Subject:

Finding of No Significant Environmental Impact and Necessary Environmental Findings for Absolute Energy, LLC Installation of

Fluidized Bed Reactor System to existing Ethanol Facility

St. Ansgar, Iowa

9004 Repowering Assistance Program

To: Project File

The attached environmental assessment for the subject proposal has been prepared and reviewed by the appropriate Rural Development official(s). After reviewing the assessment and the supporting materials attached to it, I find that the subject proposal will not significantly affect the quality of the human environment. Therefore, the preparation of an environmental impact statement is not necessary.

I also find that the assessment properly documents the proposal's status of compliance with the environmental laws and requirements listed therein.

# **Conditions:**

a. The applicant must provide a copy of all air quality permit(s) and permit modification(s) for the project prior to the issuance of any RD funding. If no air quality permit(s) or modification(s) are required for the project, then documentation must be submitted substantiating this claim.

JUDITH A. CANALES

Administrator

Rural Business and Cooperative Service

Date

# **USDA-Rural Development**

Form RD 1940-21 (Rev. 6-88)

# ENVIRONMENTAL ASSESSMENT FOR CLASS I ACTION

1.	Desc	cription		
	a	Name of Project: Absolute Energy, LLC		
	b.	Project Number: IA-1016	*	
	c.	Location: 1372 State Line Road, S.t Ansgar, IA 50472 (Mitchell Cou	nty)	
2.	Prot	tected Resources		
	appr Class norn	following land uses or environmental resources will either be affected by the proposal or are located within the propriate box for every item of the following checklist. If more than one item is checked "yes" the environment of a II action must be completed, except if the action under review is either (1) an application for a Housing Prepally a categorical exclusion that has lost its exclusion status. The reviewer should not initiate the Assessment wious that the assessment format for a Class II action will be required.)	al assessment format fo eservation Grant or (2	or a !)
	a.	Wetlands		<b>V</b>
	b.	Floodplains		7 7
	c.	Wilderness (designated or proposed under the Wilderness Act)		7
	d.	Wild or Scenic River (proposed or designated under the Wild and Scenic Rivers Act)		
	e.	Historical, Archeological Sites(listed on the National Register of Historic Places or which may be eligible for listing)		
	f.	Critical Habitat or Endangered/Threatened Species (listed or proposed)		<b>/</b>
	g.	Coastal Barrier included in Coastal Barrier Resources System		<b>V</b>
	h.	Natural Landmark (listed on National Registry of Nature Landmark)		<b>V</b>
	i.	Important Farmlands		7
	j.	Prime Forest Lands		· /
	k.	Prime Rangeland		<b>V</b>
	1.	Approved Coastal Zone Management Area		7
	m.	Sole Source Aquifer Recharge Area (designated by Environmental Protection Agency)		<b>V</b>

For an item checked "yes", I have attached as Exhibit 1 both the necessary documentation to demonstrate compliance with the Agency's requirements for the protection of the resource and a discussion setting forth the reasons why the potential impact on the resource is not considered to be significant. If item e. is checked "no", the results of the consultation process with the State Historic Preservation Officer is also attached.

#### 3. General Impacts

I have reviewed the environmental data submitted, dated and signed by the applicant as well as any previously com	pleted environmen-
tal impact analysis and conclude the following:	

	tal	ımpact	analysis and	conclude the following	ıg:	
	a. b.	No i	incompatible			iciaries are adequately identified; t impacts to parks, beaches, dunes, barrier islands, or important wildlife
	c.				ill result to th	ne following checked items:
		\ \ \ \ \	Air Qualit Water Qu Solid Was Transport Noise	ality ste Management		Wildlife Energy Construction Impacts Secondary Impacts
4.	(If n	nore th	an one item		onmental as.	e having a potential for more than minimal impacts, is attached as Exhibitsessment format for a Class II action must be completed).
		Yes	□ No	This project is subj	ject to review	v by State, regional, or local agencies under the requirements of Executive Order ew of Federal Programs.
				mplete (a), or (b) or (		ive environmental comments have been received, the environmental assessment
	a. b.			period has expired and e comments of an envir		nts were received.  Atture were received and the review period is complete, with the comments
	c.		Negative co	omments of an environ	mental natur	e have been received.
5.	Cor	ntrovei	rsy			
		Yes	☑ No	This action is contro If yes, check one of		nvironmental reasons or is the subject of an environmental complaint.
			action is the ached as Exh			complaints or questions have been raised which focus on a single impact. complaint or questions, and no further analysis is considered necessary.
6.	Cur	mulativ	ve Impacts			
		Yes	☑ No	nonfederal actions ex	xceed the crit	ction and other Rural Development actions, other federal actions, or related teria for a Class I action; or the action represents a phase or segment of a larger the criteria for a Class I action.
_						

#### 7. Need for the Project and Alternatives to it

Attached as Exhibit A is a brief statement of Rural Development's position regarding the need for the project. Also, briefly discussed are (a) the alternatives which have been considered by the applicant and Rural Development and (b) the environmental impacts of these alternatives. Alternatives include alternative locations, alternative designs, alternative projects having similar benefits, and no action.

8.	Measures to Avoid or Mitigate Adverse Environmental Impacts						
	✓ Yes	□ No	Mitigation measures are required. Attached as Exhibit B is a description of the site or design change that the applicant has agreed to make as well as mitigation measures that will be placed as special condition within the offer of financial assistance or subdivision approval.				
9.	Compliance	e With High	ly Erodible Land and Wetland Conservation Requirements				
	☐ Yes	☑ No	This action is subject to the highly erodible and wetland conservation requirements contained in Exhibit M of RD Instruction 1940-G.				
	If "yes" is ch	necked, com	plete (a), (b), (c), and (d).				
	a. Attached	as Exhibit _	is a completed Form SCS-CPA-026 which documents the following:				
	☐ Yes	□ No	Highly erodible land is present on the farm property.				
	☐ Yes	□ No	Wetland is present on the farm property.				
	☐ Yes	□ No	Converted wetland is present on the farm property.				
	b.  Yes	□ No	This action qualifies for the following exemption allowed under Exhibit M:				
	c. Yes	□ No	The applicant must complete the following requirements prior to approval of the action in order to retain or regain its eligibility for Agency financial assistance:				
	d. Yes	□ No	Under the requirements of Exhibit M, the applicant's proposed activities are eligible for Agency financial assistance				

#### 10. Environmental Determinations

The following recommendations shall be completed and the environmental reviewer shall sign the assessment in the space provided below.

