

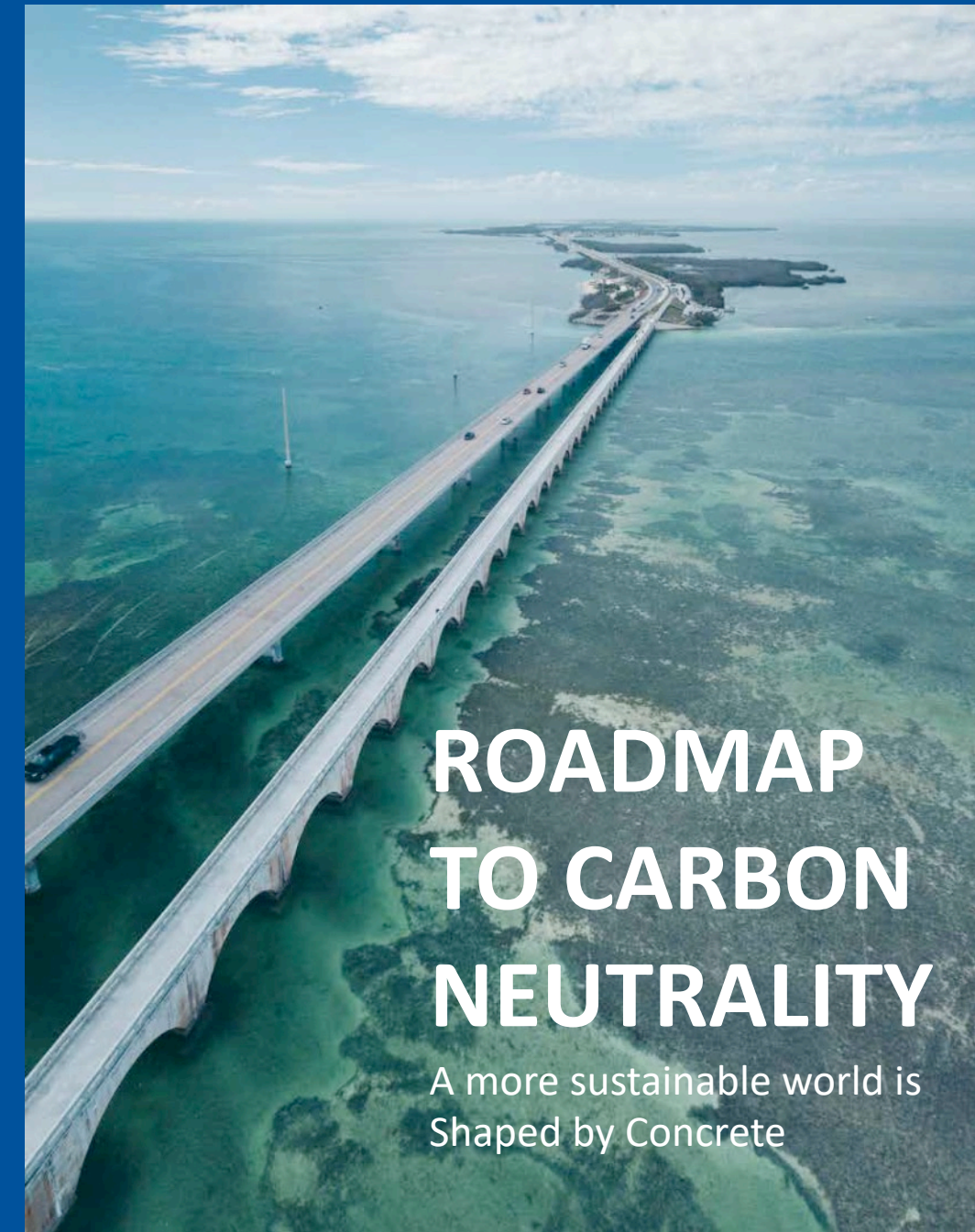
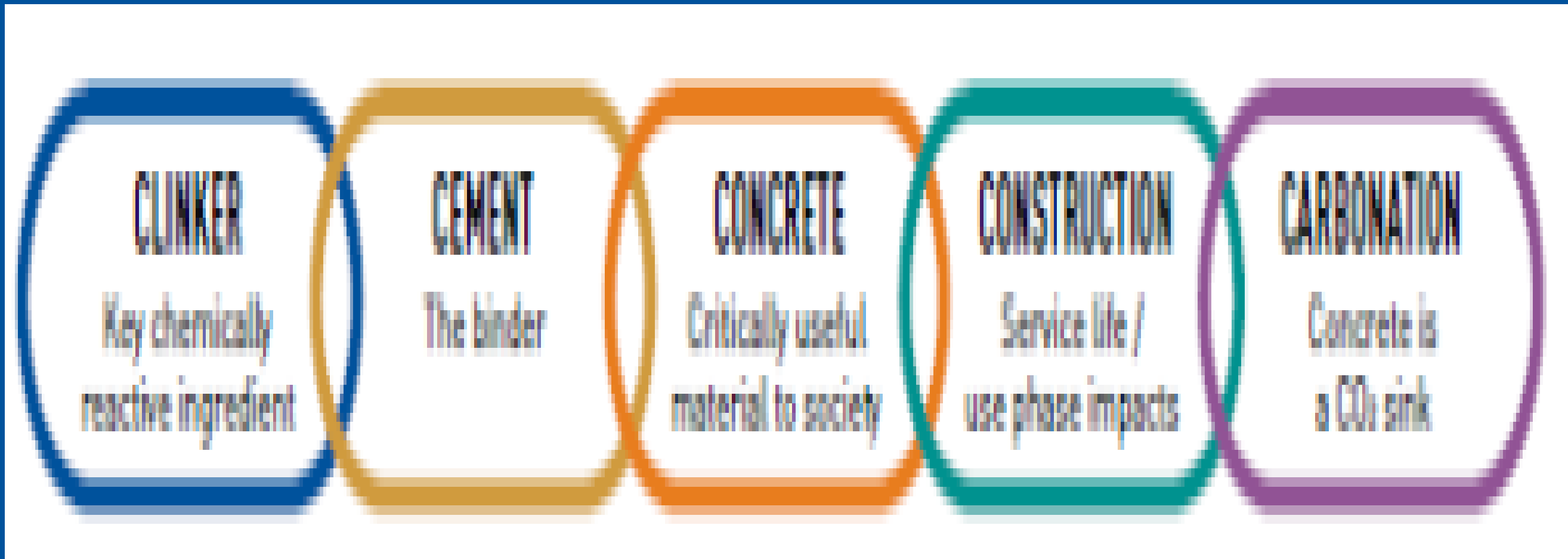
# **Regulatory Update on CCR Disposal and Beneficial Use Policy**

