



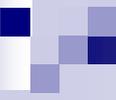
# 7 DE Admin Code 1138 Section 17

## *Area Source Prepared Feeds Manufacturing Facilities*



**Public Hearing  
August 22, 2012**

*Blue Skies Delaware; Clean Air for Life*



- **Handouts**



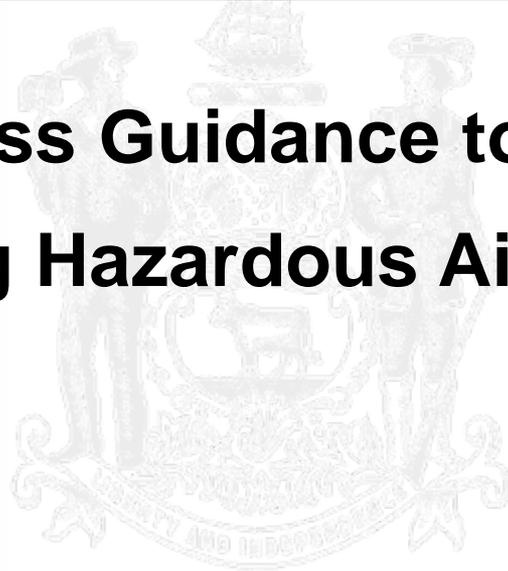
- **Key Definitions**

- **Acronyms**



# 1990 Clean Air Act Amendments

## Congress Guidance to EPA for Regulating Hazardous Air Pollutants



# 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 HAP emissions from those sources



# Clean Air Act Amendments of 1990

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



# EPA's Major Source Air Toxics Program

- EPA activities on **major sources**
  - 1992 - EPA published its initial listing of predominately major source categories
  - 1993 – 2004 - EPA issued rules addressing HAP emissions from over **150** major source categories

*None of these were applicable to prepared feeds manufacturing*



# EPA's Area Source Air Toxics Program



# EPA's Area Source Air Toxics Program

- Congress required EPA to
  - **Identify** at least 30 **HAPs** that present the greatest threat to public health
  - **Identify** types of sources that account for 90% of the emissions of those 30+ **HAPs**
  - **Issue** regulations to address the emission of HAPs from those types of sources



# EPA's Area Source Air Toxics Program

- EPA activities on **area sources**
- **1999** - EPA published its listing of the **33 HAPs** having the greatest health impact (*in handouts*)
- **By 2002** - EPA had identified **over 60 additional** area source categories (*in handouts*)
- **By 2005** - EPA began to focus more resources on **developing** rules for these area sources

33 HAPs & Area Source Categories
<b>Chromium compounds</b> Dichloromethane
<b>Manganese compounds</b> Polychlorinated biphenyls (PCBs) Polycyclic organic matter (POM) Quinoline
2,3,7,8-tetrachlorodibenzo-p-dioxin 1,1,2,2-tetrachloroethane Perchloroethylene Trichloroethylene Vinyl chloride