a.			review of the foregoing information and such supplemental information attached hereto, I recombial determine that this project:
		will have a significant prepared;	effect on the quality of the human environment and an Environmental Impact Statement must be
	7	will not have a signific	cant effect on the quality of the human environment,
		will require further and	alysis through completion of the assessment format for a Class II action.
b.		ommend that the approvirements.	ing official make the following compliance determinations for the below listed environmental
	Not l	In In appliance Complian	nce
			Clean Air Act Federal Water Pollution Control Act Safe Drinking Water Act-Section 1424(e) Endangered Species Act Coastal Barrier Resources Act Coastal Zone Management Act-Section 307(c)(1) and (2) Wild and Scenic Rivers Act National Historic Preservation Act Archeological and Historic Preservation Act Highly Erodible Land and Wetland Conservation, Food Security Act Executive Order 11988, Floodplain Management Executive Order 11990, Protection of Wetlands Farmland Protection Policy Act Departmental Regulation 9500-3, Land Use Policy State Office Natural Resource Management Guide
c.	the pr	roposal for its consistence	ed the types and degrees of adverse environmental impacts identified by this assessment. I have also analyzed by with Rural Development environmental policies, particularly those related to land use, and have consoft the proposal. Based upon a consideration and balancing of these factors, I recommend from an the project
	<b>7</b>	be approved	not be approved because of the attached reasons (see Exhibit).
<u>  ru</u>	M of Prepa	P. Maucte	1/13/2010
uure o	y Frep		Date
1-11	11 // /	. in a cittal like. Va	. M No. 010/ / /

\*See Section 1940.302 for listing of officials responsible for preparing assessment.

	Judoth a. Canh 5/14/10
	Signature of Concurring Official 1  PDMINISMATOR  Title
	I have reviewed this environmental assessment and supporting documentation. Following are my Positions regarding its adequacy and the recommendations reached by the preparer. For any matter in which I do not concur, my reasons are attached as Exhibit
	Do not Concur Concur
	☐ ✓ Adequate Assessment   ☐ ✓ Environmental Impact Determination   ☐ ✓ Compliance Determinations   ☐ ✓ Project Recommendation
/	Signature Si State Environmental Cooplinator 2
4	Sternature by State Entire International States of States of Section 1940-318 top both the instances when a concurring official must sign the assessment and who is authorized to sign as the concurring official.
2	See Section 1940.316 for instances when State Environmental Coordinator's review is required.

# Appendix A

# Project Description

Rural Development proposes to provide financial assistance to Absolute Energy, LLC for purchase and installation of a fluidized bed reactor and material handling infrastructure related to the use of biofuels at the Absolute Ethanol Plant. Absolute Ethanol is located at 1372 State Line Road, St. Ansgar, IA 50472-Mitchell County). Absolute Energy is an ethanol plant capable of producing approximately 100 million gallons of ethanol (and other feed products)/year, and consumes approximately 3,000,000 MMBtu's/year of natural gas to fuel the plant. The proposal would install a new fuel combustion system to run biomass corn syrup which is a byproduct of the ethanol production process at the plant. The reactor would replace approximately 50% of the natural gas consumed, as well as generating approximately 3.2 MW of electrical power which will further reduce fossil fuel consumption. The proposed fluidized reactor area is approximately .025 of an acre and within the existing plant site (as shown on attached maps and photos). The entire plant area was graded and profoundly disturbed during construction in 2006; the proposed site is graded and is used as an unloading area for the ethanol production process.

#### Alternatives Considered

#### No Action

If RD takes no action on providing financial assistance, Absolute Energy could still proceed with the action to install the fluidized bed reactor based upon its assessment of fuel cost savings. The economics of the changeover would be a longer term to return the investment but the environmental impacts would be the same as under the proposed action. Should Absolute Energy decide to not proceed with fuel switching on the basis of denied RD funding, the impacts of burning natural gas (at approximately 3,000,000 MMBtu's/year) would continue. The major pollutants emitted with natural gas burning are NOx. Therefore, No Action could result in the continuation of adverse environmental impacts to air quality which is not significant.

# **Appendix B- Mitigation**

Absolute may need to obtain a new air quality permits from the State of Iowa for the fluidized bed reactor, depending upon the total emissions estimated under the proposed action. No total emissions estimates were presented by Absolute Energy in its application but it is likely that emissions of pollutants, primarily NOx, will be below those from burning natural gas.

Therefore, it is recommended as mitigation that Absolute Energy provide a copy of all new or revised air quality permits prior to RD funding of this project.



A Division of the Iowa Department of Cultural Affairs

January 8, 2010

In reference to R&C: 091266050

Mr. Frank Mancino USDA Rural Development 1400 Independence Ave. SW MS 0761 Washington, D.C. 20250

RE:

RECD – MITCHELL COUNTY – CITY OF SAINT ANSGAR – ABSOLUTE ETHANOL PLANT – INSTALL A FLUIDIZED BED REACTOR AND MATERIAL HANDLING INFRASTRUCTURE PROJECT — SEC. 10, T100N-R18W

Dear Mr. Mancino,

We have received your December 4, 2009 submittal regarding the above-referenced federal undertaking. We make the following comments and recommendations based upon our review of this material and in accordance with Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. 470 et seq.) and its implementing regulations 36 CFR Part 800 (revised, effective August 5, 2004).

Considering the scope and location of the undertaking, it is our consulting opinion that the proposed action will result in no effects to historic properties. Therefore, based upon the available information, we are able to concur with your determination of 'no historic properties affected.'

If design changes are made for this project which would involve undisturbed new rights-of-way or easements, please forward additional information to our office for further comment along with the Agency Official's determination of effect. If project activities uncover an item(s) that might be of archeological, historical or architectural interest, or if important new archeological, historical or architectural data should be encountered in the project APE, the applicant should make reasonable efforts to avoid further impacts to the property until an assessment can be made by a qualified archaeologist.

Do not hesitate to call me at (515) 281-8744 or email me at <u>daniel.higginbottom@iowa.gov</u> if you have any questions or require further assistance in this matter.