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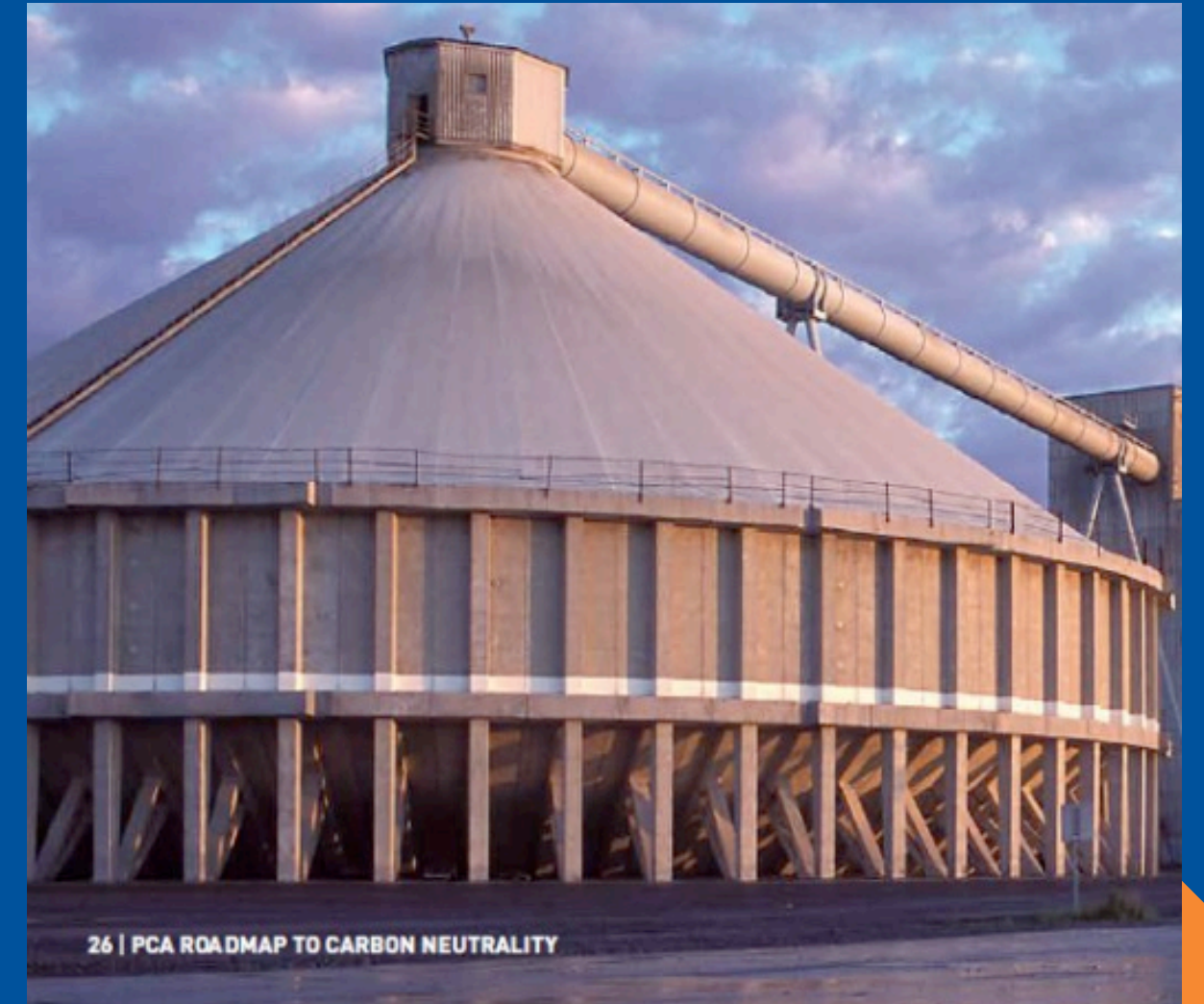
# Roadmap to Carbon Neutrality

