

# **Complaints: Odors, Open Burning, and Dust – OH MY!**

Michelle Luplow, MPH

Michigan Department of Environmental Quality

# Who will you hear from?

- Michelle Luplow, MPH  
AQD Inspector

Phone: 517-284-6636

Email: [luplowm1@michigan.gov](mailto:luplowm1@michigan.gov)



- Jenifer Dixon  
OEA Air Specialist



# Webinar Set Up

- All lines will be muted
- Questions can be sent to us via the question/chat box
- We will record webinar and post online



# Today's Discussion Points

- Complaints in Michigan
- How are complaints received?
- How does AQD handle specific complaints?
- What happens after the complaint investigation?
- Air Pollution Control Rules

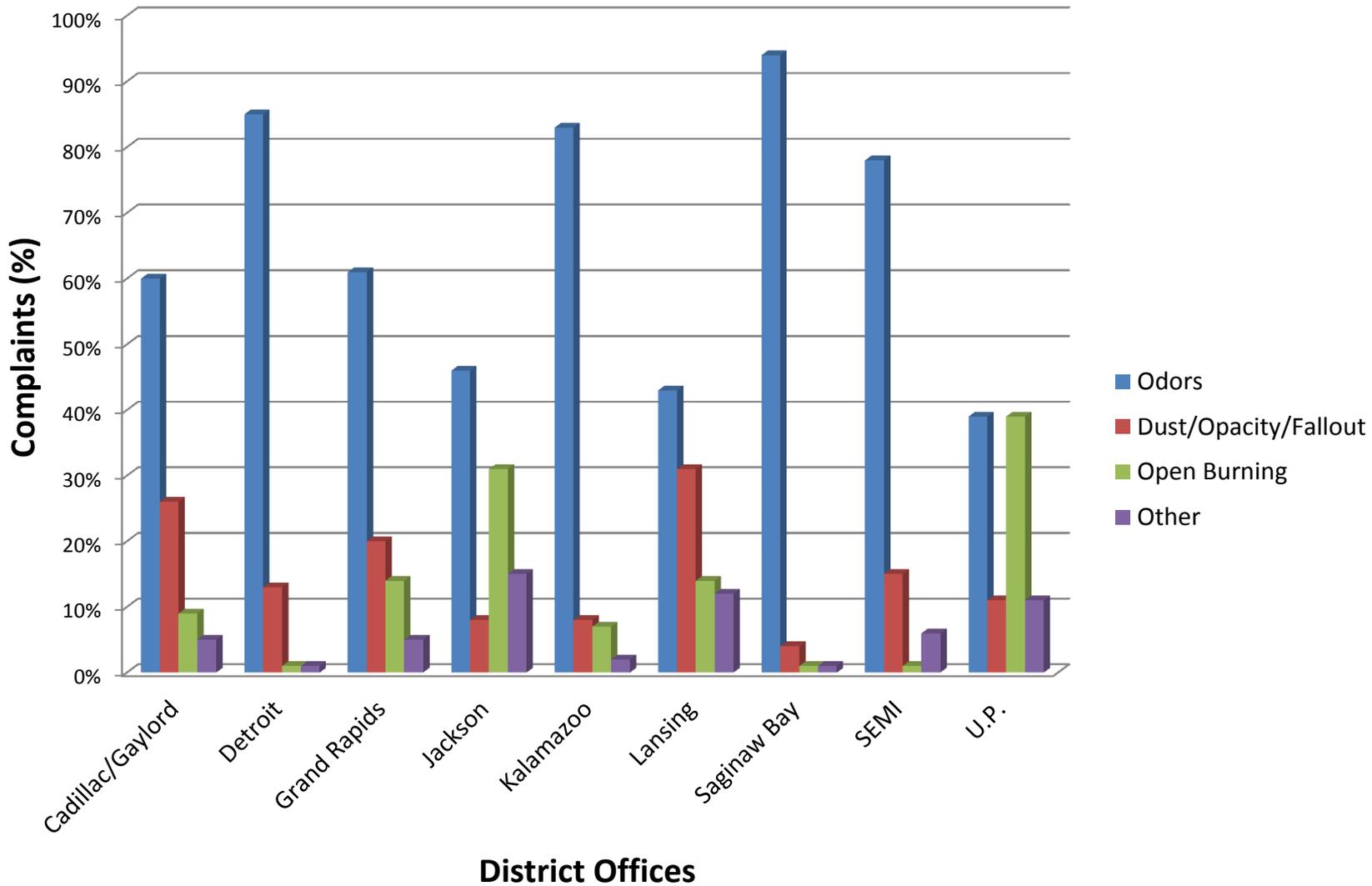


# 3 Main Types of Complaints



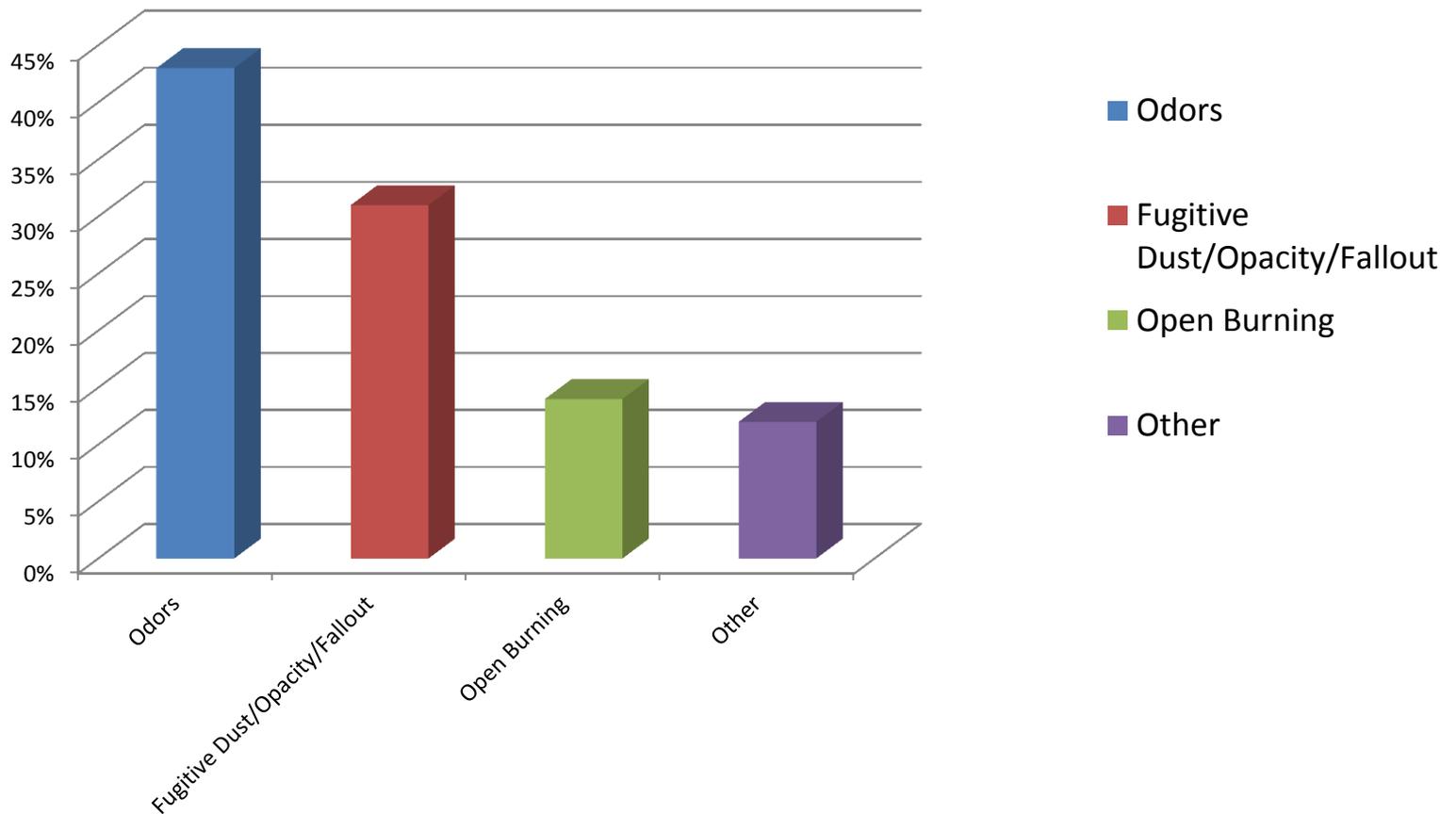
# Complaints in Michigan

# Percentage of Complaint Types Per District Office (2015)



# Let's take a closer look...

Lansing District Office Complaint Type Percentages



# Receiving the Complaint

Complaints can be received via...

- Environmental Assistance Center (EAC)
- Pollution Emergency Alert System (PEAS)
- Direct contact with District Inspector

# Receiving the Complaint: EAC

- EAC
  - Forward to district office
  - Log the complaint if there is a suspected facility

