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PCA

Portland Cement Association

# Solid Waste Identification and Incinerator Rules: PCA Perspectives

*November 10, 2011*



# Agenda

- PCA Concerns with the Solid Waste Identification Rule
- PCA Concerns with the Commercial and Industrial Solid Waste Incinerator (CISWI) Rule
- Economic Impacts
- PCA Recommendations

## Solid Waste Identification Concerns

- Cement kilns are not boilers or incinerators
  - The industry recycles and reuses the energy and mineral contents of various industrial by-products
- Cement manufacturing process uniquely suited to reusing diverse types of materials
  - Kilns have very high temperatures, long residence times and trace elements are incorporated into cement product
- These recycling and reuse practices should be incentivized
  - Conserves natural resources and minimizes industry's environmental footprint, including a reduction in criteria pollutant emissions
  - Preserves precious landfill space; discourages illegal dumping
  - These business practices have supported EPA solid waste policies for decades

# Materials Used by the Cement Industry

## **Fuels** (2 million tons annually)

- Scrap tires
- Plastics
- Municipal refuse
- Coal tar sludge
- Meat and bone meal
- Carbon black residue
- Spent water treatment resins
- Used Oil
- Wood products
- Rice hulls and other biomass
- Landfill gas
- Biosolids

## **Ingredients** (10 million tons Annually)

- Scrap tires (Fe)
- Mill scale (Al, Fe, Si)
- Filter cake (Ca, Si)
- Cracking catalysts (Al, Si)
- Blast furnace slag (Al, Ca, Fe, Si)
- Foundry sand (Si)
- Petroleum contaminated soil (Al, Si)
- Bottom ash (Al, Ca, Fe, Si)
- Water treatment sludge (Al, Ca, Si)
- Fly ash (Al, Fe, Si)
- Refractory brick (Al, Ca, Si)
- Metallurgical slag (Al, Si)

# Alternative Fuels Utilized

Plant Statistics	2007	2008	2009
Total Reporting Plants	98	97	90
Plants Using Alternative Fuel	64	66	63
Percent	65.3	68	70
<b>Types of Alternative Fuels Used*</b>			
Scrap tires (also an raw material ingredient)	41	43	40
Used Oil	15	18	18
Solvents	10	11	11
Other (plastics, biomass, etc.)	39	42	43

\* Number of plants. Plants may use more than one type of alternative fuel (2009 reflects poor economic conditions).

# Quantities of Alternative Fuels Utilized in Cement Kilns\*

Alternative Fuel	Units	2007	2008	2009
Used Oil	Gallons	22,635,768	10,675,288	7,168,381
Other Alternative Fuel	Tons	645,376	719,478	855,376
Solvents	Tons	691,862	743,888	579,636
Scrap Tires (also a raw material ingredient)	Tons	478,858	475,948	355,918

\*Approximately 2 million tons of alternative fuels used by the industry annually.

## Ingredients are not “Combusted”

- CAA 129 jurisdiction applies only to materials that are “combusted;” ingredients are NOT combusted
- PCA filed extensive comments on this matter which were ignored by EPA
- In a final Federal Register ruling, Administrator Jackson has resolved the ingredient issue in agreement with PCA’s position. She acknowledged that a material must be “combusted” for CISWI jurisdiction to attach, and ruled that secondary ingredients used in cement kilns are not combusted. (May 17, 2011 Fed. Reg.)
- NHSM should be changed to reflect May 17 FR with respect to ingredients and fuels
- CISWI rule should also be changed accordingly

## Rule Creates Barriers to Recycling and Reuse

- Aspects of NHSM final rule are legally unnecessary, environmentally counterproductive, and will exacerbate:
- EPA should reinstate its long-standing definition of “contained gas.”
- EPA’s definition/interpretation of “discard,” “traditional fuel,” and “processing” discourage or prevent the beneficial reuse of non-hazardous materials as fuels
  - **Discard** – RCRA provides that materials once clearly discarded (needlessly buried) can be “usable material” when simply “separated” from solid waste (RCRA § 1002(c)). For example, sewage sludge is never discarded and is therefore NOT a solid waste.
  - **Processing** – Definition needs to be modified.
  - **Traditional Fuels** – The number of fuels that are considered traditional should be expanded considerably, including, for example, scrap tires.



