



PROTECTING THE ENVIRONMENT PROVIDING RENEWABLE ENERGY SUSTAINABILITY SUCCESS IN MEAD, NEBRASKA



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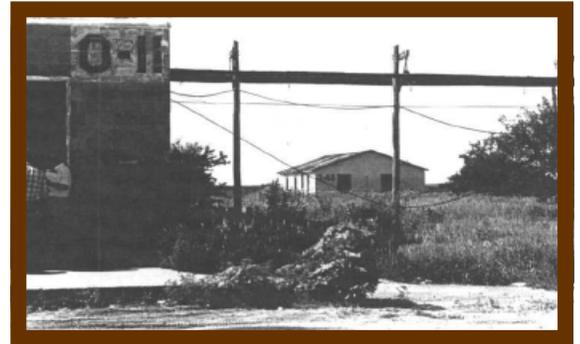
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ER3 Initiative

The ER3 Initiative is comprised of three interrelated components:

- 1) Identifying and delivering enforcement and other related incentives to developers of contaminated land to encourage sustainable redevelopment;
- 2) Identifying and delivering sustainable development principles and practices through a public/private partnership network; and
- 3) Identifying and delivering outreach and educational opportunities on the initiative and sustainable development.

As the United States weans itself from its dependence on foreign oil, new and sustainable energy sources are needed. Yet, the concept of sustainability demands that the production of these energy sources cannot degrade the environment. Sustainability success – economic growth, protection of the environment, and investment in the needs of people – is found at the E3 Biofuels, LLC (E3 Biofuels) complex in Mead, Nebraska. The E3 Biofuels facility at Mead is located on the former Nebraska Ordnance Plant Site, a former ammunition manufacturing facility which is being cleaned up under the federal Superfund law. This facility has not only been recognized by the EPA for its role in developing ethanol as a renewable resource, but it is also part of EPA's ER3 Initiative. ER3, or Environmentally Responsible Redevelopment and Reuse, is designed to promote the sustainable redevelopment or reuse of once contaminated sites.



Former Mead, Nebraska Ordnance Plant

Background

Military munitions were assembled by the U.S. Army at the 17,000 acre Nebraska Ordnance Plant Superfund Site during World War II and the Korean War. Army operations included loading, assembling, and packing of munitions at four load-line facilities. The plant was also used by the Army for munitions storage and ammonium nitrate production. During the Cold War, an Atlas Missile launch site was also located at the facility, along with a related operation that cleaned missile parts for other sites in the area using organic solvents. Under a Superfund agreement signed by the U.S. Department of Defense, EPA, and the Nebraska Department of Environmental Quality, the U.S. Army Corps of Engineers is conducting extensive remedial work to address explosive and solvent contamination in the drinking water supply. Beginning in 1962, portions of the plant were sold to various entities. The E3 Biofuels complex, located on part of the former munitions site, utilizes a patented, self-sustaining, "closed-loop" process where waste from an existing, onsite 30,000 head beef-cattle feedlot will be used to produce biofuel that will in turn be used to power an onsite ethanol plant. A byproduct of ethanol production, called wet distillers grain, will be fed to the cattle, and residual material from the solid waste management portion of the facility will be separated into liquid and solid biofertilizers. Full-scale operations are expected to begin in November 2006.



E3 Biofuels Closed-Loop Ethanol Complex

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E3 Biofuels Achieving Renewable Fuel Standards

The E3 Biofuels Mead, Nebraska site was selected to announce the EPA's proposed rules to meet the Renewable Fuels Standards (RFS) required by the Energy Policy Act of 2005.

Specifically, EPA proposes 3.71 percent of all U.S. gasoline sold next year be a "renewable fuel." Currently the standard is 2.78 percent of all gasoline sales. The RFS requires refiners to use 7.5 billion gallons of ethanol in gasoline by the year 2012.

EPA said the new standards are expected to reduce carbon monoxide emissions from gasoline-powered vehicles and equipment by 1.3 percent to 3.6 percent and greenhouse gas emissions by 9 million to 14 million tons.

The E3 Biofuels facility at Mead, Nebraska will have the capability of producing 24 million gallons of ethanol per year.



**Artist Rendering of E3 Biofuels,
Mead Complex**



**Former Military Munitions
Assembly Plant**

Environmentally Responsibility Redevelopment and Reuse (ER3)

The ER3 Initiative is an EPA Office of Enforcement and Compliance Assurance program that recognizes the value of reusing once-contaminated land. It also recognizes the significant impact that development has on the environment. ER3 provides enforcement and liability relief incentives to encourage developers of contaminated land to redevelop it in a sustainable manner. By incorporating sustainable practices and principles into their projects, developers of contaminated sites can minimize the environmental impact of their project without sacrificing economic profitability.

At the E3 Biofuels site, EPA Region 7 provided a comfort/status letter and information regarding certain Superfund liability protections applicable to E3 Biofuels which facilitated the procurement of a \$70 Million loan for the construction of the Mead facility.

For more information on ER3, please visit the Web site at:
<http://www.epa.gov/compliance/cleanup/redevelop/er3>.

Environmental Benefits at E3 Biofuels Mead Complex:

- Facility is co-located with an existing feedlot operation, and takes advantage of slatted floors for manure capture
- Feedlot wastes are recycled and used as energy rather than land applied, reducing the risk of manure-related pollution
- Use of biogas produced from cattle manure will provide 95 - 100% of the energy needed to operate the ethanol plant
- Wet distillers grain, a byproduct from the production process of the ethanol plant, will be recycled as feed for the onsite feedlot which eliminates the need for drying equipment and associated pollution controls and reduces capital expenditures for the facility
- Byproducts of the solid waste treatment system will be turned into biofertilizers
- Closed-loop complex eliminates transportation costs of protein co-products to remote locations
- Reduces greenhouse gas emissions over ethanol plants that rely on coal or natural gas



E3 Biofuels, Mead Complex

For more information on E3 Biofuels, LLC, please visit the Web site at:
<http://www.e3biofuels.com>.