If you have a  
complaint you can  
call the EAC at  
1.800.662.9278

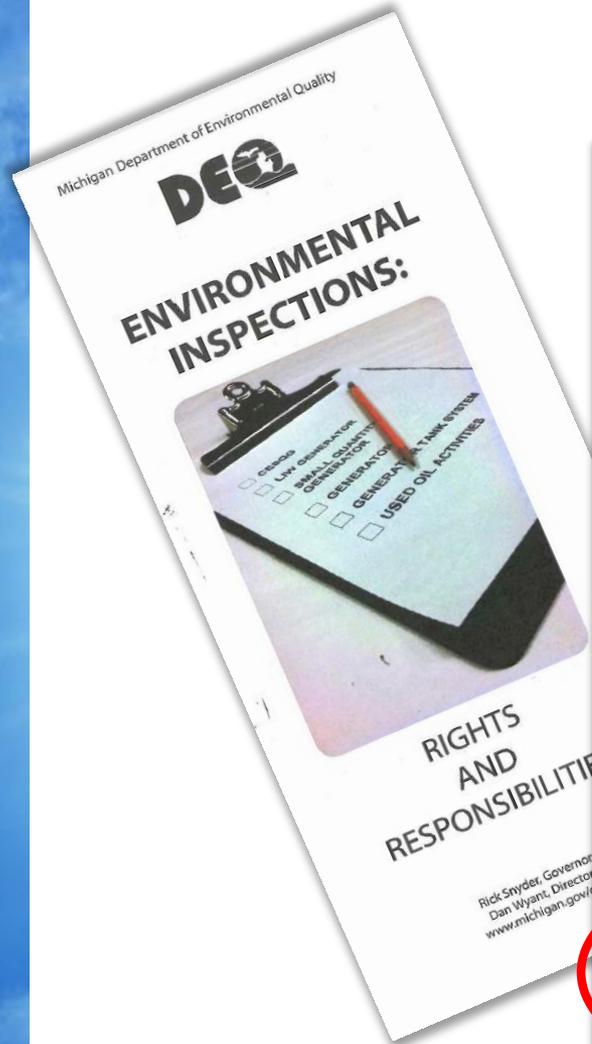


# Receiving the Complaint: PEAS

**1-800-292-4706**

- Can be called 24/7
- PEAS coordinator will email appropriate district with PEAS complaint, district inspector is assigned to the case
- Will allow you to reach a District inspector after-hours
- After hours: PEAS coordinator will call district inspector directly

# Receiving the Complaint: PEAS



## AFTER THE INSPECTION

If you receive a letter identifying violations and corrective actions, be diligent in your response and adhere to the stated deadlines. If you respond promptly and responsibly, most violations will not result in monetary penalties.

Remember that compliance is the key to success. Stay in contact with your inspector until the problem is resolved.

## EXCELLENCE IN CUSTOMER SERVICE

Your comments count, and we encourage you to let us know how we can improve the inspection and compliance process.

To complete our online customer service survey, please visit [www.michigan.gov/deqsurveys](http://www.michigan.gov/deqsurveys).



## ENVIRONMENTAL EMERGENCIES

To report an environmental emergency situation, call our 24-hour Pollution Emergency Alerting System (PEAS) at **1-800-292-4706**.

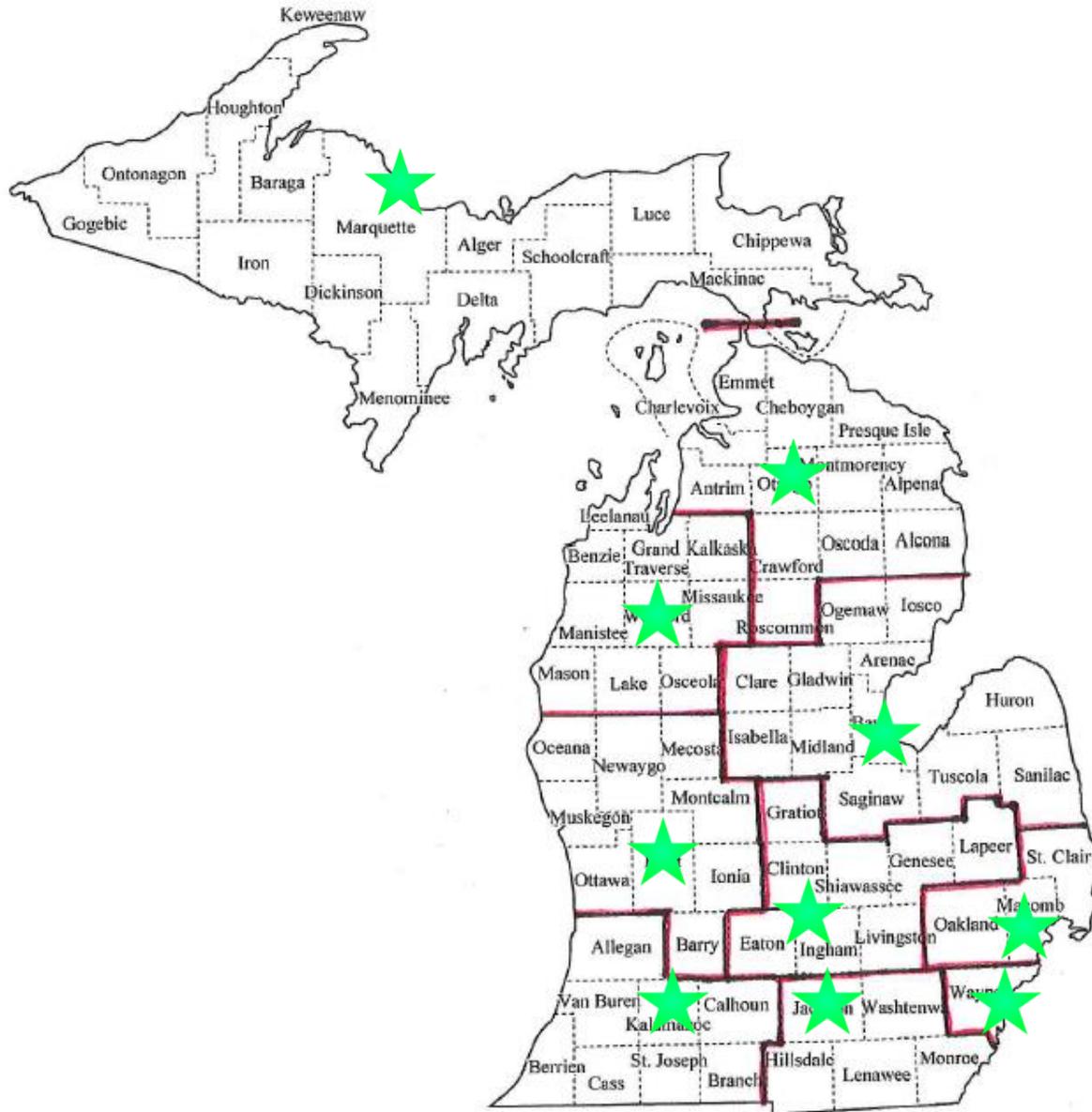
The Michigan Department of Environmental Quality (DEQ) will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to the Quality of Life Human Resources, PO Box 30473, Lansing, MI 48909.



