

# Air Regulations for Rock Crushers



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# Agenda

- Background
- Permitting
- Visible Emission Standards



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# Background

- Federal Regulations
  - 40 CFR 60 Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*
- State Regulations
  - Env-A 2800, *Sand and Gravel Sources*

# Permitting Thresholds

- Permit requirements are based on maximum design capacity of the primary crusher:
  - Stationary Plants with a capacity greater than or equal to 25 tons of aggregate per hour
  - Portable Plants with a capacity greater than or equal to 150 tons of aggregate per hour



# Jaw Crusher Capacity

## Telsmith Model #2044

|      | 1 ½"        | 2"           | 2 ½"         | 3"           | 3 ½"         | 4"           | 5"           |
|------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
| stph | 90 -<br>151 | 110 -<br>168 | 123 -<br>192 | 152 -<br>217 | 167 -<br>243 | 183 -<br>267 | 212 -<br>316 |
| mtph | 81 -<br>136 | 99 -<br>151  | 111 -<br>173 | 137 -<br>195 | 150 -<br>219 | 165 -<br>240 | 191 -<br>284 |

Capacities are approximate total throughput based on an average material having a bulk density of 100 lbs/ft<sup>3</sup>.

stph = short ton per hour

mtph = metric ton per hour

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# Temporary Permit

- Temporary Permit required prior to construction of a plant at a new location.
- It takes approximately 90 days to obtain a Temporary Permit.
- Temporary Permit is valid for 18 months.
- \$2,000 application fee for new sources
- If air dispersion modeling is required (only for sources with stationary generators) – modeling fee of \$2,500.

# State Permit to Operate

- Site specific State Permit to Operate
- Available for plants/devices previously covered under a Temporary Permit
- No application fee
- Valid for 5 years



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# Temporary/State Permit

## ■ Public Participation

- Permits have requirements for publishing a public notice and allowing the opportunity for a public hearing
- Cost of the public notice is paid by the source – approximately \$500

## ■ Annual Fees

- Annual emission-based fees
- For 2010 emissions fee is \$148.60/ton of emissions (note that fee changes every year)
- If emissions are less than one ton, then owe a minimum of \$148.60

# Permit-by-Notification

- Permit-by-Notification does not cover stationary power generators.



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# Permit-by-Notification

- One time registration fee of \$1,000
- No public notice requirements
- No expiration date
- No annual reporting requirement
- No annual fees
- Must keep records for five years of annual aggregate processed

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# Permit-by-Notification

- Notification requires details of the equipment to be covered under the permit
  - Optional forms available
    - PBN-1
    - PBN-2

# Permit-by-Notification

- DES processing of new Permit-by-Notifications expected to be approximately one - two weeks from receipt of complete application



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# Notification of Changes

- Permit moves with equipment
  - Need to notify DES of new location within 10 days of startup at new location
  - Optional form [PBN-4](#)
- Within 10 days after replacing a piece of equipment must notify DES
  - Notification must meet the requirements of 40 CFR 60.676(a)
  - Must note date that new equipment will be tested
- Notifications may be made via mail, fax or email ([airpermitbynotification@des.nh.gov](mailto:airpermitbynotification@des.nh.gov) )

# Permitting Summary

- Comparison Table
- Questions



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# Visible Emissions/Opacity

- Opacity is the amount of light that is blocked by dust
- Measured as a percentage
  - The more particulates present, the higher the opacity reading

# Visible Emission Standards

- Equipment not requiring permits – visible emissions limited to 20% opacity
- Equipment subject to permitting:

| <b>Equipment Manufacture Date</b> | <b>Crushers</b> | <b>Other Equipment</b> |
|-----------------------------------|-----------------|------------------------|
| Before 4/22/08                    | 15%             | 10%                    |
| On or after 4/22/08               | 12%             | 7%                     |



# Visible Emission Standards

- All permitted, equipment, regardless of age, will be subject to emission standards and testing requirements of federal regulations.
- Existing equipment that has never been tested will need to be tested by Oct. 1, 2011.



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# Testing Requirements

- Compliance with visible emission limits determined using 40 CFR 60, Appendix A, Method 9
- Certified observer
  - Internal or hire outside firm
  - Observer certification valid for 6 months
- Equipment, including replacement equipment, only needs to be tested once
- Testing should be done at normal maximum capacity

# Testing Notification/Reporting

- Requirements under Env-A 802.12
- Notify DES at least 30 days prior to test date
  - Optional Form – [PBN-2](#)
- Submit summary of testing within 60 days
  - Optional Form – [PBN-3](#)



# Questions?

<http://des.nh.gov/organization/divisions/air/pehb/apps/rock-crushers.htm>

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