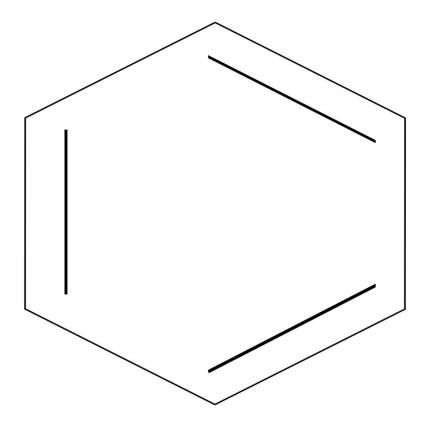
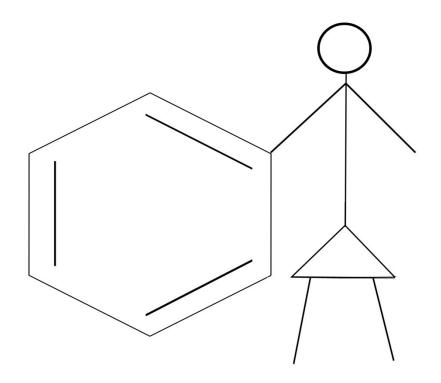
Permitting in California – The New Norm for Everyone OR How I Became The Way I AM

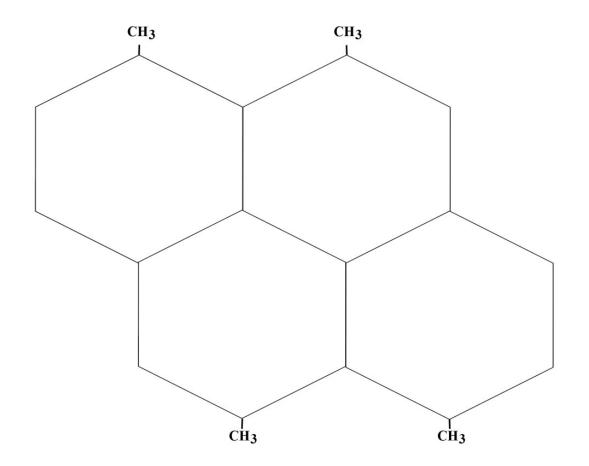
By Dr. Ted Guth

Pb

CH_2O







BACT In The Saddle

- Reluctance of Air Districts to Recognize Differences in Solid Fuels
- Moving Target

Known Technologies

Source Type	Achievable Technology	Achievable Level
Utility Boilers	Selective catalytic reduction	0.01 lb/mmBtu
Boilers > 40 mmBtu (refineries)	Ultra Low NO _x burners	9 ppm
Boilers >= 20 mmBtu (except refinery heaters > 40 mmBtu)	Ultra Low NO _x burners	9 ppm
Boilers < 20 mmBtu	Ultra Low NO _x burners	12ppm
Process heaters > 40mmBtu (refineries)	Low NO _x burners	0.03 lb/mmBtu
Process heaters > 2 mmBtu (except refinery heaters > 40 mmBtu)	Low NO _x burners	0.03 lb/mmBtu
Gas turbines	Selective catalytic reduction	9 ppm
Diesel ICEs	Selective catalytic reduction	44 ppm
Natural gas ICEs	3-way Catalyst	24-27 ppm

Note: Cost effectiveness data is not presented in this table because it may vary depending on the specific unit being controlled and the amount of emissions reduced.

Further Control Opportunities

Source Type	Control Technology	Control Emission Level
Utility Boiler	SCR	5 ppmv at 3% O ₂
Boilers > 20 mmBtu	SCR	7 ppmv at 3% O ₂
Boilers < 20 mmBtu	ULNB	9 ppmv at 3% O ₂
Boilers	SCONOX ²	2+ ppmv at 3% O ₂
Boilers	LTO ²	5-7 ppmv at 3% O ₂
Process Heaters > 40 mmBtu (refineries)	SCR	5 ppmv at 3% O ₂
Process Heaters > 40 mmBtu (refineries)	LNB	18 ppmv at 3% O ₂
Gas Turbines	SCONOX	1 ppmv at 15% O ₂
Gas Turbines	XONON	2.5 ppmv at 15% O ₂
Gas Turbines	SCR	3 ppmv at 15% O ₂
ICE, Diesel	NO _x TEC	33 ppmv at 15% O ₂
ICE, Natural Gas	NSCR	11 ppmv at 15% O ₂
Dryer	ULNB	10 ppmv at 3% O ₂
Dryer	LNB	30 ppmv at 3% O ₂
Oven	LNB	30 ppmv at 3% O ₂
Furnace	LNB	40 ppmv at 3% O ₂
Furnace, metal melting	Oxy-fuel	9 ppmv at 3% O ₂
Afterburner	LNB	30 ppmv at 3% O ₂

