



**7 DE Admin Code 1138
Section 16**

***Asphalt Processing and
Asphalt Roofing Products
Manufacturing Standard***



**Public Hearing
September 22, 2010**

Clean Air Act Amendments of 1990

- **Congress identified** 189 Hazardous Air Pollutants or HAPs
- Congress directed the EPA
 - To **identify emission sources** of those 189 HAPs and
 - To **issue regulations** to reduce HAPs emissions from those sources



Clean Air Act Amendments of 1990

- Congress directed the EPA to
 - Begin with those industrial facilities that typically have large HAPs emissions (**major sources**)
 - Only later, move on to those facilities that typically have smaller HAPs emissions (**area sources**)



Clean Air Act Amendments of 1990

- EPA activities on **major sources**
 - 1992 - EPA published its initial listing of predominately major source categories
 - 1993 – 2004 - EPA issued over 100 rules addressing HAPs emissions from a wide variety of major sources, *including 40 CFR Part 63 Subpart LLLLL*
 - 2005 and on - EPA continues issuing major source rules, but most resources have moved on to **area sources** rules



Clean Air Act Amendments of 1990

EPA's Area Source Air Toxics Program

As directed by Congress in 1990



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EPA's Area Source Air Toxics Program

- Congress required EPA to
 - **Identify** 30+ **HAPs** that present the greatest threat to public health
 - **Identify** types of sources that emit 90% of these 30+ **HAPs**
 - **Issue** regulations to reduce adverse health effects due to the emission of HAPs from these small facilities



EPA's Area Source Air Toxics Program

- EPA activities on **area sources**
 - **1999** - EPA published its listing of **33 HAPs** having the greatest health impact (*in handouts*)
 - **By 2002** - EPA had identified **over 60** area source categories (*in handouts*)
 - **2006** - EPA began to focus more resources on these area sources

33 HAPs & Area Source Categories

Mercury compounds
Dichloromethane
Nickel compounds
Polychlorinated biphenyls (PCBs)
Polycyclic organic matter (POM)
Quinoline
2,3,7,8-tetrachlorodibenzo-p-dioxin
1,1,2,2-tetrachloroethane
Perchloroethylene
Trichloroethylene
Vinyl chloride



**Which Brings
Us to
Tonight's
Public Hearing**



EPA's Area Source Air Toxics Program

- On **December 2, 2009**, EPA issued another area source standard
 - Asphalt Processing and Asphalt Roofing Manufacturing Operations at Area Sources
 - 40 CFR Part 63 Subpart AAAAAAA
(Sub 7As)
- Federal adoption of an Area Source Standard leads to an internal Departmental review



Typical Departmental Review

- Review of an Federal Area Source Standard
 - **Are** there any Delaware sources?
 - **How** do the Federal requirements compare to existing Delaware air regulations?
 - **Did** the Federal requirements adequately meet the needs of the public, the regulated community, and the Department?
 - **Were** the Federal communication and outreach programs adequate?



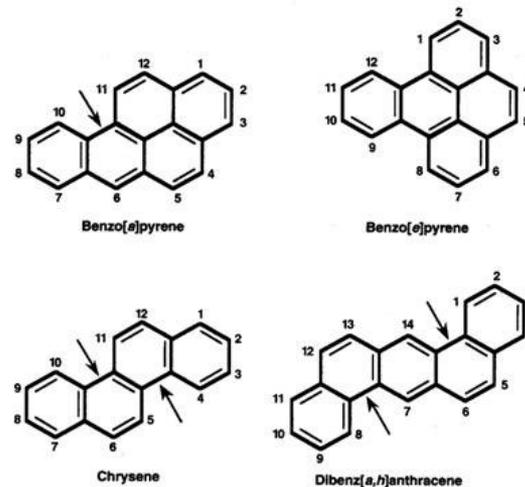
Results of Departmental Review of Sub 7As

- There is a **Delaware source**
- There are **no comparable** regulatory requirements in Delaware's Air Quality regulations
- There is **no apparent** outreach or education being provided on the Sub 7As
- The **Department concluded there was a need** to adopt Sub 7As under the Division of Air Quality's Area Source Air Toxics program



- Why did EPA decide to regulate asphalt processing and asphalt roofing products manufacturing operations?

