

Waste to Energy is Not the Answer



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www.BREDL.org

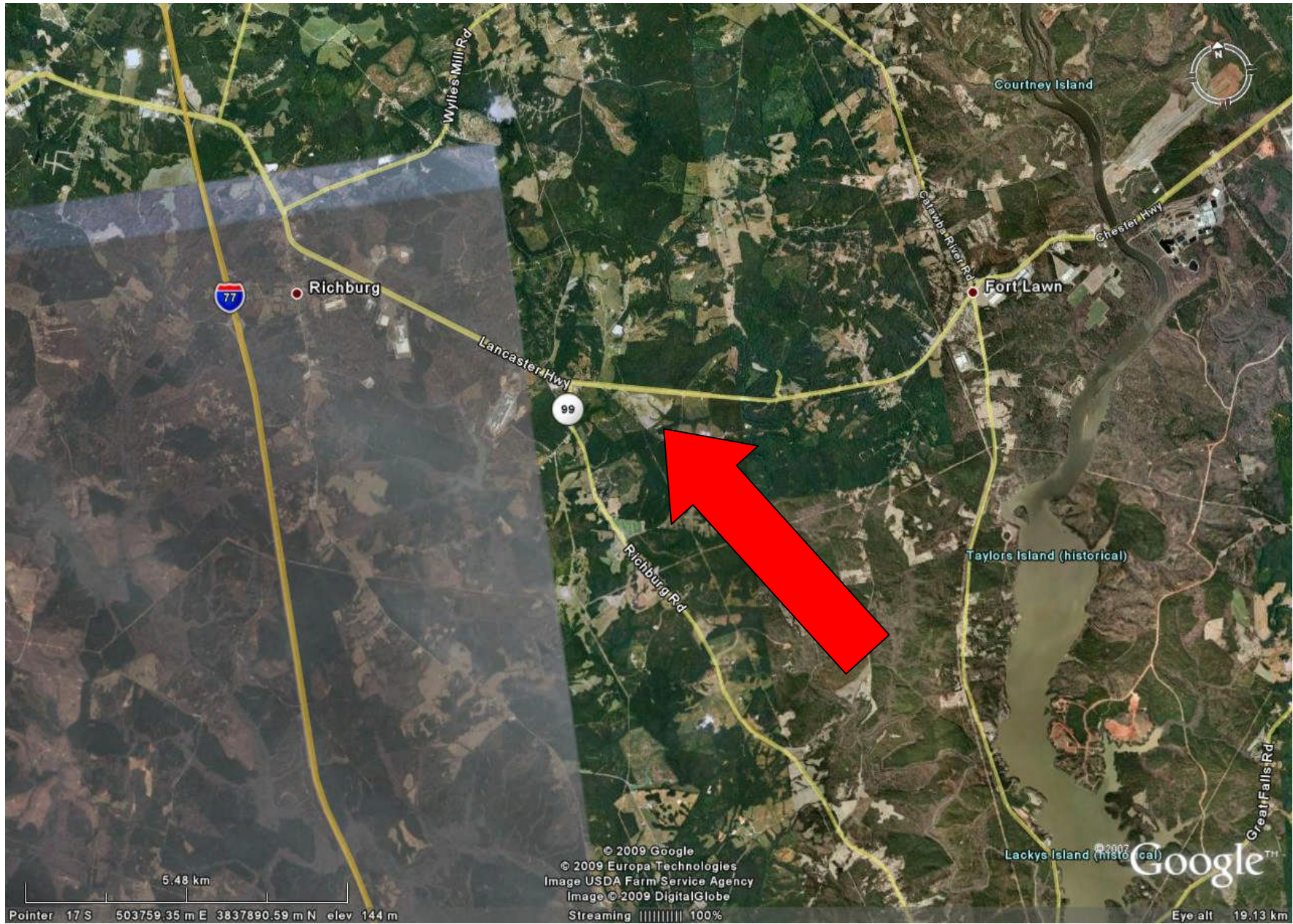
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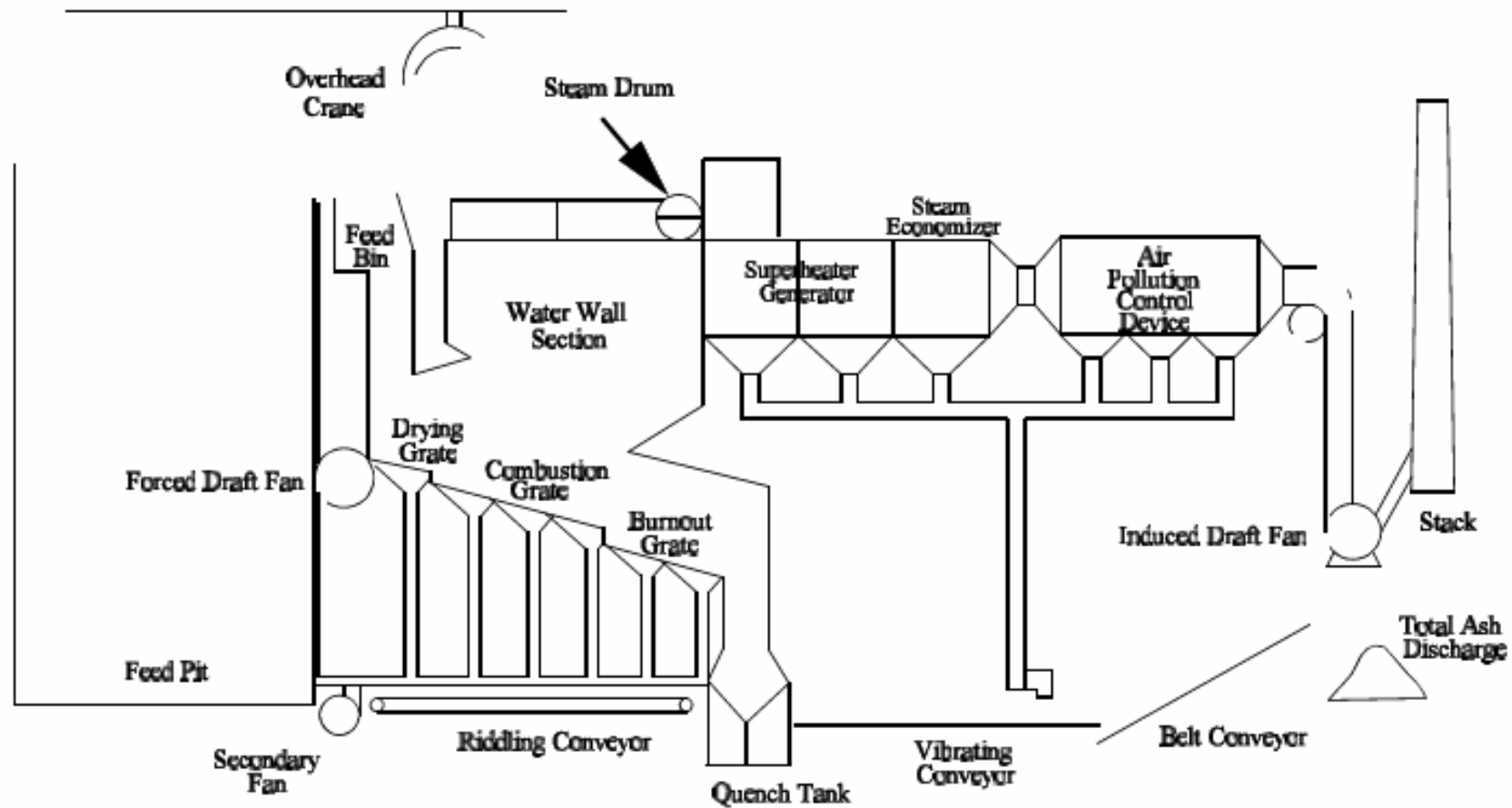
Covanta is proposing to design and build a state-of-the-art Waste-to-Energy (WTE) facility in Chester County, South Carolina on a 100 acre parcel of industrial zoned land on the south side of Route 9, approximately 6 miles east of Route 77. If approved by the County and the South Carolina Department of Health and Environmental Control (DHEC), the facility will process approximately 1,600 tons per day of municipal solid waste (MSW) to generate up to 50 megawatts of clean, renewable energy. This is enough energy to power approximately 50,000 homes. The facility will be designed for future expansion to a plant capable of producing as much as 100 megawatts of power.

