



Ben Horenstein
Tri-TAC Chair
East Bay Municipal Utility District
375 – 11th Street, MS702
Oakland, CA 94607
(510) 287-1846
bhorenst@ebmud.com

April 6, 2011

Mr. Tim McMahon
Office of Pesticide Programs (OPP)
Regulatory Public Docket (7502P)
U.S. Environmental Protection Agency (EPA)
1200 Pennsylvania Ave., N.W.
Washington, DC 20460-0001
Attn: Docket ID Number EPA-HQ-OPP-2010-0548

RE: Petition for a Ban on Triclosan - DOCKET NO. EPA-HQ-OPP-2010-0548

Dear Mr. McMahon:

Tri-TAC appreciates the opportunity to comment on the petition for a ban on triclosan. Municipal wastewater treatment plants need EPA's and the Food and Drug Administration's (FDA's) assistance to protect surface water and biosolids from triclosan in consumer products. Because our agencies do not have the ability to regulate triclosan sales, we strongly oppose addressing triclosan through Clean Water Act-based regulation of our effluent and biosolids. Instead, Tri-TAC requests U.S. EPA and FDA reconsider the allowable uses of triclosan, particularly usage in personal care products like soaps that are inevitably discharged to publicly owned wastewater treatment plants (POTWs). In light of growing scientific evidence of the environmental hazards of triclosan and the questionable human health benefits provided by its widespread use, we encourage U.S. EPA and FDA to consider prudent limitations on triclosan's use.

Tri-TAC is a technical advisory group for POTWs in California. It is jointly sponsored by the California Association of Sanitation Agencies, the California Water Environment Association, and the League of California Cities. Together California's POTWs collect, treat, and reclaim more than two billion gallons of wastewater each day and serve most of the sewered population of California.

Importance of Triclosan Regulation Under FIFRA and FFDCA

Tri-TAC is concerned by the dramatic increase in antimicrobial products available in commerce, such as paints, soaps, detergents, toothpaste, cutting boards, countertops and institutional products, as the antimicrobial chemicals may be washed into the sanitary sewer system and either pass through wastewater

Vice Chair
Natalie Sierra
San Francisco Public
Utilities Commission
1145 Market Street, 5th Floor
San Francisco, CA 94103
(415) 934-5772
nsierra@sfgwater.org

Water Committee
Co-Chairs
Gail Chesler
Central Contra Costa
Sanitation District
5019 Imhoff Place
Martinez, CA 94553
(925) 229-7294
gchesler@ccentralsan.org

Lorien Fono
Patricia McGovern Engineers
2242 Leavenworth Street
San Francisco, CA 94133
(510) 684-2993
lorienjf@gmail.com

Air Committee
Chair
Jay Witherspoon
CH2M Hill
155 Grand Avenue,
Suite 1000
Oakland, CA 94612
(510) 251-2888
jay.witherspoon@ch2m.com

Land Committee
Co-Chairs
Vincent De Lange
East Bay Municipal Utility
District
375 – 11th Street, MS702
Oakland, CA 94607
(510) 287-1141
vdelange@ebmud.com

Tom Meregillano
Orange County Sanitation
District
10844 Ellis Avenue
Fountain Valley, CA 92708
(714) 593-7457
tmeregillano@ocsd.com

Mr. Tim McMahon

Office of Pesticide Programs (OPP)

Re: Petition for a Ban on Triclosan – Docket No. EPA–HQ–OPP–2010–0548

April 6, 2011

Page 2

treatment facilities or partition to biosolids. Tri-TAC has previously shared extensive scientific information with U.S. EPA detailing the potential impacts of antimicrobials on POTWs.

As one of the most common antimicrobial chemicals, triclosan has the potential to pose a threat to POTWs' ability to comply with toxicity limits in our National Pollutant Discharge Elimination System (NPDES) permits; may have the potential to harm the beneficial micro-organisms that treat wastewater at a POTW; may compromise POTWs' ability to beneficially reuse biosolids in land application; and may economically impact POTWs through costly compliance measures. Triclosan, like most antimicrobial products in commerce, has not been adequately screened for its ability to interfere with POTWs' biological treatment processes or to pass through wastewater treatment systems into receiving waters at levels that might harm aquatic life.

Under California law (similar to laws in most other states), POTWs cannot regulate sale or use of pesticides. While POTWs can theoretically regulate pesticide discharges, POTWs have limited practical ability to keep residents and small businesses from discharging ordinary consumer products—like triclosan-containing products—to their indoor drains. The only practical and cost effective means of controlling triclosan discharge is for the Federal government to use its authorities under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and Federal Food, Drug, and Cosmetic Act (FFDCA) to control triclosan sales and use.

