

Chapter 8

Regulations

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8. REGULATIONS

This chapter describes the U.S. Department of Energy's (DOE or the Department) analysis of statutes, regulations, permits, licenses, and entitlements that establish or affect the implementation of the Proposed Action and Action Alternative for this Abengoa Bioenergy Project EIS.

8.1 Federal Statutes

This section describes relevant provisions of those federal statutes germane to the underlying purpose and need for DOE's action as described in Chapter 1, Section 1.1. These statutes include the *Energy Policy Act of 2005* (EPA 2005; Pub. L. 109-58) and the *Energy Independence and Security Act of 2007* (Pub. L. 110-40).

8.1.1 ENERGY POLICY ACT OF 2005

The purpose of EPA 2005, as established by the U.S. Congress, is to ensure jobs for the future with secure, affordable, and reliable energy. Section 932 is the key provision of EPA 2005 relevant to the development of commercial-scale integrated biorefineries, and to the issuance of loan guarantees for renewable energy systems, respectively. As a general matter, Section 932 directs the Department to undertake research, development, demonstration, and commercial application for bioenergy, including integrated biorefineries that produce biopower, biofuels, and bioproducts. More specifically, Section 932 identifies that the goals of the biofuels and bioproducts programs are to develop:

1. Advanced biochemical and thermochemical conversion technologies capable of making fuels from lignocellulosic feedstocks that are price-competitive with gasoline or diesel in either internal combustion engines or fuel cell-powered vehicles;
2. Advanced biotechnology processes capable of making biofuels and bioproducts with emphasis on development of biorefinery technologies using enzyme-based processing systems;
3. Advanced biotechnology processes capable of increasing energy production from lignocellulosic feedstocks, with emphasis on reducing the dependence of industry on fossil fuels in manufacturing facilities; and
4. Other advanced processes that will enable the development of cost-effective bioproducts, including biofuels.

In addition, Section 932 allows DOE to provide funds (limited to \$100 million for any single biorefinery demonstration) to support the:

- Demonstration of a wide variety of lignocellulosic feedstocks;
- Commercial application of biomass technologies for a variety of uses, including, liquid transportation fuels, high-value biobased chemicals, substitutes for petroleum-based feedstocks and products, and energy in the form of electricity or useful heat; and
- Demonstration of the collection of treatment of a variety of biomass feedstocks.

8.1.2 ENERGY INDEPENDENCE AND SECURITY ACT OF 2007

The purpose of the *Energy Independence and Security Act of 2007*, in part, is to move the United States toward greater energy independence and security by increasing the production of renewable fuels, and promoting research on and deploying greenhouse gas capture and storage options. Title II, Subtitle A of the Act extends and increases the renewable fuel standard set previously by EPAct 2005. The renewable fuel standard requires minimum annual levels of renewable fuel in transportation fuel. Under EPAct 2005, the previous standard was 5.4 billion gallons (20 billion liters) for 2008, rising to 7.5 billion gallons (28 billion liters) by 2012. Under the *Energy Independence and Security Act of 2007*, the new standard starts at 9 billion gallons (34 billion liters) in 2008 and rises to 36 billion gallons (140 billion liters) in 2022.

In addition, starting in 2016, all of the increase in the renewable fuel standard target must be met with advanced biofuels, defined as cellulosic ethanol and other biofuels derived from feedstock other than corn starch, with explicit amounts for cellulosic biofuels and biomass-based diesel fuel. The U.S. Environmental Protection Agency (EPA) may temporarily waive part of the biofuels mandate, if it were to determine that a significant renewable feedstock disruption or other market circumstance might occur. Furthermore, renewable fuels produced from new biorefineries will be required to reduce by at least 20 percent the lifecycle greenhouse gas emissions relative to lifecycle emissions from gasoline and diesel. Fuels produced from biorefineries that displace more than 80 percent of the fossil-derived processing fuels used to operate a biofuel production facility qualify for cash awards.

8.2 Federal and State Environmental Requirements

This section lists other federal (Section 9.2.1) and state (Section 9.2.2) environmental requirements applicable to implementation of the Proposed Action and Action Alternative. The *National Environmental Policy Act* is discussed in Chapter 1, Section 1.4.