- PCA member companies committed to achieving carbon neutrality across concrete supply chain by 2050



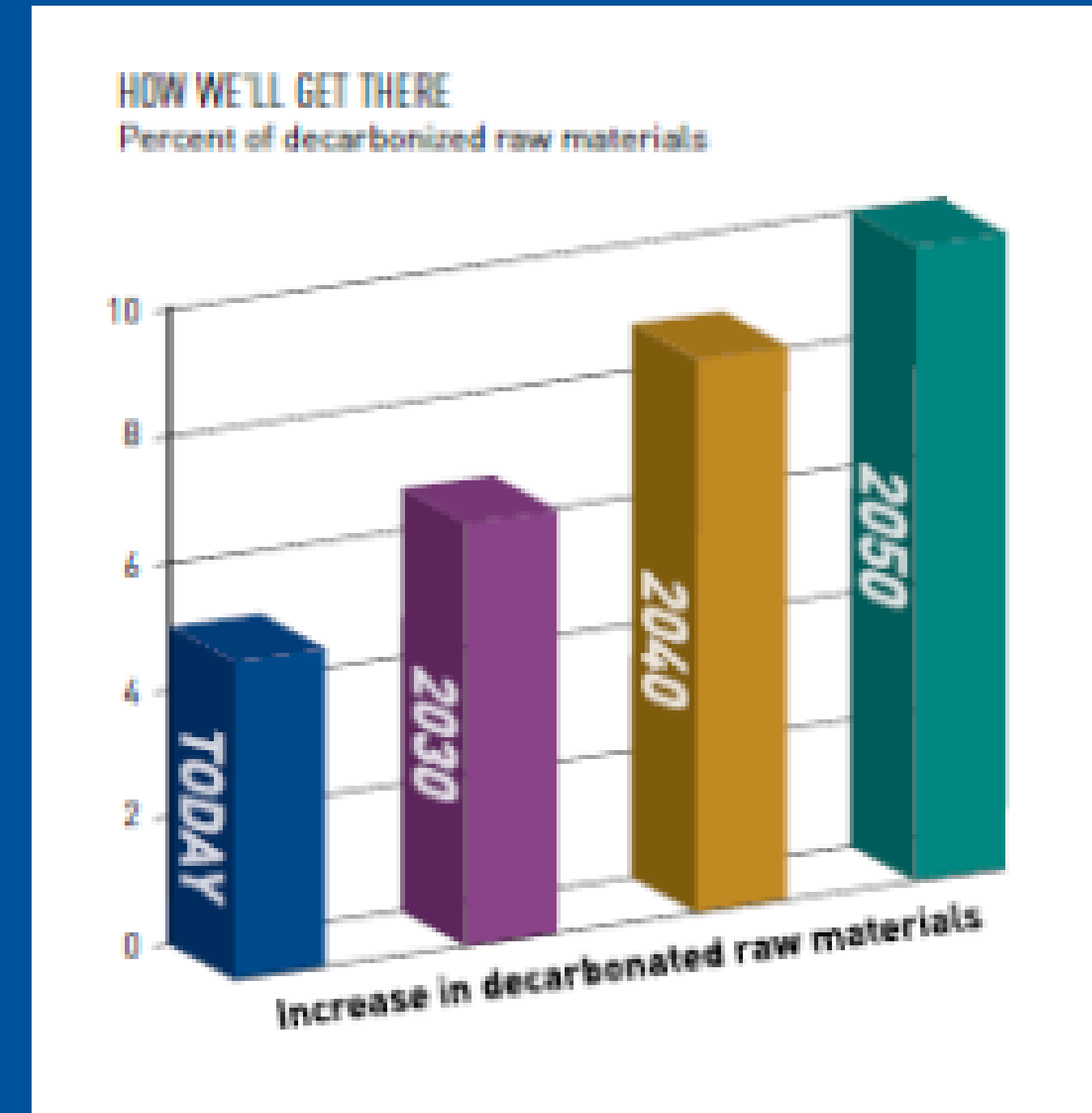
# Roadmap to Carbon Neutrality

- Decarbonization Opportunities at Cement Plant
  - **Decarbonated Raw Materials**
  - Decrease use of traditional fossil fuels
  - Increase use of alternative fuels
  - Increase energy efficiency
  - Utilize carbon capture
  - Reduce clinker production emissions



# Decarbonated Raw Materials

- Today, decarbonated raw materials, including CCRs, represent less than 5% of cement manufacturers' raw material input
- According to ACAA 2019 Survey:
  - 8.6 million tons of CCRs utilized in total for clinker production
  - 4.6 million tons of fly ash utilized
  - 1.6 million tons of bottom ash utilized
  - 2.3 million tons of synthetic gypsum utilized
  - 100K tons of boiler slag utilized
- By 2050, industry targeting replacing virgin raw materials with at least 10% decarbonated raw materials





# Policy Opportunities

- Enhance community acceptance of CCR utilization through fewer environmental releases, waste diversion, and reduced land disposal, and associated public health and environmental impacts
- Adopt performance-based standards for building materials
  - Increase market for alternative cements, including those with higher compositions of fly ash
- Consideration of full product, material, and building life-cycle in procurement policies

# CCR Regulations

- **December 2014:** First National Regulations
  - Structural integrity requirements for surface impoundments at disposal facilities
  - Groundwater monitoring and corrective action requirements
  - Location restrictions
  - Liner design criteria
  - Beneficial use definition
