Louisiana Department of Environmental Quality
Office of Environmental Services

STATEMENT OF BASIS
For
Activity Number: PER20030002
Permit No. 1340-00223-V1

River Birch Landfill
Agency Interest No. 32219
River Birch Incorporated
Waggaman, Jefferson Parish, Louisiana

I. APPLICANT

Company
River Birch Incorporated
Building 2, 1400 Lapalco Blvd.
Harvey, LA 70058

Facility
River Birch Landfill
2000 S. Kenner Avenue, Waggaman, Jefferson Parish, Louisiana
UTM Coordinates: 764.65 kilometers East and 3314.50 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS

River Birch Landfill serves as a collection and disposal point for residential, commercial, municipal, and industrial (non-hazardous) wastes generated in the area. The decomposing waste encapsulated in the landfill produces gas, which is primarily composed of methane, carbon dioxide, and numerous trace organic compounds. Currently, the landfill operates under Permit No. 1340-00223-VO

III. PROPOSED PERMIT / PROJECT INFORMATION

Proposed Permit

A permit application and Emission Inventory Questionnaire (EIQ) dated January 30, 2003, as well as additional information dated September 19, 2003, January 8, January 30, 2004, and the revision dated May 10, 2005 were submitted requesting a Part 70 operating permit modification.

A notice requesting public comment on the permit was published in *The Advocate*, Baton Rouge, and in the local newspaper. A copy of the notice was mailed to concerned citizens listed in the Office of Environmental Services Public Notice Mailing List. The application and proposed permit were submitted to the Jefferson Parish Library. The proposed permit was also submitted to US EPA Region VI. All comments will be considered prior to the final permit decision.

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Project description

River Birch proposes to expand the landfill from 241 acres to 399 acres (from 15.7 to 50.5 million tons); therefore the life of the landfill will be extended to at least 2043. Landfill gas will be collected and controlled by a flare as required by New Source Performance Standards (NSPS) Subpart WWW. Portable engines are also included in the permit.

Permitted Air Emissions

Permitted emissions from the landfill in tons per year are as follows:

Pollutant	Before	After	Change
PM_{10}	10.78	12.41	+ 1.63
SO_2	0.05	4.50	+ 4.45
NO_X	0.73	48.04	+ 47.31
CO	47.84	106.22	+ 58.38
VOC	92.65	80.16	- 12.49

Prevention of Significant Deterioration (PSD) Applicability

Emissions of VOC, excluding fugitive emissions, increase less than the PSD significance levels. Therefore, PSD analysis is not required.

Maximum Achievable Control Technology (MACT) requirements

The facility is a major source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. Complying with 40 CFR 63 Subpart A, Subpart AAAA, and 40 CFR 60 Subpart WWW is determined as MACT for TAPs emissions from the facility.

Air Modeling Analysis

TAPs emissions from River Birch Landfill are not expected to cause or to contribute to any Ambient Air Standards (AAS) exceedances.

Dispersion Model Used: ISCST3

Pollutant	Time Period	Calculated Maximum Ground Level Concentration ($\mu g/m^3$)	Louisiana Ambient Air Standard ($\mu g/m^3$)
Acrylonitrile	Annual	0.04	1.47
Benzene	Annual	0.02	12
H_2S	8-hour	1.09	330
Styrene	8-hour	1.59	5070
Xylenes	8-hour	9.03	10,300

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General Condition XVII Activities

The Permit does not include any General Condition XVII Activities.

Insignificant Activities (LAC 33:III.501.B.5)

ID No.:	Description	Capacity (gallons)	Citation
Tank 1	Antifreeze Tank	110	A.2
Tank 2	Diesel Fuel Tank	1000	A.3
Tank 3	Diesel Fuel Tank	1000	A.3
Tank 4	Diesel Fuel Tank	5600	A.3
Tank 6	Diesel Fuel Tank	630	A.3
Tank 7	Diesel Fuel Tank	1000	A.3
Tank 8	Diesel Fuel Tank	1000	A.3
Tank 9	Diesel Fuel Tank	100	A.3
	Portable Welders & Cutting Torches		B.2
	Parts Washer		B.2
	Emergency Generator	10 bhp	B.32

IV. PERMIT SHIELDS

The Permit does not include any Permit Shields

V. PERIODIC MONITORING

The Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are provided in the Facility Specific Requirements Section of the proposed permit.

