Environmental Protection Agency (EPA) Role in Regulating Lehigh Southwest Cement

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Regulatory Mechanisms

- Air Permits
- National Rules
- Compliance/Enforcement
- Other (includes non-regulatory)
Air Permits – Title V

- Applies to operation of existing (already built) facilities
- BAAQMD is the lead permitting authority
- Program approved in 2001
- EPA oversees program implementation (permit reviews and program evaluations)
Air Permits – Title V Permit Review

- Public participation
  - Comment period for the draft permit at least 30 days
  - BAAQMD may schedule a public hearing
  - EPA may submit comments during the comment period

- EPA objection period
  - EPA has 45 days to object to the proposed permit
  - Anyone can petition EPA to object to the permit 60 days after the 45-day period ends if EPA has not objected to the permit
  - Petitions must be based on issues raised during the public comment period

- Lehigh title V permit
  - Review process will restart when BAAQMD re-proposes the permit
Air Permits – NSR/PSD

- New Source Review (NSR) and Prevention of Significant Deterioration (PSD) construction permits
- Applies to construction of new and modified major sources
- BAAQMD is the lead permitting authority
- EPA is currently reviewing an applicability determination for Lehigh
EPA’s National Rules

- New Source Performance Standard (NSPS) for Portland Cement Plants
- National Emission Standard for Hazardous Air Pollutants (NESHAP) for Portland Cement Plants
- Greenhouse Gas (GHG) Regulations
NSPS for Cement Plants

- 40 CFR Part 60, Subpart F

- Current rule establishes emission standards for particulate matter (PM) from cement kilns and associated systems (applies to Lehigh)

- EPA is revising the current rule NSPS to regulate additional pollutants from affected units (e.g., cement kilns) constructed, modified, or reconstructed after June 16, 2008

- Comment period on proposed rule ended in Sept 2008

- The rule is expected to be finalized around the same time as the NESHAP
NESHAP for Cement Plants

- 40 CFR Part 63, Subpart LLL
- EPA is revising the current rule
- Comment period on proposed rule ended in Sept 2009
- Final rule expected in June 2010
NESHAP – Proposed Limits

- Set nation’s first limits on mercury emissions from existing kilns and strengthens limits for new kilns
- Set emission limits for hydrocarbons, particulate matter, and sulfur dioxide for kilns of all sizes, and reduces hydrochloric acid emissions from large kilns
- Require continuous emissions monitoring for mercury from kiln stack
NESHAP – Projected Reductions

- When fully implemented in 2013, EPA estimates this rule would reduce annual emissions nationwide by at least:

<table>
<thead>
<tr>
<th></th>
<th>11,600 - 16,250 pounds</th>
<th>81%-93% reduction</th>
</tr>
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<tbody>
<tr>
<td>Mercury</td>
<td>11,700 tons</td>
<td>75% reduction</td>
</tr>
<tr>
<td>Total Hydrocarbons</td>
<td>2,800 tons</td>
<td>94% reduction</td>
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<tr>
<td>Hydrochloric Acid</td>
<td>160,000 tons</td>
<td>90% reduction</td>
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<tr>
<td>Sulfur Dioxide</td>
<td>10,500 tons</td>
<td>96% reduction</td>
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NESHAP – Potential Requirements for Lehigh

- Mercury reductions
- Installation of controls for mercury reductions
- Monitoring
- Compliance may be required in 3 years after the final rule becomes effective
GHG Rules

- **GHG Mandatory Reporting Rule**
  - EPA published final rule on Oct 30, 2009
  - Requires reporting of GHG emissions from facilities emitting over 25,000 tons of greenhouse gases a year
  - Cement plants are subject to this rule

- **NSR/Title V GHG Permitting Rule**
  - EPA proposed rule on Sept 30, 2009
  - Focused on six GHG pollutants at large facilities emitting over 25,000 tons of GHGs a year
  - Final rule expected in March 2010

- More information can be found at: http://www.epa.gov/climatechange/initiatives/
Compliance/Enforcement

- EPA currently has a national enforcement initiative for cement plants
- Initiative is focused on NSR/PSD
- More information can be found at: http://www.epa.gov/oecaerth/civil/CAA/cement/
- EPA has an ongoing investigation at Lehigh
Federal Clean Water Act

- **Standards**
  - States must adopt and implement water quality standards for priority toxic pollutants
  - EPA must approve any proposed standard

- **Permits**
  - NPDES permits required for sources that discharge into waters of the U.S.
  - States issue; EPA can object

- **TMDL (Total Maximum Daily Load) for Impaired Waters**
  - States adopt, EPA must approve
  - TMDL for mercury:
    - San Francisco Bay: State has adopted and EPA has approved
    - Guadalupe River Watershed:
      - Regional Board has adopted, State is reviewing
      - Once State has adopted, EPA will review and act
Air Toxics Monitoring
Stevens Creek Elementary School

- EPA Initiative to monitor air toxics at select schools across the country
- Monitored hexavalent chromium
- 13 samples taken over 3 month period last summer
- Hexavalent chromium in samples were well below levels of concern
- EPA is analyzing results, wind data, and source operations
- Report will be issued later this year
- BAAQMD is continuing monitoring for a year