

# Options for cleaning up solid waste at AltEn being explored, but questions remain

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The Nebraska Department of Environment and Energy has given initial approval to a plan for disposing of an estimated 115 million gallons of pesticide-contaminated wastewater being stored in holding ponds at AltEn.

Developed and submitted by the AltEn Facility Response Group — six seed companies voluntarily cleaning up the site — the plan calls for applying treated wastewater across 736 acres of farm ground south of Mead in Saunders County.

The process, which involves pumping water from AltEn's damaged lagoons through a water treatment system and into a pair of new lagoons completed earlier this year, was granted a permit by the state's environmental department earlier this year.

Depending on precipitation, the efficacy of the treatment process and conditions of the soil on the seven parcels that will receive the wastewater, the environmental engineers contracted by the response group estimate another 18 to 24 million gallons could be land-applied this fall and next spring.

While efforts to draw down the wastewater stored on site has been moving forward slowly for the better part of this year, the question of how to dispose of an estimated 99,000 tons of solid waste piled up on AltEn's site remains open.

Earlier this year, the wet distiller's grains — a solid byproduct of ethanol production commonly referred to as wet cake — [were entombed under a Posi-Shell cover](#), a combination of clay, polyester fibers and Portland cement.

The AltEn Facility Response Group said the temporary cover was installed to keep odors under control, tamp down pesticide-contaminated dust and prevent stormwater from coming into contact with the contaminated material.

Last month, at a meeting with a small group of Mead residents, the facility response group said it was evaluating four potential solutions for disposing of the wet cake, with the goal of submitting a formal plan to the Department of Environment and Energy before the end of the year.

Those options, according to a memo about the meeting posted to the Department of Environment and Energy's website, include:

- \* Hauling and burying the contaminated wet cake in a landfill.
- \* Hauling the wet cake to an offsite incinerator.

\* “Thermal treatment” — not incineration — on-site.

\* Burying the wet cake at AltEn.

Don Gunster, a partner and senior scientist at NewFields, the environmental engineering firm conducting much of the cleanup, said the options are being explored before the AltEn Facility Response Group submits a remedial action plan for the solid waste.



In mid-February, Posi-Shell, a combination of cement, clay and polyester fibers, was applied to a pile of wet cake and sludge produced by the AltEn ethanol plant near Mead. Journal Star file photo

“The (facility response group) is still collecting data about each of the options being evaluated for management of the wet cake and sludge,” Gunster said in an email. “More details will be shared with the community and included in the Solids (remedial action plan) once that data has been collected and evaluated.”

Some of the options have already been deemed unworkable, however, because of excessive costs, a lack of capacity or doubts about the technology that would need to be used.

And at least one — making AltEn the final burial site for the solid waste — is a non-starter for residents of Mead, who worked for years to draw attention to the environmental issues arising from the failed ethanol plant.

In the year before AltEn was forced by the Department of Environment and Energy to close, [the ethanol plant hauled an estimated 43,000 tons of wet cake](#) to landfills operated by Waste Connections near David City, Milford and Malvern, Iowa.

Most of that — at least 39,000 tons — was trucked down Nebraska 92 to the Butler County Landfill, until Waste Connections cut AltEn off, saying it did not have enough dry garbage to mix with the wet distiller's grains.

Kelly Danielson, the district manager who oversees the Waste Connections facility, said there are no plans to restart accepting solid waste from AltEn.

“We have not heard anything from either group nor has anyone requested authorization to deliver the waste stream to us,” Danielson said in an email.

The facility response group also explored the option of moving the wet cake by rail to Clean Harbors-operated incinerators in Kimball and other states last summer but scrapped the idea, which would be costly and complicated.

Ash Grove, a concrete plant that opened in Louisville earlier this year, received a permit from the state to burn biomass in its kilns but confirmed to the Journal Star it has not received any wet cake from AltEn, nor does it plan to do so in the future.

AltEn previously attempted to turn the wet cake into biochar, the process of heating it to a few thousand degrees to create a charcoal-like material, but samples analyzed by the environmental department showed it did not reduce the levels of pesticides within.

[The state also intervened to stop AltEn from selling biochar](#) to a Kansas farmer late last year.

An Iowa-based company — Independence Energy — has pitched its own process of using heat to breakdown the wet cake and the chemicals within to both residents of Mead as well as the Department of Environment and Energy, but its proposal has not been explored in-depth.

In all, about 20 acres of Posi-Shell -- equal to the surface area of about 15 football fields -- was applied to the pile, the trenches and the...

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Two people who have met with state regulators and the AltEn Facility Response Group said the plan that appears to be favored for cleanup would include repairing one of the lagoons at the plant to serve as a containment cell that would later be buried.

Bill Thorson, the chair of the Mead Board of Trustees, said he told the response group that such a plan would draw fierce opposition from the village of nearly 600 people.

A little more than a decade ago, [residents of Mead successfully fought off a plan](#) by Waste Connections to open a 320-acre landfill near AltEn that would have accepted roughly 1,200 tons of garbage per day from Omaha and Saunders County.

“We had a landfill that didn’t pass because of the water table and the aquifer,” Thorson said, referring to the Todd Valley aquifer, on which Mead and AltEn both sit. “I told them, ‘I can assure you that’s not going to pass.’”

Any proposal for turning AltEn into a landfill to bury the waste it generated would be running uphill and against the wind.

Mead annexed the land AltEn sits on before its predecessor, E3 Biofuels, opened in 2007, giving authority over any zoning changes and conditional use permits to the Village Board of Trustees, which revoked the company's ability to operate as an ethanol plant in June 2021.

AltEn would also need to receive a permit from the state to operate as a landfill. A 2021 lawsuit against the company faulted AltEn for operating as a solid waste management facility despite never having a permit to do so.

Thorson said he and others in Mead do not see burying the wet cake in a containment cell on the property as a viable cleanup option.

Rather, he said, it would be another temporary fix to a problem that has plagued the town since 2015.

“If it’s a money thing, I’d just as soon see it be a Superfund site,” he said. “I have a feeling that’s what it is anyway.”