VI. APLICABILITY AND EXEMPTIONS OF SELECTED SUBJECT ITEMS

ID No:	Requirement	Status	Citation	Explanation
EQT001, EQT003 EQT004, EQT005	LAC 33:III. 1503. Emission Standards for Sulfur Dioxide	Exempt	LAC 33:III.1503.C	SO_2 emissions < 250 tons/year
	LAC 33:III.1511 CEM for SO_2	Exempt	LAC 33:III.1511.A	SO_2 emissions < 100 tons/year
EQT002	NSPS Subpart Kb, 40 CFR 63.110b	Does not apply	40 CFR 63.110b(a)	Volume < 20,000 gallons

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ID No:	Requirement	Status	Citation	Explanation
GRP002	LAC 33:III.2901 Odor Regulation	Exempt	LAC 33:III.2901.E.5	No suitable substitute is available and best modern practices are employed
	LAC 33:III.5109 MACT Requirements	Does not apply	LAC 33:III.5109	Does not emit Class I or II TAP above MER
	LAC 33:III.Chapter 59.	Does not apply	LAC 33:III.5907.A	Does not store regulated substances over threshold quantity
	40 CFR Part 68 – Chemical Accident Prevention Provisions	Does not apply	40 CFR 68.10(a)	Does not store regulated substances over threshold quantity
The applicability of the appropriate regulations is straightforward and provided in the Facility Specific Requirements Section of the proposed permit.				

VII. STREAMLINED REQUIREMENTS

The Permit does not include any streamlined requirements.

VIII. GLOSSARY

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

CAM - Compliance Assurance Monitoring rule – A federal air regulation under 40 CFR Part 64

Carbon Black - A black colloidal substance consisting wholly or principally of amorphous carbon and used to make pigments and ink.

Carbon Monoxide (CO) – (Carbon monoxide) a colorless, odorless gas produced by incomplete combustion of any carbonaceous (gasoline, natural gas, coal, oil, etc.) material.

Cooling Tower – A cooling system used in industry to cool hot water (by partial evaporation) before reusing it as a coolant.

Continuous Emission Monitoring System (CEMS) – The total combined equipment and systems required to continuously determine air contaminants and diluent gas concentrations and/or mass emission rate of a source effluent.

Cyclone – A control device that uses centrifugal force to separate particulate matter from the carrier gas stream.

Duct Burner – A device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Federally Enforceable Specific Condition - A federally enforceable specific condition written to limit the potential to Emit (PTE) of a source that is permanent, quantifiable, and practically enforceable. In order to meet these requirements, the draft permit containing the federally enforceable specific condition must be placed on public notice and include the following conditions:

- A clear statement of the operational limitation or condition which limits the source's potential to emit;
- Recordkeeping requirements related to the operational limitation or condition;
- A requirement that these records be made available for inspection by LDEQ personnel;
- A requirement to report for the previous calendar year.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Heat Recovery Steam Generator (HRSG) – A steam generator that recovers exhaust heat from a gas turbine, and provides economizing and steam generation surfaces.

Hydrogen Sulfide (H_2S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a

prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

NESHAP - National Emission Standards for Hazardous Air Pollutants –Air emission standards for specific types of facilities, as outlined in 40 CFR Parts 61 through 63

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

NSPS - New Source Performance Standards – Air emission standards for specific types of facilities, as outlined in 40 CFR Part 60

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: $\geq$10 tons per year of any toxic air pollutant; $\geq$25 tons of total toxic air pollutants; and $\geq$100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10}- Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.