



Portland Cement Association

PCA® *Since 1916*
America's Cement Manufacturers™

U.S. Tire Manufacturers Association 8th Scrap Tire Recycling Conference

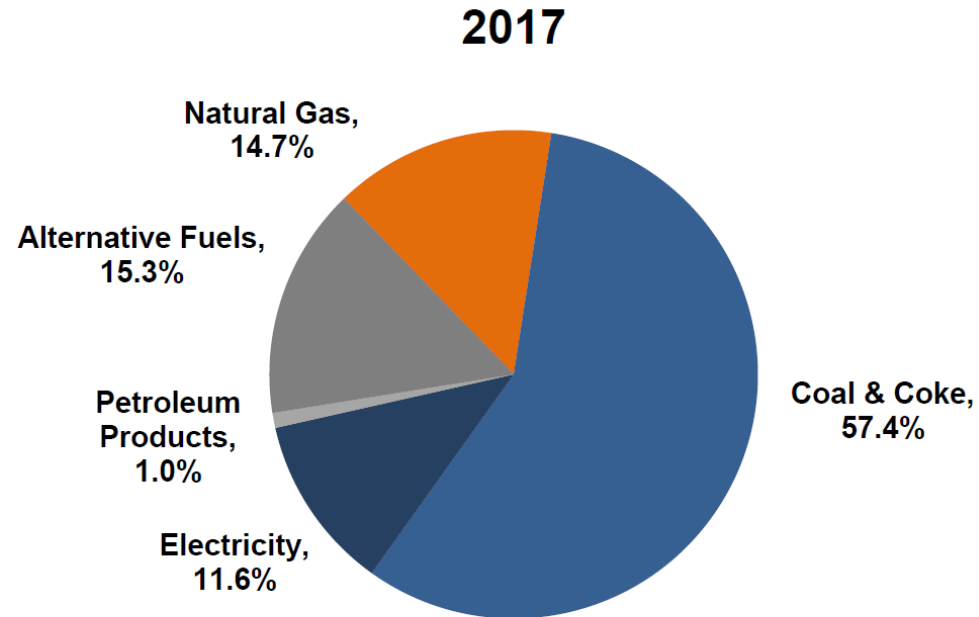
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Portland Cement Association

- Since 1916, PCA has been the premier policy, research, education, and market intelligence organization serving America's cement manufacturers
- Represents 91% of domestic production capacity
- **Mission:** promote safety, sustainability, and innovation in all aspects of operations, foster continuous improvement in cement manufacturing and distribution, and generally promote economic growth and sound infrastructure investment
- Cement and concrete manufacturing, directly and indirectly, employs ~610,000 people and contributes \$125 billion to economy

Alternative Fuels Advocacy

- Increasing use of alternative fuels is significant part of cement industry advocacy, particularly on climate change
- Cement industry is uniquely suited to use alternatives fuels, including tires
- Alternative fuels make up only 15% of the fuel used by domestic manufacturers, compared to more than 36% in European Union and as high as 60% in Germany.



Alternative Fuels Advocacy

- Using these materials serves many public interests
 - Reduces landfill disposal of materials that can become public health vectors and safety risks
 - Contributes to circular economy
 - Conserves natural resources; minimizes negative impacts
 - Provides low-cost, sustainable fuel
 - Achieves lower greenhouse gas (GHG) and other air emissions than traditional fossil fuels
 - Contributes to economic growth

Non-Hazardous Secondary Materials Rule

- Alternative fuels use regulated under Clean Air Act (CAA) and Resource Conservation and Recovery Act (RCRA)
- After litigation, EPA issued the Non-Hazardous Secondary Materials (NHSM) Rule in 2011 allowing for secondary materials to be used for energy recovery if they met specific legitimacy criteria
- EPA identified multiple materials that are not solid wastes and thus can be used as fuel, including tires managed under established tire collection programs

Non-Hazardous Secondary Materials Rule

- **NHSM Categorical Non-Waste Determinations (40 CFR 241.4(a))**
 - Scrap tires managed under established tire collection program
 - Resinated wood
 - Coal refuse recovered from legacy piles
 - Dewatered pulp and paper sludges
 - Construction and demolition debris wood
 - Paper recycling residuals
 - Treated railroad ties
- **Facilities seeking to use other materials as alternative fuels must demonstrate compliance with legitimacy criteria for each individual materials stream**

Non-Hazardous Secondary Materials Rule

- Alternative fuels must meet legitimacy criteria, including:
 - Material managed as a valuable commodity
 - Material has high heating value (at or above 5,000 Btu/lb)
 - Contaminant composition is similar to traditional fossil fuels
 - If discarded, material must be sufficiently “processed” or chemically transformed into fuel (“Operations...modifying the size of the material by shredding do not constitute processing”)
- NHSM Rule constrains cement industry and others from using materials, including those going to landfills, as alternative fuels

Non-Hazardous Secondary Materials Petition

- PCA submitted NHSM Petition in April 2019 seeking categorical non-waste determinations for plastics, paper, and fabrics/fibers to use as alternative fuels
- PCA and EPA had multiple meetings and PCA provided additional information and data to EPA to support the Petition. PCA and EPA still actively discussing the Petition.

Industry Use of Tire-Derived Fuel (TDF)

- Cement industry is heavy user of TDF for fuel and positive example of benefits of using alternative fuels
- After scrap tire non-waste determination established in 2011, cement industry has increased TDF use from 40 millions tires in 2011 to 60 million tires in 2017
- TDF serves as excellent fuel for cement kilns as they have higher heating value and lower GHG, nitrogen oxide, sulfur dioxide, and particulate matter emissions than traditional fossil fuels

EPA TDF Policy Letters

- PCA and association members in Texas worked with EPA and Texas Commission on Environmental Quality (TCEQ) to reduce regulatory barriers to using discarded tires
- Goals to help Texas clean up tire stockpiles and allow them to be beneficially used
- There are 16 million tires in numerous tire stockpiles throughout the state:
 - 11 million were managed under previous tire collection programs that went defunct
 - Remaining 5 million are discarded tires

EPA TDF Policy Letters

- **12/7/17:** EPA issued letter to TCEQ determining that tires at specific tire site were collected under previously defunct tire collection program and thus are not solid wastes
- Policy can be applied to other tire sites that were under the oversight of previously defunct tire collection programs, covering approximately 11 million tires
- These tires are not discarded and thus would not need to undergo processing to be used as fuel

EPA TDF Policy Letters

- **2/16/19:** EPA issued letter outlining revised processing steps for discarded tires to cover remaining 5 million tires
- 2011 NHSM Rule required removal of 90+% of metal in the tire
- Revised processing steps require use of slow-speed shredder, screening, and removal of 2-10% of metal
- EPA recognized the metal is key ingredient in cement manufacturing process in lowering metal removal requirement
- Policy can be applied nationwide

Conclusion

- Alternative fuels advocacy is significant part of industry's advocacy strategy on climate change
- Increasing use of alternative fuels will allow industry to significantly reduce GHG emissions
- In addition, industry can be part of the solution to recover materials that traditionally go to landfills, exported internationally, or end up in waterbodies as marine debris
- Industry's use of TDF is precedent for using alternative fuels to protect environment and increase economic growth