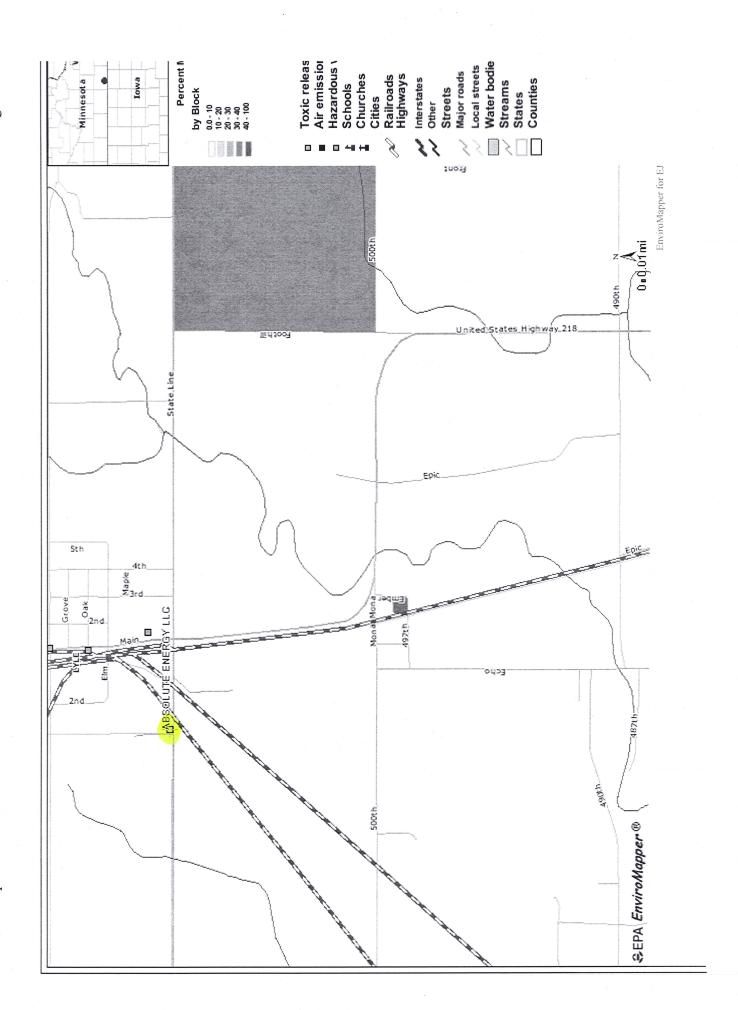
Sincerely,

Daniel K. Higginbottom, Archaeologist Iowa State Historic Preservation Office

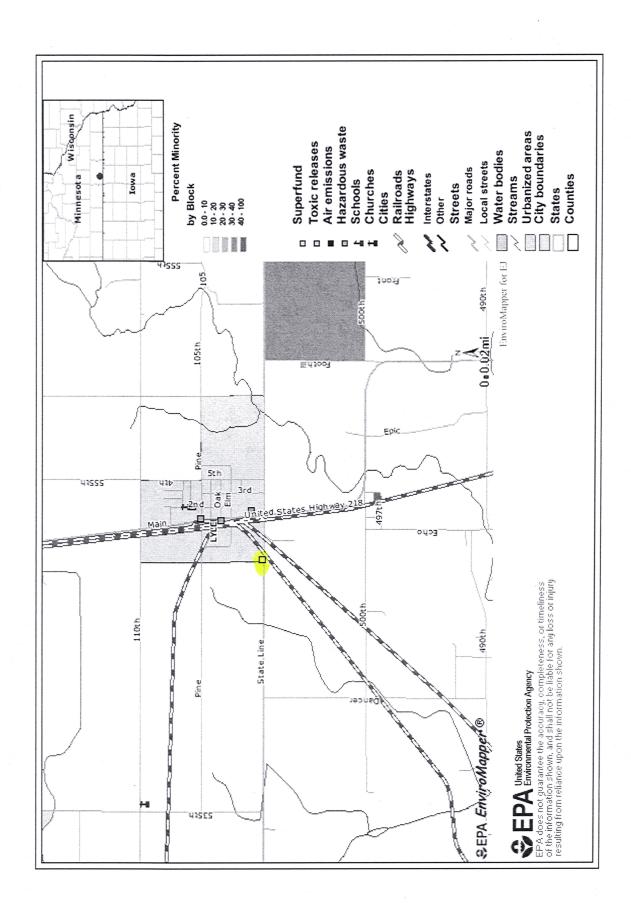
Cc: Lee Merrick, State Environmental Coordinator, USDA Rural Development

# Rural Development Environmental Justice (EJ) and Civil Rights Impact Analysis (CRIA) Certification

1. Applicant's name and proposed project description: Absolute Energy, LLC proposes to install				
a fluidized bed reactor to burn biofuels from its plant processes				
2. Rural Development's loan/grant program/guarantee or other Agency action: RD provides financial				
payments annually based upon the fossil fuel replaced by renewable biofuels.				
3. Attach a map of the proposal's area of effect identifying location or EJ populations, location of the proposal, area of impact or				
Attach results of EJ analysis from the Environmental Protection Agency's (EPAs) EnviroMapper with proposed project location and impact footprint delineated.				
4. Does the applicant's proposal or Agency action directly, indirectly or cumulatively affect the quality and/or level of services provided to the community?  Yes No N/A				
5. Is the applicant's proposal or Agency action likely to result in a change in the current land use patterns (types of land use, development densities, etc)?  Yes No N/A				
6. Does a demographic analysis indicate the applicant's proposal or Agency's action may disproportionately affect a significant minority and/or low-income populations?  Yes  No  N/A				
If answer is no, skip to item 12. If answer is yes, continue with items 7 through 12.				
7. Identify, describe, and provide location of EJ population				
8. If a disproportionate adverse affect is expected to impact an EJ population, identify type/level of public outreach implemented.				
9. Identify disproportionately high and adverse impacts on EJ populations.				
10. Are adverse impacts appreciably more severe or greater in magnitude than the adverse impacts expected on non-minority/low-income populations?  Yes No N/A				
11. Are alternatives and/or mitigation required to avoid impacts to EJ populations?  Yes No N/A				
If yes, describe				
12. I certify that I have reviewed the appropriate documentation and have determined that:    V				



Printable Map Title



State & County QuickFacts

# Mitchell County, Iowa

People QuickFacts	Mitchell County	lowa
Population, 2008 estimate	10,710	3,002,555
Population, percent change, April 1, 2000 to July 1, 2008	-1.5%	2.6%
Population estimates base (April 1) 2000	10,874	2,926,381
Persons under 5 years old, percent, 2008	5.8%	6.7%
Persons under 18 years old, percent, 2008	23.8%	23.7%
Persons 65 years old and over, percent, 2008	20.3%	14.8%
Female persons, percent, 2008	50.8%	50.6%
White persons, percent, 2008 (a)	99.2%	94.2%
Black persons, percent, 2008 (a)	0.2%	2.7%
American Indian and Alaska Native persons, percent, 2008 (a)	0.1%	0.4%
Asian persons, percent, 2008 (a)	0.2%	1.6%
Native Hawaiian and Other Pacific Islander, percent, 2008 (a)	Z	0.1%
Persons reporting two or more races, percent, 2008	0.3%	1.1%
Persons of Hispanic or Latino origin, percent, 2008 (b)	0.8%	4.2%
White persons not Hispanic, percent, 2008	98.5%	90.3%
Living in same house in 1995 and 2000, pct 5 yrs old & over	69.4%	56.9%
Foreign born persons, percent, 2000	0.5%	3.1%
Language other than English spoken at home, pct age 5+, 2000	4.1%	5.8%
High school graduates, percent of persons age 25+, 2000	84.4%	86.1%
Bachelor's degree or higher, pct of persons age 25+, 2000	12.8%	21.2%
Persons with a disability, age 5+, 2000	1,636	446,665
Mean travel time to work (minutes), workers age 16+, 2000	19.3	18.5
Housing units, 2008	4,726	1,329,352
Homeownership rate, 2000	81.6%	72.3%
Housing units in multi-unit structures, percent, 2000	8.6%	18.4%
Median value of owner-occupied housing units, 2000	\$66,500	\$82,500
Households, 2000	4,294	1,149,276
Persons per household, 2000	2.47	2.46
Median household income, 2007	\$43,506	\$47,324
Per capita money income, 1999	\$16,809	\$19,674
Persons below poverty, percent, 2007	9.0%	11.0%
Business QuickFacts	Mitchell County	lowa
Private nonfarm establishments, 2007	331	83,158 <sup>1</sup>
		- In the second second

