The changing paradigm: regulatory treatment of CCR beneficial use and practical implications

Dawn Santoianni
Martha S. Thomsen
Susan Jackson, P.E.

BAKER BOTTS

HALEY ALDRICH

Evolving policy positions

Dawn Santoianni
Principal Consultant
Haley & Aldrich, Inc.

BAKER BOTTS

HALEY ALDRICH

Why is beneficial use in question?

EPA's policy positions on disposal leads to uncertainty for some beneficial uses

- In March, EPA issued *proposed* decisions on utilities' applications to extend deadlines to cease flows into CCR impoundments (Part A proposed determinations)
- These decisions contained **embedded policy positions** that indicate an expansive view of regulated activities

Use of CCR in closure

Ash in contact with groundwater

"Legacy" CCR units

Cascading policy implications

EPA's position is that the federal rule precludes using CCR as structural fill in impoundments that are required to close

EPA considers inactive units that have used CCR as structural fill after effective date of CCR rule "active" units

EPA's interpretation of "infiltration" and "free liquids" would expand the universe of legacy units

Emerging state regulations for structural fills, storage and handling of CCR intended for beneficial use

Regulatory uncertainty for beneficial use

The changing paradigm

"The CCR final rule provides criteria that support and encourage the appropriate beneficial use of CCR.
The final rule retains the Bevill Determination without revision and does not regulate CCR that are beneficially used."

"EPA is confident that the combination of the final rule, EPA guidance, current industrial standards and practices, and in many cases, state regulatory oversight is sufficient to address concerns associated with the beneficial uses to which this determination applies"

"We [EPA] do not wish to place any unnecessary barriers on the beneficial use of coal combustion wastes so that they can be used in applications that conserve natural resources and reduce disposal costs"

"The CCR Rule prohibits placing CCR in a unit that is required to close; considering this placement a 'beneficial use' is irrelevant."

The meaning of words

- EPA takes positions on the meaning of “infiltration” and “free liquids” in closure performance standards that have broader implications
- Beneficial use of CCR in closure is threatened
- Structural fill vs. landfill

Infiltration

- Can come from any direction
- Groundwater flowing laterally through impoundment

Free liquids

- Also applies to groundwater intersecting impoundment

Closed units

- Previously closed units that have contact with groundwater could be regulated
- Closed units that used CCR in closure after effective date of rule are “active”

Legal and regulatory background

Martha S. Thomsen
Partner
Baker Botts LLP

BAKER BOTTS

HALEY ALDRICH

Legal and regulatory background

- Federal CCR rule exempted beneficial use that met certain criteria from regulation (40 CFR § 257.53)
- First **three beneficial use criteria -**
  - Provides functional benefit
  - Substitutes for use of virgin material
  - Meets relevant product specifications, regulatory or design standards
- EPA CCR Rule's **fourth criteria** applicable to unencapsulated use of CCR in excess of 12,400 tons
- Plain language of regulatory text (§ 257.50) suggests ash placement that qualifies as beneficial use is not otherwise regulated by the CCR rule

Current issue: placement of ash in units closing for cause

- **Key regulatory provisions and interpretations**
  - 2015 CCR Rule does not apply to "practices that meet the definition of a beneficial use of CCR"
  - But, EPA in proposed amendments suggested that current rule prohibits even beneficial use of CCR in units "closing for cause":

    > The Agency also explained in March 2018 proposal that the current CCR regulations expressly prohibit ''placing CCR'' in a CCR unit required to close for cause pursuant to § 257.101 after dates established in the CCR regulations. EPA further explained that the CCR regulations do not distinguish between placement that might be considered beneficial use and placement that might be considered disposal. All further placement of CCR into the unit—whether for beneficial use or disposal—is prohibited once the provisions of § 257.101 are triggered.

