

Air Aware

A Publication of the Yolo-Solano Air Quality Management District

Summer 2010

Wildfires

There were 78,792 reported wildfires across the country in 2009. The 5,921,786 acres that burned in wildfires last year alone represents 115% of the 20-year average for acres burned.

In the past 20 years, the number of wildfires has not increased dramatically, but the size of the fires has. A report from the Pew Center For Global Climate Change says since snow melts earlier resulting in a longer fire season, and warmer summer creates dryer soil, climate change has been a contributing factor to higher fire activity.

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'Tis the Season

With summer upon us along with the threat of wildfires, the District reminds residents to be aware of the dangers from smoke and to minimize exposure. Smoke from wildfires is a mix of very fine particles that can be dangerous depending on the amount of smoke and your personal health. Basic precautions include:

- Stay indoors with windows and doors closed;
- Run air-conditioners on the "re-circulate" setting, if available. A small percentage of newer homes have ventilation systems that actively bring in outdoor air. These should be turned off or set to a "re-circulate" mode;
- Do not run swamp coolers or whole house fans;
- Minimize or stop outdoor activities, especially exercise, during smoky conditions; and,
- Those in a "high-risk health" group should take extra precautions.

The most effective way to reduce exposure and avoid the ill effects of smoke is to stay indoors. Eliminate outdoor activities while air quality is in the unhealthy range. Exposure and the ensuing health effects are dependent on the amount of time spent outside, level of exertion and air quality. Effects can be as mild as irritation of the eye, nose and throat, or headache; or as serious as triggered asthma episodes or added stress to weakened cardiovascular systems.

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While being outside in smoky conditions is not recommended, if you must work outside during a smoke episode, individuals should take frequent breaks and consider wearing a mask called a "particulate respirator." These resemble common dust masks but are substantially more effective at removing the airborne small particles. Choose one with two straps and has NIOSH, and either N95 or P100 printed on it. Follow the manufacturer's instructions carefully. N-95 or P-100 respirators work best when sealed closely to the face. It is harder to breathe with these masks so if you have heart or lung disease, check with your doctor before using one. The use of bandanas (wet or dry), paper masks, or tissues held over the mouth and nose are ineffective and will not protect your lungs from wildfire smoke.

It is especially important for people with respiratory or heart disease to monitor their health. Symptoms of particle pollution exposure for people with heart disease may include chest pain, palpitations, shortness of breath, and fatigue. People with existing lung diseases may not be able to breathe as deeply or vigorously as normal and may experience symptoms such as coughing and shortness of breath. The severity of the health effects increases as fine particle concentrations increase. While it may not be present all the time, the smell of smoke may be evident to some individuals. If their symptoms worsen they should immediately consult with

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**Clean Air
 It's As Simple
 As 1-2-3**

This summer when temperatures are high, take these simple steps and you can improve air quality.

1) When refueling your vehicle, do it either early in the day or in the evening when the

temperature is cooler.

2) When barbecuing, don't use lighter fluid.

Cook with propane or use a chimney starter.

3) Don't use gas-powered yard equipment,

go electric or better yet, use a push mower and manual equipment.

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REBATES FOR ZERO EMISSION AG VEHICLES

The Zero-Emission Agricultural Utility Terrain Vehicle (Agricultural UTV) Rebate Program is funded by the California Air Resources Board (ARB) and administered statewide by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The funds are appropriated from the ARB's Air Quality Improvement Program. The Agricultural UTV program was established to promote the production and operation of zero-emission agricultural utility terrain vehicles in California agricultural operations. There is no restriction on the number of vehicles one entity can purchase and *rebates are issued on a first come, first serve basis until funding is depleted.*

California Agricultural Operators are eligible to participate. To determine if you are classified as a California agricultural operation, please review the State of California's definition of agricultural operations. Applicants will have to certify that they are indeed classified as California Agricultural Operators.*

- The Agricultural UTV Rebate Program provides rebates up to a maximum of \$2,500 or 15%

of the MSRP per zero-emission vehicle to qualified individuals, businesses, public agencies and entities, and non profit organizations involved in California agricultural operations.

- Go to: www.valleyair.org/Grant_Programs/UTV/Forms/UTV%20Eligible%20Vehicle%20List.pdf to learn how much money you can receive for each UTV. If you received incentive money for your agricultural UTV from a different funding agency, this may change your rebate amount. The agricultural UTV must be brand new. Used agricultural UTVs are not eligible for rebates.

- Submit a completed Rebate Application, a copy of vehicle invoice or purchase agreement, current utility bill, Applicant Certifications Form with IRS Form W-9 and Claim for Payment Form.

Approved applications will receive a rebate check in a single allotment. For additional information, call SJVAPCD at (559) 230-5800 or go to

http://www.valleyair.org/Grant_Programs/UTV/UTVWeb.htm.

