NACWA
A Clear Commitment to America's Waters

April 3, 2009

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Office of Pesticide Programs
Regulatory Public Docket (7502P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, DC 204600-0001
Via: www.regulations.gov

Dear Sir or Madam:

The National Association of Clean Water Agencies (NACWA) appreciates the opportunity to comment on the proposed additions and revisions to the existing data requirements for antimicrobial pesticides (October 8, 2008; 73 *Fed. Reg.* 59382). NACWA represents the interests of nearly 300 of the nation's publicly owned wastewater treatment works (POTWs) or clean water agencies. NACWA's members continue to face challenges as they strive to meet increasingly stringent Clean Water Act (CWA) requirements while having limited control over the toxic pollutants and other substances in the wastewater they treat. Consistent with its past comments on the registration process and the need to better understand a chemical's full range of impacts before it is used in commercial products, NACWA strongly supports the proposed data requirements.

In October 2005, NACWA provided comments on the Office of Pesticide Programs' general review of its registration requirements (July 13, 2005; 70 *Fed. Reg.* 40251). At that time, NACWA noted the need for the pesticide registration process to better predict true environmental concentrations of pesticide residues and the potential impacts on the wastewater treatment process and to put in place the necessary controls to limit those impacts. POTWs are not designed to remove pesticides and treatment plant effluent and biosolids have been found to contain pesticide residues. Source control for discharges of harmful substances is the best option for ensuring that adverse environmental impacts are avoided. NACWA believes that effective evaluation of the true impacts of pesticides during the registration process is necessary to assess whether the manufacture and use of these substances will negatively affect the environment and the wastewater treatment process at our country's POTWs. The proposed data requirements for antimicrobial pesticides are a major step toward achieving this goal.

In the past, the U.S. Environmental Protection Agency (EPA or Agency) has not considered the impacts of antimicrobial pesticides from homes and businesses, believing that dilution and degradation in the sewer system would prevent these pesticides from having a negative impact. The risk-benefit standards of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) require EPA to ensure that

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pesticides are used in a manner such that mitigation under the CWA is minimal or unnecessary. Improved analytical capabilities have shown that antimicrobial pesticides and other substances that were once dismissed may be present in environmentally relevant concentrations. As NACWA's members now know, the potential for these substances to reach the treatment plant in concentrations that can negatively impact the treatment process, effect toxicity testing, and pass through the treatment system and reach surface waters can be significant in some instances. Without a complete set of data relevant to potential water quality impacts, EPA cannot fulfill its obligation under FIFRA.

While NACWA was unable to conduct a thorough review of the fate and transport considerations in the proposal, NACWA strongly supports the proposed revisions to the data requirements and believes that the proposal would improve EPA's ability to ensure that antimicrobial pesticides are registered in a manner protective of the municipal wastewater treatment process and water quality.

NACWA offers the following comments on the proposal and suggestions for improving the data requirements.

General Comments

- Coordination among EPA offices in reviewing pesticide data is essential to effective CWA implementation. NACWA believes that more coordination with the Office of Water is needed. There appears to be a lack of understanding in the proposal regarding the municipal wastewater treatment process (including an erroneous assumption that municipal plants only receive wastewater from households) and existing regulatory programs like the National Pretreatment Program and the role it plays in keeping pollutants out of the sewer system.

- EPA considers partitioning to the biosolids as 'removal' in some of its outreach materials for the proposal. Pesticide residuals that are adsorbed to the sludge should not be considered removed, but instead transferred to another medium.

- NACWA strongly supports higher-tiered environmental studies in cases where the screening level assessment indicates partitioning to biosolids. Roughly fifty percent of the total cost of wastewater treatment is expended on solids handling and land application is a frequently used method for recycling biosolids. The Targeted National Sewage Sludge Survey (TNSSS) released by EPA in January 2009, reported the presence of triclocarban in 100%, and triclosan in 94% of its biosolids samples, confirming the ready partitioning of these antimicrobials to the solids phase. It is essential that EPA be able to ensure adequate protection in the terrestrial environment from the use of these antimicrobial pesticides.

- National Pollutant Discharge Elimination System (NPDES) permits require POTWs to conduct regularly scheduled acute and chronic toxicity tests. These tests are very sensitive, even to minute quantities of toxic pollutants. The frequency of routine toxicity testing varies from permit to permit, but they are generally conducted at approximately monthly intervals with an average cost of $500 and $1,000 for each acute and chronic test respectively. These toxicity tests are conducted in addition to chemical-specific monitoring to assess potential aquatic life impacts associated with unregulated chemicals, chemical combinations, and substances that do not have established water quality criteria thresholds. If toxicity is observed during routine testing, dischargers are typically required to conduct accelerated tests weekly for a minimum of six weeks at an additional cost of approximately $3,000 to

$6,000 per test depending on nature of the test. If toxicity is observed in a certain number of tests, the discharger may be required to implement a toxicity identification evaluation (TIE), consisting of multiple toxicity tests in the hopes of identifying the toxicity causing constituent(s). The cost of a TIE can vary widely from $10,000 to well over $100,000 depending on complexity and persistence of the toxicant. Once identified the cost to treat or remove the toxicity causing compound(s) can vary dramatically. Failure of these tests for some CWA permittees also results in a violation of their permit conditions, leading to possible enforcement actions and monetary penalties.

