

# New Source Performance Standards (NSPS) & National Emission Standards for Hazardous Air Pollutants (NESHAP)

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NDEQ MACT Coordinator

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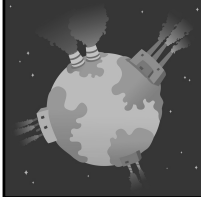
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## Outline

- What are New Source Performance Standards (NSPS)?
- What are National Emission Standards for Hazardous Air Pollutants (NESHAP)?
  - Clean Air Act of 1970 and 1990
  - MACT and GACT Standards
  - MACT Framework



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## What are New Source Performance Standards (NSPS)?

- Pollution control standards set by EPA.
- They establish the minimum emission control requirements for new or modified stationary sources.
  - Primarily control criteria pollutants (So<sub>x</sub>, NO<sub>x</sub>, VOC, PM<sub>10</sub>, CO and Pb)
- NSPS are based on “best demonstrated technology”
  - Also considers costs of such a requirement



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### NSPS Continued...



- Found in 40 Code of Federal Register (CFR) 60
  - See industry type to determine if any standards apply
- Establish technology based standards applicable to criteria and other air pollutant emissions from:
  - New or modified stationary sources
- 91 NSPS have been promulgated since 1971.

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### NSPS Considerations



- You need to know if you are subject to any NSPS when planning facility construction or modification
  - There are specific technology/control requirements
- NSPS typically cover an emission unit
  - Boilers, engines, petroleum dry cleaners, incinerators)
- You maybe subject to a standard if the facility was constructed or modified on or after the applicability date in the rule.
  - There are emission guidelines for some existing sources (mainly incinerators)

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### NSPS Applicability and Requirements

- **Applicability:** To determine if you are subject to an NSPS
  - See the electronic 40 CFR 60
  - See industry type to determine if any standards apply
- The requirements of the specific rule in 40 CFR 60
- You may be subject to:



- Notification and Recordkeeping requirements in 40 CFR 60.7
- Monitoring requirements in 40 CFR 60.13

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### NSPS Framework

- Applicability
- Standards for each pollutant
- Compliance & testing
- Monitoring
- Notifications
  - Commenced construction & startup date
- Recordkeeping

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### National Emission Standards for Hazardous Air Pollutants



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### What is a NESHAP?

- The purpose is to protect the public health by reducing discharges of air toxics, or hazardous air pollutants (HAPs), from air emission sources.
- Section 112 of the Clean Air Act Amendments (CAAA) of 1970 and 1990 requires EPA to promulgate standards:
  - To control hazardous air pollutants from both new and existing stationary sources.
- They are found in 40 CFR 61 and 63



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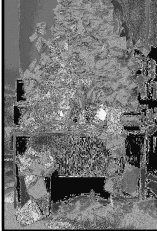
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### The Clean Air Act Amendments of 1970

- Required EPA to develop and enforce:
  - Hazardous air pollutant (HAP) regulations for stationary sources to protect the public
  - Standards had to provide an “ample margin of safety”



- EPA regulated HAPs one chemical at a time
- Between 1970 and 1990 only 8 HAPs were regulated
  - The rule process was onerous

- NESHAP developed through the 1970 CAA can be found:
- 40 CFR 61
  - Adopted by reference in Title 129 Chapter 23

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### The Clean Air Act Amendments (CAAA) of 1990



- Created a new program to regulate HAPs:
  - Maximum Achievable Control Technology (MACT) standards.
  - Found in 40 CFR 63
  - Title 129, Chapter 28
- EPA was required to regulate stationary sources that emitted Hazardous Air Pollutants (HAPs) which were listed in the 1990 CAA)
  - The original list had 189 HAPs to be regulated
  - There are now 187 HAPs because the following were removed: ethylene glycol monobutyl ethers, caprolactam, and methyl ethyl ketone.

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### 1990 (CAAA) Continued...

- EPA was required to identify categories of sources that emitted listed HAPs.
  - Then create MACT standards to regulate each source category.
- EPA was required to promulgate MACT standards by scheduled dates.
  - If they failed to meet the final deadline for November 15, 2000 then states would have to create case-by-case MACTs for major HAP sources.



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### What is 112(g)?



- **(g) Modifications, Construction, & Reconstruction**
  - Newly constructed, reconstructed, or modified major sources of HAP must apply source specific MACT if meet levels when no standard has been promulgated
  - Title 129, Chapter 27 has these requirements

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### What is 112(j)?



- **(j) Equivalent Emission Limitation by Permit**
  - If EPA misses deadline by 18 months
    - Major sources for listed source categories must submit a Title V application
    - NDEQ develops a case-by-case MACT.
  - May 15, 2002 - MACT "Hammer" Date
  - Part 1 and Part 2 Applications
  - If a standard is vacated this could trigger 112(j).