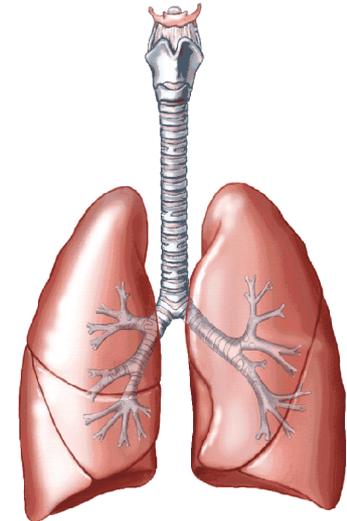
- Polycyclic Organic Matter



Health Effects of Polycyclic Organic Matter

Carcinogenic Effects

- EPA classified some “POMs” as
- **Probable Carcinogens** (Group B2)



Chronic Non-carcinogenic Effects

- Other “POMs” contribute to
- Disease in the **respiratory** system
 - Adverse **skin** effects

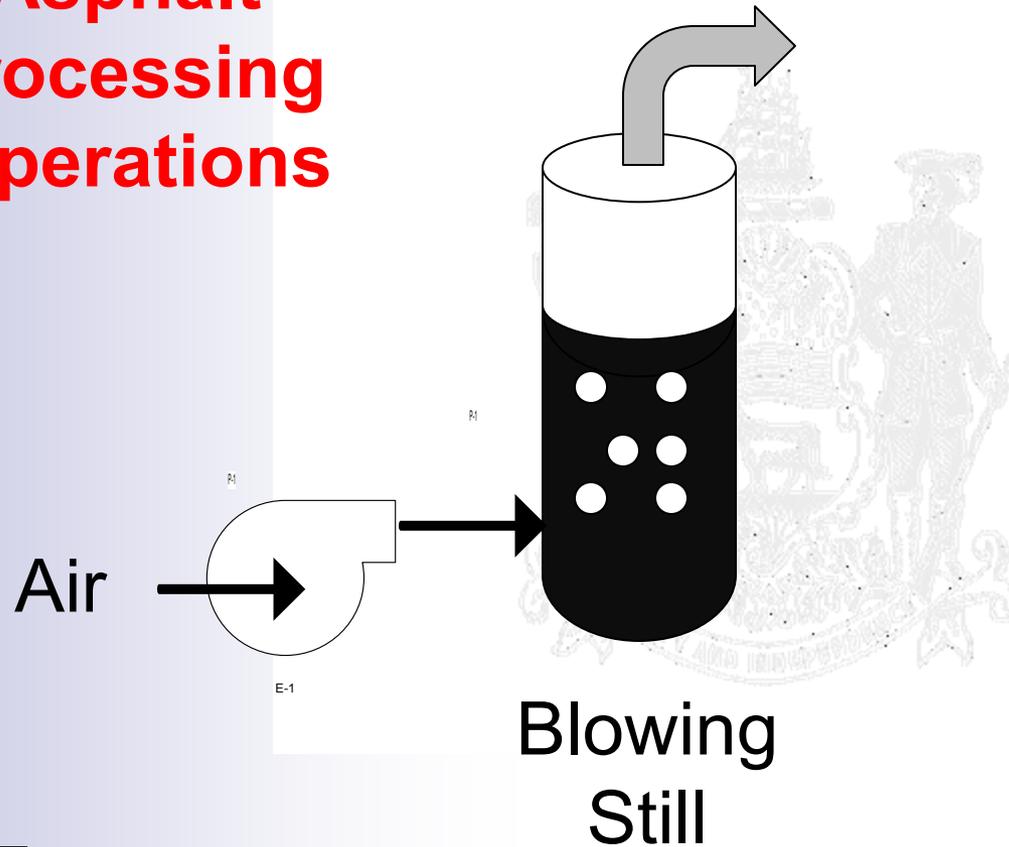


- **Who is subject to Section 16?
(i.e. who is an affected source)**



Who is subject to Section 16?

