

– Monthly Report of the Ventura County Air Pollution Control District 🖚

#### July 2010

## **Onion power** by Don Price, P.E.

entura County is fortunate to have an award-winning, money-saving, waste-toenergy system in operation right now that both generates electricity and reduces air emissions. Gill's Onions in Oxnard designed and built the \$9.5 million "Advanced Energy Recovery System" (AERS) to, first, dispose of massive amounts of onion waste and, second, to generate electricity for use at the facility in two 300 kilowatt fuel cells. The system went on-line in July, 2009, and is working great. As company co-owner Steve Gill comments, "It's a great sustainability story, but it was first a business decision to solve a waste problem." And the company's effort has received national attention as a lesson in sustainable manufacturing.

#### The Waste to Energy Process

Here's what happens. Onions arriving at the plant are peeled and have both ends cut off. This waste up to 150 tons per day - - is pressed into around 30,000 gallons of onion juice and 25 tons of onion cake for highend cattle feed. The juice is transferred to an equalization tank, where temperature, pH, concentration, and micronutrient levels are adjusted. Then, the juice goes to an anaerobic digester, where bacteria (originally purchased from Anheuser-Busch) feed on the



#### STEVE GILL IN FRONT OF ONE OF THE 300 KILOWATT FUEL CELLS AT THE OXNARD PLANT.

carbohydrates and produce a methane-based biogas. According to Steve Gill, the turn-around time from onion waste to biogas is about 48 hours, with much of that time spent in the equalization tank.

Because it can foul a fuel cell, sulfur must be removed from the biogas. Gill states that sulfur concentrations are reduced from about 5,000 ppm to under 0.1 ppm. After that, the gas is dehumidified and compressed. It is then supplied to the two molten carbonate fuel cells, operating at 1,200 degrees Fahrenheit, which break the methane down into water, carbon dioxide, and hydrogen to generate electricity.

In the past, the company would ship the onion waste by truck back to the fields, an expensive process. Also, Gill's was producing too much waste for the fields to handle. Now, the company is saving about \$400,000 a year on the cost of hauling onion waste. In addition, the fuel cells produce about 60 percent of the plant's overall power needs, saving about \$700,000 per year in electricity costs. Payback on the investment, which was augmented by a number of grants and awards, is expected in five to six years. Also, greenhouse gas emissions are reduced by up to 14,500 tons of carbon dioxide per year.

In 2010, the AERS project won a prestigious Grand Conceptor Award from the American Council of Engineering Companies, which represents more than



# AIR POLLUTION CONTROL BOARD

September 14, 2010

Second Tuesday, 11:00 a.m. Board Chambers Administration Building 800 South Victoria Avenue Ventura

## APCD ADVISORY COMMITTEE

None scheduled at this time.

Fourth Tuesday, 7:30 p.m., Large Conference Room 669 County Square Drive Ventura

# CLEAN AIR FUND ADVISORY COMMITTEE

To Be Announced

5 p.m. Large Conference Room 669 County Square Drive Ventura

# APCD HEARING BOARD

Mondays, 5:30 p.m., as needed Board Chambers Administration Building 800 South Victoria Avenue Ventura

# SOUTH CENTRAL COAST BASINWIDE AIR POLLUTION CONTROL COUNCIL

July 21, 2010

Wednesday, 10:00 a.m. Santa Barbara APCD 260 North San Antonio Road Santa Barbara

For more information, call Mike Villegas at 645-1440.

# APCD RULE WORKSHOPS

See Rule Update section.

#### **Air Pollution Control Board**

John Zaragoza, District 5, Chair Paul Miller, Simi Valley, Vice Chair Steve Bennett, District 1 Linda Parks, District 2 Kathy Long, District 3 Peter Foy, District 4 Mike Morgan, Camarillo Thomas Holden, Oxnard Jonathan Sharkey, Pt. Hueneme Brian Brennan, San Buenaventura

