Nebraska DEE

Information and Updates for AltEn near Mead, Nebraska

Facility ID: 84069
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This page is designed to keep the Mead community, Saunders County residents and interested citizens informed about significant activities related to the cleanup and mitigation actions at the AltEn ethanol facility.

Note: Older updates can be found below the Documents section.

Seed companies apply to VCP for AltEn site - June 10, 2021

A coalition of six seed companies has applied to the Nebraska Voluntary Cleanup Program (VCP) to address environmental contamination at the AltEn facility located near Mead, Nebraska. The VCP is a results-based approach to environmental cleanup that allows NDEE to review and oversee remediation efforts.

The seed companies — collectively known as the AltEn Facility Response Group — include AgReliant Genetics, LLC; Bayer U.S., LLC; Beck's Superior Hybrids, Inc.; Corteva Agriscience, LLC; Syngenta Seeds, LLC; and WinField Solutions, LLC.

Under the VCP application, the AltEn Facility Response Group is committing to continuing interim remedial measures at the site. The group will also develop a Remedial Action Plan (RAP) subject to public notice and comment, as well as NDEE review and approval. The RAP could then be the basis for long-term remedial measures at the site.

"The Nebraska Department of Environment and Energy is pleased with the

group's willingness to participate in the VCP. This program creates opportunities for third parties to efficiently clean up sites," said NDEE Director Jim Macy. "By stepping up to address AltEn's contamination issues, the group will help provide a significant measure of protection to the citizens of Mead and surrounding areas."

"This is a positive step towards implementing the long-term response actions needed at this facility," said Ed Chu, Acting Regional Administrator for Environmental Protection Agency Region 7. "We look forward to continuing to provide support and assistance to NDEE to ensure the contamination is properly and fully addressed."

After reviewing the VCP application, NDEE will approve or deny the application. If approved, the AltEn Facility Response Group will begin developing a proposed RAP that conforms to state and federal environmental requirements.

Any updates will be published on the NDEE website at dee.ne.gov/Press.nsf/pages/AltEn.

Remedial work to date

Seed companies have voluntarily undertaken interim remedial work at the AltEn site since Feb. 12, primarily focusing on managing wastewater lagoon levels and liners. They have also assisted with emergency response by helping manage the environmental impacts of wet cake and waste materials onsite through containment and stormwater management.

About the VCP

Since the program's inception in 1995 under the Remedial Action Plan Monitoring Act, many contaminated sites have been successfully remediated and returned to productive use, including Asarco in downtown Omaha and the Haymarket in downtown Lincoln.

Through the VCP, applicants develop a RAP for NDEE review and approval

with public participation that assures compliance with state and federal environmental requirements. Because applicants are responsible for paying for site investigations and cleanup actions, this program has no cost to taxpayers.

A RAP includes site investigation information outlining the extent of the contamination, a workplan that describes cleanup actions and project monitoring reports containing data required by NDEE. Once a RAP is approved, applicants typically have six months to begin work on a site and 24 months to complete it, although those terms may change.

NDEE receives additional private well results - May 26, 2021

The Nebraska Department of Environment and Energy received additional private drinking well sample results and continues to oversee actions taking place at the AltEn facility.

Private well sampling

NDEE sampled an additional private drinking well on May 5 and received results on May 21. These results showed non-detectable levels for all compounds tested, and can be viewed on the agency's public records portal in documents titled "Sampling Results" filed May 24.

This private well was sampled because it is located downgradient from where a pile of AltEn's distillers grain was being stored. That pile has since been returned to the AltEn site.

The agency previously sampled five other private drinking wells, and those results also showed non-detectable levels for all compounds tested. Summaries of these samples can be found in previous updates from April 1 and April 16.

Stormwater controls and other actions

Clean Harbors has built new and reinforced existing berms surrounding the distillers grain piles on the AltEn site. This is a best management practice to prevent stormwater runoff from the piles from entering nearby waterways.

Stormwater that collects behind these berms is being pumped into AltEn's emergency lagoon, or to the industrial lagoon with NDEE approval, for storage before it can be treated.

Clean Harbors also is consolidating piles of the distillers grain to make more room for water treatment equipment. NDEE continues to have staff monitor ongoing action at the AltEn facility.