- **July 2018:** Phase One Amendments to National Regulations
  - Approved state permitting programs
  - Revise groundwater protection standard for constituents with no established drinking water standard
  - Facilities designated for closure provided additional time

# CCR Regulations

- **August 2020:** Closure Part A: Holistic Approach to Closure
  - Allows unlined surface impoundments to continue to receive CCRs unless leaking
  - Revised date of April 2021 to initiate closure of unlined surface impoundments
  - Amendments to groundwater monitoring and corrective action reporting requirements
- **November 2020:** Closure Part B: Alternate Liner Demonstration
  - Allows limited number of facilities to continue operating surface impoundments as long as there is no reasonable probability of adverse effects to human health and the environment

# CCR Beneficial Use

- August 2019 CCR Beneficial Use Proposed Rule:
  - Eliminate 12,400-ton beneficial use threshold
  - Replace threshold with specific location-based standards
  - Exempt CCRs stored in enclosed structures with stringent definition for enclosed structure
- Beneficial use piles in specific locations must control releases, including stored on impervious base, implement leachate and run-off collection, walls or wind barriers, and groundwater monitoring



# CCR Beneficial Use

- Current definition of “CCR Pile” (40 CFR 257.53)
  - Any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. **CCR that is beneficially used off-site is not a CCR pile.**
- Proposed revised definition
  - any accumulation of solid, non-flowing CCR that is placed on the land and that is not a CCR storage pile (piles in enclosed structures exempt from definition of storage pile).