40 C.F.R. § 257.50(g)

40 C.F.R. § 257.101

Phase One Proposed Rule, 83 Fed. Reg. 11,584, 11,605 (March 15, 2018)

Part B Proposed Rule, 83 Fed. Reg. 12,456, 12,462 (March 3, 2020)

BAKER BOTTS HALEY ALDRICH

Current issue: placement of ash in units closing for cause

- **Current status and recent updates**
  - Amendments "allowing" for beneficial placement in units closing for cause never finalized
  - **January 11, 2022 actions** (Proposed Part A decisions and compliance letters) also reject placement in closing units, e.g.,
    - Gallagher Compliance Letter
    - Ottumwa Proposed Decision
  - **January 11 actions challenged** in D.C. Circuit April 8, 2022
    - Case No. 22-1058
    - Case No. 22-1056

Ottumwa Proposed Decision Excerpt: "The CCR Rule prohibits placing CCR in a unit that is required to close; considering this placement a 'beneficial use' is irrelevant"

Current issue: what is an unencapsulated use?

Encapsulated uses (per EPA):

(1) filler or lightweight aggregate in concrete

(2) a replacement for, or raw material used in the production of, cementitious components in concrete or bricks

(3) filler in plastics, rubber, or similar products

(4) raw material in wallboard production

2015 CCR Rule Preamble, 80 Fed. Reg. at 21,328

Unencapsulated uses (per EPA):

(1) flowable fill

(2) structural fill

(3) soil modification/stabilization

(4) waste stabilization/solidification

(5) use in agriculture as a soil amendment

(6) aggregate

2015 CCR Rule Preamble, 80 Fed. Reg. at 21,353

Prospective issue: changing regulations for unencapsulated uses

- **Key regulatory history**
  - Current regulations supply 12,400 cutoff for unencapsulated beneficial use "fourth criterion"

> **Fourth Criterion:** "When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.

  - Industry petitioned for the cutoff to be raised based on alleged mathematical error

Prospective issue: changing regulations for unencapsulated uses

- **Key regulatory history, continued**
  - August 2019: EPA proposes changes to unencapsulated beneficial use criteria (84 Fed. Reg. 40,353)
    - Does not propose to increase 12,400 ton cutoff (does solicit feedback on the mass amount)
    - Does propose potential location "triggers" and/or "restrictions"
    - Also proposes changes to temporary storage
  - December 2020: EPA publishes notice of data availability and request for further feedback on beneficial use and temporary storage
- **Potential beneficial use changes still underway**

Potential location triggers and/or restrictions:

- Within 1.52 meters (five feet) of the upper limit of the uppermost aquifer
- In a wetland
- In an unstable area
- Within a 100-year flood plain
- Within 60 meters (200 feet) of a fault area
- Within a seismic impact zone
- Distance from a water body
- Distance from a water supply well

Legal perspective: key takeaways

- EPA's position on placement in units closing for cause is clear; regulatory text is not and EPA's position may still be subject to legal challenge
- Regulations related to unencapsulated beneficial uses may still change; important to keep in mind in undertaking new beneficial use projects
- Legal risks related to unencapsulated projects beyond the CCR Rule

BAKER BOTTS HALEY ALDRICH

Practical considerations

Susan Jackson, P.E.
Senior Client Leader
Haley & Aldrich, Inc.