## Ventura County

**Air Pollution Control District** 669 County Square Drive, 2<sup>nd</sup> Floor Ventura CA 93003

Air Pollution Control Officer Michael Villegas

## Skylines

Editor – Barbara L. Page Desktop Publishing – Suzanne Devine

## Directory

General Information645-1400Fax645-1444Websitewww.vcapcd.org

Agricultural burning, Smog forecast 654-2807 Complaints (7 a.m. - 5 p.m., Mon-Thurs) 645-1445 Complaints (recording) 654-2797 Monitoring Division 645-1410 Permit processing 645-1403 Permit renewal 645-1404 Public information 645-1415 Smoking vehicle 800/559-SMOG Hotline Email address info@vcapcd.org 5,600 engineering firms throughout the United States. Yet, it's all tied into the company's commitment to create the most efficient manufacturing system possible, which ties in with the company's sustainability program and its efforts toward being a zero-waste facility. The company hopes to eventually bring new battery technology into the system that will allow energy produced by the fuel cells at night to be used during peak periods during the day, when energy from the grid is the costliest.

Gill's Onions hopes that the process will be a model for other companies around the world to reduce both costs and emissions in their manufacturing processes. And how lucky for Ventura County to have this exemplary green company right here. For more information on Gills Onions, visit www.gillsonions.com.

(Don Price is an air quality engineer at the VCAPCD and follows global climate issues for the District.)



## on climate change

Kickoff this summer by estimating your household or small business carbon footprint.

Help make the planet a healthier place and stop wasting money by using **CoolCalifornia.org's** newly released household, or small business carbon footprint calculator. These calculators, developed by researchers at UC Berkley, estimate your specific carbon footprint based on your household and business characteristics as well as transportation and shopping habits. Each calculator includes a take action page with customized information about dollars saved as well as carbon emissions averted each year.

This is part of CoolCalifornia.org, an online one-stop-shop that is packed with free, quick, easy-to-use and reliable tools that all Californians can use to save money and reduce their impact on climate change and the environment.

Household calculator: www.coolcalifornia.org/calculator Small Business Calculator: www.coolcalifornia.org/business-calculator (source: California Air Resources Board)

# Airlines

#### Board Highlights. At its June 8 meeting, the Ventura County Air Pollution Control Board:

- Held the first of two statutorily-required public hearings on the Ventura County Air Pollution Control District's Proposed Fiscal Year 2010-11 Budget. The Board will vote on the final budget at its June 22 Board meeting.
- √ Received and filed a report from the California Air Resources Board stating that a performance

#### audit of the District's particulate matter (PM 2.5 and PM10) mass analysis program was conducted and that the District met the control limits established by U.S. EPA.

Film still out there. In May, Air – the search for one clean breath, was shown to 8,000 students at the "A World We Can Change," Clean Air Conference and Expo at the Los Angeles Convention Center. The showing was sponsored by the South Coast Air Quality Management District.

More Almanacs. The District recently reprinted 1,000 *Ventura County Clean Air Almanacs*. The piece was recently featured in May in the *Ventura County Star's* Eye on the Environment column. And the City of Ventura distributed the Almanac at its Economic Summit on June 12. You can download the piece on the District's website or get a hard copy by calling 645-1415. Visit www.vcapcd.org/rules\_division.htm

## **Recent Board Actions**

Natural Gas-Fired Water Heaters (Rule 74.11 – Revised): On May 11, 2010, the Air Pollution Control Board readopted revisions to Rule 74.11. The revised rule limits NOx emissions from new general use natural gas-fired water heaters with a capacity of less than 75,000 BTUs/hour to 10 nanograms per joule (ng/j), or 15 ppmv. In addition, new natural gas mobile home water heaters are now required to meet a NOx limit of 40 ng/j. The new limits go into effect on July 1, 2010, and apply to both residential and commercial applications. Other minor revisions were also adopted.

The new NOx limits are the same as those in SCAQMD Rule 1121; the 10 ng/j NOx limit took effect on January 1, 2006. Since that date, many complying water heaters have become available in Southern California. The cost-effectiveness of general-use water heater proposal varies from \$4,736 to \$15,787 per ton of NOx reduced. For mobile home water heaters, the cost effectiveness varies from \$8,992 to \$14,297 per ton of NOx reduced.

The final rule and staff report appear on the District's website. For additional information contact **Don Price** at **805/645-1407** or don@vcapcd.org.