Documents

Older updates

NDEE addressing environmental issues - *April 29, 2021*

The Nebraska Department of Environment and Energy (NDEE) has been working, with support from the U.S. Environmental Protection Agency (EPA), to address the environmental issues at the AltEn, LLC ethanol plant in Mead, Nebraska. NDEE and EPA are exploring all available options for addressing the environmental issues at the site.

In conjunction with the agencies' efforts, seed industry representatives have voluntarily begun actions to assist with emergency measures, including reducing the level of wastewater in the lagoons to approved levels and implementing stormwater control measures to prevent discharges from the distiller's grain piles. These measures are integral to addressing the most immediate issues at the AltEn facility and are being conducted with full review and oversight by NDEE and EPA.

“We appreciate the industry representatives’ proactive commitment to address this situation,” said NDEE Director Jim Macy. “These actions are a crucial next step at the facility as more permanent solutions are investigated.”

In addition to the Nebraska Attorney General’s efforts to ensure AltEn’s compliance, NDEE and EPA are discussing a longer-term commitment by the seed industry to fully address the environmental issues at the site.

Facility recovers distillers grain, moves biochar - *April 27, 2021*

The Nebraska Department of Environment and Energy continues to observe cleanup efforts at the AltEn facility, including the facility’s actions regarding its distillers grain and biochar material.

Recovered distillers grain

NDEE has confirmed that AltEn recovered three piles of distillers grain that were not on the facility’s property. This distillers grain had been delivered for land application before the Nebraska Department of Agriculture issued a stop sale/stop use order, though it was never applied. The material is now being stored with the rest of the distillers grain on AltEn’s property.

Biochar material

NDEE has also confirmed that AltEn moved all its supersacks of biochar to its enclosed hoop building. This is a stormwater control measure that will prevent the biochar from coming into contact with stormwater.

AltEn previously used a biochar unit to process some of the distillers grain stored on site, as announced in NDEE’s March 5 update. Because sample results of the biochar material showed it still contained pesticides, NDEE directed AltEn to store the biochar in a way that prevents land

contamination and contact with stormwater (see NDEE's March 31 update for more information).

NDEE receives sampling results from mid-March – *April 16, 2021*

The Nebraska Department of Environment and Energy has received results from samples it collected in mid-March. These results include the remaining three private drinking well samples, surface water samples, and samples from the distillers grain piles located on AltEn's property.

Private well results

The three remaining private well results showed non-detectable levels for all compounds tested in the drinking water. NDEE has provided test results to the well owners, and those documents are available on the public records portal in documents titled "Sampling Results" filed April 13.

On March 4, NDEE announced it was collecting samples from private drinking water wells. Five wells were selected to sample based on their proximity to the AltEn facility and known land application of both distillers grain and the facility's lagoon wastewater. Sample results for the first two wells were announced April 1, and showed non-detectable levels for all compounds tested.

Surface water and distillers grain samples

NDEE collected surface water samples on March 14 during a large rainfall event. Samples were collected at two locations in the unnamed tributary of Clear Creek: "Site 5," located just off AltEn's property, and "Site 3" near Highway 66 and Road 7. Pesticides were present in the sample results, which can be found on the public records portal in documents titled "Sampling Results" filed April 12.

NDEE collected samples from the distillers grain on March 11, and results show pesticides are present in the material. Sample results can be found on the public records portal in a document titled "Sampling Results" filed April 13.

NDEE provides updates on AltEn activities – *April 6, 2021*

The Nebraska Department of Environment and Energy continues to have staff monitor ongoing action at the AltEn facility. The facility's recent actions include implementing wastewater treatment and placing the biochar material in an enclosed storage area.

AltEn is operating a wastewater treatment system to address the pesticides present in its wastewater lagoons. Once the wastewater is treated, it will be tested and held in temporary storage tanks while NDEE awaits sample results. Those results will help determine if further treatment is necessary or if the treated water can be used or discharged. It is necessary to treat and remove the wastewater to create adequate freeboard in the lagoon system and so the lagoons can be repaired.

AltEn is also in the process of moving supersacks of biochar to its enclosed hoop building. This is a stormwater control that will prevent the biochar from coming into contact with stormwater.