# CCR Beneficial Use

- Definition of Beneficial Use (40 CFR 257.53)
  - Provide function benefit
  - Substitute for virgin material
  - Meet relevant product specifications
  - When unencapsulated use of CCR of 12,400 tons or more, user must protect against environmental releases
- Proposed rule would revise fourth criterion:
  - When CCRs stored in specific locations, such as on fault area, floodplain, unstable area, and wetland, user must protect against environmental releases

# CCR Beneficial Use

- PCA advocacy on proposed CCR Beneficial Use regulatory changes:
  - Cement manufacturers manage CCRs as valuable commodities
  - CCRs for beneficial use should be exempted because they pose no risk
  - If not exempted, 12,400-ton beneficial use threshold should be raised
  - EPA's economic impact analysis showing an impact of \$0 absurd
  - Existing dust control and stormwater protections sufficient to protect human health and environment



# CCR Beneficial Use

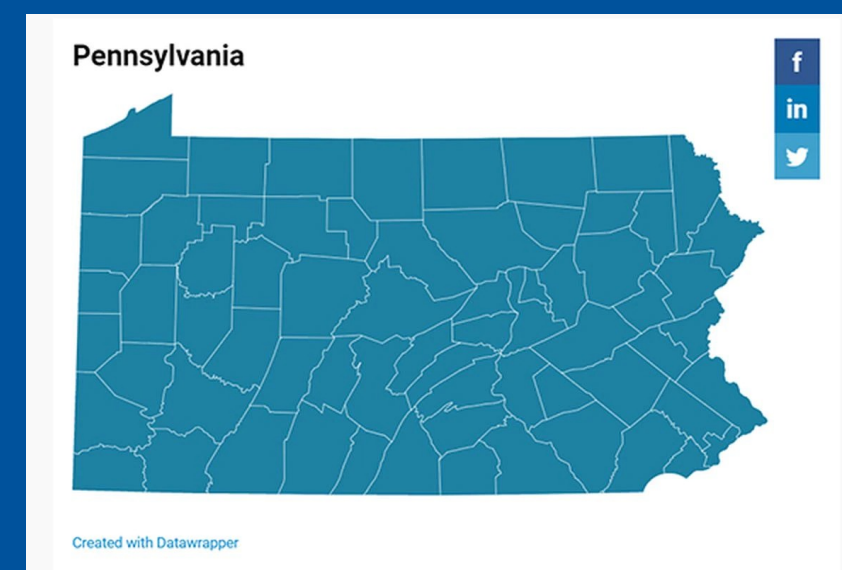
- EPA abandoned beneficial use rule after opposition from both industry and environmental groups
- **December 2020:** EPA issued Notice of Data Availability seeking additional information on storage, handling, and management of CCRs for beneficial use

# CCR Beneficial Use

- February 2020: PCA submitted extensive comments:
  - Overwhelming benefits of beneficial use of CCRs in cement manufacturing
  - Emphasized climate and EJ benefits of CCR beneficial use
  - Retention of 12,400-ton threshold
  - Submitted examples of storage, handling, and management practices
- Extensive contracts and laboratory sampling reports demonstrating safe handling of CCRs for beneficial use

# State Policies

- PCA NODA Comments: Analysis of State Requirements:
- EPA cited Illinois, Wisconsin, West Virginia, North Carolina, and Pennsylvania having established beneficial use thresholds lower than federal standard
- Referenced limits apply to structural fill or land applications, not all beneficial uses





# Environmental Groups

- NGOs requested comment extension and submitted comments in May 2021
  - Regulate CCRs for beneficial use as stringently as CCRs for disposal because of concerns of environmental releases
- Conduct surveys and data collection requests for CCR storage and management practices for beneficial use
- Storage of CCRs at cement plants disproportionately harm low-income and minority communities



# Current State of Play

- **January 2021:** Biden Administration issued Executive Order requiring EPA to reconsider Trump Administration's final rules on CCR disposal
- **July 2021:** In legal filing, EPA upheld Trump Administration closure rules barring unlined surface impoundments
- EPA working on further standards for “legacy” ash sites after Trump Administration issued call for comments
- EPA reviewing NODA comments on beneficial use and assessing next steps

# Industry Advocacy: EJ

- Cement industry taking significant amounts of CCRs from disposal sites, many of which located in EJ areas
- Working with EPA to show industry case studies of beneficial use of reclaimed legacy CCRs
- Also planning plant tour with EPA officials to demonstrate industry CCR storage and handling practices





A low-angle photograph of a modern, multi-story building with a grid-like facade of windows and balconies. The image is heavily filtered with a blue color. In the top right corner, there is a solid orange triangle pointing downwards. The word "QUESTIONS?" is written in large, white, bold, sans-serif capital letters across the center of the image.

**QUESTIONS?**