¹ Cost-effectiveness data is not presented in this table because it may vary depending on the specific unit being controlled and the amount of emissions reduced. ²SCONOX and LTO technologies are in use for boilers but not for a full six-month period.

Ambient Considerations

(The Consultant Relief Act)

- Citing
- Reputation
- Homework

Location, Location, Location

The Things Project Developers Will Do For Their Friend the Blunt Nosed Lizard

The Weather is Here Wish You Were Beautiful

The Good, the Bad and the Expensive

PG&E Solar-Biomass Project Abandoned

By: Staff Writer July 7, 2010

July 7, 2010

California's now-frenzied race to reach 20 percent renewable energy by the end of 2010 took a 107-megawatt step backward this week, as plans for a solar and biomass hybrid power plant were abandoned. PG&E and Luxembourg-based Martifer Renewables had been planning construction of the power plant for two years, but Martifer recently wrote the California Energy Commission (CEC), announcing that it was pulling out due to extensive delays stemming from local environmental concerns.

The San Joaquin Solar 1 & 2 power plant was to be located in the San Joaquin Valley near the town of Coalinga. The area is one of the nation's top agriculture-producing regions but has been troubled lately by drought and the resulting lack of water for irrigation. Therefore, already sensitive resident farmers found several concerns with the 640-acre power plant that would have helped significantly in the CEC's renewable energy efforts.

The power plant was to utilize concentrated solar power (CSP) during the day, using the sun's heat to boil water, creating steam to spin an electricity generating turbine. At night, biomass, or agricultural waste, from local farms would have been burnt in place of the solar thermal energy in order to continue plant operation around the clock.

However, the plant's proposed location, Fresno County, happens to be troubled with some of the worst air pollution in the United States. So local residents were worried about the 60 to 80 annual truck deliveries of farm waste, including trimmings, clippings and sometimes manure. They also took issue with the amount of water the plant would consume, an understandably sensitive issue in the drought-stricken valley.

Eventually frustrated beyond the breaking point, Martifer Renewables finally withdrew, shelving the project indefinitely — most likely for good.

Nevertheless, the San Joaquin Valley and Fresno County hold excellent potential for solar energy, whether the CEC meets its ambitious 2010 renewable energy goals or not. As the folks at Triplepundit point out, there are plenty of unanswered questions surrounding the abandoned project. Perhaps someday soon, researchers will make significant enough strides in cellulosic biofuels to create a solar-biomass power plant that can also use farm waste to make the fuels

The lost 107 megawatts would have been enough renewable electricity to power about 75,000 California homes.

http://solar.calfinder.com/blog/news/pge-solar-biomass-project-abandoned/

EPA

We've Upped Our Standards

Now Up Yours

First Time Shame on You, Second Time Shame on Me

OR

Can You Say Risk Money?

Sure You Can

Financial community will be skittish to invest in new plants if existing plants are abandoned.

Fuel for Thought

Deregulation: Stupid Is as Stupid Does

Existing plants are now focused on cutting fuel costs in coming years as they are forced to compete with natural gas generation on price alone. They'll be adapting to poorer grades of existing fuels, or using new alternative fuels (e.g., railroad ties, waste paper, petroleum coke, green yard wastes, refuse derived fuel, etc.)

- The Renewable Portfolio Standard requires an annual increase in renewable generation equivalent to at least 1% of (MW-hour) sales; aggregate goal: 33% by 2020.
- Southern California Edison says they're already there.

A Waste Is A Terrible Thing to Mind

The majority of CA biomass fuels are the result of a diversion of a waste stream to a power plant; i.e., "Somebody somewhere is paying something to get rid of it."