**Asphalt
Processing
Operations**



Who is subject to Section 16?



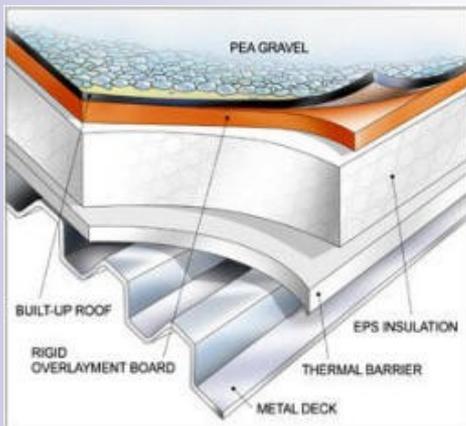
Asphalt Roofing Products Manufacturing Operations



- **Who is exempt from Section 16?**



Who is exempt from Section 16?



Built-Up Roofing Installations

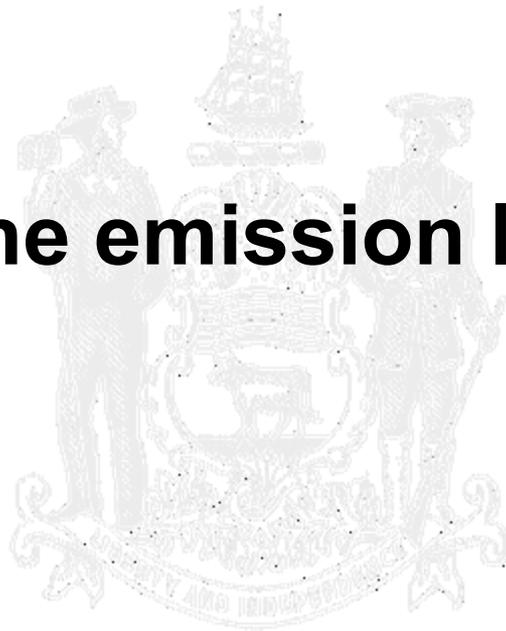


Hot-mix Asphalt Plants

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- **What are the emission limitations?**



What are the emission limitations?

Asphalt Processing Operations

Lbs/Ton Asphalt Charged

PM

PAH

Blowing Stills

1.2

Or

0.003

PM – Particulate Matter

PAH – Polycyclic Aromatic Hydrocarbons^A

^A PAH is a subset of compounds within the broader class of POM compounds



What are the emission limitations?

Asphalt Roofing Products Manufacturing

Lbs/Ton Roofing Product Manufactured

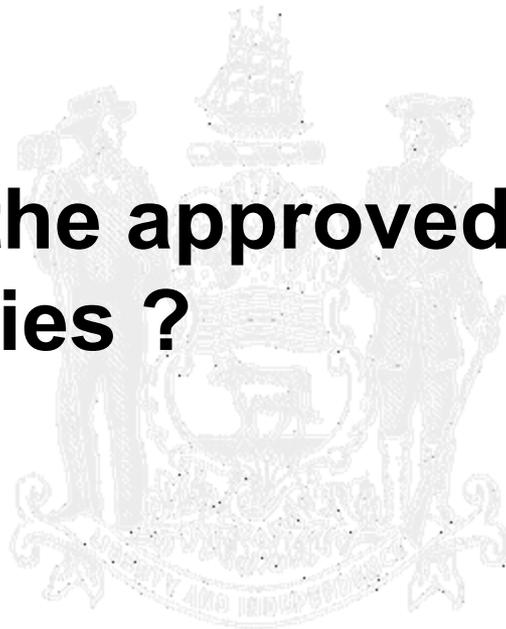
	<u>PM</u>		<u>PAH</u>
Coaters	0.06	Or	0.0002
Saturators	0.30	Or	0.0007
Saturator/Coater	0.36	Or	0.0009

PM – Particulate Matter

PAH – Polycyclic Aromatic Hydrocarbons



- **What are the approved control technologies ?**



What are approved control technologies?

