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Board Agenda Item

TO: Air Pollution Control District Board
FROM: Terry Dressler, Air Pollution Control Officer
CONTACT: Gary Hoffman, 961-8818
SUBJECT: Incentive Programs to Agriculture

RECOMMENDATION:

1. Receive a status update on APCD's incentive programs to agriculture; and
2. Approve \$200,000 in additional funding for the Agriculture Water Pump Repower Program.

DISCUSSION:

Over the past several years, APCD's Innovative Technology Group (ITG) has managed several programs providing incentives to reduce air pollution from stationary sources such as agricultural water pump engines (Agriculture Water Pump Repower Program) and from hot water boilers in commercial nurseries (Agricultural Boiler Initiative). These programs are voluntary and their goal is to replace older higher polluting engines (or boilers) with cleaner low-emissions engines (or boiler/burners). Incentive funding is provided from the state's Carl Moyer Program, and ITG's Chevron Mitigation Trust funds. Your Board previously approved these programs, and authorized the Air Pollution Control Officer to sign future grants for these programs. Typically, when programs like these are successful and warrant additional funding, we return to your Board to provide an update and request additional funding.

Recent actions by the California legislature and the Air resources Board have prompted staff to review our Agriculture programs to be sure that we are funding projects that are surplus to our regulatory mandates. The results of our analysis and our recommendations on how to proceed with these programs are provided below.

State Senate Bill 700 (Florez), which took effect January 1, 2004, amended air pollution control requirements in the California Health and Safety Code to remove long-standing permit exemptions for California agriculture from air regulations. Among various requirements, the bill establishes

specific short term permitting requirements for agricultural sources. All existing agriculture sources that are “major” sources under either Title I or Title V of the Clean Air Act (i.e., potential to emit 100 tons per year or more of any regulated pollutant) are required to apply for permits by December 31, 2004. Sources above 50% of the major source threshold (i.e., equal or exceed 50 tons per year actual emissions) will also be required to apply for permits.

For agriculture sources whose actual emissions are below the “50%” threshold (below 50 tons per year), the bill directs air districts to determine if permits are necessary to achieve air quality goals. Existing prohibitory rules will apply as well. For these sources, SB700 requires a public hearing by air district boards to determine if such sources should be subject to permit and prohibitory rules. Until specific findings are made, such agriculture sources will remain exempt from permits. APCD is proceeding with implementation of SB700 and conducting outreach efforts with the agriculture community in our county. We are also tracking the progress of SB700 implementation efforts by air districts in much larger agriculture areas in the state (i.e., San Joaquin Valley and South Coast AQMD).

In addition, the California Air Resources Board (ARB) recently approved new Air Toxic Control Measures (ATCM) for diesel-fueled stationary engines and portable engines, which include engines used by agriculture. These ATCMs will reduce the public’s exposure to diesel particulate matter (PM) and other air pollutants (including toxics) by establishing best available control technology (BACT), which includes emission standards and operational requirements for these diesel engines. The stationary diesel ATCM applies to new diesel engines, not “in-use” diesel engines used in agricultural operations. The portable ATCM applies to all (in-use and new) portable diesel engines. The ATCMs are not yet in effect, and are still pending official clearance by ARB’s Office of Administrative Law.

Agriculture Water Pump Repower Program:

Since April, 2001, your Board has approved a total of \$600,000 in incentive funding (using Carl Moyer Program and ITG mitigation trust funds) to repower older agriculture water pump engines with new certified low emission engines. These engines can be powered by diesel, electric, and alternative fuel (natural gas and propane) sources. The funds have been used to successfully replace 40 diesel engines in our county, generating about 293 tons NOx emission reductions over the life of the projects. The program’s overall cost-effectiveness is about \$2,400/ton NOx emissions reduced. An earlier ITG program (1997-1999) targeting portable agriculture water booster pumps, successfully replaced a total of 61 portable engines. Together, these programs have replaced over 100 water pump engines in our county. We feel there are still many uncontrolled agriculture water pump engines (primarily stationary) that could qualify for future program funds while SB 700 and the diesel ATCMs are being implemented. Therefore, we recommend your Board approve an additional \$200,000 in program funds to continue with the program, provided the parameters specified below are met:

- all diesel engines with a baseline NOx factor less than Rule 333 limit (8.4 g/bhp-hr) will be considered for program funding;
- focus on smaller agriculture sources (with actual emissions below 50 tpy and PTE below 100 tpy of any regulated pollutant that are still exempt from APCD rules) to ensure that engine repowers are eligible under state statute (i.e., emission reductions are surplus);
- ensure that PM standards for the new engines meet the [stationary] ATCM standard;

- continue applying Carl Moyer Program guidelines to all repower prospects;
- fund only stationary diesel water pump engines (or electric motors).

The key is that we will be focusing on stationary diesel engines that already meet emission standards under Rule 333 and on smaller agriculture operations that are currently exempt from our rules. This will ensure that the emission reductions we fund are surplus. In additions, we will re-evaluate our program when SB 700 implementation efforts are further along and we know which agriculture sources will ultimately be subject to APCD rules and regulations.

Agricultural Boiler Initiative:

This incentive program targets commercial (wholesale) nurseries in our county, using conventional natural gas boilers, to purchase low-emissions burners or new boilers to reduce NOx emissions. Since the program began in late 1997, your Board has authorized up to \$600,000 in ITG mitigation trust funds to the program, with a balance of \$203,926 remaining today. Program funding for burner hardware is limited to the maximum \$2,000 per ton of NOx reduced approved by your Board. While other farming operations may have boilers, commercial nurseries should be the major agriculture source affected by our boiler rules (Rules 342 and 360) in the future. Even if these nurseries do not trigger permits in the future, they may be subject to Rule 342 (and 360), making surplus NOx emission reductions difficult to justify unless new proven ultra low-NOx burner technologies become available for nursery environments. Nevertheless, until such time your Board makes the findings necessary to apply APCD's boiler rule to agriculture sources, we recommend continuing with our existing boiler incentive program to commercial nurseries or other farming operations, provided they are not "major" sources. No additional funding is required for the program, and we anticipate that we can spend the balance of program funds by the time SB700 may be applied to non-major agriculture sources in our county. At that time we will evaluate the need for the program.

To conclude, we are requesting that your Board increase the total funds authorized for the Agriculture Water Pump Repower Program by \$200,000 for a new total of \$800,000. All future grant agreements within the program budget will have APCO signature authority (per Board Resolution 02-16). The additional funding will be drawn from ITG trust funds (e.g., Carl Moyer Program and Chevron Mitigation Trust funds) and is reflected in fiscal year 2004/2005 APCD budget unit 873, account 7460 (professional services). There are two reasons for this increase in funding. First, the program has been very successful at reducing emissions cost-effectively. Second, the adoption of SB700 and ATCM regulations affecting agriculture may present an opportunity for farmers in our county to voluntarily reduce emissions by purchasing cleaner engines and provide for early compliance with air regulations that might apply to them in the future.