Support Scientific Review of Triclosan's Risks to POTWs and Water Quality

Petitioners have requested that U.S. EPA and FDA complete careful evaluation of triclosan under FIFRA, FFDCA and other Federal laws. Tri-TAC supports a robust review of triclosan's environmental risks. Our 2008 comments on U.S. EPA's Triclosan Re-Registration Decision (enclosed) list topics that should be covered in the evaluation.

One of the shortcomings of past U.S. EPA triclosan environmental risk assessments is the failure to assess risks associated with degradation and transformation products like methyl triclosan, 2,4-dichlorophenol, and dioxins. These products may be more harmful than triclosan itself. For example, research conducted by Lindstrom, et al. (2002) (enclosed) concluded that triclosan can be methylated during wastewater treatment. Methyl triclosan is more lipophilic, and thus potentially more bioaccumulative, than triclosan, raising concern about the chronic effects of the presence of methyl triclosan in aquatic ecosystems.

Since 2008, additional relevant scientific information has become available that has increased concern among POTWs about triclosan. We have enclosed a recent white paper by the San Francisco Estuary Institute (Klosterhaus et al, 2011)¹ that provides a comprehensive literature review and analysis of the potential impacts of triclosan and its chemical cousin triclocarban. In addition, we have enclosed the following recent scientific papers:

¹ This report is labeled "draft" pending addition of a recommended next steps section.

Mr. Tim McMahon

Office of Pesticide Programs (OPP)

Re: Petition for a Ban on Triclosan – Docket No. EPA–HQ–OPP–2010–0548

April 6, 2011

Page 3

- A study by Ricart, et al. (2010) shows the disruption of bacterial and algal communities resulting from triclosan passing through wastewater treatment plants into the environment. The study concluded that the environmental impact of these effects could be especially high in effluent-dominated waterways.
- Research by Raut, et al. (2010) showed inhibited sperm production in male western mosquito fish (*Gambusia affinis*) that were exposed to triclosan, indicating endocrine disruption.
- The study by Dunlavey, et al. (2010) includes removal efficiency data for triclosan and other emerging contaminants at an advanced tertiary treatment wastewater treatment plant. Tertiary treatment generally has greater removal efficiencies for many pollutants compared to conventional secondary treatment plants. Indeed, this study shows that triclosan removal efficiency for effluent is approximately 97%. This study found that the triclosan removed from wastewater had partitioned into the plant's biosolids.
- Walters, et al. (2010) provides concentrations of triclosan and triclocarban in biosolids. The half-life of triclosan in an outdoor degradation setting was 182-193 days.
- Buth, et al. (2009) provide evidence that in the presence of chlorine (which is commonly used at POTWs to control odors and reduce pathogens), triclosan may generate polychlorodibenzo-p-dioxins through photolysis. Because dioxins are priority pollutants, many POTWs face dioxins effluent limits.

Consider Substantial Cost to POTWs

Failure to regulate triclosan fully under FIFRA and FFDCA shifts the financial responsibility of managing the environmental consequences of triclosan use from the triclosan product manufacturers and triclosan users to POTWs. With regard to the evaluation of economic impacts as required by FIFRA, as well as the petitioners' request to consider Clean Water Act regulatory mechanisms like effluent limitations, pretreatment requirements, and biosolids regulation, Tri-TAC requests that the EPA consider the cost to POTWs—and the public we serve—for compliance (or worse, non-compliance) with NPDES permits.

Non-compliance with Federal Clean Water Act requirements can be extremely costly for POTWs. Costs to POTWs may include sampling and laboratory expenses incurred to identify the source of the pollutants that caused non-compliance; the cost of implementing source control to reduce impacts of the pollutants; and construction, operation, and maintenance costs to upgrade POTWs with advanced treatment to remove pollutants that cannot be adequately reduced with by POTW-implemented source control measures. In addition, when surface water bodies become impaired by pollutants, POTWs discharging to the water bodies may receive additional requirements established as part of Total Maximum Daily Loads (TMDLs) set for the water bodies by the California State Water Resources Control Board and Regional Water

Mr. Tim McMahon
Office of Pesticide Programs (OPP)
Re: Petition for a Ban on Triclosan – Docket No. EPA–HQ–OPP–2010–0548
April 6, 2011
Page 4

Quality Control Boards. The cost to POTWs to comply with TMDLs can be up to millions of dollars per water body per pollutant.