# Rule Creates Barriers to Recycling and Reuse

## **EPA's "Processing" definition particularly inappropriate**

- No statutory language or judicial precedent supports EPA's extremely burdensome definition of "processing," and it is totally inconsistent with the approach EPA has taken for HAZARDOUS materials in RCRA Subtitle C (*i.e.*, scrap metal).
- EPA justifies requiring "processing" of discarded material so that the material will be usable as a bona fide fuel
- PCA has offered a definition of "processing"

# CISWI Rule Concerns

- Cement kilns are regulated under CAA Sections 111 and 112; should not be regulated under Section 129; kilns are not incinerators (or boilers)
- Limitations of emission monitoring technology complicate compliance determinations with these low standards
- Standards for new sources unachievable;\* triggered by hourly increase in emissions; major disincentive for investment in existing plant upgrades/capacity

\*EPA acknowledged this: “Furthermore, we already estimate no new CISWI sources will be constructed, due to the costs associated with the MACT floor limits in the proposed NSPS.” (75 Fed. Reg. 31959)

# CISWI Rule Concerns (cont.)

- Emissions database flawed , e.g., the dioxin/furan standard in the March 2011 rule is 28 times more stringent than the current NESHAP standard.
- Statistical approach used to compute standards inaccurate; variability not appropriately considered
- Overlap between CISWI and portland cement NESHAP not considered when identifying sources to use to set standards
- Impossible to determine when a source would qualify as a “new” CISWI source; ambiguity over what is:
  - “Change in the method of operation”
  - “Increase in hourly emissions”
- EPA simply has inadequate data to propose a CISWI rule for portland cement at this time; should defer further rulemaking (similar to EPA’s approach to burnoff ovens).

## Overlap Among CISWI and NESHAP Sources

- Many of the 153 kilns in the universe of cement kilns classified as NESHAP sources could also be classified as CISWI sources
  - Many NESHAP “floor” sources could qualify as CISWI sources
- Section 129 stipulates that facilities regulated under Section 129 may not also be regulated under Section 112
- The inclusion of the same facilities in both rules invalidates both rulemakings
  - This “overlap” issue currently under consideration in DC Circuit, with opinion expected early 2012 – yet another reason EPA should defer proposing any CISWI rules for portland cement.

# Economic Impacts of CISWI/SW and NESHAP Rules

- The regulatory disconnect between NESHAP and CISWI has already caused the closure of a U.S. cement manufacturing facility, proving that EPA policies will prolong the Great Recession.
- Cement industry revenues in 2010 just over \$6.5 billion
- As many as 4000 jobs may be lost by 2015, on top of 4000 lost jobs since 2007
- CISWI and NESHAP rules will impose \$5.4 billion in compliance costs by 2015
- NESHAP and CISWI rules combined will force the closure of at least 22 plants nationwide by 2015
- Cement imports will soar to 56% by 2025 due to closures, diminished domestic production and demand increases

# Recommendations

- EPA should significantly limit the scope of the solid waste definition, excluding those materials beneficially reused in cement kilns (already regulated by Section 112)
- EPA should exclude from the scope of the CISWI rule and the solid waste definition ingredients used as alternatives to conventional raw materials in cement plants
- At a minimum, EPA should notice and take comment on PCA's NHSM and CISWI rulemaking petitions in the upcoming proposals and extend the CISWI compliance date to reflect the rulemaking stay
- EPA should defer any proposal of a CISWI rule for portland cement kilns until it has adequate data and at least until the DC Circuit has ruled on the CISWI/NESHAP "overlap" issue.



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# Thank You!

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