- EPA-approved control technologies include

- Thermal Oxidizers



- High efficiency air filters or fiber bed filters



- Electrostatic precipitators



- Approval of **alternative** control technologies may be requested

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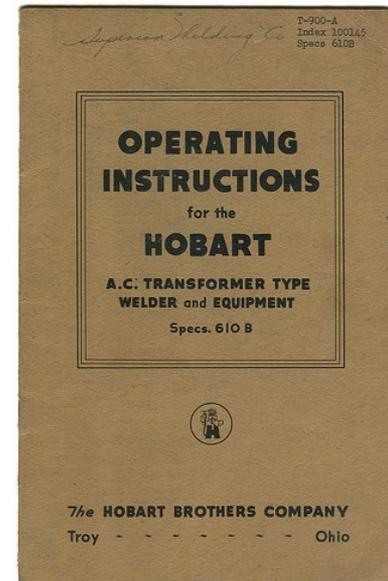


- What are the **other** notable compliance requirements?
 - Startup, shutdown & malfunction plan
 - Site-specific monitoring plan
 - Initial compliance demonstration
 - Continuous compliance demonstration



Startup, Shutdown & Malfunction Plan

- The startup, shutdown & malfunction plan fosters compliant operations by providing . . .
 - **Appropriate** operating instructions during startup, shut down and during normal operation
 - **Proper** corrective measures, when malfunctions occur
 - **Required** maintenance & inspection schedules
 - **Proper** maintenance procedures



Site-specific monitoring plan

- The site-specific monitoring plan fosters compliant operations through . . .
 - **Identifying** appropriate monitoring locations
 - **Defining** the performance & equipment specifications for the monitoring system
 - **Documenting** the monitoring system's
 - Instrument calibration procedures
 - Data quality assurance procedures
 - Operating and maintenance procedures



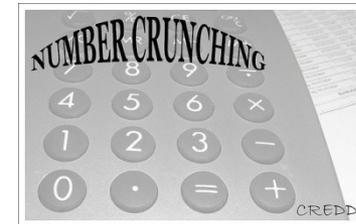
Initial compliance demonstration

- Conduct performance test
 - **Operate** the process at rate that would generate **greatest** emissions
 - **Measure and record** appropriate “operating parameter” values
 - **Measure and calculate** actual PAH or PM emission rates
 - **Compare** actual emission rate to emission limitations



Continuous compliance demonstration

- **Monitor and record** the control system operating parameter value
- **Reduce** the monitoring data by calculating the “3 hour average”
- **Maintain** the “3 hour average” control system parameter in the “compliance zone” from the performance test



DNREC's Proposed Section 16

- Section 16 of Reg. 1138 draft was presented at an August 9, 2010 **public workshop**
- Proposed Section 16 appeared in the September 1, 2010 **Delaware Register of Regulations**



Office of the Registrar of Regulations,
Legislative Council,
State of Delaware



In closing
The Department
Would like to add



The Department Exhibits

The Department offers

- **32 exhibits** and asks that they be incorporated into the hearing record as DNREC Exhibits 1 through 32
- **DNREC Exhibit 1** provides a description of each of these exhibits
- **DNREC Exhibit 1** has also been included in public hearing handouts for the benefit of those attending tonight's public hearing



The Department's Exhibits Demonstrate

The Department has

- **Met all Statutory and Departmental** requirements throughout the development of Section 16
- **Maintained open communications** with potential affected sources and “interested parties” throughout the development process
- **Provided the public** with complete, timely information through the Section 16 Regulatory Web Page



For the latest information,
follow the ongoing development on
Section 16 Regulatory Web Page

www.awm.delaware.gov/Info/Regs/Pages/1138Section16.aspx

