

AltEn, LLC
IS# 84069
Prog.# IWM-NE020447

Johnson, Dave

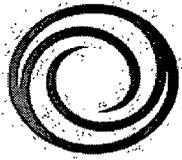
From: Tanner Shaw <tshaw@mrgkc.com>
Sent: Tuesday, June 16, 2015 4:05 PM
To: Johnson, Dave
Subject: AltEn - Compost Permit Modifications Letter - 06.16.15
Attachments: NDEQ Permit Modification Request -AltEn - 061615.pdf

Dave,
Please see the attached letter regarding our discussion a couple of weeks ago.

Thanks,
Tanner

Tanner L. Shaw, PE, LEED AP
Executive Vice-President
Office – 402-624-2000
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AltEn, LLC

Dave Johnson
Nebraska Department of Environmental Quality
Solid Waste Management Division - Permitting
1200 'N' St.
P.O. Box 98922
Lincoln, NE 68509

June 16, 2015

RE: NDEQ Waste Management Permit
Permit No. NE0204447
Facility ID No. 84069

Mr. Johnson,

This letter is a request to modify the existing Compost Permit assigned to Mead Cattle Company (owner) and AltEn (operator). The modification requested is to include additional waste stream and bulking agents for the composting operation.

Per our discussion the last week of May 2015, AltEn requests to include 3rd party food wastes as a waste stream to be composted at the facility. AltEn is currently approved to compost these 3rd party food wastes if first processed through the anaerobic digestion system (ie digested sludge material). AltEn wishes to also receive 3rd party food wastes and other organic waste streams not suitable for the anaerobic digesters directly to the compost operations.

During this review process, AltEn would like to clarify within the permit the allowable carbon materials utilized as bulking agents. AltEn's intention is to have flexibility in carbon sources based on material availability and economic market conditions of the various carbon sources. A strict interpretation of the permit limits AltEn's carbon sources to saw dust, wood chips or corn stalks. AltEn would like to clarify and update the permit to include a wider range of bulking agents such as yard trimmings, cardboard, or other suitable carbon bulking agents.

AltEn requests the following modifications (revisions are underlined and italicized) be incorporated into the permit as follows:

Pg. 3 – Section B – Design Criteria; Subpart 3.2 Background:



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3.2 Background

The AltEn compost facility site is located in the drainage area of a Mead Cattle Company's livestock waste control facility. When fully developed the compost facility covers an area of 7 acres. The compost site receives anaerobically de-watered digested sludge, 3rd party organic wastes and a carbon source. Cattle manure from the feedlot, thin stillage and wet distillers grain from the ethanol facility and food waste from local businesses and food processing facilities will be mixed and anaerobically digested to produce methane. The digested sludge will then go through a nutrient removal process and thickening process to remove excess water. Other food wastes, distillers grain (not suitable for feed) and organic compostable material from local businesses and processing facilities will be taken directly to the compost site, by-passing the anaerobic digestion process. Carbon sources such as sawdust, corn stalks, straw, yard trimmings, cardboard or other suitable carbon bulking agents, will be mixed with the de-watered solid material from the nutrient recovery process and 3rd party organic wastes for composting.

Pg. 14 - Section C – Operational Criteria; Subpart 2 – Litter Control:

2. Litter Control

The material to be composted will not be of a composition to make litter a concern. Any litter periodically found on the site, along access roads and on adjacent properties will be, at the earliest opportunity, picked up by site staff and properly disposed.

Loads of inputs such as bulking materials (saw dust, ~~or~~ corn stalks, or other carbon sources) will be tarped if necessary. Thickened sludge will be hauled in dumping trucks from the digester site. 3rd Party organic compostable wastes and bulking material will be brought in from off-site. ~~The only compost material expected to be brought in from off site will be the bulking material.~~

Pg. 16 - Section C – Operational Criteria; Subpart 5 – Access Control:

5. Access Control

Access to the site will be maintained via a gravel surfaced road from County Road 10. Gravel roads throughout the site will allow vehicles to negotiate the site even during times of inclement weather.

The facility currently has signs posted at the entrance gate stating that visitors shall stop at the office. The only compost material expected to be brought in from off site will be 3rd party organic wastes and the bulking material (saw dust or corn stalks).



Pg. 11 - Section C – Operational Criteria; Subpart 11 – Sources of Waste:

11. Sources of Waste

The source of the compost material will be thickened sludge from an anaerobic digester, distillers grain and 3rd party organic waste. The material being digested is a mixture of cattle manure, thin stillage and, if necessary, wet distillers grain (WDG). Another material from the digesters is separated food wastes from food processing facilities or local businesses. Thin stillage and WDG are by-products of fermenting corn to produce alcohol and contains yeast cells, soluble nutrients and very small corn particles. If discarded seed (with chemical treatment) is utilized by AltEn in the production of ethanol, the WDG produced will be un-suitable for use as feed and therefore will be processed either through the anaerobic digesters or directly to the compost site and ultimately composted along with the thin stillage. The manure is pumped to holding ponds from concrete pits under cattle feeding barns. This manure is pumped into the digester system where it mixes with thin stillage being pumped from the ethanol plant (see process flow charts in appendix). Separated food wastes would be trucked from the point of origin to and discarded into either a separate holding pond or directly to the compost site. The food waste from the holding pond would be pumped into the digester where it will be mixed with the cattle manure and thin stillage.

Waste	Source	Volume
Digested Cattle Manure, Thin Stillage and WDG (if necessary), <u>3rd party organic waste material</u> . <u>Un-digested WDG (if necessary), 3rd party organic waste material</u> .	AltEn Digester	520 cubic yards per day

Saw dust, wood chips, ~~or~~ corn stalk or other carbon sources suitable as bulking agents will be used. The source of these materials has not been determined yet. Bulking materials will be stored on site and replenished as needed.

Schedules of deliveries of bulking materials will be derived in accordance with communications between on-site personnel and the source manager.

Site personnel and/or the driver will visually inspect suspect loads. Any load deemed unacceptable will be returned to its source. If this is not possible, the load will be dumped at a designated area of the site. The load will be removed at the earliest opportunity and taken to a facility that is licensed to accept such waste.



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Pg. 18 – Section C – Operational Criteria; Subpart 14 – Methods of Operation

14. Method of Operation

If it is determined moisture is needed, water can be added to the mixer truck during loading. Once the mixture of digested and un-digested waste and bulking material has been delivered to the compost site, it will be allowed to sit for 24 to 48 hours. After initial placement, the windrows are regularly monitored for temperature, moisture and oxygen levels to verify frequency of turning. All monitoring dates and data will be entered into the operating record for record keeping and reporting purposes. The composting process will involve turning a row 8 times over 45 to 60 days. Compost volume reductions should allow double stacking of windrows after the first three turns and a second double stacking after 3 more turns.

When the reduction has stabilized, the composting is finished and the windrows will be moved onto the storage area. The storage area is located adjacent to the composting area. Finished compost material will be moved off site for commercial sale. If there are periods of time where commercial sales do not develop, compost may be stored on site, within the contained drainage area.

If you have questions regarding this matter, please contact me at (402) 624-2000.

Sincerely,

Tanner L. Shaw, PE, LEED AP
Executive Vice President