

# A P E R E S E A R C H C O U N C I L

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November 18, 2005

Mr. Mike Gallagher  
PBT Coordinator  
Dept. of Ecology, Washington State  
PO Box 47600  
Olympia, WA 98504  
e-mail: [mgal461@ecy.wa.gov](mailto:mgal461@ecy.wa.gov)

Dear Mr. Gallagher:

The Alkylphenols & Ethoxylates Research Council (APERC)<sup>1</sup> submits the enclosed comments on the Department of Ecology's Revised Draft Washington State Rule, Chapter 173-333 WAC on Persistent Bioaccumulative Toxins (PBTs) (September 29, 2005), which proposes to list nonylphenol and 4-nonylphenol, branched (CAS numbers 25154-52-3 and 84852-15-3) to Washington State's PBT list. APERC is comprised of major North American producers and users of alkylphenols (AP) and alkylphenol ethoxylates (APE) including nonylphenol (NP), and nonylphenol ethoxylates (NPE). The Council has been actively engaged in environmental fate and effects research on NP for over 20 years and consequently can contribute considerable information and expertise relevant to Washington State Department of Ecology's PBT assessment of these substances.

The attached comments support the conclusions that NP is biodegradable, is not persistent, is not bioaccumulative and therefore should not be categorized as a PBT. In addition, the comments address APERC's concern with the following issues in the Revised Draft Rule on PBTs:

**Washington State Department of Ecology (Ecology) should conduct thorough assessments that consider the highest quality data available utilizing a scientifically-based approach before listing compounds on a proposed PBT list.**

The market implications for a compound proposed as a PBT by any regulatory authority are grave even if a compound is subsequently removed from the list. A PBT designation generally infers a need to essentially eliminate the use of a compound. Ecology's intention that its definition of PBT "does not represent a decision that all uses and releases of that chemical should be reduced and phased-out" will not necessarily be recognized by other regulatory authorities or the businesses and consumers that use

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<sup>1</sup> Members of the Alkylphenols & Ethoxylates Research Council include: Dover Chemical Corporation; Rhodia Inc.; Rohm and Haas Company; Schenectady International, Inc.; and, The Dow Chemical Company.

products containing compounds incorrectly designated as PBTs. Considering the likelihood that Ecology's intention regarding a PBT listing could be misperceived and result in unnecessary market disruption and economic impact to affected businesses, Ecology has an obligation to conduct thorough and scientifically-based assessments prior to listing any compound as PBT.

**Ecology should conduct assessments that are consistent with those generally accepted in the scientific community; utilizing a preferred hierarchy of data sources where the weight-of-evidence is preferred over single measured values, which are in turn preferred over estimated, calculated or modeled values.**

The Revised Draft PBT Rule states that listings will be based on "credible scientific information," which is defined as "information that is based on a theory or technique that is generally acceptable in the relevant scientific community or has been collected or derived using standard or generally accepted methods and protocols and appropriate quality assurance and control procedures." Ecology should adopt a policy on hierarchy of data sources that is consistent with other regulatory authorities and the scientific community in general.

**The evaluation that Ecology provided as support for listing NP as a PBT chemical is inadequate in terms of effort, completeness and scientific rigor.**

Ecology provides a superficial three paragraph review of persistence, bioaccumulation and toxicity data for NP, which is one of the most extensively tested chemicals in commerce today. Literally hundreds of studies have been conducted and are readily available in the peer-reviewed published literature as well as in other publicly available sources. The fact that the sheer volume of available data on a compound may seem overwhelming does not provide Ecology with an excuse to disregard it; rather it obligates a weight-of-evidence assessment.

**The values selected by Ecology to justify listing NP as either persistent or bioaccumulative are from inadequate quality data sources, especially in light of the fact that there are numerous other high quality data available from which to conduct a weight-of-evidence assessment.**

Perhaps the most disturbing aspect related to the listing of NP on the proposed Washington State PBT list in the Revised Draft Rule (September 29, 2005) was the fact that Ecology acknowledges the extensive comments and scientific references provided by APERC in 2001 while apparently choosing to ignore the data - already in hand - that support with well-founded science the conclusion that NP does not meet the proposed Washington State criteria for persistence and bioaccumulation. Ecology should use the extensive body of high quality data, which are summarized in the attached comments, to conduct its assessment on NP. These data support a weight-of-evidence based conclusion that NP should not be classified as PBT.

The fact that the attached APERC comments do not address Ecology's toxicity assessment on NP should not be interpreted to indicate APERC's agreement with that assessment. Clearly Ecology's one paragraph summary of the toxicity of NP is not adequate to address the extensive toxicity data available for this compound.

As noted in Ecology's Technical Background Information document, US EPA proposed Water Quality Criteria (WQC) for NP in January 2004 that are protective of acute and chronic effects in fresh and salt water organisms.<sup>2</sup> Toxicity alone does not justify listing any compound as a PBT. As with any other chemical, WQC form the basis for responsible chemical management. The results of a statistical analysis of environmental exposures and a probabilistic risk assessment of the impact of NP on aquatic ecosystems in the United States support the understanding that there is only a low probability that levels of NP in the aquatic environment exceed US EPA's proposed WQC for NP and that this compound is being effectively managed in this country.<sup>3</sup>

The American Chemistry Council and the Association of Washington Business have also submitted comments related to the Department of Ecology's proposed PBT strategy. APERC also supports these more general comments, especially as they relate to the definition of PBT criteria and the need for coordination with federal and international initiatives.

If you have any questions or wish to discuss these comments in more detail please contact me at (202) 419-1500.

Sincerely,

Barbara S. Losey  
Deputy Director

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<sup>2</sup> US EPA. (2003). Ambient Aquatic Life Water Quality Criteria for Nonylphenol - Draft. EPA 822-R-03-029. <http://www.epa.gov/waterscience/criteria/nonylphenol/draft-nonylphenol.pdf>

<sup>3</sup> Zabik, J.M., Klecka, G.M., Woodburn, K.B., Naylor, C.G., and Staples, C.A. (2005). Exposure Analysis of Alkylphenol, Alkylphenol Ethoxylates and their Metabolites in US Surface Waters. Poster Presentation Abstract Number KLE-1117-827542. Society of Environmental Toxicology and Chemistry (SETAC) 26<sup>th</sup> Annual Conference, Baltimore, MD.