8.2.1 FEDERAL STATUTES AND REGULATIONS

The federal statutes applicable to the Proposed Action and Action Alternative include the following:

- National Environmental Policy Act (42 U.S.C. 4321-4370)
- Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531-1543)
- Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq., as amended)
- Migratory Bird Treaty Act (16 U.S.C. 703 et seq., as amended)
- Bald and Golden Eagle Protection Act (16 U.S.C. 668 through 668d)
- Clean Water Act of 1977 (CWA) and the Water Quality Act of 1987 (WQA) (33 U.S.C. 1251 et seq., as amended)
- Farmland Protection Act of 1981 (7 U.S.C. 4201 et seq., as amended)
- Food Security Act of 1985, 16 U.S.C. 3801 through 3862 et seq., as amended
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (as amended by the Superfund Amendments and Reauthorization Act of 1986 [SARA])
- Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S.C. 6901 et seq., as amended)
- Toxic Substances Control Act (TSCA) (15 U.S.C. 2601 et seq., as amended)
- Safe Drinking Water Act of 1974 (42 U.S.C. 300(f) et seq., as amended)
- Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 1001 et seq.)

- National Historic Preservation Act of 1966 (NHPA) (16 U.S.C. 470 et seq., as amended)
- Archeological Resources Protection Act of 1979 (16 U.S.C. 470 et seq., as amended)
- Clean Air Act of 1970 (CAA) (42 U.S.C. 7401 et seq., as amended)
- Noise Control Act of 1972 (42 U.S.C. 4901-4918)
- Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.)
- Pollution Prevention Act of 1990 (42 U.S.C. 13101 et seq.)
- American Indian Religious Freedom Act of 1978 (42 U.S.C. 1996)
- Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001)
- Antiquities Act (16 U.S.C. 431 et seq.)
- Homeland Security Act of 2002 (6 U.S.C. 101 et seq.)
- National Primary Drinking Water Regulations (40 CFR Part 141)
- Criteria for Municipal Solid Waste Landfills (40 CFR Part 258)
- Federal Noxious Weed Act of 1974 (FNWA) (7 U.S.C. 2801-2814, as amended).

8.2.2 STATE OF KANSAS STATUTES AND REGULATIONS

The Kansas statutes applicable to the Proposed Action and Action Alternative include, but are not necessarily limited to, the following:

- Kansas Statutes Annotated (K.S.A), Chapter 65 – Public Health, Article 34 – Solid and Hazardous Waste and Administrative Regulations
- Kansas Surface Water Quality Standards (K.A.R. 28-16-28 et seq.)
- Kansas Statues Annotated 65-164 and 65-165
- Kansas Anti-degradation Policy dated August 6, 2001
- Kansas Administrative Regulations (K.A.R.) Chapter 28, Air Quality Regulations, Article 19, Ambient Air Quality Standards and Air Pollution Control
- Kansas Administrative Regulations (K.A.R.) Chapter 28, Primary Drinking Water Regulations, Article 15a
- Kansas Statutes Annotated (K.S.A.), Chapter 2 – Agriculture, Article 13 – The Kansas Noxious Weed Law, April 2007
- Kansas Water Appropriation Act (K.S.A. 82a-701 et seq.)
- Kansas Obstructions in Stream Act (K.S.A. 82a-301 to 305)
- Kansas Drainage and Levees Act (K.S.A. 24-126)
- Kansas Statutes Annotated (K.S.A), Chapter 32 – Wildlife, Parks and Recreation, Article 9 – Licenses, Permits, Stamps and Other Issues, 32-957 through 32-963, 32-1009 through 32-1012, 32-1033 and K.S.A. 32-960a and 32-960b, as amended.

8.3 DOE Regulations and Policies

The DOE regulations and policies applicable to the Proposed Action and Action Alternative include the following:

- DOE Compliance with the National Environmental Policy Act (10 CFR Part 1021)
- DOE Compliance with Floodplain and Wetland Environmental Review Requirements (10 CFR Part 1022)

- DOE Order 451.1B, National Environmental Policy Act Compliance Program (Change 1, September 28, 2001)
- DOE Policy 430.1, Land and Facility Use Planning (July 9, 1996) (with Secretary of Energy Memorandum, December 21, 1994)
- DOE Policy 141.1, Management of Cultural Resources (May 2001).