BAKER BOTTS

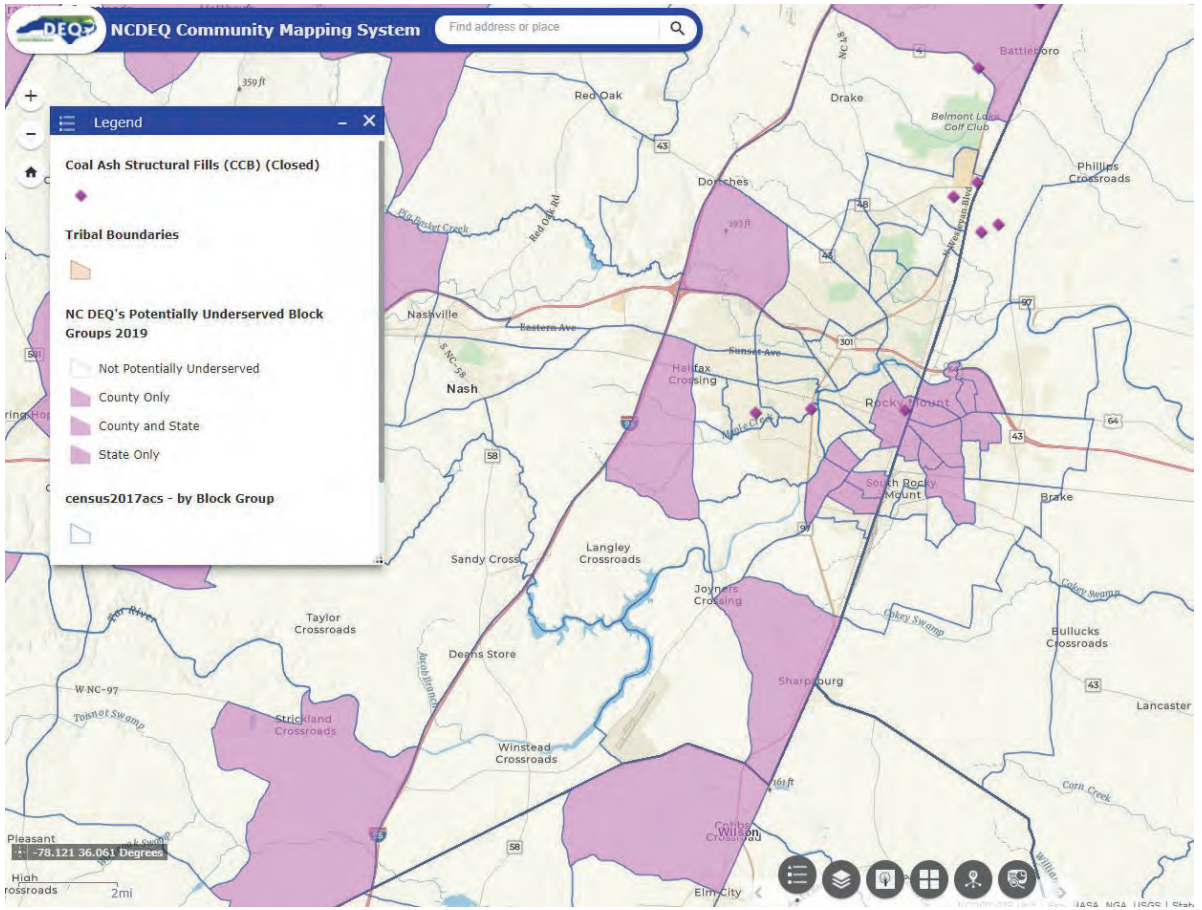
HALEY ALDRICH

How beneficial use could be affected

Consolidation and closure	• Consolidating footprints of multiple units
Inactive units	• Previously considered closed but used beneficial use in closure • Contact with groundwater
Structural fills	• Fills that may have contact with water (flooding, groundwater)
Temporary storage and transport	• Stockpiles and staging areas for beneficial use
Challenges to unencapsulated uses	• All types continues to be opposed by environmental groups

