SOUTHERN CALIFORNIA COASTAL WATER RESEARCH PROJECT
A Public Agency for Environmental Research

June 25, 2018

Dr. Anne Cooper-Doherty
Department of Toxic Substances Control
Safer Products and Workplaces Program
P.O. Box 806
Sacramento, CA 95812-0806

Re: Product-Chemical Profile on nonylphenol ethoxylates (NPEs) in Laundry Detergents

Dear Dr. Cooper-Doherty:

The Southern California Coastal Water Research Project Authority (SCCWRP) is a public research organization that provides unbiased scientific information to guide the management of water resources in California and beyond. Our primary role at SCCWRP is to communicate scientific findings to assist water quality managers, regulators and the public at large in protecting the beneficial uses of our treasured water resources.

As you know, SCCWRP has been active in prioritizing unregulated chemicals (so-called "constituents of emerging concern or CECs) that deserve further investigation, based on their occurrence and potential for impacts in coastal aquatic systems. Our most recent feedback on NPEs was provided in a joint response (co-submitted with the San Francisco Estuary Institute) on DTSC's "Potential Aquatic Impacts and Continued Uses of Nonylphenol Ethoxylates and Triclosan" in early 2017. In that document, we provided the latest monitoring and assessment information on NPEs, based on their occurrence 1) in water, sediment and sentinel species near WWTP outfalls discharging to the coastal ocean; 2) in bivalves and passive samplers as part of NOAA's Mussel Watch program; and 3) more recently in various watersheds across California based on the recommendations of a panel of experts convened by SCCWRP (on behalf of the State Water Board) to guide monitoring of CECs in aquatic ecosystems. In their 2012 report, the expert panel recommended investigative monitoring of *para*-nonylphenol (*p*-NP, aka 4-NP) in sediments impacted by ocean discharge of treated WWTP effluent, in WWTP effluent itself as well as in receiving waters impacted by stormwater runoff.

Since our joint response in 2017, a number of investigations have been carried out as part of category 3) above, specifically, 4-NP was measured in river water and bed sediments from two waterways where flow in freshwater segments was dominated by WWTP effluent discharge, and also in a single watershed that is subject to much less urban influence. Maximum measured concentrations of 4-NP in river water and bed sediment from the effluent dominated waterways were 0.51 ug/L (range: <0.05-0.51 ug/L, n=17) and 1600 ug/kg (range: 17-1600 ug/kg dry wt., n=14) dry wt., respectively (Maruya

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2017). Maximum measured concentrations of 4-NP in water and sediment from the non-effluent dominated watershed were 1 to 2 orders lower than for the effluent dominated systems (Maruya et al. 2018). Estimated concentrations of 4-NP in procedural blanks were less than 20% and 0.5% of the maximum reported concentration in water and sediment, respectively. Although these data have not undergone peer review and are thus considered preliminary at this point in time, they were collected under the auspices of a performance-based quality assurance/quality control (QA/QC) plan (Dodder et al. 2015). A no-observed effect concentration (NOEC) of 1,400 ug/kg dry wt. was identified by the expert panel for marine sediments (Anderson et al. 2012).

We once again thank Dr. Cooper-Doherty and DTSC for the opportunity to provide scientific information in support of the Product Chemical Profile for NPEs. If you have any questions, please do not hesitate to contact us.

Sincerely,

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References

Anderson PD, Denslow ND, Drewes JE, Olivieri AW, Schlenk D, Scott GI, Snyder SA. 2012. Monitoring Strategies for Chemicals of Emerging Concern (CECs) in California's Aquatic Ecosystems. Recommendations of a Science Advisory Panel. Final Report. Southern California Coastal Water Research Project. Costa Mesa, CA. Technical Report 692.

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