# Receiving the Complaint: District Inspector

- 10 District Offices
- Each district office has inspectors assigned to various counties and/or specific facilities
- The appropriate inspector will be notified of the complaint to ensure follow-up

# District Offices



# The Complaint is Logged

What happens to the complaint once it is received?

- The complaint is logged into our database system and assigned to an inspector, if one was not already assigned.



# Contacting the Complainant

- PEAS or EAC
  - Call complainant if there are vague details
  - Call complainant if inspector wants additional information
- Complainant has option of having inspector follow-up with them on how complaint was resolved.
- Complainant has the option to remain confidential

# Complaint Investigations



# Complaint Investigations

- Extent of investigation depends on the severity of the complaint
  - Priority I
  - Priority II
  - Priority III
  - Priority IV

# Priority I Complaints

- Immediate threat to environment and/or public health or welfare
- Those associated with a facility for which numerous complaints received
- Complainant indicates that problem is currently ongoing and where immediate investigation would be helpful for enforcement purposes

# Priority III Complaints

- Those complaints that do not meet the criteria of Priority I complaints
- Open burning at an industrial or commercial establishment
- Upset conditions at a facility that normally does not have air quality issues

# Priority IV Complaints

- Complaints that do not meet the criteria of Priority I complaints
- These are the complaints that are not under AQD jurisdiction and will be referred to the appropriate division or department

# Priority II Complaints

- Complaints that do not fall under Priority I, III, or IV Category complaints
- They are not urgent in matter
- Field investigations will be made when time allows

# Why Do We Care?



# Why Do We Care?

## Odors

- Nuisance (may or may not be a health hazard)
- Rule 901

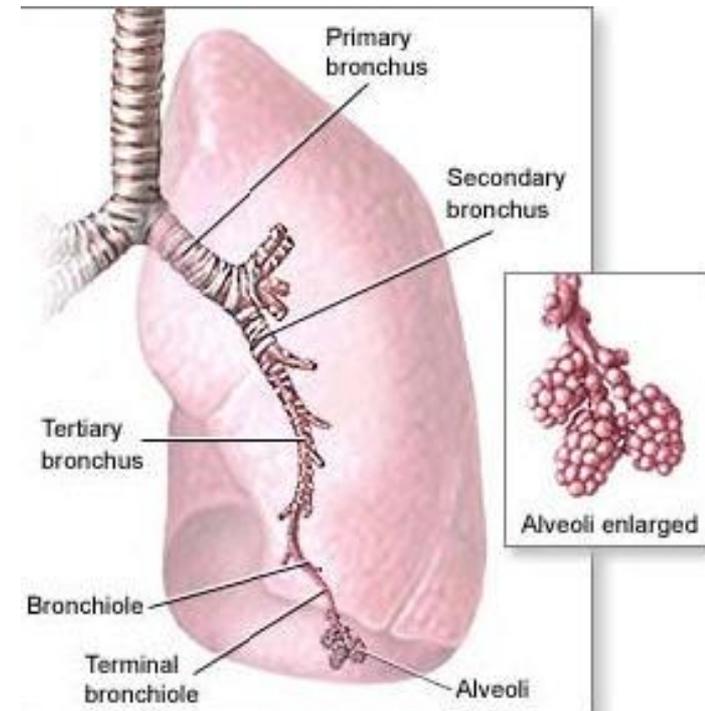
**Open burning** - A fire from which the products of combustion are emitted directly into the outer air without passing through a stack or chimney

- Toxics: e.g. acid gases, heavy metals, dioxins
- Particulate matter
- Associated health effects
- Rule 310

# Why Do We Care:

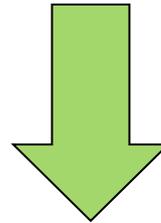
**Fugitive Dust** – PM which is generated from indoor processes, activities, or operations and which is emitted into the outer air through building openings and general exhaust ventilation, except stacks. It is also PM emitted into the outer air from outdoor processes, activities, or operations due to the forces of the wind or human activity.

- PM10, PM2.5 and associated health effects
- Rules 301, 303, 371, 372
- Method 9, 9D

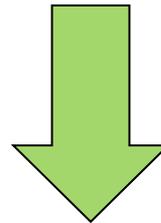


# A Day in the Life of a Complaint...

Receiving the Complaint



Complaint Investigation



Complaint Follow-up

# Odor Complaint Example

## The Situation

Yellow Brick Road Asphalt Co

- 1.5 miles west of a subdivision
- Liquid asphalt tanks
- Known to emit odors, even during non-operating hours



# Odors: Rule 901

“Notwithstanding the provisions of any other department rule, a person shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:

- (a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property
- (b) Unreasonable interference with the comfortable enjoyment of life and property.”