Architectural Coatings (Rule 74.2 – Revised): On January 12, 2010, the Air Pollution Control Board adopted amendments to Rule 74.2, Architectural Coatings, and Rule 2, Definitions. The revisions to Rule 74.2 implement a Suggested Control Measure adopted by the California Air Resources Board on October 27, 2007. For more information on the SCM, view the CARB staff report and technical support document at (http://www.arb.ca.gov/coatings/arch/docs.htm).

Final Rule 74.2 and the final staff report are available on the District's website. The effective date for this amended rule will be January 1, 2011. Also, the Board approved a Final Environmental Impact Report (FEIR) to comply with the California Environmental Quality Act (CEQA). Staff reused the 2001 Final Environmental Impact Report developed for the 2001 amendments to Rule 74.2 as the FEIR, pursuant to relevant provisions in the Ventura County Administrative Supplement to the state CEQA guidelines which govern this proposal. Amended Rule 2, Definitions, adds the following to the list of exempt organic compounds: t-butyl acetate, methyl formate, dimethyl carbonate, and propylene carbonate. These compounds were determined by EPA to have low photochemical reactivity.

For additional information, contact **Stan Cowen** at **805/645-1408** or stan@vcapcd.org.

2010 Rule Development Calendar: On January 12, 2010, the Air Pollution Control Board approved the 2010 Rule Development Calendar. Health and Safety Code §40923(a) requires the District to publish each January 1 a list of regulatory measures scheduled, or tentatively scheduled, for consideration during the following year. Except for limited exceptions, the District may only propose consideration of regulatory measures during a year if those measures appear on the published list. State law does not require that the rulemaking calendar include control measures to comply with federal requirements, to abate substantial endangerment to the public health, to implement Air Toxic Control Measures published by the ARB, or to implement contingency measures after an ARB determination of inadequate progress.

The 2010 rule development calendar is available on the District's website. For additional information contact **Mike Villegas** at **805/ 645-1440** or mike@vcapcd.org.

Paved Roads and Public Unpaved Roads and Certified PM-10 Street Sweeping Equipment (Rule 55.1 and Rule 55.2 – New): On September 15, 2009, the Air Pollution Control Board adopted new Rules 55.1 and 55.2. The new rules will reduce particulate matter (PM) emissions in Ventura County. The APCD Advisory Committee made one modification to Rule 55.1, allowing the construction of swales (ditches) in place of paved or treated shoulders. Ventura County fails to meet the state standard for PM air quality, and a 2003 state law (SB 656) mandated that the District adopt new regulations to reduce PM air pollution.

New Rules 55.1 and 55.2 will implement PM control measures adopted by the Board on June 28, 2005, but not included in the recent adoption of Rule 55, Fugitive Dust. Although the new rules are based on South Coast AQMD Rule 1186, not all requirements from that rule are included.

The final rules and staff report are available on the District's website. For additional information, contact **Stan Cowen** at **805/645-1408** or stan@vcapcd.org.

## **Compliance Dates**

#### ☑ January 1, 2009 and January 1, 2010

Motor Vehicle and Mobile Equipment Coating Operations (Rule 74.18 – Revised): Revisions to the coating ROC content limits in Rule 74.18 became effective on January 1, 2009, except for the following coating categories, which become effective on January 1, 2010:

- Adhesion Promoter
- Primer Sealer
- Single-Stage topcoat

Color coatings, as part of a basecoat/clearcoat system, which exceed the new 420 grams per liter limit and have been manufactured prior to January 1, 2009, may be sold and applied until July 1, 2009. The new low-ROC cleaning requirement at 25 grams per liter and a new limited-use surface preparation exemption become effective on January 1, 2010. For additional information, contact **Stan Cowen** at **805/645-1408** or stan@vcapcd.org.

#### ☑ March 1, 2008

**Registration of Agricultural Engines** (Rule 250): The California Air Resources Board (ARB) has finalized new regulations for diesel engines used in agricultural operations. In general, these regulations apply to nearly all diesel engines used to power irrigation pumps; however, they will not apply to diesel engines used to power farm equipment such as trucks and tractors. The new regulations have both administrative requirements and emission control requirements. An ARB fact sheet is available to provide additional information and details on these new requirements; go to http://www.arb.ca.gov/diesel/ag/agengine.htm.

