

Federal Laws, Regulations, and  
Programs: application to biofuel  
production and the Roundtable on  
Sustainable Biofuels (RSB)  
Principles

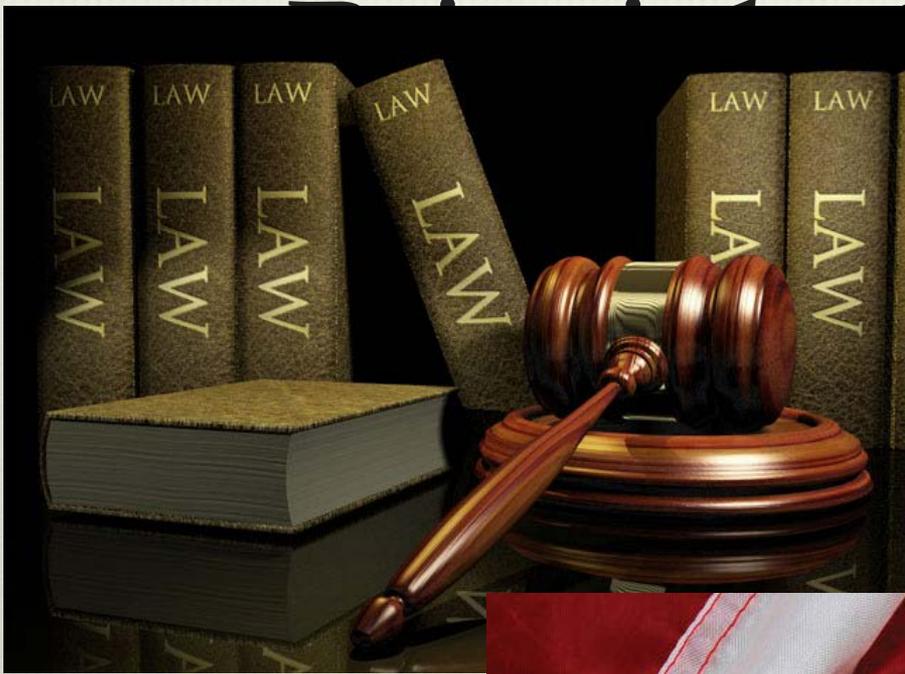
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## Roundtable on sustainable biofuels RSB “operational certification standard”

- ❖ The RSB Principles & Criteria for Sustainable Biofuels provides guidelines on the best practices in the production and processing of biofuel feedstock and raw material, and for the production, use and transport of liquid biofuels.
  - ❖ Principles – general tenets of sustainable production
  - ❖ Criteria – conditions to be met to achieve these tenets
  - ❖ Requirements – differentiated in minimum and progress requirements that further detail the criteria

# Principle 1: Legality

- ❖ Principle 1: Biofuel operations shall follow all applicable laws and regulations.
  - ❖ Criterion 1: Biofuel operations shall comply with all applicable laws and regulations of the country in which the operation occurs and with relevant international laws and agreements.
  - ❖ Who must comply?
    - ❖ Feedstock Producer, Feedstock Processor, Biofuel Producer



# Principle 2: Planning, Monitoring, and Continuous Improvement

- ❖ Principle 2: Sustainable biofuel operations shall be planned, implemented, and continuously improved through an open, transparent, and consultative impact assessment and management process and an economic viability analysis.

The screenshot shows the 'Roundtable on Sustainable Biofuels Tool' interface. The main navigation bar includes: HOME, RSB APPLICATION, PRINCIPLES AND CRITERIA, RISK ASSESSMENT (highlighted), GREENHOUSE GAS CALCULATION (GHG), ACKNOWLEDGEMENTS, and FEEDBACK. The left sidebar contains links for RSB Risk Assessment information, Questionnaire, Results, and a Logout button. The main content area is titled '- Risk Assessment Questionnaire -' and includes a version note: 'Version: 2.0 Standard for risk management (11-02-11; RSB-STD-00-002)'. Below this is a table for 'General Risk Factors' and 'Factors related to P&C'. The table has columns for Factor, Weighting, and Results. The 'Weighting' row shows values from 1 to 13, and the 'Results' row shows a series of 0s. Below the table, there is a section for 'Risk factor class: 1: General Risk Factors' with a descriptive paragraph.

Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	1	2	3	4	5	6	7	8	9	10	11	12	Results	
Weighting	3	3	2	2	1	3	4	3	2	3	2	2	4	3	3	3	4	2	1	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Choice	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## Criterion:

- Impact assessment process: implementation, mitigation, monitoring, and evaluation
- Free, Prior, and Informed Consent (FPIC) in stakeholder consultation
- Long-term economically viable business plan



- ❖ Biofuel production is affected by NEPA regulations if construction of a biodiesel plant or crop production is paid for using federal money. Furthermore, any road constructed or water source constructed or modified by a biodiesel plant would be subject to NEPA.
- ❖ Steps for environmental assessment include:
  - ❖ 1) Categorical Exclusion
  - ❖ 2) Environmental Assessment (EA)/Finding of no significant impact (FONSI)
  - ❖ 3) Notice of Intent (NOI)
  - ❖ 4) Environmental Impact Statement (EIS)
  - ❖ 5) Record of Decision (ROS)

## Principle 2: Planning, Monitoring, and Continuous Improvement

# Principle 3: Greenhouse Gas Emissions

Principle 3: Biofuels shall contribute to climate change mitigation by significantly reducing lifecycle GHG emissions as compared to fossil fuels.

## ❖ Criterion:

- ❖ Comply with legislative policy
- ❖ Calculated using the RSB lifecycle GHG emission methodology (Well to Wheel)
- ❖ Average 50% lower lifecycle GHG emissions relative to fossil fuel baseline

# Principle 3: Greenhouse Gas Emissions

- ❖ **Renewable Fuel Standard (RFS) amended by the Energy Independence and Security Act of 2007 (EISA)**
  - ❖ Establishes specific annual volume standards for biofuels

Lifecycle GHG Thresholds Specified in EISA (percent reduction from 2005 baseline)	
Renewable fuel*	20%
Advanced biofuel	50%
Biomass-based diesel	50%
Cellulosic biofuel	60%

# Principle 4: Human and Labor Rights

- ❖ Principle 4: Biofuel operations shall not violate human rights or labor rights, and shall promote decent work and the well-being of workers.
- ❖ Criterion:
  - ❖ No slave labor
  - ❖ No child labor
  - ❖ Free of discrimination of any kind
  - ❖ Wages and working conditions will respect all labor laws

# Principle 4: Human and Labor Rights

- ❖ US Constitution, Bill of Rights, 1<sup>st</sup> Amendment
- ❖ US Constitution, 13<sup>th</sup> Amendment
- ❖ Fair Labor Standards Act (FLSA) of 1938
  - ❖ Age standards
  - ❖ Minimum wage for employment
- ❖ Equal Pay Act of 1963
- ❖ Pregnancy Discrimination Act (PDA)  
Age Discrimination in Employment Act (ADEA)
- ❖ Americans with Disabilities Act (ADA)
- ❖ Title VII of Civil Rights Act of 1964
- ❖ Occupational Safety and Health Act (OSH Act) of 1970
  - ❖ Established the Occupational Safety and Health Administration to assure safe working conditions.

# Principle 5: Rural and Social Development

- ❖ Principle 5: In regions of poverty, biofuel operations shall contribute to the social and economic development of local, rural, and indigenous people and communities.
- ❖ Criterion:
  - ❖ In regions of poverty: socioeconomic status of local stakeholders shall be improved
  - ❖ Focus on women, youth, and indigenous communities



Committed to the future of rural communities.