# Odor Complaint Example

- Complaint was received at 6:50 p.m. via a PEAS coordinator who called Inspector Oz at home
- Inspector Oz was told that the complainant detected **strong asphaltic odors** at 5:30 p.m. and were **ongoing** when they made the call to the PEAS hotline at 6:40 p.m. Complained of nausea and headaches associated with odor
- This **complainant has called in the past** about asphaltic odors, and past odor surveys had been conducted to address **previous complaints**
- The suspected source is **Yellow Brick Road Asphalt Co.** because the winds are out of the west and the neighborhood is 1.5 miles directly east of this facility. There are no other facilities within this area that can create asphaltic odors.

# Odor Investigation



- Priority I complaint
- Considerations when demonstrating a Rule 901 violation exists:
  - What is the **wind direction**?
  - Are odors **sporadic**?
  - Are the odors strong enough to be **objectionable**?
  - **How long** were the odors detected?
  - **How often** are odor complaints received?
  - **Other facilities**?



- If so, can the source of odor be determined?

# Odor Investigation



Source Name:		Inspector:		
Source Address:		Date:		
Sky Conditions:		Temperature:		
Wind Speed:	Wind Direction:		Source of Meteorological Data:	
Location (attach map, if available)	Time	Odor Scale (See below)	Characteristic (See below)	Comments (Observations that will aid in the determination of the source & properties of the odor.)

**Odor Scale**

- 0 - Non-Detect
- 1 - Just barely detectable
- 2 - Distinct and definite odor
- 3 - Distinct and definite objectionable odor
- 4 - Odor strong enough to cause a person to attempt to avoid it completely
- 5 - Odor so strong as to be overpowering and intolerable for any length of time




<p><u>Odor Scale</u></p> <ul style="list-style-type: none"> <li>0 - Non-Detect</li> <li>1 - Just barely detectable</li> <li>2 - Distinct and definite odor</li> <li>3 - Distinct and definite objectionable odor</li> <li>4 - Odor strong enough to cause a person to attempt to avoid it completely</li> <li>5 - Odor so strong as to be overpowering and intolerable for any length of time</li> </ul>	<p><u>Odor characteristic examples:</u></p> <ul style="list-style-type: none"> <li>Paint-like</li> <li>Musty, moldy</li> <li>Burnt, smoky</li> <li>Tar-like, asphalt</li> <li>Cut grass</li> <li>Citrus fruit</li> </ul>
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# Odor Investigation Follow-up

- Inspector Oz detected odor levels ranging from a 3 – 4 in the complainant's neighborhood.
- Detection of the level 3 odors prompted the inspector to stay within the area for a half hour to determine if the odors were sporadic or persistent – they were persistent
- Historical complaints/data are also taken into account – odors detected at level 3 during 2 prior odor surveys a week prior
- Yellow Brick Road Asphalt Co is in violation of Rule 901

# Odors not handled by AQD

- Agricultural Complaints: Odors
  - referred to MDARD  
[MDA-Right-To-Farm@michigan.gov](mailto:MDA-Right-To-Farm@michigan.gov)
- Odors that are regulated primarily by another DEQ division
  - Referred as appropriate



# Open Burning Example

## The Situation

- Flying Monkey Farms - CAFO
  - A pile of logs, brush, treated lumber, straw and plastic from hay bales set on fire
  - Black smoke plumes



# Open Burning: Rule 310

## **Rule 310(1):**

A person shall not cause or permit open burning of refuse, garbage, or any other waste materials [with some exceptions]

## **Rule 310(2):**

The exceptions do not authorize open burning if prohibited by local law or regulation

Want more open burning information?

[www.michigan.gov/openburning](http://www.michigan.gov/openburning)

# Open Burning Exceptions

## Exceptions to Rule 310(1):

- (a) Waste disposal material from and at 1- or 2-family dwellings that does not contain plastic, rubber, foam, chemically-treated wood, textiles, electronics, chemicals, or hazardous materials, if the burning does not violate any other department rules



# Open Burning Exceptions

Rule 310(b)