To implement the state agricultural diesel engine regulations, the District adopted Rule 250, "Registration of Agricultural Engines" on September 11, 2007. The rule establishes a diesel engine registration program with a deadline of March 1, 2008. The registration program is not a permitting program, but requires application forms and fees similar to a permitting program. The fees are significantly less than permitting fees and are specified in Rule 48. Both rules appear on the District's website noted above.

For questions on the registration program, please contact **Kerby Zozula** at **805/645-1421** or kerby@vcapcd.org. Grant money may be available from the District to replace older diesel engines with newer, compliant diesel engines, natural gas engines or electric motors. For information on District grant programs, please contact **Chris Frank** at **805/645-1409** or chrisf@vcapcd.org.



Enforcement Activities MAY 2010						
Inspections	Month	Fiscal Year	Violations	Month	Fiscal Year	
Permit/Other Inspections	198	2,477	Notices of Violation Issued	4	202	
Complaints Received and Investigated	9	133	Cases Settled after Office Conference	12	274	
Breakdowns Received and Investigated	12	86				
Asbestos Inspections	11	60				
New Business	0	9	Settlement/Fines	\$11,600	\$328,575	

	Sources Operating Under Variance MAY 2010						
No.	Facility/Location	Source	Rule	End Date	Status		
828 Regular	PTI Technologies Inc.	Leaking Catalytic Oxidizer	29.C, 74.6, 74.13	7-09-2010	On Schedule		
832							

Sources Operating Under Stipulated Conditional Order of Abatement MAY 2010							
No.	Facility/Location Source Rule End Date Status						
None at this time							

	Notices of Violation May 2010					
NOV No	Facility Name	Phys City	Comment	NOV Date		
021172	Mission Rock Rd Asphalt Mixing Fac	Santa Paula	Permit Condition Not Met - Asphalt Heater	5/20/2010		
021545	South Mountain Resources, LLC	Santa Paula	Improper Vapor Recovery System - Vapor Recover System	5/4/2010		
022332	Vintage Production California LLC	Ventura	Operating Without A Permit - Oilfield	5/12/2010		
022411	Camarillo Car Wash & Quicklube	Camarillo	CARB Title 17 Defect -PHI/II - V.R. System Testing Failure	5/10/2010		
021172	Mission Rock Rd Asphalt Mixing Fac	Santa Paula	Permit Condition Not Met - Asphalt Heater	5/20/2010		



ERC Balances by Company (Units – Tons per Year) As of June 7, 2010					
Company Name	ROC	NOx	PM <sub>10</sub>	SOx	Limitation
Aer Glan Energy	3.70	0.00	0.00	0.02	Yes
Aera Energy LLC	0.02	0.49	0.45	0.04	No
Aera Energy LLC	234.92	11.41	1.24	0.40	Yes
Amgen, Inc.	0.00	4.97	0.00	0.00	No
Amgen, Inc.	0.11	0.00	0.07	0.01	Yes
BMW of North America	0.36	0.23	0.03	0.01	Yes
C. D. Lyon	0.70	0.00	0.00	0.00	Yes
Chevron Environmental Management	1.13	0.00	0.00	0.00	Yes
ChevronTexaco	0.44	1.67	0.09	0.03	No
ChevronTexaco	118.58	0.28	0.17	0.34	Yes
Compositair	0.00	0.06	0.00	0.00	No
Cook Composites & Polymers Co.	0.71	0.00	0.00	0.00	Yes
Costco Wholesale Corporation	12.73	0.00	0.00	0.00	Yes
Dos Cuadras Offshore Resources	2.09	0.19	0.00	0.00	No
Dos Cuadras Offshore Resources	0.49	1.32	1.13	0.10	Yes
Equilon California Pipeline Co. LLC	6.93	0.00	0.00	0.00	No
Gilroy Foods, Inc.	0.00	0.09	0.00	0.00	Yes
Haas Automation	0.00	0.06	0.00	0.00	Yes
Hanson Aggregates	0.00	0.00	0.69	0.00	Yes
Hunter Resources Development	0.09	0.01	0.01	0.00	No
KTI Engineers & Constructors	0.00	0.00	1.50	0.00	Yes
Mirada Petroleum, Inc.	0.05	0.00	0.00	0.00	Yes
Naval Base Ventura County	2.76	0.12	3.90	0.04	No
Naval Base Ventura County	0.11	5.13	0.45	0.54	Yes
Nestle Food Company	0.11	1.54	0.12	0.02	Yes
Northrop Grumman Corporation	0.00	0.01	0.01	0.01	Yes
Occidental Chemical Corporation	0.07	3.79	1.33	0.02	Yes
Oxnard Lemon Company	0.00	0.10	0.00	0.00	Yes
P.W. Gillibrand Company Inc.	0.00	5.11	0.00	0.03	No
Pacific Custom Materials, Inc.	0.00	0.00	0.77	0.00	No
Pacific Operators Offshore LLC	0.30	1.77	0.09	0.02	No
Parker Advanced Filtration	5.70	0.00	0.00	0.00	No
Procter & Gamble Paper Products	45.84	22.17	19.71	0.00	No
Procter & Gamble Paper Products	0.00	0.00	3.44	0.00	Yes
PTI Technologies, Inc.	0.25	0.00	0.00	0.00	No
PTI Technologies Inc.	0.40	0.00	0.00	0.00	Yes
Reichhold Chemicals, Inc.	0.00	0.10	0.00	0.00	No
Royal Coatings	0.06	0.00	0.00	0.00	No
RRI Energy West, Inc.	0.27	0.47	0.76	0.01	Yes
Santa Fe Energy Operating Partners	0.01	0.00	0.00	0.00	Yes
Santa Fe Minerals, Inc.	0.55	0.00	0.00	0.00	Yes