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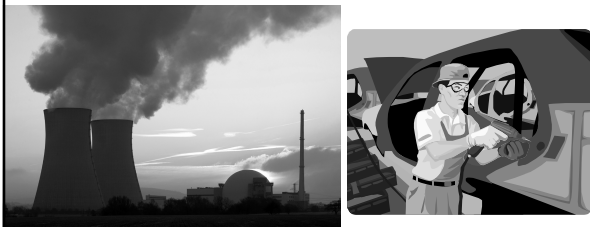
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### MACT and GACT Standards



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## How MACT Standards are Created

- Two Phased Regulatory Approach
  - Technology-based
    - Maximum Achievable Control Technology (MACT) Standards
  - Risk-based
    - follow up to see if 1 in a million risk occurs then they may implement added controls.



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## What is the MACT Floor?

- The level of emissions being achieved by the best performing similar sources
  - Existing Facilities: Top 12% best controlled facilities
  - Source Categories with <30 Sources: Top 5 best controlled facilities
  - New Facilities: Best controlled similar facility.



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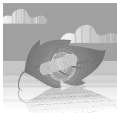
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## Risk and Technology Review



- Review MACT to determine if additional limit or controls are required:
  - based on health and environmental risk
- MACT standards must be reviewed at least every 8 years taking into account:
  - developments in practices, processes and control technologies

EPA Risk and Technology Review Website:  
<http://www.epa.gov/ttn/atw/rrisk/rtrpg.html>

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### GACT Standards

- GACT-Generally Available Control Technology
  - Minor (or Area) Source= PTE < 10 tons/yr single HAP or < 25 tons/year of combined HAPs
- GACT standards use best management and work practices




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### The MACT Framework




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### MACT Framework

- EPA Proposes a Standard
  - Request comments
  - Preamble discusses rule, intent, background
- <1 Year Later- EPA Promulgates
  - It is one year, unless there is a court ordered deadline
    - which we've seen with the recent area source rules.
  - Incorporates comments and responses to comments
- 1 Year Later - NDEQ Adopts into Title 129
  - Most likely, but not always




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## MACT Framework



- **Initial notification**
  - Submit 120 days after promulgation (typically)
- **Existing sources**
  - Anything not defined as a new source
  - Comply 3 years after promulgation
- **New sources**
  - Construction or Reconstruction of which is commenced after the Administrator first proposes a relevant emission standard
  - Comply upon date of promulgation or startup, whichever is later

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## MACT Framework

- **Stack testing may be required**
- **Compliance Status Notification**
  - Submit 60 days after compliance date
  - Include testing results
- **Annual compliance reporting**
  - Can submit with Certification of Compliance Reports (typically)

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## The “Once in, Always In” Policy

- “Once In, Always In” Policy
  - Major for HAP after compliance date of rule - always be subject to that rule - even if they reduce HAPs later on below major
  - Proposal to change - 12/21/06 (still pending)
    - Incentive to reduce emissions
    - May still be subject to an area source rule in the future
    - May not be able to remove physical controls added to comply with MACT



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## MACT Implementation

- **Permitting staff**
  - Understand MACT standards
  - Assist in identifying sources
  - Incorporate into permits
  - Provide input for implementation materials
- **Compliance staff**
  - Determine compliance with MACTs
    - Inspections
    - Reports
    - Tracking



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## MACT Implementation

- **MACT Program Coordinator**
  - Keep track of and understand new rules
  - Identify sources & maintain tracking
  - Conduct staff training
  - Coordinate with compliance, permitting, EPA Region VII, & SBPA staff
  - Develop implementation materials
    - MACT Notebook
  - Conduct outreach & provide compliance assistance



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## MACT Resources



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### MACT Standard Resources

EPA's Table of MACT Standards:  
<http://www.epa.gov/ttn/atw/mactfnlalph.html>

Electronic CFR (MACT Rules)  
<http://www.epa.gov/epacfr40/chapt-l.info/chi-toc.htm>

EPA's Air Toxics Website  
[www.epa.gov/ttn/atw](http://www.epa.gov/ttn/atw)

University of Tennessee Air Toxics Website  
<http://www.epamact.tennessee.edu/default.shtml>

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### Area Source Standard Resources

- EPA Area Source Website:  
<http://www.epa.gov/ttn/atw/area/arearules.html>

- Electronic CFR (MACT Rules):
  - <http://www.epa.gov/epacfr40/chapt-l.info/chi-toc.htm>

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### We're Shooting for August 2008

 **NDEQ Online MACT Notebook**  
Summaries of Standards

 **Industry specific MACT Information**

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## If You Need Help!

- Allison Zach
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  - Email: Allison.Zach@ndeq.state.ne.us



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## Questions?



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