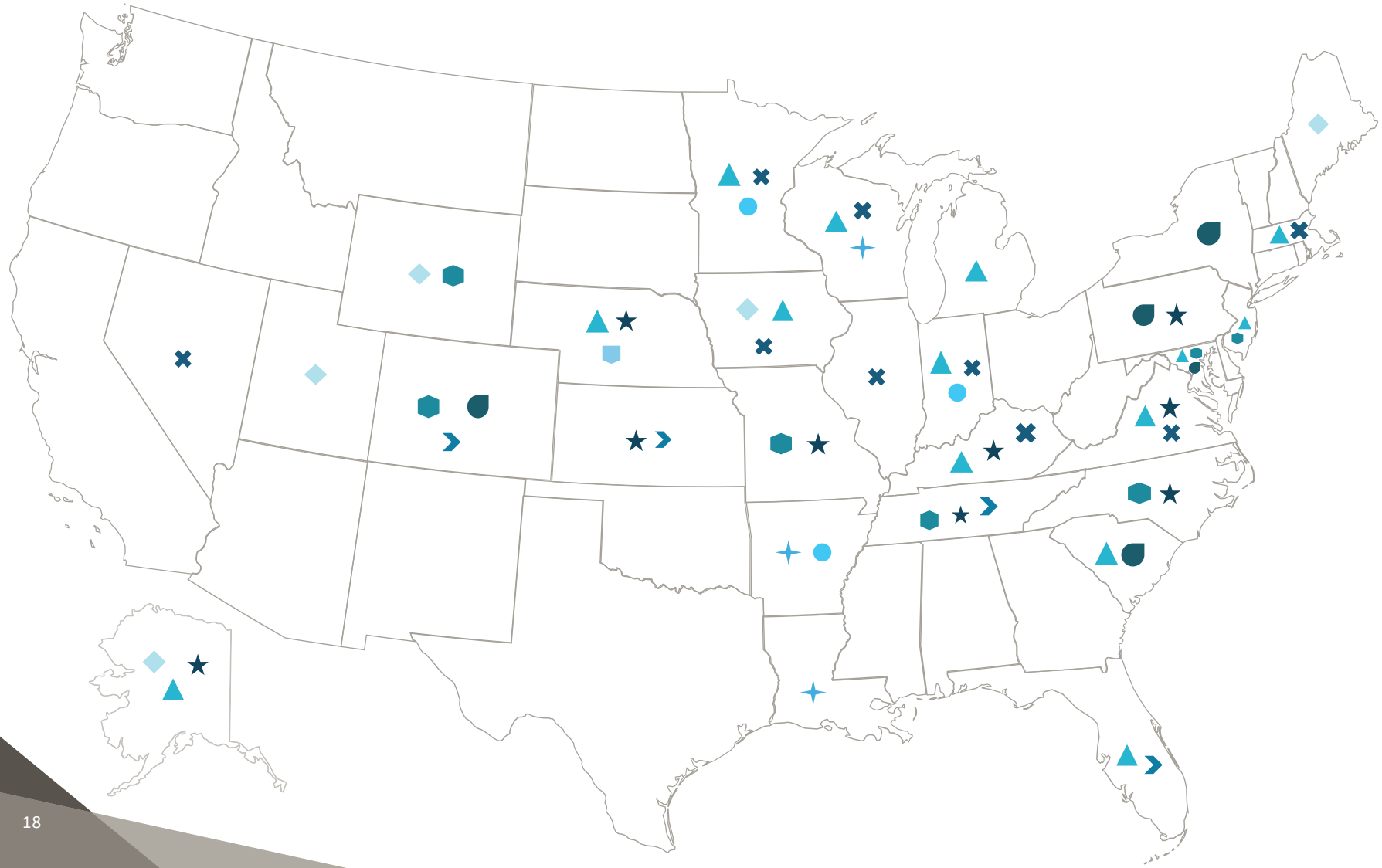
Variability among state approaches

- Beneficial use handling requirements are inconsistent
  - Variability between states on “temporary storage” definitions
- Beneficial use of CCR is permitted in some state regulations as structural fill with requirements typical of CCR disposal facility
  - Minimum distance from wetlands
  - Control surface water runoff
  - Test chemical and leaching analysis
  - Placement criteria (size of lifts, compaction, slope size of 2.5H:1V)
- Illinois proposed regulation of structural fill sites
- State mapping of structural fills



BAKER BOTTS HALEY ALDRICH

Coal ash beneficial use in the states



- GENERAL FILL
- CEMENT MANUFACTURING
- CONCRETE
- ENCAPSULATED CONSTRUCTION PROJECTS
- STRUCTURAL FILL
- ALTERNATE DAILY COVER – LANDFILL COVER
- REPLACEMENT OF VIRGIN MATERIAL
- SOIL STABILIZATION
- CONSTRUCTION MATERIAL OR TRANSPORTATION PROJECT
- LOW AREAS OF PREVIOUSLY CLOSED IMPOUNDMENTS