- Community and Economic Development Programs
  - Technical training aimed to enhance economic and strategic planning.
- Community Facilities Loans and Grants
- Rural Community Development Initiative Grants Program
- Rural Business Opportunity Grants (RBOG)

- ❖ Rural Energy Programs – for rural businesses and farmers & ranchers:
- ❖ **REAP Renewable Energy Grants**
  - ❖ Matching grants to rural small businesses and agricultural producers for the purchase and installation of renewable energy systems in rural areas.
- ❖ **REAP Guaranteed Loans**
- ❖ **REAP Feasibility Study Grants**
- ❖ **Advanced Biofuels Producer Payment Program**
  - ❖ Makes incentive payments to producers of advanced biofuels

## Principle 5: Rural and Social Development

# Principle 6: Local Food Security



- ❖ Principle 6: Biofuel operations shall ensure the human right to adequate food and improve food security in food insecure regions.
- ❖ Criterion:
  - ❖ Assess risks to food security in the region and mitigate any negative impacts that result from biofuel operations
  - ❖ Enhance food security of directly affected stakeholders

# Principle 6: Local Food Security

- ❖ Does the world produce enough food to feed everyone?
  - ❖ The world produces enough food to feed everyone. World agriculture produces 17 percent more calories per person today than it did 30 years ago, despite a 70 percent population increase. This is enough to provide everyone in the world with at least 2,720 kilocalories (kcal) per person per day (FAO 2002, p.9). The principal problem is that many people in the world do not have sufficient land to grow, or income to purchase, enough food.
- ❖ Two primary pieces of US legislation dealing with food security:
  - ❖ Food Security Act of 1985 – “Swampbuster”
  - ❖ Farm Bill of 2008 – Food, Conservation, and Energy Act of 2008

# Principle 7: Conservation

- ❖ Principle 7: Biofuel operations shall avoid negative impacts on biodiversity, ecosystems, and conservation values.
- ❖ Criterion:
  - ❖ Conservation values of local, regional, or global importance within the potential or existing area of operation shall be maintained or enhanced
  - ❖ Protect, restore, or create buffer zones
  - ❖ Protect ecological corridors
  - ❖ Prevent invasive species from invading areas outside operating site

# Principle 7: Conservation

## FEDERAL CONSERVATION LEGISLATION

- ❖ Plant Protection Act (June 2000)
- ❖ Federal Insecticide, Fungicide, and Rodenticide Act of 2008
- ❖ Antiquities Act (Act for the Preservation of American Antiquities) of 1906
- ❖ Endangered Species Act (ESA) of 1973 and amendments of 1978
- ❖ Fish and Wildlife Coordination Act
- ❖ National Park Service Organic Act
- ❖ Historic Sites Act of 1935
- ❖ Consolidated Natural Resources Act of 2008
- ❖ Wilderness Act of 1964
- ❖ US Code, Title 16, Chapter 2 – National Forests
- ❖ National Forest Management Act (NFMA)



# Principle 8: Soil

- ❖ Principle 8: Biofuel operations shall implement practices that seek to reverse soil degradation and/or maintain soil health.
- ❖ Criterion:
  - ❖ Implement practices to maintain or enhance soil physical, chemical, or biological conditions

# Principle 8: Soil

- ❖ Legislation
  - ❖ US Farm Bill of 2008
  - ❖ Soil and Water Resources Conservation Act of 1977
    - ❖ Established USDA authority to assess and plan for protection, conservation, and enhancement of soil, water, or other natural resources.
  
- ❖ Soil-related conservation programs
  - ❖ Conservation Reserve Program (CRP)
  - ❖ Conservation Stewardship Program
  - ❖ Environmental Quality Incentives Program (EQUIP)
  - ❖ Farm and Ranch Lands Protection Program
  - ❖ Grassland Reserve Program
  - ❖ Wetlands Reserve Program
  - ❖ Conservation Innovation Grants

# Principle 9: Water

- ❖ Principle 9: Biofuel operations shall maintain or enhance the water quality and quantity of surface and ground water resources, and respect prior formal or customary water rights.
- ❖ Criterion:
  - ❖ Respect existing water rights of local and indigenous communities
  - ❖ Biofuel operations shall include a water management plan
  - ❖ Shall not contribute to the depletion of surface or groundwater resources beyond replenishment capacities