ERC Balances by Company (Units – Tons per Year) As of June 7, 2010					
Company Name	ROC	NOx	PM <sub>10</sub>	SOx	Limitation
Seneca Resources Corporation	2.57	0.02	0.00	0.00	No
Seneca Resources Corporation	0.35	0.14	0.00	0.00	Yes
Shell California Pipeline Co.	5.04	0.00	0.00	0.00	Yes
Solar World Industries American LP	0.51	0.00	0.00	0.00	No
Solar World Industries American LP	4.65	0.00	0.00	0.00	Yes
Southern California Edison Co.	49.21	107.68	0.22	0.16	No
St. John's Regional Medical Center	0.00	0.18	0.00	0.00	No
Sully Miller Contracting Co.	0.36	1.51	3.33	0.02	Yes
Technicolor Home Entertainment	0.01	0.00	0.00	0.00	Yes
TEG Oil & Gas USA, Inc.	0.30	0.00	0.00	0.00	No
Tenby, Inc.	43.27	0.00	0.00	0.00	No
The Boeing Company	0.44	0.01	0.00	0.00	No
The Boeing Company	0.25	2.81	0.61	0.57	Yes
The Termo Company	0.02	0.00	0.00	0.00	Yes
Tri-Valley Oil and Gas	2.48	0.00	0.00	0.00	No
Tri-Valley Oil and Gas	0.88	0.51	0.03	0.01	Yes
Unocal	4.45	0.00	0.00	0.00	Yes
Vaquero Energy	0.53	0.79	0.00	0.00	No
Venoco, Inc.	0.22	19.54	0.05	0.00	No
Venoco, Inc.	13.53	6.13	0.79	0.14	Yes
Ventura County APCD Board	55.00	0.00	0.00	0.00	No
Vintage Production California LLC	0.02	3.98	0.14	0.01	No
Vintage Production California LLC	2.81	97.16	1.47	0.14	Yes
Waste Management Energy Solutions	0.00	0.74	0.00	0.00	No

Each balance above represents one or more ERC Certificates. If there is a "Limitation" on a balance, no reactive organic compound or nitrogen oxide emission reduction credits in that balance may be used for emission offsets at a stationary source that has permitted emissions greater than 25 tons per year of that pollutant. (See Rule 26.4.D.3 for details).

A more detailed report is available on the forms page (under Downloads-Permits-ERC Report-Emission Reduction Credits) on the District website (<u>www.vcapcd.org</u>). If you have any questions, please contact Kerby E. Zozula of the Engineering Division at 805/645-1421.