Furthermore, roughly fifty percent of the total cost of wastewater treatment is expended on solids handling. Land application is a frequently used method for recycling and beneficially reusing biosolids. The presence of compounds linked to environmental concern—like triclosan—in biosolids can result in an undermining of public confidence in land application and other beneficial reuse of biosolids. Since POTWs cannot realistically control sale or use of triclosan products, Clean Water Act biosolids regulation would be inappropriate and potentially extremely costly, both environmentally (lost resources, using landfill capacity) and economically (management cost). This petition offers U.S. EPA and FDA the opportunity to evaluate the environmental risks of triclosan in biosolids and to implement, through FIFRA and FDA regulatory actions, prudent management measures that will continue to ensure public confidence in land application of biosolids.

Conclusion

Many chemicals in commerce, including triclosan, have not been adequately screened for their ability to impact or pass through POTWs, to impact the quality of biosolids produced by POTWs, and to harm aquatic life. We need the EPA and FDA to exercise their authorities to control all uses of triclosan that may pose problems for POTWs and ultimately the environment. In light of questionable benefits provided by widespread use of triclosan in personal care products like soaps and detergents that are inevitably discharged to POTWs, we encourage U.S. EPA and FDA to consider prudent limitations on triclosan's use.

Tri-TAC appreciates the opportunity to comment on this petition. If you have any questions, please contact Jen Jackson at jacksonj@ebmud.com or 510-287-0818.

Sincerely,



Ben Horenstein
Tri-TAC Chair

Enclosures:

1. Letter to U.S. EPA from Tri-TAC re: Triclosan Re-Registration Docket No. EPA-HQ-OPP-2007-0513, July 7, 2008
2. Klosterhaus, S., R. Allen, and J. Davis. 2011. Contaminants of Emerging Concern in the San Francisco Estuary: Triclosan and Triclocarban. A Report of the Regional Monitoring Program for Water Quality in the San Francisco Estuary. SFEI Contribution #627. Draft Report. San Francisco Estuary Institute, Oakland, CA.

Mr. Tim McMahon

Office of Pesticide Programs (OPP)

Re: Petition for a Ban on Triclosan – Docket No. EPA–HQ–OPP–2010–0548

April 6, 2011

Page 5

3. Ricart, M.; Guasch, H.; Alberch, M.; Barceló, D.; Bonnineau, C.; Geiszinger, A.; Farré, M. I.; Ferrer, J.; Ricciardi, F.; Romaní, A. M., Triclosan persistence through wastewater treatment plants and its potential toxic effects on river biofilms. *Aquatic Toxicology* **2010**, *100* (4), 346-353.
4. Raut, S. A.; Angus, R. A., Triclosan has endocrine-disrupting effects in male western mosquitofish, *Gambusia affinis*. *Environmental Toxicology and Chemistry* **2010**, *29* (6), 1287-1291.
5. Dunlavy, E.; Tucker, D.; Ervin, J., Environmental Fate and Transport of Microconstituents. *Water, Environment & Technology* **2010**, (July), 43-46.
6. Walters, E.; McClellan, K.; Halden, R. U., Occurrence and loss over three years of 72 pharmaceuticals and personal care products from biosolids–soil mixtures in outdoor mesocosms. *Water Research* **2010**, *44* (20), 6011-6020.
7. Buth, J. M.; Grandbois, M.; Vikesland, P. J.; McNeill, K.; Arnold, W. A., Aquatic Photochemistry of Chlorinated Triclosan Derivatives: Potential Source of Polychlorodibenzo-p-Dioxins. *Environmental Toxicology and Chemistry* **2009**, *28* (12), 2555-2563.
8. Lindstrom, A.; Buerge, I. J.; Poiger, T.; Bergqvist, P. A.; Muller, M. D.; Buser, H. R., Occurrence and Environmental Behavior of the Bactericide Triclosan and Its Methyl Derivative in Surface Waters and in Wastewater. *Environmental Science & Technology* **2002**, *36* (11), 2322-2329.

cc: James A. Hanlon, U.S. EPA Office of Water, Office of Wastewater Management
Alexis Strauss, Water Division, U.S. EPA Region 9
Patti TenBrook, U.S. EPA Region 9
Syed Ali, California State Water Resources Control Board
Nan Singhasemanon, California Department of Pesticide Regulation
Kelly D. Moran, Urban Pesticides Pollution Prevention Project
Chris Hornback, Regulatory Affairs, National Association of Clean Water Agencies