All Covanta facilities use advanced air pollution control equipment and monitoring devices, which maintain strict state and federal emission standards. From the boiler, the cooled gases enter the advanced air pollution control system. Using lime slurry, the dry scrubber neutralizes any acid-forming gases, such as sulfur oxides and hydrogen chloride. Particulates are captured by a high-efficiency baghouse. As the gas stream travels through these filters, more than 99 percent of particulate matter is removed. Ash residue from the furnace can be processed for removal of recyclable ferrous and non ferrous metals.





Typical Mass Burn WTE Incinerator



US EPA AP-42 page 2.1-3

Annual Air Pollution from Covanta-Chester County

AIR POLLUTANT	POUNDS
Carbon dioxide	1,150,480,000
Nitrogen oxides	2,079,040
Sulfur dioxide	323,536
Carbon monoxide	270,392
Hydrochloric acid	123,224
Particulates	36,208
Mercury	1,284.8
Lead	152.4
Chromium	17.52
Cadmium	15.83
Arsenic	2.47
Dioxin/furan	0.039
TOTALS (in tons per year)	1,417 tons toxics 575,240 tons CO2

Annual emissions are based on burning 1,600 tons MSW per day, using dry scrubber injecting lime slurry and a fabric filter

This is “state-of-the-art”

Pollution data based on US EPA Emission Factors, AP-42

Tables 2.1-2 & 2.1-4

Summary of per ton emissions by waste management method

	Pounds of Emissions Reduction/Increase Per Ton						
Management Method *	Climate Change	Human Health - Particulate	Human Health - Toxics	Human Health- Carcinogen	Eutrop hication	Acidifi- cation	Ecosystem Toxicity
Pollutant	eCO ₂	ePM2.5	eToluene	eBenzene	eN	eSO2	e2,4-D
Recycle/ Compost	3620	4.78	1587	0.7603	1.51	15.86	3.48
Landfill	504	2.82	275	0.0001	0.10	2.38	0.21
WTE Incineration	143	0.30	68	0.0019	0.01	0.04	0.29
Gasification/ Pyrolysis	204	0.36	1	0.0000	0.05	0.93	0.09

Data from Tellus Institute

Blue numbers are pollution reductions, red numbers are pollution increases

Net Energy Generation Potential Per Ton MSW

Management Method	Energy Potential (kWh per ton MSW)
Recycling	2,250
Gasification	660
Pyrolysis	660
WTE Incineration	585
Anaerobic Digestion	250
Landfilling	105

Data from Tellus Institute Report to the Massachusetts Dept. of Environmental Protection, 2008

Energy Savings and Environmental Benefits of Recycling

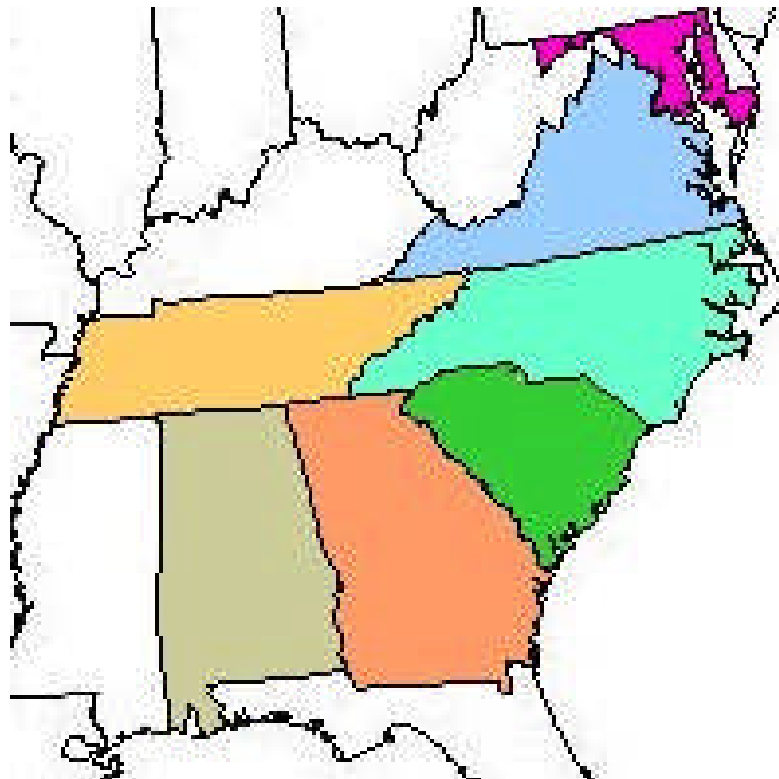
Reduced	Aluminum	Steel	Paper	Glass
Energy Use	95%	60%	50%	20%
Air Pollution	95%	85%	74%	20%
Water Pollution	97%	76%	35%	-
Water Use	-	40%	58%	50%

^[1] Source: The Solid Waste Handbook: A Practical Guide, William D. Robinson, Editor, ISBN: 978-0-471-87711-0, March 1986

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Chapters and Projects in 7 States



25th Anniversary