BAKER BOTTS

HALEY ALDRICH

Impacts of decreased beneficial use

Environmental impacts

- Mining and processing of virgin materials
- Environmental footprints
- Impacts on communities
- GHG emissions

Increase imports of CCRs increasing dependence on foreign resources

- Economic considerations
- Community/stakeholder concerns about imports

Stewardship of waste sites

- Ongoing O&M costs for long-term management

Reputational challenges

- Sustainability goals (recycling)
- Stewardship of structural fill sites

Potential actions

- Assess past and on-going closure activities involving consolidation of CCR
- Inventory structural fill sites, location, construction, potential for public scrutiny
- Evaluate/update beneficial use demonstrations of no adverse environmental impacts
- Develop advocacy plan and stakeholder engagement strategy

Contacts

Dawn Santoianni
dsantoianni@haleyaldrich.com
(919) 638-0139
Haley & Aldrich, Inc.

Martha Thomsen
martha.thomsen@bakerbotts.com
(202) 639-7863
Baker Botts, LLP

Susan Jackson
sjackson@haleyaldrich.com
(864) 214-8758
Haley & Aldrich, Inc.

BAKER BOTTS HALEY ALDRICH

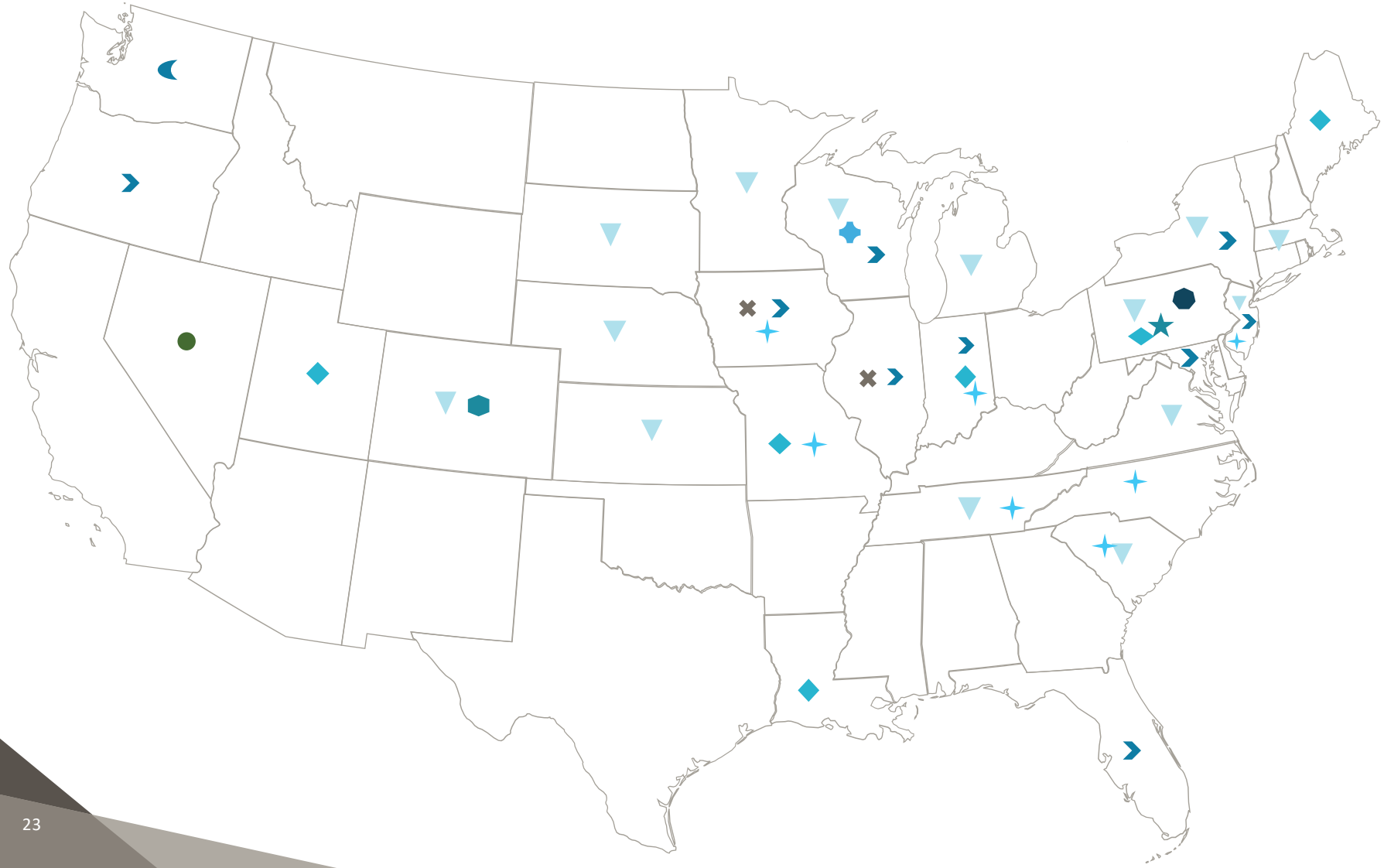
Appendix

Additional information

BAKER BOTTS

HALEY ALDRICH

Gypsum beneficial use in the states



- GENERAL AND STRUCTURAL FILL
- TOPSOIL BLEND
- CONCRETE
- ALTERNATE DAILY COVER
- REPLACEMENT OF VIRGIN MATERIAL
- SOIL STABILIZATION
- CONSTRUCTION MATERIAL
- LANDFILL COVER
- AGGREGATE SUBSTITUTE
- EROSION CONTROL
- BACKFILL

BAKER BOTTS

HALEY ALDRICH

Ash uses – ASTSWMO beneficial use survey, Feb 2021

