LINCOLN JOURNAL STAR

Companies submit plan to clean up AltEn waste, including enough wet cake to cover football field 150 feet deep

Chris Dunker , Nov 3, 2021

Emergency measures to contain and begin treating pesticide-contaminated byproducts at AltEn are expected to continue into next year, according to a plan submitted by seed companies leading the effort.

The AltEn Facility Response Group, a coalition of six seed industry giants shouldering responsibility for cleaning up the facility south of Mead, filed a remedial action plan with the Nebraska Department of Environment and Energy on Monday.

The 111-page proposal, submitted through the Nebraska Voluntary Cleanup Program, details the work done at the biofuel plant since AltEn was ordered to shut down by the state in February and outlines the next steps environmental contractors plan to take in the coming months.

It also provides greater insight into the failings of the ethanol plant, which turned hundreds of millions of pounds of pesticide-treated seed into a gasoline additive and repeatedly ignored the directives of state environmental regulators.

When seed companies first arrived on site in February, they found AltEn in a "dire" state of disrepair requiring extensive emergency work "to prevent environmental site damage" resulting from facilities that "AltEn had poorly maintained."This included an estimated 250,000 cubic yards of pesticide-laden wet cake — a volume of solid byproduct that would cover the area of a football field at a depth of 150 feet — stockpiled at three sites on AltEn's property.

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The highest points of Memorial Stadium on its east and west sides, respectively, stand 175 feet above the field.

Another 100,000 cubic yards of sludge was located at the bottom of the lagoon systems, including a pond designed to collect stormwater runoff on the property, the cleanup proposal reports.

Along with the toxic solids, the environmental cleanup is also focused on removing pesticides from wastewater on the site.

Three lagoons, all badly damaged, and the emergency pond were running above capacity, holding 173 million gallons of wastewater, the equivalent of 273 Olympic-sized swimming pools.

The facility response group said it will also address the 7.5 million gallons of stillage and manure being held in a pair of digester tanks, as well as leftover liquid in pipes and smaller vessels in AltEn's processing facility.

Earlier this year, the Nebraska Department of Environment and Energy outlined several emergency priorities for the facility response group to address as it developed a longer-term plan to clean up the site.

The coalition of companies said it has worked to draw down the levels in the lagoon system, using a series of temporary storage tanks that resemble above-ground swimming pools, to store water treated in an on-site filtration system.

The focus has now turned to construction of a new "treated water pond system," a pair of lagoons capable of receiving 52 million gallons of water after it has been treated.

The treatment process includes removing solids, cleaning the water with chemicals and filtering it before it is pumped into the new ponds, which are expected to be finished by the end of November.

Meanwhile, the facility response group is working to drain the emergency pond, dredge approximately 25,000 cubic yards of sludge from the bottom, dispose of the pond's old, damaged liner and install a new liner by the middle of this month.

Once completed, the emergency pond will be the destination for the remaining contents of the digester tanks — which will be drained to a level below the piping that burst earlier this year — and store untreated water, according to the plan submitted to the state.

Work to consolidate the three wet cake piles, as well as soil underneath the piles, into a single location on the northwest corner of the property has also been completed, the facility response group said.

The sludge from the lagoons has been included in the wet cake pile, bringing the total waste material at the site to 350,000 cubic yards.

The pile will be covered — the plan doesn't detail how, or with what — and work will commence to collect any water that comes into contact with the piles underneath the cover.

The plan also states the AltEn Facility Response Group is exploring multiple options for disposing of the contaminated wet cake and wastewater.

For the wet cake and lagoon sludge, the plan indicates the seed companies have explored incineration, taking the waste to a landfill or incorporating it into a cement kiln.

But the document also says reducing moisture in the byproduct, finding other material to mix it in before putting it in a landfill, and transportation costs are potential constraints.

The AltEn Facility Response Group says it plans to apply treated water on area farm ground — it was unable to find properties or secure permits to do so this year — or to discharge it into area waterways.

The Platte River east of Yutan and Salt Creek near Ashland are two sites that are being explored as possible places to discharge.

Members of the Perivallon Group, which formed this year to coordinate research efforts and community response to AltEn, said the plan offers "a stunning indictment" of AltEn's owners and its management.

Former Sen. Al Davis, a member of the group, said it also shows the company never received more than "written reprimands and empty threats of enforcement that were never carried out."

"It also brings into focus the extent of the environmental damage and human-health risks inflicted on Nebraska," Davis said.

John Schalles, a professor of biology at Creighton University, said he was concerned by the plan to consolidate and cover the wet cake and sludge without anything separating them from the soil below.

"Most of these contaminants and their breakdown products are highly water-soluble and can leach into groundwater and drain into surface waters," Schalles said. "The AltEn site presents great risk to eastern Nebraska's water, soil, air and potentially to human health."

The AltEn plant is located between Omaha and Lincoln in Saunders County.

The research group also criticized what isn’t included in the initial plan, which will be reviewed internally by the Nebraska Department of Environment and Energy before being opened up for a 30-day public comment period and a public hearing.

There is no detail on what remediation — if any — will take place offsite at properties affected by the ethanol plant, Davis said, adding the facility response group needs to broaden its scope.

"Unfortunately, (the plan) does not address remediating or mitigation of offsite impacts, including the private pond belonging to Stan and Evelyn Keiser, 6 miles downstream from the plant, which has been completely destroyed," Davis said.

The Perivallon Group said the expertise offered by researchers at the University of Nebraska and Creighton University have also continued to be ignored by both the Department of Environment and Energy and the AltEn Facility Response Group.

Bayer, Corteva AgriScience, Syngenta, AgReliant, Beck's Superior Hybrids and Winfield Solutions, a subsidiary of Land-O-Lakes, are part of the facility response group.