Permit Activities MAY 2010					
Authorities to Construct	Month	Permits to Operate	Month		
Permits Requested	4	Permits Requested	15		
Permits Issued	3	Permits Issued	15		
Applications Under Review	24	Applications Under Review	69		
Sources Holding Permits	82	Sources Holding Permits	1445		
Average Turnaround Time	10.9 Weeks	Average Turnaround Time	22.0 Weeks		

Authority to Construct Applications Received MAY 2010						
Permit	Permit Facility City Project Description					
00041-1250	Aera Energy LLC	Ventura	Install Emergency Pit Tanks			
00997-490	Naval Base Ventura County	Point Mugu	New Emergency Engines			
01156-140 The Termo Company Ojai Drill New Well						
08082-100	DCOR, LLC	Piru	Two Exploratory Wells			

Authorities to Construct Issued MAY 2010						
Permit	Permit Facility City Project Description					
00473-210	Maple Leaf Bakery-Pioneer	Oxnard	Bakery Oven Replacement Project			
07131-120	Crop Production Services	Oxnard	Equipment Replacement Project			
08034-100 Fillmore Water Recycling Fillmore New Wastewater Treatment Plant						

Permit to Operate Applications Received MAY 2010					
Permit	Facility	City	Project Description		
00008-641	Vintage Production California LLC	Ventura	Existing Unpermitted Equipment		
00402-111	Rancho Simi Park Swimming Pool	Simi Valley	Replace Engines With Pool Heaters		
00752-121	Tony's Body Shop	Oxnard	Increase Coating Consumption Limit		
00997-451	Naval Base Ventura County	Point Mugu	Emergency Engine Replacement - B-308		
01006-471	Naval Base Ventura County	Port Hueneme	Increase Marine Coatings Limit		
01207-421	Naval Base Ventura County	San Nicolas Island	Diesel Engine at Power Plant		
01399-161	VRSD Oxnard Landfills	Oxnard	Modify Flare Requirements		
06286-141	Peck Oil Corp.	Santa Paula	Phase II EVR with ISD		
07324-221	Parker Advanced Filtration	Oxnard	Modify Drying Process		
07581-111	Oak Park Water-Deerhill Station	Oak Park	Replace Emergency Diesel Engine		
07582-111	Lake St. Lift Station	Thousand Oaks	Replace Emergency Diesel Engine		
07987-111	Captured Images, Inc.	Newbury Park	Relocate Graphic Arts Operation		
08063-101	High Quality Auto Body Collision	Oxnard	Motor Vehicle Coating Operations		
08082-111	DCOR, LLC	Piru	Rule 74.16 Exemption - Two Wells		
08083-101	CBC Federal Credit Union	Camarillo	New Emergency Diesel Engine		

Permits to Operate Issued MAY 2010					
Permit	Facility	City	Project Description		
00015-361	Procter & Gamble Paper Products	Oxnard	Part 70 Administrative Amendment		
00061-191	Southern California Gas Co.	Ventura	Part 70 Administrative Amendment		
00174-191	Simi Valley Hospital	Simi Valley	Boiler Replacement Project		
00291-111	Tapo Rock & Sand Products	Simi Valley	Replace Portable Screen		
00721-121	Saticoy Auto Body & Truck	Saticoy	Additional Heated Spray Booth		
01373-101	Santa Paula Wastewater Plant	Santa Paula	Increase Flare Consumption		
01406-141	Milgard Manufacturing Inc.	Simi Valley	Increase Usage Limits		
05502-151	Valero Corner Station #3751	Fillmore	Add Phase II ISD		
05505-151	Valero Station #3754	Ojai	Add Phase II ISD		
05822-T02	Central Plaza Union 76	Camarillo	Transfer of Ownership – WDH		
06286-141	Peck Oil Corp.	Santa Paula	Phase II EVR with ISD		
06450-101	Arco AM/PM	Ventura	New Gasoline Station		
08074-101	VC Waterworks Well No. 20	Moorpark	New Emergency Diesel Engine		
08078-101	Brock Services Limited	Ventura County	Portable Surface Coating Operations		
08079-101	Spanish Hills Surgery Center	Camarillo	New Emergency Diesel Engine		

# Ozone Report

## **APRIL 2010**

There were no exceedances of the Federal 8 Hour standard, or the California 1 Hour standard. There was 1 exceedance of the California 8 Hour standard at Simi Valley. The maximum 1 hour average was .087 at Simi Valley; the maximum 8 hour average was .073 at Simi Valley.







