

KANSAS GEOLOGICAL SURVEY

1930 Constant Ave., Campus West
The University of Kansas
Lawrence, Kansas 66047-3726
Phone: 785-864-3965
Fax: 785-864-5317

May 31, 2006

Mr. Doug Clary
USDA, Rural Development
2615 Farm Bureau Road
Manhattan, Kansas 66502

RE: Agency Review Transmittal Form for NEK-SEN Energy LLC of Sebetha, KS

Dear Mr. Clary:

Thank you for providing the location of the proposed ethanol plant for the Value-Added Producer Grant Proposal from NEK-SEN Energy LLC. The location will be in the SE $\frac{1}{4}$ of Section 1, T1S R16E, just north of Reserve, Brown County, Kansas. The below comments are in addition to the comments Dr. Ohlmacher made in the letter dated May 15, 2006.

We examined the geological report for Brown County (KGS Bulletin 186), the NRCS soils report, and an orthophotograph of the proposed plant site. The geologic map indicates that the areas lower in elevation (east and northeast portion of the site) are underlain by alluvium. The remaining property is underlain by loess (wind deposited silt); however, the soils report indicates that some glacial till may be exposed between the loess and the alluvium. The topography features gentle slopes. No reports exist of landslide, karst, or expansive soil issues that would affect structures to be constructed at this site.

The soils data from the NRCS database indicates that the soils are generally clay loam, and silt loams. These soils are conducive to runoff issues. The soils may also be subject to cracking when dry and thus provide potential pathways for contaminants. The area of interest also appears to be near, if not on, the floodplain of Walnut Creek. These soils may be somewhat more permeable and the area may be subject to occasional flooding. These issues should be discussed with the NRCS as this is their area of expertise.

Walnut Creek is east northeast of the area of interest. The topographic drainage direction is toward the creek and therefore runoff from the ethanol plant must be controlled to prevent surface water contamination.

Based on the information available to me from a report on the glacial deposits in northeastern Kansas (Denne et al., 1998), bedrock is present at depths as shallow as 50 ft. Ground water is present in the area but the quantity available is unknown. There are no well logs in the KGS database for the area of interest. Well logs in section 2 to the west and section 7 to the east indicate depths of wells of 55 and 100 feet with well yields ranging from 1.5 gallons per minute to 15 gallons per minute. The developer of this project is strongly urged to consult with local well drillers to determine if sufficient ground water will be available for use.

The owner of this project needs to address any disposal issues and wastewater treatment in order to prevent contamination of ground water and surface water.

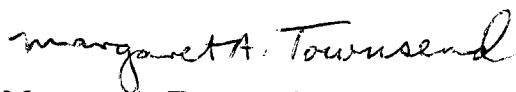
The KGS recommends following all regulations and recommendations of the Kansas Department of Health and Environment. We have signed and enclosed the Agency Review Transmittal Form.

The above discussion represents our best assessment based on the information that the Kansas Geological Survey has about this locality and/or proposed project at the time of this writing. Other geologic conditions, not discussed herein, or for which the Kansas Geological Survey has no knowledge, may affect the viability or safe operation of this facility or property. The information provided in this letter is from regional or countywide studies and should not be used as a substitute for detailed site characterization by a licensed geologist or engineer. It is the responsibility of the applicant to provide any required site characterizations.

Reference: Denne, J. E., Miller, R. E., Hathaway, L. R., O'Connor, H. G., and Johnson, W. C., Hydrogeology and geochemistry of glacial deposits in northeastern Kansas: KGS Bulletin 229.

If you have any questions please feel free to contact me at (785) 864-2111 or by email: townsend@kgs.ku.edu.

Sincerely,

A handwritten signature in cursive script that reads "Margaret A. Townsend".

Margaret A. Townsend
Hydrogeologist

Enc: Agency Review Transmittal Form



United States Department of Agriculture
Rural Development

May 22, 2006

Kansas Geological Survey
Attn: Gregory Ohlmacher
1930 Constant Avenue
Lawrence, Ks. 66047

Re: NEK – SEN Energy LLC of Sabetha, KS.

Pursuant to the attached correspondence, you requested the opportunity to review the subject application prior to your consideration of granting clearance for this project.

Since a specific site has now been determined, we are able to provide you with information on the specific site. The legal description is as follows:

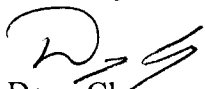
SE/4 – Sec 1, Twp 1S – R16E, of the 6th PM, Brown County, KS
containing 154 acres more or less as surveyed.

For further reference, the area is just north of the town of Reserve, between 330th Street on the South, 340th Street on the North, Kestrel Road on the East and Jackrabbit Road on the West.

I have attached a new Transmittal Form for your consideration.

Please provide your comments to **USDA Rural Development, 2615 Farm Bureau Rd., Manhattan, KS. 66502, Attention Doug Clary, Area Specialist, no later than 6/2/06.** Faxed responses are acceptable.

Sincerely,


Doug Clary
Area Specialist

Attachments

DKClary:dkc

2615 Farm Bureau Road • Manhattan, KS 66502
(785) 776-7582 • Fax (785) 539-2733 • www.rurdev.usda.gov/ks

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Comments by: Kansas Geological Survey
Attn: Gregory Ohlmacher
1930 Constant Avenue
Lawrence, Ks. 66047

Transmittal Date: May 22, 2006

PROJECT TITLE: NEK-SEN Energy LLC of Sabetha, Ks.

CONTACT PERSON:

☐ Notification of Intent
☐ Preapplication
☐ Final Application
☐ Direct Development

This form provides notification and the opportunity for your agency to review and comment on this proposed project required by executive Order 12372. Please complete Parts II & III as appropriate. Your prompt response will be appreciated.

RETURN TO: **USDA RURAL
DEVELOPMENT,
2615 Farm Bureau Road
Manhattan, Ks. 66502
Attn: Doug Clary**

PART I

REVIEW AGENCIES/COMMISSIONS

☐ Aging	☐ Education	☐ State Forester
☐ Agriculture-DWR	☒ Geological Survey, KS	☐ Transportation
☐ Biological Survey, KS	☐ Health & Environment	☐ Water Office, Kansas
☐ Conservation Commission	☐ Historical Society	☐ Wildlife & Parks
☐ Corporation Commission	☐ Human Resources	☐
☐ Commerce	☐ Social & Rehab. Services	☐

PART II (To be completed by review agency and returned to contact person)
AGENCY REVIEW COMMENTS

COMMENTS:

PART III (To be completed by review agency and returned to contact person)
RECOMMENDED ACTION COMMENTS

☐ Clearance of the project should be granted.	☒ Clearance of the project should not be delayed but the Applicant should be (in the final application) address and clarify the questions or concerns indicated above.
☐ Clearance of the project should not be granted.	
☐ Clearance of the project should be delayed. until the issues or questions have been clarified.	☐ Request the opportunity to review final application prior to submission to the federal funding agency.
☐ Request a State Process Recommendation in concurrence with above comments.	

DIVISION/AGENCY/COMMISSION

Reviewer's Name Margaret A. Townsend Date: 5-31-06
PLEASE FAX THIS FORM TO 785-539-2733 As Soon As Possible.