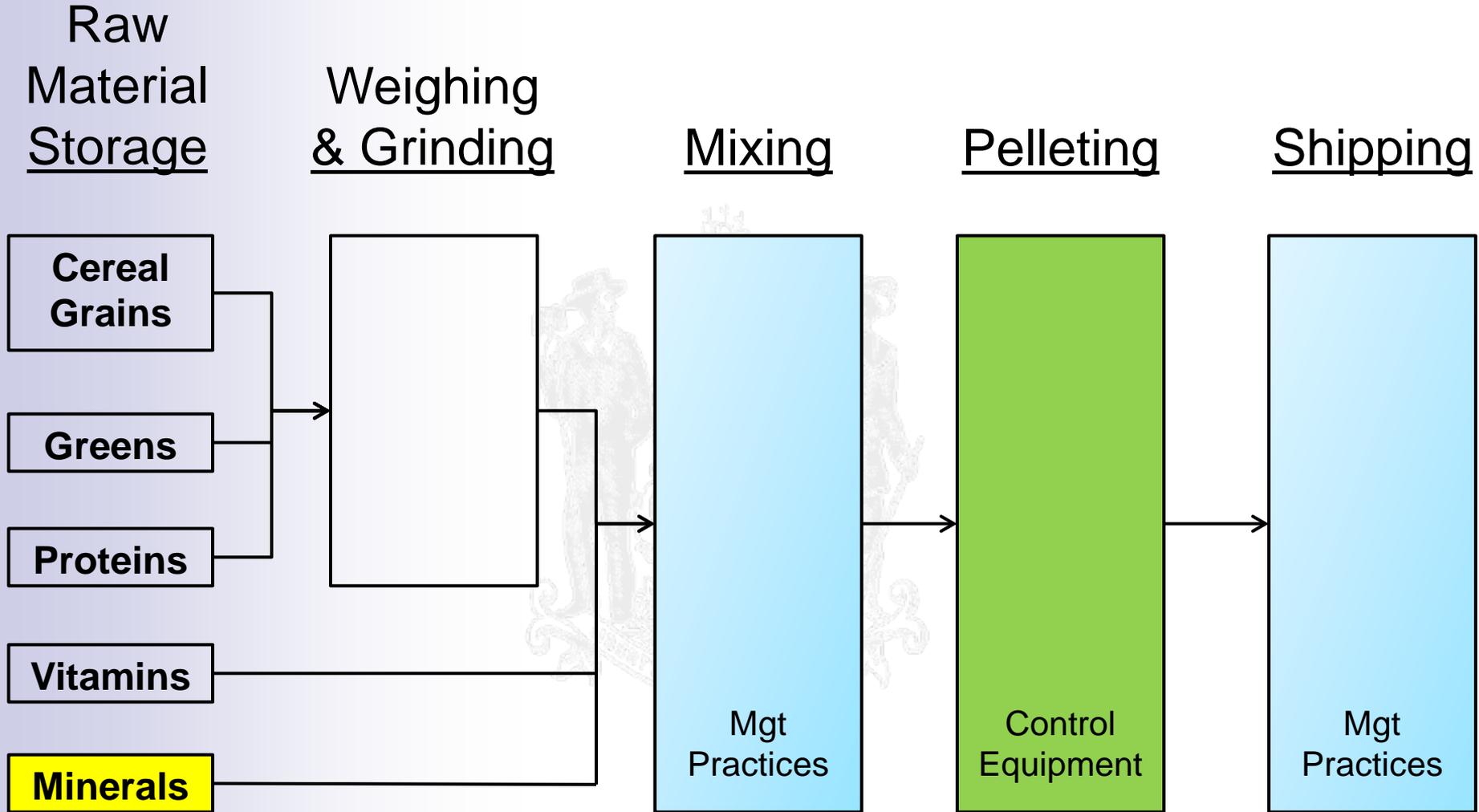


# EPA's Area Source Air Toxics Program

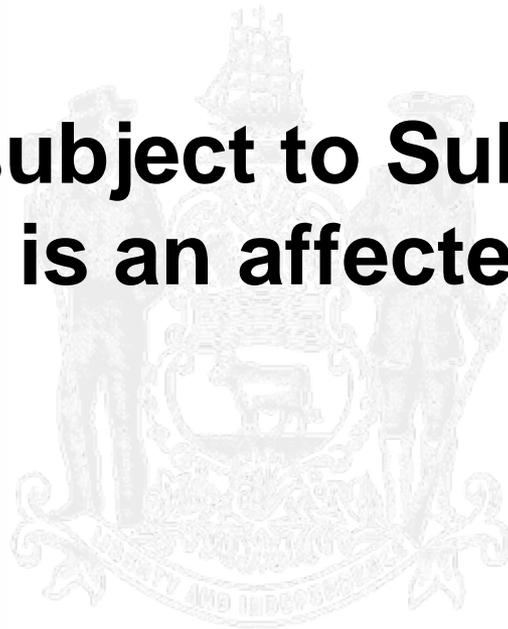
- On **January 5, 2010**, EPA issued another area source standard
- **Prepared Feeds Manufacturing** at Area Sources
- 40 CFR Part 63 Subpart DDDDDDD  
(Sub 7Ds)