*Agricultural Operations Definition

"Agricultural operations" is defined from ARB's Regulation for in-Use Off-Road Diesel Vehicles (Title 13 CCR § 2449): and means (1) the growing or harvesting of crops from soil (including forest operations), and the raising of plants at wholesale nurseries, but not retail nurseries, or the raising of fowl or animals for the primary purpose of making a profit, providing a livelihood, or conducting agricultural research or instruction by an educational institution, or (2) agricultural crop preparation services such as packinghouses, cotton gins, nut hullers and processors, dehydrators, and feed and grain mills. Agricultural crop preparation services include only the first processing after harvest, not subsequent processing, canning, or other similar activities. For forest operations, agricultural crop preparation services include milling, peeling, producing particleboard and medium density fiberboard, and producing woody landscape materials.

CALENDAR OF EVENTS

July 14	Board Mtg Cancelled
Aug 11 9 a.m.	Board Mtg
Aug 18-22	Yolo Co. Fair Visit our booth
Aug 30-31	Climate Change Forum, SF www.capcoaclimateforum.com
Sept 8 9 a.m.	Board Mtg

WILDFIRES *continued from page 1*

their health care providers. Individuals with moderate or severe heart or respiratory disease should consider alternatives and stay away from areas with high smoke concentrations. Such individuals should evaluate whether evacuation might actually cause greater exposure than staying home and using the precautions described above. Even healthy people may experience some symptoms in smoky conditions. Additionally, pets can also be impacted by unhealthy air and should be brought indoors if possible.

In addition to harmful health effects, fine particle pollution in the smoke creates hazy conditions that reduce visibility. Making the decision to cancel or reschedule active outdoor events is difficult, but when smoke levels reach unhealthy levels coupled with high temperatures, the prudent decision is to protect your health and that of others. During an episode of poor air quality due to smoke from wildfires, the District urges residents to stay informed about air pollution levels. Subscribers to Enviroflash (<http://ysaqmd.enviroflash.org>) will receive automatic notification when air quality is unhealthy.



GROUND LEVEL OZONE

Ground level ozone is the pollutant of greatest concern during summer months and it is the primary ingredient of smog. It's a colorless, highly reactive gas produced by a complicated web of chemical reactions between nitrogen oxides and reactive hydrocarbons and sunlight. These "ozone precursors" come from varied sources like gasoline vapors, chemical solvents, fuel combustion, and household products such as hair-spray, glass and oven cleaners, and deodorants. Maximum ozone concentrations occur in the afternoon, when sunlight is the strongest.

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STRICTER FEDERAL OZONE STANDARDS PROPOSED

In order to better protect public health, the United States Environmental Protection Agency (EPA) announced earlier this year that it will strengthen national ambient air quality standard for ground level ozone, the main component of smog.

The new rule, which will be phased in over up to 20 years, would drop "primary" ozone standards or limits to no more than 0.60 – 0.70 ppm ozone over 8 hours, down from the current standard of 0.75 ppm. EPA is also proposing a new cumulative "secondary" standard between 7 and 15 ppm-hours, which is designed to protect sensitive vegetation and ecosystems.

EPA will issue final standards by August 31st, 2010 and the new rule will be enforced beginning in 2014.

LEGACY OF CLIMATE LEADERSHIP

The CAPCOA Climate Change forum, hosted by the California Air Pollution Control Officers Association (CAPCOA), will be held August 30-31 in San Francisco. The two-day conference will focus on the integration and harmonization of California Climate policy with federal programs to allow development of effective and proactive strategies that will address climate change within the state. Attendees from various fields including business, state and local government, community groups and academia will have the opportunity to network and hear from experts. Arianna Huffington, Mary Nicols and Hunter Lovins are scheduled as speakers. The event will offer general and breakout sessions and provide opportunities for wide-ranging discussions.



The conference is co-hosted by the CA Air Resources Board and the U.S. Environmental Protection Agency. To register and obtain an agenda, visit www.capcoaclimateforum.com or call 888-993-0302.

CLEAN AIR PROJECTS

At the June 9 meeting of the Yolo-Solano Air Quality Management District's Board of Directors, the board approved funding of approximately \$400,000 for 20 Clean Air Funds (CAF) projects for fiscal year 2010/2011.

The CAF program offers incentive funding for projects that reduce air pollution from motor vehicles and advance the goals of the Clean Air Act. Funds can be used for the purposes of implementing the use of cleaner technologies, low emission vehicles, alternative transportation, transit services and public education. The District will fund "start-up" costs for projects, but typically will not fund ongoing operational costs.