Structures and other materials used exclusively for fire prevention training



# Open Burning Exceptions

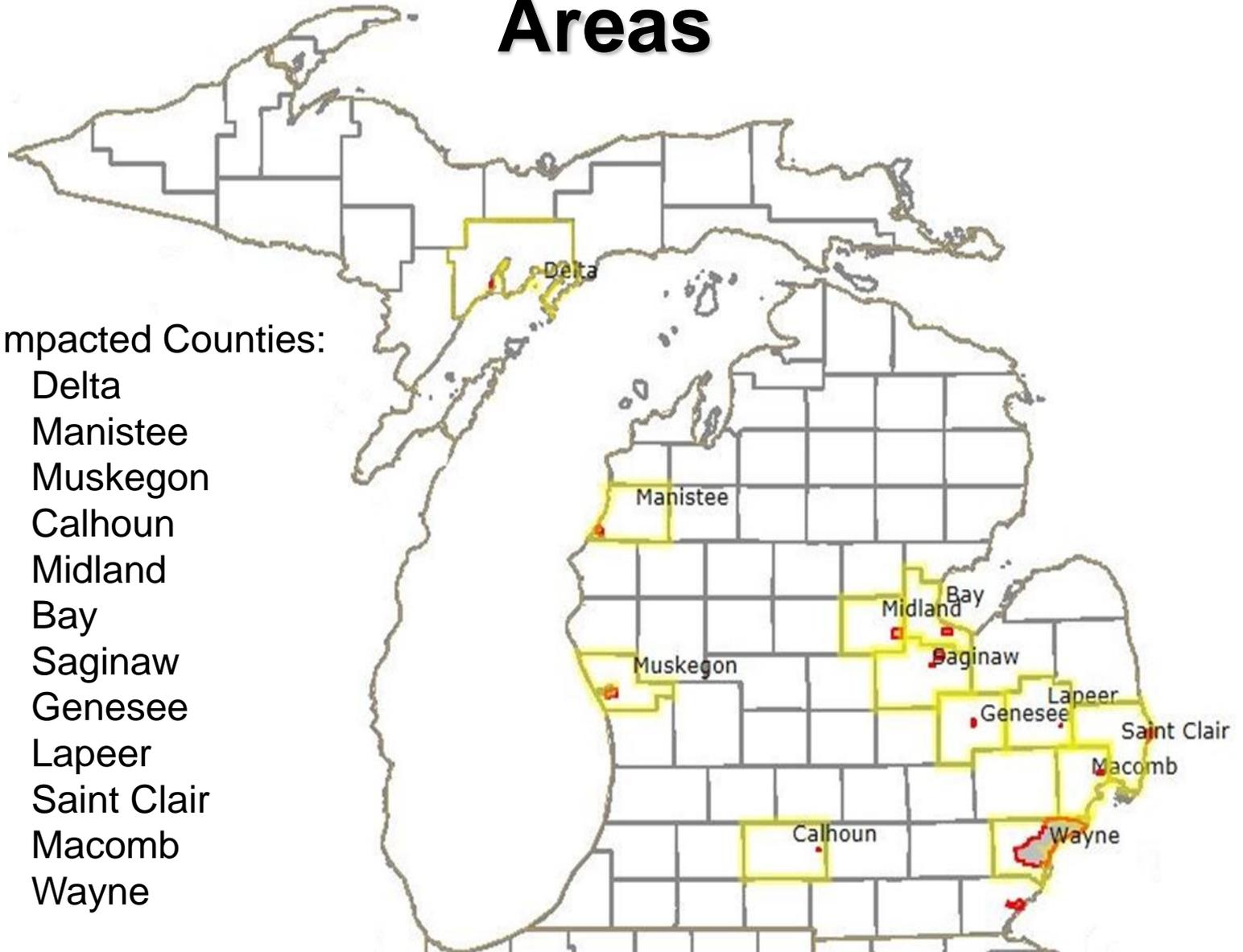
- (c) Trees, logs, brush and stumps in accordance with applicable state and local regulations if the burning is not conducted within a priority I or priority II area, nor closer than 1400 feet to an incorporated city or village limit and if the burning does not violate any other department rules.



# Open Burning Priority I and II Areas

Impacted Counties:

Delta  
Manistee  
Muskegon  
Calhoun  
Midland  
Bay  
Saginaw  
Genesee  
Lapeer  
Saint Clair  
Macomb  
Wayne



# Open Burning Exceptions

Rule 310 (d) Beekeeping equipment and products, including frames, hive covers, combs, wax, and honey, if burned for bee disease control



Rule 310(e) Logs, brush, charcoal, and similar materials that are used in preparing food or for recreation



# Open Burning Exceptions

Rule 310(f) Wooden fruit or vegetable storage bins constructed from untreated lumber if **both** of the following are met:

- 1) The burning is conducted for disease or pest control
- 2) The burning is not conducted in a priority I or II area, a city or village, or within 1400 feet outside the boundary of a city or village



# Open Burning Investigation

- Complaint received through a PEAS referral during work hours
- A neighbor of Flying Monkey Farms (FMF) witnessed a **burn pile on FMF's property**, full of **treated lumber, straw** and **plastic** among brush and logs and had been burned, causing thick black smoke plumes.
- Complainant said they were experiencing **coughing, shortness of breath** and **wheezing**, as the wind was blowing the smoke directly at their house.
- Burning was not occurring when the complainant made the call