# Simplified Prepared Feeds Manufacturing



- **Who is subject to Sub 7Ds?  
(i.e. who is an affected source)**



# Who is subject to Sub 7Ds?

- Prepared feed manufacturing facilities that
  - Primarily **manufacture animal feed**; that is, animal feed is > 50% of facility production
  - **Uses “materials”** that contain Cr or Mn compounds
    - “Materials”  $\geq$  0.1% Cr or
    - “Materials”  $\geq$  1.0% Mn
  - Is located at an **area source of HAP** emissions [ $<10/25$  TPY of HAP(s) ]

“Materials” is short for “materials containing Cr or Mn”



- **Who is exempt from Sub 7Ds?**



# Who is exempt from Sub 7Ds?

- Prepared feed manufacturing facility that
  - **Has < 50%** of its total production in animal feed
  - **Does NOT use or ceased the use of “materials”** that contain Cr ( $\geq 0.1\%$ ) or Mn ( $\geq 1.0\%$ )
- Facilities that are primarily **engaged in raising or feeding animals**
- Facilities **engaged in the growing of agricultural crops** that are used in the manufacturing of animal feed



# ■ What were EPA's Control Technology Options?

- Maximum Achievable Control Technology - MACT  
(This was the approach taken for major source standards)
- **Generally Available Control Technology - GACT**  
(Can consider costs, economic impact, and technical capabilities)



- **What are the required GACT control technologies?**
  - **Management practices**  
Measures generally in place to minimize fugitive emissions and dust accumulation
  - **Control equipment**  
Control equipment frequently found in operation in the industry



# Required Management Practices

- Where “materials” are stored, used, or handled

1. Store raw “materials” in **closed containers**



2. **Perform housekeeping** measures to minimize excess dust



3. **Operate and maintain** process equipment **per manufacturer’s specifications**



“Materials” is short for materials containing Cr or Mn



# Required Management Practices

- Regarding mixing operations
  - The mixer must be **covered at all times** when mixing is occurring, **except** when adding “materials” to mixer



# Required Management Practices

- Regarding bulk loading operations
  - Use a device or any other means to **lessen the distance** between the loadout spout and the truck/railcar to reduce fugitive emission

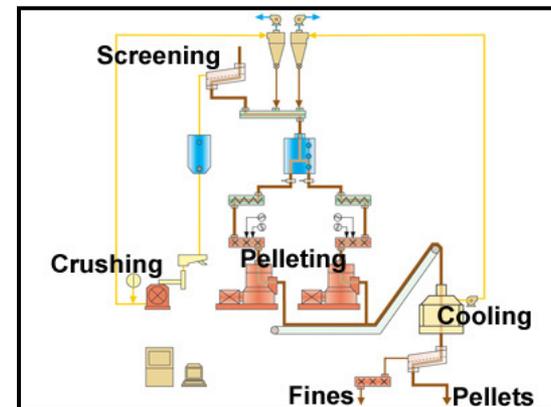


- **What are the control equipment requirement for the pelleting operations ?**



# Industry's Use of Control Equipment

- EPA found that
  - **Control equipment** was generally only associated with emissions from **pelleting operation**
  - **Cyclones** were the **most frequently** used control technology



# Required Control Equipment - Pelleting

- If the initial ADFPL  $\leq$  50 tons/day,
  - **NO** Control Equipment is required
- If the annual ADFPL **later exceeds** 50 tons/day,
  - Facility must install a cyclone by July 1 of the following year

