one of the complaints was verified by facility staff. The odors appeared to be coming from the East Primary area. No upsets were noted.

Facility provided operation and maintenance plan for the manhole carbon system and for the rest of the odor control equipment required/covered by PTI 238-07. It was reviewed and found to be adequate.

Facility provided information related to hours of operation of the 2 emergency engines. Engine 1 was operated 8 hours and Engine 2 was operated 9 hours in 2023 for the purposes of testing the equipment. All required maintenance is being down by a contractor (Cummins) and facility staff.

Post-Inspection Meeting

I held a brief post-inspection meeting with NJ. I indicated to him that I would be sending him an inspection report that outlined my findings.

I thanked JW for his time and cooperation, and I departed the facility at approximately 11:00 am.

Compliance Summary

A2WWTP is in substantial compliance with their permits. Odors may continue to be an occasional problem in the local vicinity of the plant but there be significant improvements in 2024 when the odor control project is completed.