NDEE team members visit AltEn to regularly monitor conditions at the facility. This includes monitoring stormwater controls AltEn has put in place to prevent runoff from piles of distillers grains. Observations from these site visits can be found on NDEE's public records portal in documents described as "compliance."

NDEE receives some background sampling results – *April 1, 2021 (updated April 13)*

The Nebraska Department of Environment and Energy has received results from two private drinking water well samples and a soil sample from the Mead park. NDEE collected these samples to gain background data on the area surrounding the AltEn facility.

NDEE reported March 4 that it tested four private wells. A fifth private well was tested on March 9. NDEE's contractor collected soil samples from a park in Mead on Feb. 26.

More information on this sampling effort can be found in the department's March 4 update on ongoing actions regarding AltEn. NDEE will update its website once results from the remaining three private wells are finalized.

Private Well Results

The two private well results showed non-detectable levels for all compounds tested in the drinking water. NDEE has provided the results to the well owners, and they are available on the department's public records portal in sample result documents filed March 25.

Soil Sample Results

NDEE sampled soil from the park in Mead to evaluate air deposition, which happens when wind carries contaminants in the air and re-deposits them on the ground.

The composite sample consisted of 21 parts, collected in locations throughout the park. The parts, referred to as aliquots, were combined into a single sample and analyzed for pesticides found at the AltEn facility.

Two of the compounds that were detected in the sample were clothianidin

and glyphosate. Two additional compounds, fluoxastrobin and thiamethoxam, were detected, but with concentrations below what the lab could quantify with confidence. The lab has since amended its data, and those changes are reflected in the table below.

Clothianidin is a neonicotinoid that has been found at the AltEn facility. Its main agricultural use is seed treatments, though it is also found in some commercial insecticides and has non-ag uses such as treating turf and ornamental plants.

Glyphosate is a widely used herbicide; Roundup is one example of an herbicide that uses this chemical. While glyphosate is not used as a seed treatment, it has been found at AltEn.

The table below shows the levels of the compounds that were detected in the park and compares them to the soil screening level developed by the U.S. Environmental Protection Agency. The screening level is designed to be protective of human health.

Compound	**Level Detected parts per billion (ppb)**	**Soil Screening Level parts per billion (ppb)**
Clothianidin	38	620,000
Glyphosate	20.5	630,000
Fluoxastrobin*	1.23 - J	95,000
Thiamethoxam*	3.39 - J	76,000

**This updated was revised on April 13 to account for amended laboratory data. The J-codes for fluoxastrobin and thiamethoxam signify the compound is present, but that the level detected is an estimate.*

The full sample results can be found on NDEE's public records portal in the document titled "Sampling Results" filed March 26. Amended sample results are also in the records portal in a "Sample Results" document filed April 9.

NDEE receives biochar sampling results – *March 31, 2021*

NDEE received biochar test results based on a sample collected on March 3, 2021.

The preliminary test results indicate that the biochar process does not fully remove the pesticides from the distillers grain when converting it to biochar. Therefore, NDEE continues to consider the biochar a solid waste as defined by Nebraska Administrative Code *Title 132: Integrated Solid Waste Management Regulations*.

In a letter sent to AltEn on March 26, 2021, NDEE said the facility may dispose of the biochar at a permitted landfill or re-process the biochar through the biochar unit to attempt to remove the pesticides.

If AltEn chooses to re-process the biochar or process additional distillers grain through the biochar unit, NDEE must first approve a plan that thoroughly describes how the processing will occur as well as a sampling plan.

Any onsite biochar must be stored in a way that prevents land contamination and contact with stormwater. Acceptable storage methods include relocating the biochar to the grain storage building.

The agency has never issued a permit for land application of the biochar.

Preliminary test results are available in the public records portal.

NDEE receives AltEn's sample results from digester discharge - *March 30, 2021*

The AltEn ethanol facility has provided sample results related to the Feb. 12 digester spill to the Nebraska Department of Environment and Energy. Two sets of samples were collected by AltEn and its contractor. NDEE observed these sample collections.

AltEn and its consultant collected samples on Feb. 28 and March 3, 2021, from several locations along the unnamed tributary of Clear Creek where the Feb. 12, 2021, digester spill had been contained. They also collected samples from recovered water before and after it was filtered.