	Private nonfarm employment, percent change 2000-2007	-1.1%	3.0%1
	Nonemployer establishments, 2007	856	202,717
	Total number of firms, 2002	1,063	236,515
	Black-owned firms, percent, 2002	F	0.7%
	American Indian and Alaska Native owned firms, percent, 2002	F	0.3%
	Asian-owned firms, percent, 2002	F	0.8%
	Native Hawaiian and Other Pacific Islander owned firms, percent, 2002	F	0.0%
	Hispanic-owned firms, percent, 2002	F	0.6%
	Women-owned firms, percent, 2002	31.0%	27.0%
-	Manufacturers shipments, 2002 (\$1000)	201,279	65,042,043
	Wholesale trade sales, 2002 (\$1000)	205,463	33,546,948
	Retail sales, 2002 (\$1000)	64,322	31,195,012
	Retail sales per capita, 2002	\$5,919	\$10,629
	Accommodation and foodservices sales, 2002 (\$1000)	D	3,698,955
	Building permits, 2008	13	8,412
	Federal spending, 2008	81,214	23,927,449 <sup>1</sup>
	Geography QuickFacts	Mitchell County	lowa
•	Land area, 2000 (square miles)	468.92	55,869.36
	Persons per square mile, 2000	23.2	52.4
	FIPS Code	131	19
	Metropolitan or Micropolitan Statistical Area	None	

<sup>1:</sup> Includes data not distributed by county.

Source U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, Census of Population and Housing, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Consolidated Federal Funds Report Last Revised: Tuesday, 17-Nov-2009 12:17:52 EST

<sup>(</sup>a) Includes persons reporting only one race.

<sup>(</sup>b) Hispanics may be of any race, so also are included in applicable race categories.

D: Suppressed to avoid disclosure of confidential information

F: Fewer than 100 firms

FN: Footnote on this item for this area in place of data

NA: Not available

S: Suppressed; does not meet publication standards

X: Not applicable

Z: Value greater than zero but less than half unit of measure shown

Additional Information can be obtained from Water Discharge Permit Infomation Query.

#### **AIRS / AFS Information**

**PLANT** NAME:

ABSOLUTE ENERGY LLC

**COMPLIANCE** 

**SYSTEM PLANT** 00042

ID:

**AFS PLANT** 

ID:

**LATITUDE:** 

0

**LONGITUDE:** 

0

**DUNS** 

**NUMBER: INVENTORY**  **PRINCIPAL** PRODUCT:

**EMERGENCY** 

YEAR:

**CONTROL:** 

POT EMISSIONS BELOW MAJR

SOURCE THRESHOLDS IF **CLASS CODE:** 

**COMPLIANCE** 

IN COMPLIANCE WITH

COMPLIES WITH FED **REGS/LIMITS** 

**STATUS:** 

**PROCEDURAL** REQUIREMENTS

The current AIRS/AFS database does not have any pollutant data for this facility.

#### **RCRAInfo**

**HANDLER ID: IAR000512814** 

# LIST OF NAICS CODES AND **DESCRIPTIONS**

NAICS CODE	NAICS DESCRIPTION		
325193	Ethyl Alcohol Manufacturing		

# HANDLER / FACILITY CLASSIFICATION

#### **HANDLER TYPE**

Conditionally Exempt Small Generator



Locational

Information

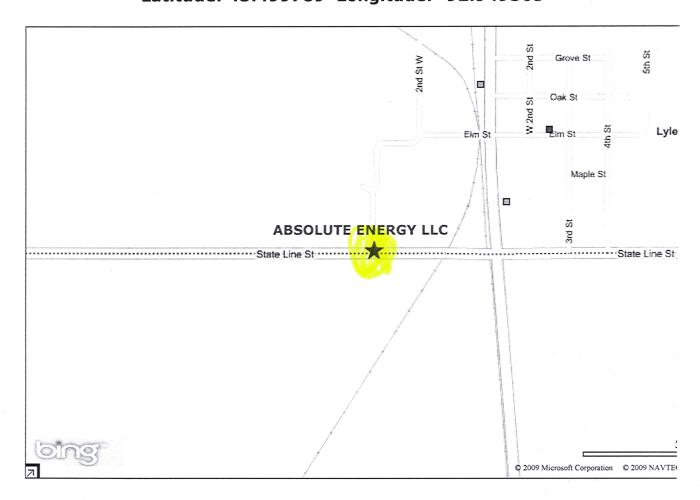
http://oaspub.epa.gov/enviro/Irt\_viewer.map\_page?sys\_id=110027236621 Last updated on Monday, January 4th, 2010. Locational Reference Tables (LRT)

You are here: EPA Home Envirofacts FRS Location Information

# **Facility Location Information**



ABSOLUTE ENERGY LLC 1372 STATELINE ROAD ST ANSGAR (MONA) IA 50472 Latitude: 43.499789 Longitude: -92.949365



The latitude and longitude coordinates above come from the Envirofacts Locational Reference Tables (LRT). The method used to derive the Most Accurate Coordinates was <u>ADDRESS</u> <u>MATCHING-HOUSE NUMBER</u>. These coordinates correspond to <u>N/A</u> and represent the best location for the facility. The coordinates were obtained from <u>EPA HEADQUARTERS</u>.

Query executed on JAN-04-2010

For Agency Use Only

yes

no

* . **	Rural Developmen	it - Energy Division	Agreement Number
REPOWERING ASSISTANCE PROG	RAM - APPLICATION		
The authority for requesting the following to complete the terms of an Agreement however, without it, eligibility to enter in of Justice, or other State and Federal leads	ng information is Section 9001 of between the owner of an eligib to an Agreement with the Agen aw enforcement agencies and in	of the Food, Conservation, and E ble biorefinery (Biorefinery) and th acy cannot be determined. This in a response to a court magistrate	enwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.), as amended. nergy Act of 2008 (P.L.110-234). The information will be used ne Agency. Furnishing the requested information is voluntary, iformation maybe provided to other agencies, IRS, Department or administrative tribunal. The provisions of criminal and civil ay be applicable- to the information provided.
According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information udisplays a valid OMB control number The valid OMB control number for this information collection is 0575-0193. The time required to complete this information colle estimated to average 24 hours per response, including the time for reviewing instructions searching existing data sources gathering and maintaining the data neede completing and reviewing the collection of information. RETURN THIS COMPLETED FORM TO: USDA RURAL DEVELOPMENT-ENERGY DIVISION, REPOWE ASSISTANCE PROGRAM, 1400 INDEPENDENCE AVENUE, SW, STOP 3225, WASHINGTON, DC 20250-3225.			75-0193. The time required to complete this information collection is sting data sources gathering and maintaining the data needed and A RURAL DEVELOPMENT-ENERGY DIVISION, REPOWERING
1. Operating name of Biorefinery			,
Absolute Energy LLC			
2A. Mail Address (Regular Mail)		2B. Congressional Distri	ct .
1372 State line Road St. Ansgar, IA 50472		IA-4	
3. IRS Tax Identification Number	ő	4A. Contact Person	
20-3841025		Rick Schwarck	
4B. Contact Person's Title		5. Telephone No. (Include	Area Code)
CEO		(641) 326-2220	
6. FAX No. (Include Area Code)		7. E-Mail Address	
(641) 326-2224		rick.schwarck@	absenergy.org
8. DUNS Number:	9. Are the Certification	n (s) required by the	10. Is the Feasibility Study required by the
applicable Notice or n 794106463 attached? (Check one			applicable Notice or regulations as amended attached? (Check one)