Initial  
1/5/11 to 1/4/12



ADFPL = Average Daily Feed Production Level



# Required Control Equipment - Pelleting

- Regarding pelleting operations located at an **EXISTING** affected source (i.e. on or before 7/27/09)
  - If the **ADFPL > 50 tons/day**, the facility must
    - **Capture** pelleting dust emissions and
    - **Route** pelleting emissions to a cyclone (**no minimum** efficiency limitation)



**ADFPL** = Average Daily Feed Production Level

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# Required Control Equipment - Pelleting

- Regarding pelleting operations located at a NEW affected source (i.e. after 7/27/09)
  - If the **ADFPL > 50 tons/day**, the facility must
    - **Capture** pelleting dust emissions and
    - **Route** pelleting emissions to a cyclone with minimum 95% collection efficiency



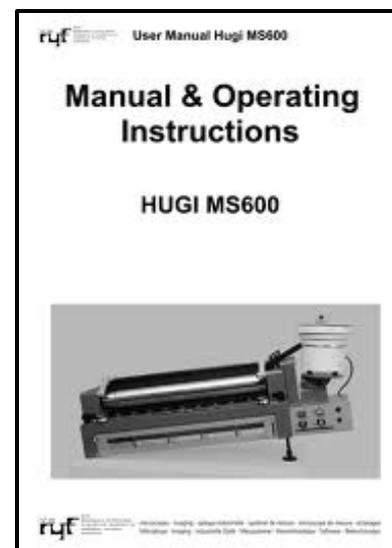
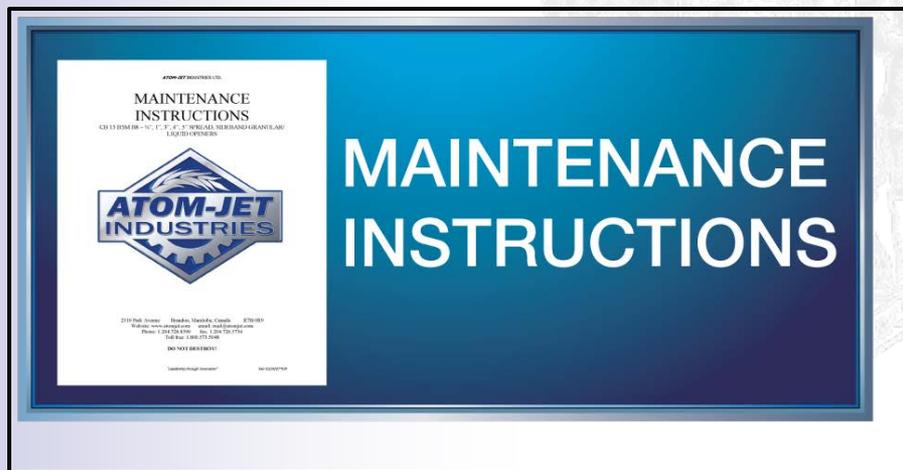
**ADFPL** = Average Daily Feed Production Level

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# Required Control Equipment - Pelleting

- Regarding all pelleting operations
  - Operate and maintain **cyclone** per **manufacturer's specifications**



# Additional Requirements

- To insure that the **management practices** are properly implemented and that the **control equipment** is properly operated and maintained, the facilities are also required to . . .
  - **Monitor and record** operating parameters
  - **Perform** periodic equipment inspections
  - **Maintain** compliance records
  - **Submit** initial notifications
  - **Prepare** annual compliance certifications



**In closing**  
**The Department**  
**Would like to add**



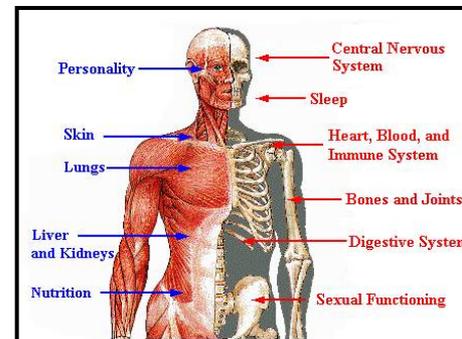
# Typical Departmental Review

- Review of an Federal Area Source Standard
  - **Are** there any affected Delaware sources?
  - **How** do the Federal requirements compare to existing Delaware air regulations?
  - **Were** the Federal communication and outreach programs adequate?
  - **What** are the potential health impacts of the HAPs emitted by sources subject to the federal area source standard?