# Open Burning Investigation Follow-up



## Unconfirmed Open Burning - Open Burning Letter

<p><b>DEQ</b> Michigan Department Of Environmental Quality - Air Quality Division Rev. 03/02/16</p> <p style="text-align: center;"><b>OPEN BURNING NOTIFICATION</b> (Unconfirmed Open Burning)</p> <p style="text-align: center;">[Redacted]</p> <p>[Redacted]</p> <p style="text-align: right;">SRN: [Redacted], [Redacted] County</p> <p>Dear [Select One] [Redacted]:</p> <p>SUBJECT: Open Burning Notification Letter</p> <p>The Department of Environmental Quality (DEQ), Air Quality Division (AQD), has received a complaint of open burning of solid waste at [Redacted], [Redacted], Michigan. If this burning is for waste disposal from a business, it may be a violation of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). The purpose of this letter is to determine [Redacted] compliance with R 336.1310 adopted pursuant to Act 451.</p> <p>R 336.1310, prohibiting open burning reads as follows:</p> <p>1) Rule 310. (1) A person shall not cause or permit open burning of refuse, garbage, or any other waste materials, except for the burning of the following:</p> <ul style="list-style-type: none"><li>(a) Waste disposal of material from and at 1 or 2-family dwellings that does not contain plastic, rubber, foam, chemically treated wood, textiles, electronics, chemicals, or hazardous materials, if the burning does not violate any other department rules.</li><li>(b) Structures and other materials used exclusively for fire prevention training.</li><li>(c) Trees, logs, brush, and stumps in accordance with applicable state and local regulations if the burning is not conducted within a Priority I area as listed in Table 33, a Priority II area as listed in Table 34, nor closer than 1,400 feet to an incorporated city or village limit and if the burning does not violate any other department rules.</li><li>(d) Bee keeping equipment and products, including frames, hive bodies, hive covers, combs, wax, and honey, if burned for bee disease control.</li><li>(e) Logs, brush, charcoal, and similar materials that are used in preparing food or for recreation.</li><li>(f) Wooden fruit or vegetable storage bins constructed from untreated lumber if both of the following requirements are met:<ul style="list-style-type: none"><li>(i) The burning is conducted for disease or pest control</li></ul></li></ul>	<p style="text-align: center;">2</p> <p>(ii) The burning is not conducted at any of the following locations:</p> <ul style="list-style-type: none"><li>(A) Within a priority I area as listed in table 33 or a priority II area as listed in table 34.</li><li>(B) In a city or village</li><li>(C) Within 1400 feet outside the boundary of a city or village.</li></ul> <p>2) The exceptions specified in sub rule (1) of this rule do not authorize open burning if prohibited by local law or regulation.</p> <p>The burning of material may also be an additional violation of Section 115 of Act 451, which prohibits the disposal of solid waste other than at a licensed solid waste disposal, recycling, or composting facility.</p> <p>In order to comply with state law, [Redacted] is advised to immediately discontinue open burning. Please notify this office, in writing, of the alternative method of solid waste disposal [Redacted] has chosen within 28 days of the date of this letter.</p> <p>Additional information and more can be found at the DEQ's open burning web site at <a href="http://www.michigan.gov/degair">www.michigan.gov/degair</a> (Choose "Clean Air Assistance" from the menu on the left side of the screen). A list of licensed landfills is provided on the DEQ internet at <a href="http://www.michigan.gov/degwaste">www.michigan.gov/degwaste</a> (select "Solid Waste" from the menu on the left side of the screen, and then "Solid Waste Facilities"). A list of recycling centers is provided on the DEQ internet at <a href="http://www.michigan.gov/degrecycling">www.michigan.gov/degrecycling</a> (select the "At Home" Tab and "Local Contacts").</p> <p>If you have any questions or comments, you may contact me at the number listed below or at [Redacted]. The AQD appreciates your time and cooperation in settling this matter in a timely manner.</p> <p style="text-align: right;">Sincerely,</p> <p style="text-align: right;">[Redacted] [Select One] Air Quality Division</p> <p>cc: [Redacted], DEQ (Waste Management &amp; Radiological Protection District Supervisor's)</p> <p>Save as: SRN Unconfirmed Open Burn Notification</p>
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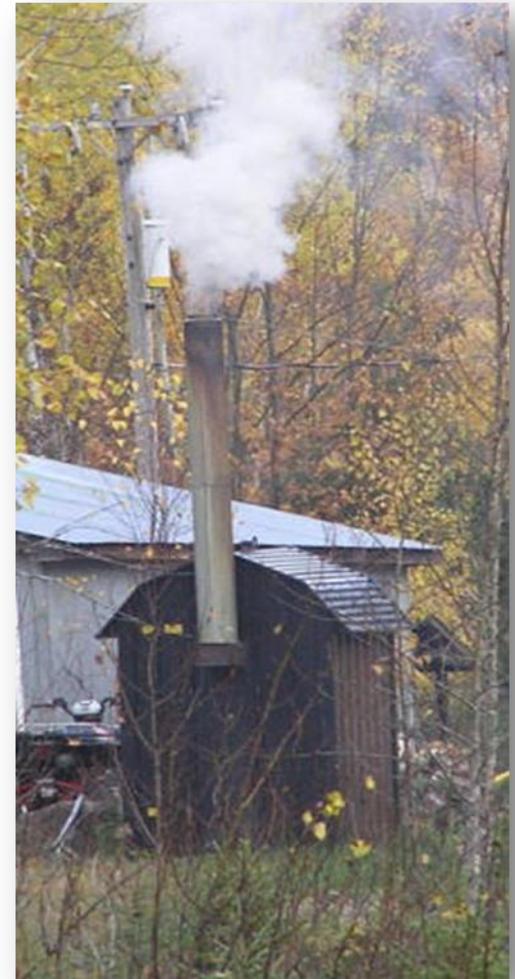
# Open Burning Investigation Follow-up



- Residences and commercial/industrial establishments burn because local ordinances do not prohibit them from doing so
- If this is the case, the AQD will work with local governments and provide model ordinances to ensure that their ordinances are in line with SOM Air Pollution Control Rules for open burning