U.S. DEPARTMENT OF AGRICULTURE

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, D. C. 20250-94 10 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

Page 2 of 5

# Part A - Provide the information specified in Table A, either in the spaces provided or on attached pages.

# Table A. Biorefinery Information

1. What is the typical operating schedule for the Biorefinery?
24 hours/day;353days/year
2. Electric use data. (Provide information on the electric service to the Biorefinery; typical consumption, peak and average demand; monthly and seasonal use patterns, etc.)
Electric service to Ethanol Plant: 20,000 amps Average monthly electric usage from 2/15/2008 to 9/30/2009: 5,070,796 KWHs Attachment "A" has monthly use patterns
3. Fuel use data. (Provide information on the current fuel use for boilers and process heaters, including fuel type, costs, and use patterns)
Fuel Type: Natural Gas Average monthly fuel usage from 2/15/2008 to 9/30/2009: 237,584 MMBTUs Average monthly fuel cost from 2/15/2008 to 9/30/2009: \$1,752,946 Attachment "B" has monthly use patterns
4. Thermal loads. (Provide information on existing thermal loads, including type (steam, hot water, direct heat), conditions (temperature pressure), and use patterns)
Attachment "C" has information on thermal loads for Absolute Energy Ethanol plant.
5. Existing equipment. (Provide information on the existing heating and cooling equipment, including type, capacities, efficiencies and emissions)
Attachment"D" has information on existing equipment at the Absolute Ethanol Plant.
<b>6. Site-specific data.</b> (Provide information on other site-specific issues, such as expansion plans or neighborhood considerations that might impact the proposed new system design or operation)
Absolute Energy LLC has no expansion plans for this site. In the planning stages for the current ethanol plant, the plans for construction of an ethanol plant were know and supported by the public in the area.
7. Blofuel production. (Provide information on the liquid transportation fuels production; type, gallons per year)
Absolute Energy LLC currently owns, operates and maintains an ethanol facility capable of producing approximately 110 million gallons of ethanol annually.  Attachment "E" has information on plant and proposed project.

Form RD 9004-1 Page 3 of 5

8. Projected Return on Investment (Provide information on the projected return on investment demonstrated by calculating actual base energy use costs for the 24-month period prior to submission of the application, or based on engineering, design, and site plans for biorefineries with less than 24 months of operating data)

9. Projected Reduction of Fossil Fuel. (Provide information on the projected reduction in fossil fuel use based on actual fossil fuel use for the 24-month period prior to submission of the application, or at least 12-months of actual data and on engineering, design, and site plans for biorefineries with less than 24 months of actual operating data)

According to the feasibility study the natural gas usage at the plant will be reduced by approximately 1,515,000 MMMtus annually, a 50% reduction. With this system, we would also offset 3.2 Mega watts of electricity coming from coal fired power plants. This would eliminate the burning of 9,152 tons of coal per year.

Part B - Provide the information specified in Table B, either in the spaces provided or on attached pages.

#### Table B. Repowering Project Information

1. a. Identify the sources and uses of funds.
This project will be financed through Home Federal Savings Bank. Attachment "F" The funds will be used to purchase equipment and construction of project.
b. Identify the total project costs.
The total estimated cost for this project is \$28,547,807. Attachment "G" contains a cost breakdown for this project.
2. List costs that are eligible project costs for the Repowering Assistance Program. (Eligible project costs include only those costs that are for equipment, construction and engineering services for renewable biomass systems used to replace fossil fuels used to product heat or power to operate the biorefinery. Thus, if the renewable biomass system will also be used to generate heat or power that is to be sold, the percentage of costs associated with that activity must be deducted from the total repowering project cost.)  The total eligible project cost is \$28,547,807.  Attachment "G" contains a cost breakdown for this project.
3. Dollar amount of Repowering Assistance to be requested. (Based on planned energy production from renewable biomass and calculated using a payment amount of \$0.50 per Million Btu. Maximum payment amount is the lesser of \$5 million dollars or 50 percent of the eligible project cost.) \$2,514,111.00
<b>4. Provide information on the expected schedule of the repowering project.</b> (Give the estimated date the repowering project will be initiated, the estimated calendar time to complete the project, the projected completion date, and the projected date by which full energy production will be reached.)
DNR Permit for operation- March 30, 2010 Start construction of facility- April 1, 2010 Finish construction phase June 1, 2011 Full Production at plant July 1, 2011
5. Percentage of energy produced from renewable biomass that will be used for:
steam production; direct heat; process heat; 100.00 a electricity generation;
6. Will production of energy from renewable biomass be uniform throughout the year? If not, describe seasonal and other variations.
The plant runs 24/7; 353 days/year. Corn for the ethanol plant is bought each month to provide year around operation of the plant. The plant is shut down 12 days per year to complete normal year maintenance items.
7. <b>Type(s) of renewable biomass feedstock to be used.</b> (If more than one type of biomass feedstock is expected to be used, give the estimated percentage of each type.)
The fuel source will be renewable biomass corn syrup that is a by-product of the ethanol production process at the Absolute energy plant.
B. Provide an estimate of the number of jobs created, saved, or lost as a result of the repowering project.
4 jobs created; 41 jobs saved; jobs lost

#### Part C - Certification of Biorefinery Documentation and Acceptance

# I certify that, to the best of my knowledge and belief, the information included with this Application is true and correct, that the Biorefinery reported is an eligible Biorefinery that was in existence on or before June 18, 2008, and that the Biorefinery is producing liquid transportation fuels from an eligible renewable biomass feedstock. I certify that the Biorefinery does not receive Title I payments for biomass used as feedstock in this repowering project. 1. BIOREFINERY A. Absolute energy LLC (PRODUCER NAME) B. By: (Officer, Member, Partner, Proprietor) C. Title: CEO D. Date: K 10-77-09

Abosute ENERgy

USDA

Form RD 1940-20 (Rev. 6-99)