The test results showed pesticides were present in the samples collected, but higher levels were found closer to the digesters where the spill originated. Additionally, the samples taken before filtration showed higher levels of pesticides than the samples taken after filtration, which showed decreased levels of pesticides. The filtered water is being contained in a temporary storage tank at the facility for further analysis and evaluation.

Full test results can be found on NDEE's public records portal in sampling result documents filed March 22, 2021.

NDEE is working closely with the EPA to evaluate these pesticides.

NDEE receives public water supply sample results - *March 18, 2021*

The Nebraska Department of Environment and Energy received sample results for the public water supply samples it collected in the Mead area earlier this month.

Results showed non-detectable (ND) levels of neonicotinoids, strobins, and azoles for all sampled wells. The full sample results can be viewed in

NDEE's public records portal.

Samples were collected at six public water supply wells: two at the University of Nebraska-Lincoln's Eastern Nebraska Research Center (UNL ENREC), two at the Nebraska National Guard's training site, and two wells connected to Mead's public water system. These sites were selected because of their proximity to the AltEn ethanol facility and known land application of the facility's distillers grain and wastewater.

Additional drinking water and soil sample results are pending.

Activities over the March 13-14 weekend

In preparation for a rain event March 14-15, NDEE directed AltEn to build and reinforce berms on its property and implement other best management practices to contain potential stormwater runoff from its stockpiled distillers grain. NDEE staff were on site over the weekend to observe AltEn's efforts.

Additionally, AltEn had recovered as much spilled material as possible from the unnamed tributary of Clear Creek following the Feb. 12 digester discharge, and collected samples during the cleanup. Results from those samples can be found on NDEE's public records portal.

Because of the sample results, the stormwater controls implemented by the facility, and the amount of rain that was expected over the weekend, AltEn removed temporary containment structures to prevent flooding. These structures were put in place to prevent the digester spill from migrating farther downstream, and were located in culverts near Highway 66 and Road 7 and in a culvert upstream near the facility.

NDEE notified the City of Lincoln, UNL ENREC, and a downstream pond owner that the structures were being removed.

Biochar unit operating at AltEn facility - *March 5, 2021*

The AltEn facility is using a biochar unit to begin processing some of the distillers grain that has been stored on site, and nearby residents may notice steam coming from the unit.

Distillers grain is a byproduct of ethanol production and is often used as animal feed. However, because the material on AltEn's property contains neonicotinoids – a class of pesticides – it is not suitable for animal feed. The Nebraska Department of Agriculture has prohibited its use as a soil amendment.

A biochar unit typically chars biomass, with the resulting material usually intended to be used as a soil amendment.

NDEE Director Jim Macy issued an administrative order on Nov. 20, 2018, requiring AltEn and Greencycle Solutions to conduct emissions testing on its biochar unit. Greencycle Solutions owns the biochar unit and AltEn operates it. Testing completed in July 2020 showed emissions below the criteria for regulated air pollutants and contained small amounts of pesticides.

The department has collected a sample of the resulting biochar product for testing to determine if it contains pesticides, or if the charring process destroys the chemicals. Results from that test will be made available on NDEE's public records portal and can be found by searching AltEn's facility ID: 84069.

(This update was corrected on March 10, 2021)

NDEE conducts background sampling in Mead - *March 4, 2021*

The Nebraska Department of Environment and Energy has conducted additional sampling in the Mead area to gain additional background on the AltEn ethanol facility, and to remain vigilant regarding potential environmental impacts the facility has had on the area.

This sampling effort includes six public water supply wells, four private wells and one soil sample.

Drinking water well sampling

The six public water supply wells include two wells at the University of Nebraska-Lincoln's Eastern Nebraska Research and Extension Center; two wells at the Nebraska National Guard's training site; and two wells connected to Mead's public water system. As of March 2, the agency has collected two of the four private well samples. These sample sites were selected because of their proximity to the facility and known land application of both distillers grain and the facility's lagoon wastewater.

Soil Sample

NDEE also collected a soil sample from Mead's public park to evaluate air deposition, which happens when wind carries contaminants in the air that later re-deposit on the ground. While the agency does not expect to find contamination at this site, it conducted the sampling in an abundance of caution.

Test results from this sampling effort will be made available on the agency's public records portal. Those interested can view them by searching the Facility ID 84069. Links to this announcement and previous press releases, as well as administrative orders, can be seen below.