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December 7, 2005

Ms. Mary-Ann Warmerdam  
Director  
Department of Pesticide Regulation  
1001 I Street, P.O. Box 4015  
Sacramento, CA 95812-4015

Dear Ms. Warmerdam:

### **Support for the Reevaluation of Pyrethroid Insecticides**

The purpose of this letter is to encourage the Department of Pesticide Regulation (DPR) to reevaluate pyrethroid insecticides (pyrethroids) and to include the water quality impacts from uses with a pathway to sewers in the scope of the reevaluation. Pyrethroids should be reevaluated due to their adverse impacts on surface water quality in urban and agricultural areas. Tri-TAC has previously written several comment letters to DPR and the Environmental Protection Agency (EPA) regarding pyrethroids. We have attached these letters for your reference.

As background, Tri-TAC is a technical advisory group comprised of public and private wastewater professionals focusing on regulatory issues of interest to Publicly Owned Treatment Works (POTWs) in California. Tri-TAC is jointly sponsored by the California Association of Sanitation Agencies, the California Water Environment Association, and the League of California Cities. The constituency base for Tri-TAC collects, treats, and reclaims more than two billion gallons of wastewater each day and serves most of the sewer population of California.

Tri-TAC is pleased that DPR is considering the reevaluation of pyrethroids and encourages DPR to begin the reevaluation process as soon as possible. Tri-TAC also recommends that DPR involve the State Water Resources Control Board in the reevaluation of pyrethroids since pyrethroids cause water quality impacts. Pyrethroids replaced organophosphorous as the most commonly used insecticides in California urban areas after EPA announced phase-outs of most urban uses of diazinon and chlorpyrifos.<sup>1</sup> Pyrethroids are used as the active ingredient in products to treat clothes, pre-impregnated clothing, over-the-counter and prescribed drugs, pet shampoos, drain and manhole treatments, carpet treatments, and indoor sprays.

<sup>1</sup> TDC Environmental, Urban Pesticide Use Trends Annual Report, Prepared for the San Francisco Estuary Project, March 2005

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The normal use of these products results in discharge of pyrethroids to sewers. POTWs may also receive concentrated loading of pyrethroids (e.g., following an outbreak of head lice at a school). The wastewater discharged to sewers travels to downstream POTWs and eventually into receiving waters. Tri-TAC is concerned about the use of pyrethroids in products with a direct pathway to the sewer system because pyrethroids are highly toxic to aquatic organisms. Therefore, during reevaluation Tri-TAC requests that DPR analyze and mitigate pyrethroid impacts to aquatic organisms from the use of products with a pathway to sewers.

While Tri-TAC does not have sampling data proving that POTW discharges of pyrethroids have caused aquatic toxicity or contributed to the exceedence of water quality criteria, the weight of evidence strongly suggests that a problem is imminent. DPR should be aware that very little sampling has been conducted of POTW influent or effluent for pyrethroids; therefore, it is extremely difficult to determine whether the Department of Fish and Game's aquatic toxicity standards have been exceeded. However, EPA recently modeled the impacts of a pyrethroid, permethrin, on the sewer system with an Aquatic Exposure, "Down-the-Drain" Assessment in the EFED Revised Risk Assessment for the Reregistration Eligibility Decision on Permethrin After Error Corrections Comments from the Registrant, Phase I dated July 12, 2005. Even with the conservative assumptions used by EPA, the model results show that the "down-the-drain" exposure to aquatic organisms from permethrin is up to 113 times higher than the levels of concern for acute high risk and seven times higher than the levels of concern for chronic risk. These results are disconcerting because POTWs do not have the ability to regulate discharges of pesticides. However, POTWs are required to meet effluent aquatic toxicity standards in National Pollutant Discharge Elimination System (NPDES) permits.

Tri-TAC believes that the burden of collecting data to determine the environmental impact of a pesticide should fall on the pesticide manufacturer. There are approximately nine hundred pesticide active ingredients registered for use in California. It is beyond the resources of POTWs to develop analytical methods and test for all nine hundred active ingredients to determine if they are expected to cause environmental problems. As part of the pesticide registration process, the pesticide manufacturer should be required to submit any data necessary to determine if environmental problems are expected from use of a pesticide. In the absence of data from a manufacturer regarding a specific pathway, such as breakdown during sewer travel and POTW treatment, the worst-case conservative assumption should be made for the purpose of predicting environmental impacts (i.e., assume no removal during sewer travel and no removal during POTW treatment, unless the manufacturer provides data showing otherwise).

During the reevaluation of pyrethroids, DPR should collect information to: (1) estimate the removal efficiency of pyrethroids during wastewater treatment and (2) ensure that pyrethroid concentrations in POTW effluent and biosolids do not cause violations of NPDES permits, would not restrict options for recycled water and biosolids reuse, and would not significantly contribute to exceedances of current or proposed numeric or narrative water quality standards. If potential problems exist, DPR should identify and require mitigation measures for pyrethroids. These mitigation measures may include removal of certain allowable uses (e.g., prevent pyrethroid use in products with a pathway to sewers) or greatly restricting allowable uses (e.g., allowing only professionals to buy pyrethroid-impregnated clothing).

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In conclusion, POTWs need DPR's assistance to protect California's surface waters from contamination from pyrethroids. As previously discussed, POTWs are required by NPDES permits to meet aquatic toxicity standards but do not have the authority to regulate pesticides. Tri-TAC requests that DPR conduct a reevaluation of pyrethroids and include water quality impacts to aquatic organisms from the discharge of pyrethroids into sewers in the scope of the reevaluation. If DPR's analysis shows that pyrethroids cause water quality impacts, Tri-TAC requests that DPR propose mitigation measures for pyrethroids during reevaluation.

Tri-TAC appreciates DPR's efforts to reevaluate pyrethroids. If you have any questions or require additional information, please contact Ms. Preeti Ghuman by phone at (562) 699-7411, extension 2904 or by email at [pghuman@lacsdsd.org](mailto:pghuman@lacsdsd.org).

Sincerely,



Charles V. Weir  
Chair, Tri-TAC

Attachments:

1. Request to Require Registration of Permethrin-Impregnated Clothing (October 25, 2004)
2. Prozap Insectrin X Concentrate (June 21, 2005)
3. Docket ID Number OPP-2004-0385 - Permethrin Preliminary Risk Assessments (October 20, 2005)
4. Pinebelt Processing, Inc, Insect Repellent Apparel (November 22, 2005)

c: PREC Committee

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