#### Position 3

FORM APPROVED

# REQUEST FOR ENVIRONMENTAL INFORMATION

OMB No. 0575-0094

Name of Project

Fluidized Bed Project

						· ·	ocation		•			
							11/2, Nu	14,	NE 14 Sect T100-R18W			
Ite				mpact Staten HIBIT I-A.	nent of	r Analysis been prepared for this proje	ect?	. 0	T100-R18W			
	1b. If "No." provide the information				s EXF	HBIT I.			,			
Ite						d a detailed project description and ha			submit			
comments to the appropriate Rural Development Office.  Yes No Date description submitted to SHPO  Item 3. Are any of the following land uses or environmental resources either to be affected by the proposal or located within or adjacent to the												
110	project site(s)? (Check appropriate box for every item of the following checklist).											
									***			
		Yes	No	Unknown			Yes	No	Unknown			
1.	. Industrial	×			19.	Dunes		K				
2.	. Commercial.		X		20.	Estuary	🗆	<b>X</b>				
3.	Residential.		×		21.	Wetlands	🗆	×				
4.	Agricultural	K			22.	Floodplain	🗆	*				
5.	Grazing		X		23.	Wilderness(designated or proposed under the		×				
6.	Mining, Quarrying		X			Wilderness Act)						
	Forests		X		24.	Wild or Scenic River(proposed or designated under the W		¥				
Q	Recreational		×			and Scenic Rivers Act)						
0.	Recreational				25.	Historical, Archeological Sites	. 🗆	¥				
9.	Transportation		X			(Listed on the National Register of Historic Places or which may be						
10.	Parks		X			eligible for listing)						
11.	Hospital		X		26.	Critical Habitats (endangered /threatened species)	. 🗆	<b>\</b>				
12.	Schools		X		27.	Wildlife		×				
13.	Open spaces		×		28.	Air Quality		X				
14.	Aquifer Recharge Area		<b>X</b>		29.	Solid Waste Management		X				
15.	Steep Slopes		3		30.	Energy Supplies		X				
16.	Wildlife Refuge		¥		31.	Natural Landmark		X				
17.	Shoreline		¥			(Listed on National Registry of Natur Landmarks)	al					
18.	Beaches		13		32.	Coastal Barrier Resources System		×				
Iten	n 4. Are any facilities under your owner consideration for listing on the Env			-		ilized in the accomplishment of this past of Violating Facilities?   Yes	No No					
	16-27-69					2.1	1	مان	nt/CEO			
	(Date)				Sign	ned: (Appl.	icant)	, , , , ,	7=1.7			
						president/CE	0					
(Title)												

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collections is 0575-0094. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

# **EXHIBIT I**

# ABSOLUTE ENERGY LLC PROJECT NAME: FLUIDIZED BED PROJECT

Item 1B--- Impact Analysis—Class I Action

# 1. Primary Beneficiaries:

The primary beneficiary for this Fluidized Bed Project will be Absolute Energy LLC who is the sole owner/operator of the planned Fluidized Bed. There are no corporate parents, affiliates or subsidiaries.

# 2. Area Description:

This project will involve the installation of a Fluidized Bed on the Absolute Energy LLC Ethanol production site located in Section 10 of OtrantoTwp. in Mitchell County Iowa. Approximately ¼ acre of the site will be utilized by the Fluidized Bed Project. Legal Description: N1/2, NW1/4, NE1/4, Section 10, T100N-R18W.

The Fluidized Bed site is part of the existing disturbed industrial site. The terrain is 0-4 percent slopes. The adjacent land is used for agricultural crop production.

Exhibit II is attached with the following information: aerial photograph of site, soil map of site, topographic map of site and flood hazard information.

# 13. Public Reaction:

There has been no public opposition for this project, a hearing has not been held. The Mitchell County Economic Development Commission supports this project. Their Board consists of local bankers, business and community leaders, and local elected county and city officials.

# 15. Mitigation Measures:

If it appears that any environmental impacts will result by the installation of the Fluidized Bed at the planned location, an alternative site will be procured.

# 16. Permits:

There are two permits of environmental nature which will be needed for this project. They are:

- Construction air permit
- Operating air permit for the boiler

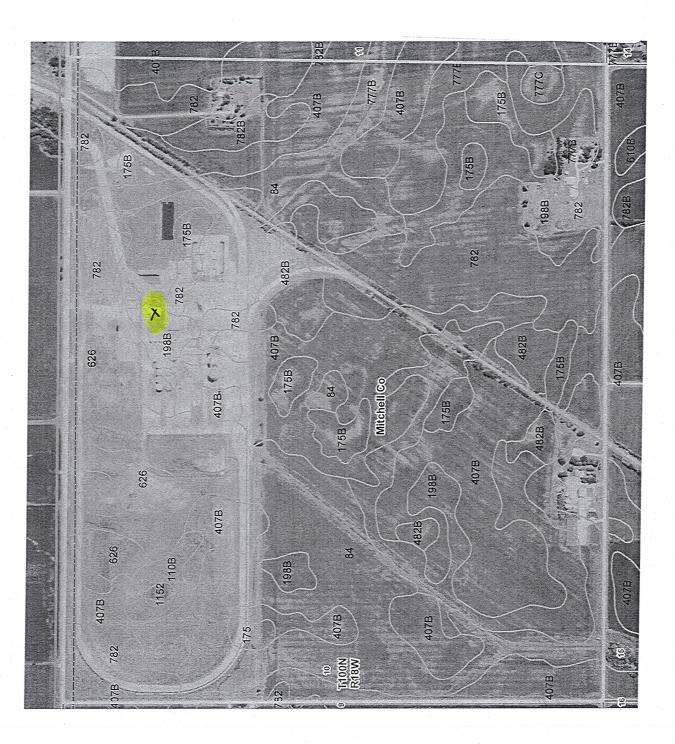
The application for these permits will be completed later this fiscal year.

# 17. Other Federal Action:

We are not aware of any other federal programs or pending actions associated with this project or located near the area.