Waste producer's cost of disposal vs. Price plant willing to pay.



By Onell R. Soto STAFF WRITER

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The proposed 1,000 megawait line Service Jornal though the utility has?

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Our Friend the Variance

Conclusions Go Ahead, Make My Day

- CA's existing biomass power plants have been an effective solution to the disposal of various instate waste streams, and new plants <u>could</u> add to that success story.
- Existing plants are preparing today for the end of their current fixed energy prices. Steps they take now may not be reversible.
- New plants, like the existing plants, will require the impetus of State policy to remain successful.

Greenhouse Gas Regulations/Compliance

Alias

The Coal Hard Truth

Example:

Agricultural Prunings:

Farmer's cost for annual orchard prunings of 1 ton/acre is about \$20/acre. Hassle free solution. For supplier to convert to fuel at \$20/acre requires \$20-\$25/ton payment by power plant. If State give \$0 subsidy to power plant, power plant buys cheaper fuel, farmer burns his own waste.

RESULT: additional air pollution

🕆 TUESDAY, MAY 25, 1993 🛛 🏹

Polluting Wood Product Firm Fined \$11 Million

Environment: Louisiana-Pacific's Clean

Air Act violations net second-largest penalty in EPA history. Plants also to install new equipment.

By RUDY ABRAMSON

W ASHINGTON-Imposing the second-largest civil penalty ever under federal environmental laws, the U.S. Department of Justice and the Environmental Protection Agency announced a fine Monday of \$11.1 million against Louislana-Pacific Corp. for Clean Air Act violations at 14 of its plants.

Louisiana-Pacific either failed to obtain required air permits for the wood product plants or got them by using mislesching information, the EPA said. The penaity is surpassed only by a \$15-million fine assessed against the Texas Eastern Natural Gas Pipeline Co. in 1987. Under the consent decree, the company also will be required to install \$70-million worth of high-technology pollution control equipment at the facilities involved, which include one in Northern California. Due to be in place within two years, the hightemperature incinerators are expected to reduce pollution by marc 3than 90%.

Harry A. Merio, president and chairman of Louisiana-Pacific, said in a statement: "Although we are certainly disappointed with the penalty; we decided that the benefits of this settlement in avoiding htigation and providing us with environmental leadership opportunities made it the right thing to do."

Under 1990 amendments to the Clean Air Act, the government could have brought criminal proceedings against the company, but most of the violations took place before 1990, when the actions fell into the category of misdemeanors rather than felonies.

The appouncement by Atty, Gen, Janet Reno and EPA Administrator Carol Browner came as a new study by the Washington based Center for Resource Economics asserted that the EPA is unable to do its job credibly because of inadequate funds, political interference and mismanagement.

Browner defended the agency's level of funding in the Clinton Administration budget, which cuts EPA spending by about 8%, arguing that the Louisiana-Pacific case is an example of diligence by federal enforcement authorities. Both she and Reno cited the case as an example of the way the Administration intends to pursue enviformental protection.

Browner said the fine is intended "to send a loud and clear message that the Clinton Administration will vigorously enforce our environmental laws. We will use the full range of our enforcement powers to make polluters pay for the true cost of pollution."

The violations at the 14 plants in 11 states were detected by officials comparing their permit requests with those submitted by the corporation's other facilities, she said. Covered by the government attion are plants at Oroville, Calif., Chilco, Ida., Missoula, Mont., Conrigan, New Waverly and Silsber Tex.; Two Harbors, Minne, Hayward, Wis.; Tomahawk, Wis.; Sagola, Mich.; Houlton, Me.; Clayting Ala.; Jackson County, Ga.; and Urania, La.

"What we have here," Browner, said, "is a company that was not giving full information. The avail able tools that were being applied to lots of other companies in this country were not being applied to this company because we did doit have the information. The permitting system counts on people tell's ing us what they are doing, how they are doing it and what they are doing to meet the standards."

vealed excessive emissions of partiticulates, volatile organic compounds, carbon monouside, mitrogén oxides and sulfur dioxide—all polilutants associated with respiratory, allments.

According to Browner, the inv vestigation showed that the actions leading to the line were initiated at the plant level rather than by corporate officials at Louisianas Pacific's Portland, Ore, headquard ters.