# Results of Departmental Review of Sub 7Ds

- **Health impacts** of Cr and Mn
  - Carcinogenic Effects
    - EPA has classified **Cr+3 and Mn compounds** as **Group D** carcinogen (Not classifiable in humans)
  - Chronic Non-carcinogenic Effects
    - Respiratory system – **Cr+3 and Mn**
    - Central nervous system – **Mn**



## Chromium Compounds

Hazard Summary-Created in Apr. 1992; Revised - Jan.2000

### Health Hazard Information

*Acute Effects*

*Chronic Effects*

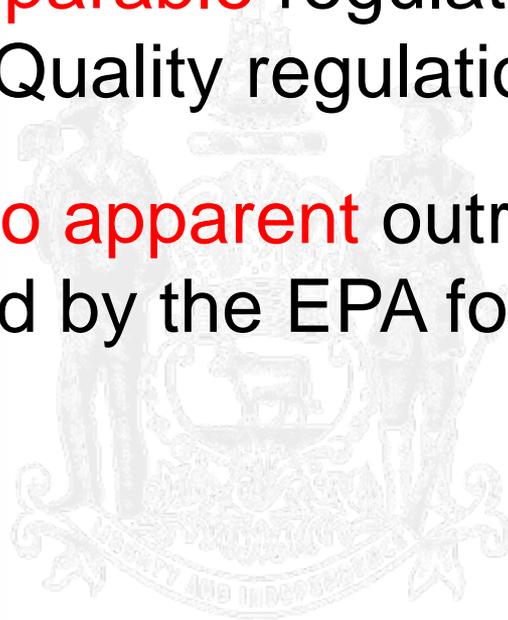
*Reproductive Effects*

*Developmental Effects*



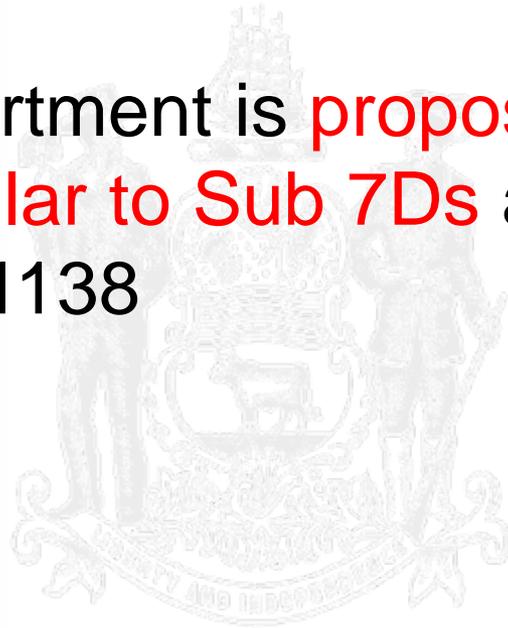
# Results of Departmental Review of Sub 7Ds

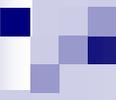
- There are **Delaware sources**
- There are **no comparable** regulatory requirements in Delaware's Air Quality regulations
- There has been **no apparent** outreach or educational programs provided by the EPA for their Sub 7Ds