Exhibit II

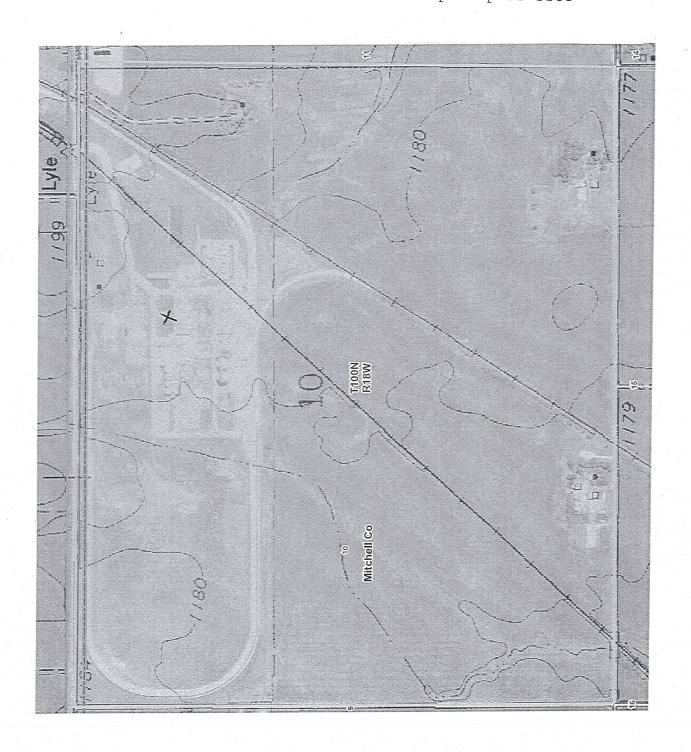
Soil map of Site



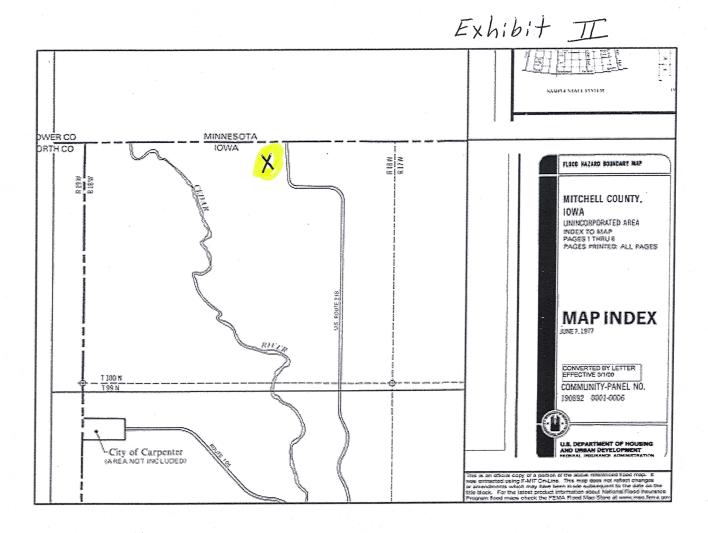
X - Location Fluidized Bed Project

Exhibit II

Topo map of Site



X - Location Fluidized Bed Project



Flood Hazard Map

X - Location of Fluidized Bed Project

# REQUEST FOR SHPO COMMENT ON A PROJECT

GENERAL INFORMATION	Sub Ret	omit one copy with <u>each</u> property for which our comment is requested. Please <u>print</u> or <u>type</u> .  urn to: State Historical Society of Iowa, State Historic Preservation Office, 600 E. Locust St, Des Moines, IA 50319-0290						
b. Property Street & Number:1372 State Line Road c. County:Mitchell	l.	☐ This is more information relating to SHPO R&C #:						
c. County: Mitchell City: St. Ansgar								
d. Federal Agency: USDA, Rural Development_ Federal Funding Program/Permit: REAP 9004 Program_e. e. Agency Project No.:								
e. Agency Project No.:								
g. Contact Address:		a. Agency Project No.: +bd						
g. Contact Address:		f Contact Parent on Project: Fronk Manager						
II. IDENTIFICATION OF HISTORIC PLACES Scope of Effort Applied  □ As agreed in programmatic or other agency agreements with SHPO (if applicable) □ Includes the attached elements required under 36 CFR 800.4(a) □ Area of potential effects, as defined in 800.16(d), is shown on map □ Existing information has been reviewed on historic properties in the property area at SHPO office and/or other locations of inventory data □ Information has been sought from parties likely to have knowledge about historic properties in the project area information gathered from Indian tribes, as appropriate □ Identification Results History and Architecture □ An attached lowa Site Inventory form is completed for each building 50 years of age or older Archaeology    Yes								
II. IDENTIFICATION OF HISTORIC PLACES Scope of Effort Applied  As agreed in programmatic or other agency agreements with SHPO (if applicable)  Includes the attached elements required under 36 CFR 800.4(a)  1). Area of potential effects, as defined in 800.16(d), is shown on map  2). Existing information has been reviewed on historic properties in the property area at SHPO office and/or other locations on the been sought from parties likely to have knowledge about historic properties in the project area 4 information gathered from Indian tribes, as appropriate  Identification Results  History and Architecture  An attached lows Site Inventory form is completed for each building 50 years of age or older Archaeology  Wes □ No The project will involve excavation  If yes, submit all of the following information (use attachments of necessary)  1). Precise project location map (prefeably U.S.G.S. 7.5 min Quad with name, date, & location)  2). Site plan showing limits of proposed excavation  3). Number of acres in project 0.25  4). Legal location: Section(s) □ □ □ monship(s) 100 □ Range(s) 18W  5). Description of width and depth of proposed excavation and current conditions of project area  III. APPLICANT CERTIFICATION (Check Either Adverse Effect or No Adverse Effect for Historic Property Affected category)  Findings (Check One)  No historic properties will be affected (i.e., none are present or there are historic properties present but the project will have no effect upon them) and adequate documentation under 800.11 is provided, including;  1) hot objects by a formation pursuant to 800.4(b) and  3). The basis for determining that no historic properties are present or affected.  I understand that the SHPO has 30 days from receipt to object to the finding, after which the applicant's responsibilities under Section 106 of the Historic Preservation Act are fulfilled.  □ An Adverse Effect under which, in consultation with the SHPO, the project will be modified or conditions imposed to avoid adverse effects. I understand t								
As agreed in programmatic or other agency agreements with SHPO (if applicable)   Includes the attached elements required under 36 CFR 800.4(a)   1) Area of potential effects, as defined in 800.16(d), is shown on map   2) Existing information has been reviewed on historic properties in the property area at SHPO office and/or other body the property of the proper	II.	IDENTIFICATION OF HISTORIC PLACES						
2) Existing information has been reviewed on historic properties in the property area at SHPO office and/or other locations of inventory data  3) Information has been sought from parties likely to have knowledge about historic properties in the project area information pathered from Indian tribes, as appropriate interest the interest of the indian tribes, as appropriate interest of the indian tribes indian tribes in the indian tr								
Identification Results   History and Architecture   An attached lows Site Inventory form is completed for each building 50 years of age or older   Archaeology   No		<ol> <li>Existing information has been reviewed on historic properties in the property area at SHPO office and/or other locations of inventory data</li> </ol>						
No   The project will involve excavation   If yes, submit all of the following information (use attachments of necessary)   1   Precise project location map (preferably U.S.G.S. 7.5 min Quad with name, date, & location)   2   Site plan showing limits of proposed excavation   3   Number of acres in project   0.25   4   Legal location: Section(s)   10   Township(s)   100   Range(s)   18W   5   Description of width and depth of proposed excavation and current conditions of project area   10   Township(s)   100   Range(s)   18W   100   Range(s)		History and Architecture						
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Object to the finding for reasons indicated in attached letter Cannot review until information is sent as follows:	IV.	STATE HISTORIC PRESERVATION OFFICE COMMENT						
Authorized Signature: Date:		Object to the finding for reasons indicated in attached letter						
		Authorized Signature: Date:						

Version: 12/18/02

#### Attachment 1

# II 36 CFR 800.4(a)

- 1. Area of potential effects (APE), as defined in 800.16(d), is shown on the attached maps. The APE is defined as the site footprint for the ethanol plant.
- 2. A review of the Iowa OAS and GIS files show no historic properties in the property area.
- 3. No known Tribal resources are in this area.