Specific Comments

- NACWA is concerned with the decision to exclude antifoulants and wood preservatives from testing designed to protect POTWs and the aquatic environment. It is possible that these compounds may reach POTWs through sources such as hull blast water, landfill leachate and centralized waste treatment facilities. EPA should revisit this assumption to verify its accuracy.

- NACWA agrees with the new requirement to collect data on the aerobic respiration process of the microorganisms present in activated sludge. However, the potential for impacts on microbial activity in the wastewater treatment process is not limited to effects on aerobic respiration. Additional consideration must be given to effects of antimicrobial agents on biological nutrient removal efficiencies. Nutrient removal is or will soon be required of many POTWs that discharge to impaired water bodies. The aerobic respiration test is insufficient to evaluate the impact of antimicrobial agents on nutrient removal efficiency. Testing needs to be conducted on a compound's potential to affect the nitrification and phosphorus removal processes, which will vary from plant to plant. Data on inhibition of these processes is necessary to protect treatment plant nutrient removal efficiencies.

- The Tier I toxicity screening does not include data requirements for estuarine or marine organisms. This does not adequately protect the aquatic environment from discharges of these antimicrobial compounds. There are numerous instances in which the Water Quality Standard (WQS) for saltwater aquatic life is an order of magnitude or more lower for a pesticide than the freshwater aquatic life WQS. Modeling a need for additional Tier II exposure data based only on freshwater concentrations of concern fails to consider the potential for toxicity to saltwater organisms.

- EPA has proposed requiring acute freshwater fish and acute freshwater invertebrate toxicity testing for all antimicrobial pesticides for the technical grade active ingredient. Higher-tiered data would be required when the appropriate trigger is met. EPA proposes that these two aquatic toxicity tests be used in combination with the screening-level environmental fate assessment to assess impacts of antimicrobial pesticides on POTWs. NACWA believes it is essential to have both acute and chronic toxicity test results for at least one freshwater invertebrate, vertebrate, and plant species and at least one marine/estuarine invertebrate, vertebrate, and plant species to properly assess the potential impacts to POTWs and receiving waters.

- Some POTWs discharge to effluent-dominated or effluent-dependent receiving waters (where the effluent is the only source of water during dry periods). NPDES permits for these facilities do not include a stream dilution factor. In addition, other facilities in the country do not have dilution credits in their NPDES permits for other environmental reasons. These conditions make compliance with acute and chronic toxicity tests even more complicated. EPA should consider the lack of dilution

credits for many POTWs as it determines whether to include stream dilution factors in national down-the-drain assessments for pesticides.

- One of the Tier I screenings considers photodegradation. If a compound is shown to readily degrade in sunlight, then higher tiered testing may not be required since it is believed that the chemical will not persist in the environment. While this may be appropriate for chemicals that are intermittently discharged to surface waters, it would not be appropriate for treated wastewater effluent where the discharge is continuous. Continuous discharges can create "pseudopersistence", necessitating higher tier testing for aquatic life effects. EPA should consider these chronic inputs when deciding if higher tier testing is required.

- The toxicity tests for avians and aquatic life do not have endpoints designed to specifically measure the potential for endocrine disruption. Some of the endpoints of endocrine disruption are more sensitive than the traditional endpoints measured in the proposed toxicity tests and may produce adverse effects at much lower concentrations.

- Though higher tier tests for biomagnification are necessary to determine potential exposure levels throughout the food chain, this does not equate to a toxic effect. Additional studies would be necessary to determine the ecological impact of any biomagnification on the food web.

- Many of the aquatic toxicity methods fail to recommend adequate quality assurance procedures such as reference tests which assess the ability of the testing system to produce acceptable and reliable data.

- EPA should consider the potential for these ingredients to impact air emissions from the POTW as they degrade in the treatment process.

- To the extent possible, EPA should make publicly available the results of its assessments and the methodologies used. These materials would be helpful to POTWs conducting toxicity evaluations.

- The data quality objectives for risk assessment of these compounds must be outlined in advance of study planning and data collection in order to ensure data of the necessary quality to inform the decision-making process.

NACWA appreciates the opportunity to comment on the proposed data requirements of antimicrobial pesticides. Please contact me at 202/833-9106 if you have any questions.

Sincerely,

Chris Hornback
Senior Director, Regulatory Affairs