# Open Burning not handled by AQD

- Complaints between local residents (e.g., legal open burning, wood burning, etc.)
  - referred to local unit of government under local open burning or nuisance ordinances



# Dust/Opacity Complaint Example

## The Situation

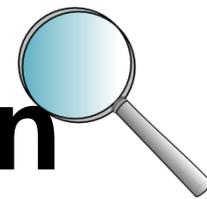
- Emerald City Power Plant
  - Coal pile and fly ash handling located  $\frac{1}{4}$  mile from a business
  - Complaints have been made in the past about coal dust on property of business



# Dust/Opacity Investigation



# Dust/Opacity Investigation



## EPA Method 9 — Visible Emission Observation Form

EPA  
VISIBLE EMISSION OBSERVATION FORM 1

Form Number \_\_\_\_\_ Page \_\_\_\_\_ of \_\_\_\_\_  
Continued on VEO Form Number \_\_\_\_\_

Method Used (Circle One)  
Method ? 208A 208B Other \_\_\_\_\_

Company Name \_\_\_\_\_  
Facility Name \_\_\_\_\_  
Street Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Process \_\_\_\_\_ Unit # \_\_\_\_\_ Operating Mode \_\_\_\_\_  
Control Equipment \_\_\_\_\_ Operating Mode \_\_\_\_\_

Describe Emission Point \_\_\_\_\_

Height of Emit. Pt. \_\_\_\_\_ Height of Emit. Pt. Rel. to Observer \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
Distance to Emit. Pt. \_\_\_\_\_ Direction to Emit. Pt. (Degrees) \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_

Vertical Angle to Obs. Pt. \_\_\_\_\_ Direction to Obs. Pt. (Degrees) \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
Distance and Direction to Observation Point from Emission Point \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_

Describe Emissions \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_  
Emission Color \_\_\_\_\_ Water Droplet Plume \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Attached  Detached  None

Describe Plume Background \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_  
Background Color \_\_\_\_\_ Sky Conditions \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
Wind Speed \_\_\_\_\_ Wind Direction \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_ Start \_\_\_\_\_ End \_\_\_\_\_  
Ambient Temp. \_\_\_\_\_ Wet Bulb Temp. \_\_\_\_\_ RH Percent \_\_\_\_\_  
Start \_\_\_\_\_ End \_\_\_\_\_

Source Layout Sketch Draw North Arrow  
 TN  MN

Longitude \_\_\_\_\_ Latitude \_\_\_\_\_ Direction \_\_\_\_\_

Additional Information \_\_\_\_\_

Sec Min	Time Zone				Start Time	End Time	Comments
	0	15	30	45			
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Observer's Name (Print) \_\_\_\_\_  
Observer's Signature \_\_\_\_\_ Date \_\_\_\_\_  
Organization \_\_\_\_\_  
Certified by \_\_\_\_\_ Date \_\_\_\_\_

# Dust/Opacity Investigation



**Very  
Interesting!**



# Dust/Opacity Investigation Follow-up



CITY OF GRAND RAPIDS  
ENVIRONMENTAL SERVICES DEPARTMENT

Date Received: 4/15/2016

DEQ-AQD LANSING D.O.

Date Reported: 4/21/2016

APR 26 2016

Received from: Michelle Luplow, MDEQ-AQD.

Description:

A small Petri dish containing particles.

#1600908 – This sample consists of a mixture of particles. Dark, opaque, rough, irregular particles are present at ~30%. Particles with rough, irregular, surfaces, black and brownish/orange and clear portions, similar in appearance to unfused ash, are present at ~20%. Transparent, vitreous, colorless to yellow and brown, rounded and flat, angular particles similar in appearance to slag make up ~10% of this sample. Glassy spheres similar in appearance to fused fly ash were present at ~10%. Particles, consistent in properties with minerals including quartz and calcite and small stones were noted at ~10%. Material that morphologically resembles plant material was noted at ~10%. Also noted were paper fibers, insect fragments, and fiber glass.

  
Chemist II  
Grand Rapids Environmental Laboratory

# Dust Complaints not handled by AQD

- Construction Sites >1 acre Dust
  - referred to WRD
- Road Dust
  - Refer complainant to county road commission or responsible municipality. If this fails AQD can send a letter to responsible municipality.



# Priority IV

## Other Non-AQD Complaints

- Agricultural Complaints: Aerial spraying/crop dusting
  - referred to MDARD
- Asbestos abatement, demolition, disposal
  - Referred to AQD's TPU
- Noise Complaints
- Complaints generated from “drive-bys”

# ...Almost Done!

- 3 main complaint types: Odors, Open Burning, and Dust/Fallout/Opacity
- Complaint response depends on the severity and frequency of the nature of the complaint
- The AQD cares: We strive to protect public health and the environment at all times



Thanks, AQD!



# What's Coming Up?

## Michigan Environmental Compliance Conference

June 21 and 22, 2016

[www.michigan.gov/deq](http://www.michigan.gov/deq)

Choose MECC!

**Please join us!**

# Wrap Up



- Recording
- Materials
- Evaluation



# Michigan Department of Environmental Quality

800-662-9278

[www.michigan.gov/deq](http://www.michigan.gov/deq)



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