# III Findings

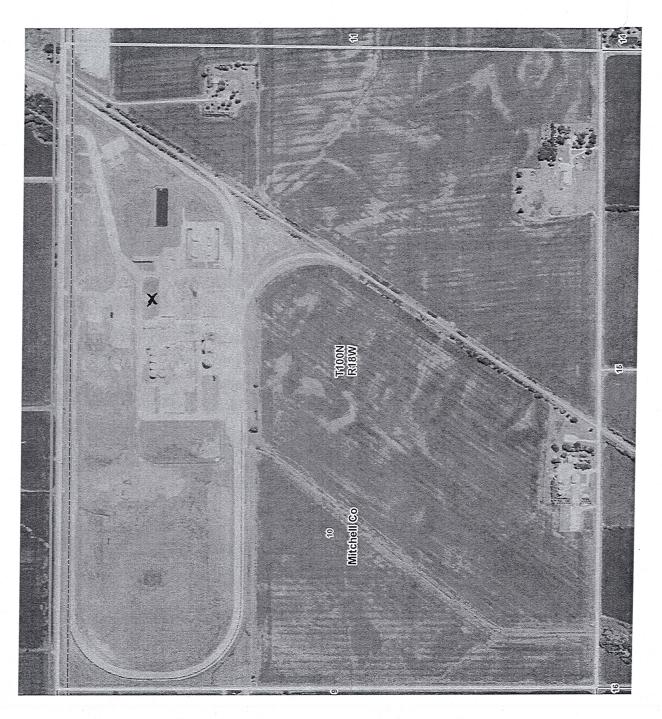
# 1. Undertaking Description

Rural Development proposes to provide financial assistance to Absolute Energy, LLC for purchase and installation of a fluidized bed reactor and material handling infrastructure related to the use of biofuels at the Absolute Ethanol Plant. Absolute Ethanol is located at 1372 State Line Road, St. Ansgar, IA 50472-Mitchell County). Absolute Energy is an ethanol plant capable of producing approximately 100 million gallons of ethanol (and other feed products)/year, and consumes approximately 3,000,000 MMBtu's/year of natural gas to fuel the plant. The proposal would install a new fuel combustion system to run biomass corn syrup which is a byproduct of the ethanol production process at the plant. The reactor would replace a large part of the natural gas consumed, as well as generating approximately 3.2 MW of electrical power which will further reduce fossil fuel consumption. The proposed fluidized reactor area is approximately .025 of an acre and within the existing plant site (as shown on attached maps and photos). The entire plant area was graded and profoundly disturbed during construction in 2006; the proposed site is graded and is used as an unloading area for the ethanol production process.

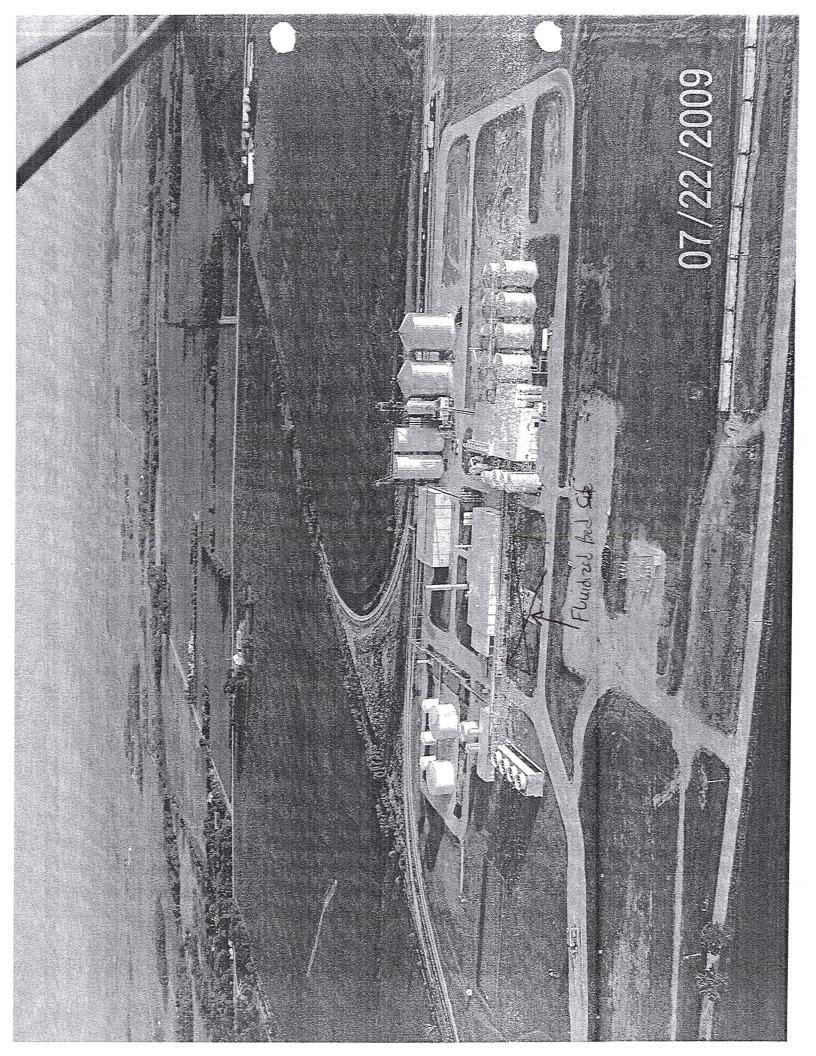
- 2. Survey of Iowa databases of existing historic resources show no historic structures eligible for, or listed on the National Register of Historic Places within at least 1 mile of the ethanol plant.
- 3. The basis for determining that no historic properties are present or affected is: a) the plants buildings and structures are less than 50 years old; and b) the site has been graded and profoundly disturbed during plant construction.

Exhibit II

Aerial Photo of site



X - Site Fluidized Bed Project



# Mitchell County

Property	Address	City	Date Listed
Cedar Valley Seminary	N. 6th and Mechanic Sts.	Osage	11/17/1977
Deering, Nathaniel Cobb and Lucetia Baily, House	903 State Street	Osage	1/26/2001
First Lutheran Church	212 N. Main Street	St. Ansgar	12/12/1976
Mitchell County Courthouse	500 State Street	Osage	08/29/1977
Mitchell Powerhouse and Dam	Red Cedar River	Mitchell	12/08/1978
Osage Commercial Historic District	Main Street Blks. 700, 600 and parts of 500	Osage	9/12/2002
Otranto Bridge	480th Ave. over Big Cedar River Street	Ansgar vicinity	5/15/98
Severson Nels Barn	N of Carpenter	Carpenter	07/15/1977
Union Presbyterian Church	NW of Stacyville	Stacyville	04/13/1977
Walnut Grove School	3272 Foothill Ave.	Osage vicinity	9/12/2002