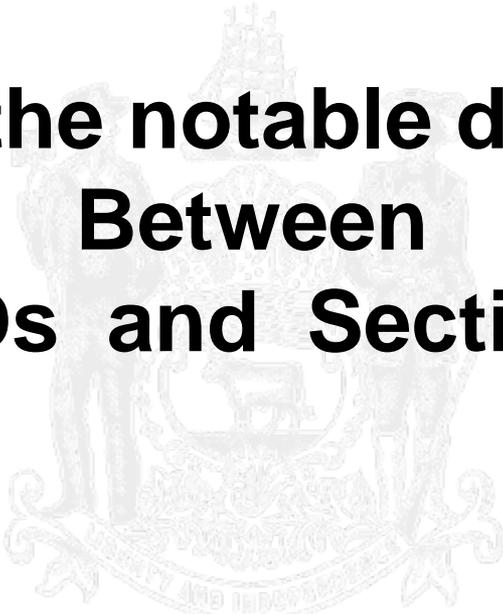
# Results of Departmental Review of Sub 7Ds

- The Department concluded it was appropriate to adopt Sub 7Ds
- Tonight, the Department is proposing to adopt requirements similar to Sub 7Ds as Section 17 in Air Regulation 1138





# What are the notable differences Between Sub 7Ds and Section 17?



## Sub 7Ds/Section 17 - Notable Differences

- A facility that ceases using “materials” is no longer subject to Sub 7Ds; facility must notify EPA by an unspecified time (*17.1.3.2 – Facility remains subject until it notifies Department*)
- A facility can elect to NOT to comply with cyclone requirements if its ADFPL falls to 50 TPD or less (*17.3.4 & 17.8.7 – Once a facility has exceeded an ADFPL of 50 TPD, it continues to be subject to all cyclone requirements*)
- A facility whose annual ADFPL exceeds 50 TPD for the first time shall note this when preparing its annual report (*17.8 & 17.8.6 – Facility is required to submit the annual report when the annual ADFPL first exceeds 50 TPD*)



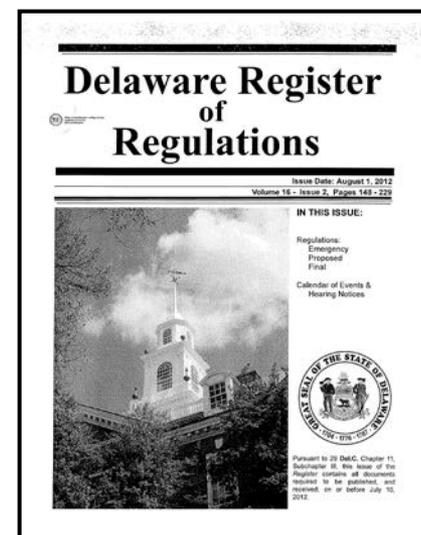
# Sub 7Ds/Section 17 - Notable Differences

- The EPA provided compliance assistance tools for the initial notification of applicability and the initial notification of compliance status (*The Department provided a full line of compliance assistance tools to assist regulated community in preparation of all four required notifications and the annual report*)



# DNREC's Proposed Section 17

- Section 17 of Reg. 1138 draft was presented at an June 7, 2012 **public workshop**
- Proposed Section 17 appeared in the August 1, 2012 **Delaware Register** of Regulations



# The Department Exhibits

The Department offers

- **38 exhibits** and asks that they be incorporated into the hearing record as DNREC Exhibits 1 through 38
- **DNREC Exhibit 1** lists and provides a description of each of these 38 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

These exhibits demonstrate that the Department has

- **Met all Statutory and Departmental** requirements throughout the development of Section 17
- **Maintained open communications** with potential affected sources and “interested parties” throughout the development process
- **Provided the public** with complete and timely information through the Section 17 Regulatory Web Page



For the latest information,  
follow the ongoing development on  
**Section 17 Regulatory Web Page**

[www.dnrec.delaware.gov/whs/awm/Info/Regs/Pages/Section17.aspx](http://www.dnrec.delaware.gov/whs/awm/Info/Regs/Pages/Section17.aspx)