State	General Fill	Cement Manufacturing	Concrete	Encapsulated Construction Projects	Structural Fill	Alternate Daily Cover - Landfill Cover	Replacement of Virgin Material	Soil Stabilization	Construction Material or Transportation Project	Low Areas of Previously Closed Impoundments
AK	X	X			X					
AR								X	X	
CO			X	X			X			
FL		X					X			
IA	X	X				X				
IL						X				
IN		X				X			X	
KS					X		X			
KY		X			X	X				
LA								X		
MA		X				X				
MD		X	X	X						
ME	X									
MI		X								
MN		X				X			X	
MO			X		X					
NC			X		X					
NE		X			X					X
NJ		X	X							
NV						X				
NY				X						
PA				X	X					
SC		X		X						
TN			X		X		X			
UT	X									
VA		X			X	X				
WI		X				X		X		
WY	X		X							

BAKER BOTTS

HALEY ALDRICH

Gypsum uses – ASTSWMO beneficial use survey, Feb 2021

State	General Fill	Topsoil Blend	Soil Stabilization	Replacement of Virgin Material	Structural Fill	Construction Material
IA			X	X	X	
IL				X		
MA		X				
MD				X		
MI		X				
MO	X					
NC			X			
NE						
NJ		X	X			
NV						X
NY				X		
OR				X		
PA		X			X	
SC			X			
TN			X			
UT	X					
VA		X				
WI		X		X		

Gypsum/limestone byproduct uses

State	General Fill	Topsoil Blend	Soil Stabilization	Replacement of Virgin Material	Landfil Cover	Aggregate Substitue	Erosion Control	Alternate Daily Cover (ADC)	Concrete	Construction Material	Backfill
CO		X							X		
FL				X							
IA			X	X				X			
IL				X				X			
KS		X									
LA	X										
MD				X							
ME	X										
MI		X		X							
MN		X									
MO	X		X								
NE		X									
NJ		X	X	X							
NV										X	
NY		X		X							
PA		X				X	X				
SC		X									
SD		X									
TN		X									
UT	X										
WA					X						
WI											X

BAKER BOTTS HALEY ALDRICH