8.4 Executive Orders

The executive orders applicable to the Proposed Action and Action Alternative include the following:

- Executive Order 11514, Protection and Enhancement of Environmental Quality (amended by Executive Order 11991)
- Executive Order 11990, Protection of Wetlands
- Executive Order 12372, Intergovernmental Review of Federal Programs
- Executive Order 11988, Floodplain Management
- Executive Order 12088, Federal Compliance with Pollution Control Standards
- Executive Order 12856, Right-to-Know Law and Pollution Prevention Requirements
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
- Executive Order 13007, Indian Sacred Sites
- Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risk
- Executive Order 13010, Critical Infrastructure
- Executive Order 13025, Amendment to Executive Order 13010, the President's Commission on Critical Infrastructure Protection
- Executive Order 13112, Invasive Species
- Executive Order 13175, Consultation and Coordination with Indian Tribal Governments
- Executive Order 13186, Responsibilities of Federal Agencies to Protect Migratory Birds
- Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management

8.5 Permits, Licenses, and Entitlements

This section lists environmental permits, licenses, and entitlements that may be applicable to implementation of the Proposed Action and Action Alternative.

- EPA Spill, Prevention, Control and Countermeasures (SPCC) plan in accordance with 40 CFR Part 112
- EPA Chemical Accident Prevention Provisions (40 CFR Part 68), Risk Management Program, Risk Management Plan
- U.S. Department of Labor Occupational Safety and Health Administration, Process Safety Management of Highly Hazardous Chemicals Regulation (29 CFR 1910.119), Process Safety Management Plan
- U.S. Department of Labor Occupational Safety and Health Administration, Occupational Noise Exposure (29 CFR 1910.95)
- U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Regulations for Construction (29 CFR Part 1926)

- U.S. Department of Agriculture Land Evaluation and Site Assessment (implements provisions of the Farmland Policy Protection Act of 1981)
- Kansas General National Pollutant Discharge Elimination System Storm Water Permit for Construction Activities in compliance with Kansas State General Permit S-MCST-0701-1 and Federal Permit No.: KSR100000, and in compliance with Kansas Statutes Annotated 65-164 and 65-165; the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.; the “Clean Water Act”); and the Kansas Surface Water Quality Standards (K.A.R. 28-16-28 et seq.)
- Kansas National Pollutant Discharge Elimination System Permit for Storm Water Discharges associated with Industrial Activities in compliance with Kansas State General Permit S-ISWA-0507-1 and Federal Permit No.: KSR000000, and in compliance with Kansas Statutes Annotated 65-164 and 65-165; the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.; the “Clean Water Act”); and the Kansas Surface Water Quality Standards (K.A.R. 28-16-28 et seq.)
- Kansas Industrial Wastewater Pre-Treatment Discharge Permit in compliance with the Surface Water Quality Standards (K.A.R. 28-16-56) and the Kansas Anti-degradation Policy dated August 6, 2001
- Kansas Air Quality Construction and Major Source Title V Air Permits in compliance with Chapter 28, Kansas Air Quality Regulations, Article 19, Ambient Air Quality Standards and Air Pollution Control
- Kansas Hazardous Waste Generator Identification Number in accordance with Kansas Statutes Annotated (K.S.A), Chapter 65 – Public Health, Article 34 – Solid and Hazardous Waste and Administrative Regulations and U.S. Environmental Protection Agency 40 CFR Part 262
- Kansas Odor Control Plan in compliance with K.A.R. Chapter 28, Department of Health and Environment, Article 19, Chemical Processing Facilities that Operate Alcohol Plants or Liquid Detergent Plants (K.A.R. 28-19-77)
- Kansas Water Pollution Control Permit (sewage lagoons) in compliance with K.A.R. Chapter 28, Article 16, Water Pollution Control, Section 16-1, Sewage Discharge Permits
- Kansas Landfill Permit in compliance with K.A.R. Chapter 28, Article 29, Solid Waste Management
- Kansas Water Appropriations for change in water use application, Kansas Division of Water Resources in accordance with K.A.R. 5-5-9
- Kansas Aboveground Storage Tank Registration in compliance with K.A.R. Chapter 28, Department of Health and Environment, Article 44, Aboveground Storage Tank Operating Permit (K.A.R. 28-44-29).