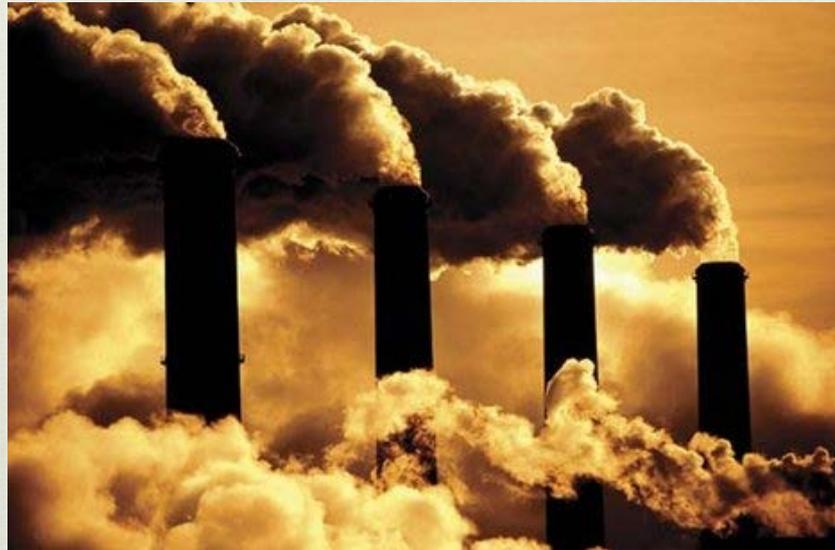
# Principle 9: Water

- ❖ Clean Water Act (CWA) “establishes the basic structure for regulating discharges of pollutants into the waters of the US and regulating quality standards for surface waters.”
- ❖ Safe Drinking Water Act

# Principle 10: Air

- ❖ Principle 10: Air pollution from biofuel operations shall be minimized along the supply chain.
- ❖ Criterion:
  - ❖ Identify and minimize air pollution sources through an air management plan
  - ❖ Shall avoid and eliminate (where possible), open-air burning of residues, wastes or by-products, or open air burning to clear the land

# Principle 10: Air



- ❖ **Clean Air Act** focuses on “air pollution prevention (through reduction, elimination or any measures, of the amount of pollutants produced or created at the source) and air pollution control is the primary responsibility of the US and local governments.”

# Principle 11: Use of Technology, Inputs, and Management of Waste

- ❖ Principle 11: The use of technologies in biofuel operations shall seek to maximize production efficiency and social and environmental performance, and minimize the risk of damages to the environment and people.
- ❖ Criterion:
  - ❖ Info on technologies in biofuel operations shall be fully available, unless limited by national or international law
  - ❖ Technologies including genetically modified: plants, micro-organisms, and algae shall minimize the risk of damages to environment and people
  - ❖ Good handling for storage, handling, and disposal of biofuels and chemicals

# Principle 11: Use of Technology, Inputs, and Management of Waste

- ❖ **Resource Conservation and Recovery Act (RCRA) aka Solid Waste Disposal Act**
- ❖ **Coordinated Framework for Regulation of Biotechnology (1986)**
  - ❖ 3 agencies responsible for the regulation of biotechnology:
    - ❖ FDA
    - ❖ USDA-APHIS
    - ❖ EPA

# Principle 12: Land Rights

- ❖ Principle 12: Biofuel operations shall respect land rights and land use rights.
- ❖ Criterion:
  - ❖ Existing land right and land use rights shall be assessed, documented, and established. Right to use land for biofuels shall be established only when these rights are determined.
  - ❖ FPIC shall form the basis for negotiated agreements for compensation, acquisition, or relinquishment of rights by land owners

# Principle 12: Land Rights

- ❖ **5<sup>th</sup> Amendment** - ...”nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.”
- ❖ **14<sup>th</sup> Amendment** - ...” nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny any person within its jurisdiction the equal protection of the laws.”