CAF funding comes from a portion of the annual Department of Motor Vehicles registration fees as well as, for Solano County projects, from AB 8 property tax proceeds. Funding is awarded on a competitive basis. The District is interested in achieving the greatest amount of emission reductions for the money awarded, maximizing cost-effectiveness. When evaluating project proposals, the District also looks at other factors such as:

- Project merit and regional and local benefits
- Potential for broad application of the project to other jurisdictions, agencies, and businesses
- Matching funds provided by outside sources or the applicant

Applications receiving funding in the following categories were:

Clean Technology/Low Emission Vehicles

- City of Davis – Human-powered work bikes to replace gas-powered vehicles
- City of Davis – Install diesel particulate traps on city vehicles
- UCD - Replace gas carts with electric vehicles and gas-powered truck with human-powered vehicle
- City of Woodland – Replace utility compactor for early compliance of off-road diesel regs
- Woodland Community College – Replace maintenance vehicles with electric vehicles
- City of Rio Vista – Replace 1990 street sweeper with new lower emissions diesel sweeper
- Valley Farm Transport – Replace 1990 yard truck with newer, cleaner truck
- City of Vacaville – Replace dump truck with new truck
- Solano County - Retrofit one loader to reduce NOx and diesel particulate matter

Alternative Transportation

- Davis High School – Bike racks at memorial bike plaza
- Yolo County Transportation District – Bike racks at bus stops
- Solano Transportation Authority – Rideshare and incentive program

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REDUCING DIESEL EMISSIONS

BOARD OF DIRECTORS

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Board meetings are held at 9 a.m. the 2nd Wednesday of each month at the YSAQMD office located at 1947 Galileo Court, Suite 103, Davis. The public is welcome to attend. For a current agenda go to www.ysaqmd.org or call (530) 757-3650 or (800) 287-3650.

Mat Ehrhardt, P.E. Executive Director/
Air Pollution Control Officer



As a public health agency, the Yolo-Solano Air Quality Management District's role is to protect human health and property from the harmful effects of air pollution.

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Many people are aware that emissions from diesel engines, particularly diesel particulate matter (DPM), can have a negative impact on air quality as well as public health. Many regulations have been adopted over the past 10 years, so the District would like to summarize some of the requirements for diesel engines. The District is responsible for enforcing not only our own local rules, but in some cases the state Airborne Toxic Control Measures (ATCMs) and federal regulations.

The end result of many of the regulations is that diesel engines will have to be replaced or retrofitted over time. Because engine technology improves over time, many rules and regulations are adopted with more stringent emission limits for new engines. In addition, many regulations are written with emission limits which ratchet down over time to help ensure that emissions from diesel fired engines will decrease as cleaner running engines replace older, dirtier ones.

The primary mechanism to ensure that the District can enforce the various requirements is through the requirement for each non-road engine rated over 50 horsepower to maintain a permit or registration. A non-road engine is an engine which does not provide propulsion. Examples for stationary engines include emergency engines powering backup generators and agricultural use pump engines. Common examples for portable engines include engines powering generators, compressors, pumps, or auxiliary engines in street sweepers, cranes, or vacuum trucks.

Use	Mechanism	New requirements	In-use Requirements
Emergency backup generator	District permit	BACT requires current Tier at time of installation (or relocation)	No requirement to replace engine - annual testing and maintenance hours limited to the following: Tier 0 - 20 hrs/year Tier 1 - 30 hrs/year Tier 2 - 30 hrs/year Tier 3 - 50 hrs/year
Agricultural irrigation pump	District registration	ATCM requires current EPA Tier at time of installation (or relocation)	Replace engine(s) over time: 2010/2011 - Stop using Tier 0 2014/2015 - Stop using Tier 1,2
Portable engine	Statewide registration	ATCM requires current EPA Tier at time of registration (currently Tier 3 for most size engines)	Replace engine(s) over time: 2010 - Stop using Tier 0 2013 - Meet Tier 2 levels* 2017 - Meet Tier 3 levels* 2020 - Meet Tier 4 levels* * enforced with fleet standard
Vehicles	ARB has adopted multiple ATCMs, and is the agency responsible for enforcement		

The District welcomes inquiries from engine owners and potential applicants regarding the specific requirements for any given situation. If you have any questions regarding engine regulations, call (530) 757-3650 or (800) 287-3650.

Clean Air Projects (continued from page 3)

Transit Services

- Yolo County Transportation District – Yolobus Summer Sizzler

Public Education

- Breathe California - O24u Educational Campaign
- Explorit Science Center – Exhibition Clean Air Component
- Lawrence Hall of Science – Science theater presentation for 3, 4 & 5th grades
- Climate Change Compact of Yolo County – Education and Outreach
- Solano Transportation Authority – Safe Routes to School public education

Stats: April 1, 2010 - June 30, 2010

ATC Applications Received	12	Complaints Investigated	8	AG Engines Registered	33
ATC Applications Processed	26	Inspections Performed	259	AG Engines Inspected	26
PTO Applications Received	28	Notices of Violations (NOV)	87	PERP Engines Inspected	27
PTO Applications Processed	58	Notices to Comply (NTC)	41	NOV/NTC	15/3