



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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September 23, 2011

Wendy Cleland-Hamnett, Director
Office of Pollution Prevention & Toxics
U.S. Environmental Protection Agency
Washington, DC

RE: Identifying Priority Chemicals for EPA Review
State Comments on the August 2011 Discussion Guide

Dear Ms. Cleland-Hamnett:

Thank you for the opportunity to participate in the stakeholder meeting held on September 7, 2011, related to EPA's efforts to identify high priority chemicals for review and management action under the Toxic Substances Control Act (TSCA).

I am submitting these comments on behalf of my colleagues from CA, MD, OR and WA state to address the questions EPA is seeking related to prioritization factors and data sources EPA intends to use to identify priority chemicals.

Please contact me at ken.zarker@ecy.wa.gov if you have any follow-up questions or need clarification.

Sincerely,

Ken Zarker, Manager
Pollution Prevention and Regulatory Assistance Section

cc: Peggy Harris, California Department of Toxic Substances Control
Melanie Marty, California Office of Environmental Health Hazard Assessment
Kathy Kinsey, Maryland Department of Environment
Kevin Masterson, Oregon Department of Environmental Quality
Alex Stone, Washington State Department of Ecology

Attachment

**States Comments of the August 2011 EPA Discussion Guide:
Background and Discussion Questions for Identifying Priority Chemicals for Review and Assessment
(submitted September 23, 2011)**

The following comments were developed by state environmental agency staff from California, Maryland, Oregon and Washington related to the EPA stakeholder meeting held on September 7, 2011. The states appreciate the opportunity to lend our experience and expertise related to chemicals prioritization efforts already underway in several states.

General comments:

1. The States support the US EPA's efforts to identify priority chemicals for review and assessment and particularly the need to develop additional information on chemicals that currently have less robust hazard or exposure information. One of the greatest problems faced by companies interested in identifying safer alternatives to toxic chemicals is the lack of information on the hazards specific chemicals pose including chemicals that may have been identified with some of the criteria being evaluated by EPA. There is an immediate and important need to fill in as many of those missing gaps as possible and EPA's efforts in this area are a promising beginning.
2. The States also support EPA's intent to use the potential for exposure as an important criterion in the identification of priority chemicals. Too much time and effort is wasted trying to identify the route of exposure and quantify it when chemicals of concern are being found in humans including females and males of reproductive age and children. Using the presence of these chemicals of concern in humans as an indicator of potential for exposure was part of the prioritization process used by Washington State to identify its chemicals of high concern to children and the States are gratified that EPA has adopted a similar approach.
3. In addition to specific comments on sections below, EPA does not appear to leverage all of the information conducted by other international governmental organizations in its assessment. For example, considerable work is being done by the European Union on a number of fronts including the continued population of the Substances of Very High Concern (SVHC) list. The data sharing agreement that EPA announced in December 2010 with the European Chemical Agency (ECHA) might also lend to availability of data that could be valuable in the chemical prioritization process:
<http://yosemite.epa.gov/opa/admpress.nsf/0/39E0AC05307F270A852577FC0068C184>. In addition, none of the sources included in the proposal mention the possibility of using Qualitative Structure Activity Relationship (QSAR) results to fill in blanks in toxicity criteria. The Danish EPA, for example, has established a database of more than 166,000 discrete organic chemicals using QSARs to predict potential toxicity concerns. This database is described at:
http://www.mst.dk/English/Chemicals/Substances_and_materials/QSAR/. The States recognize that if real data exists, it should be used; however, for those numerous instances where no data can be found, QSARs provide a valid resource for identifying potential toxic chemicals. EPA can then use its authority under TSCA to obtain data for those chemicals identified as priority chemicals using QSAR data. None of these sources appear in the document. The States, however, were pleased to see that EPA is making use of the extensive product analysis work conducted by the Danish Environmental Protection Agency as an indicator

of presence in consumer products to which children are potentially exposed. Washington State made extensive use of this information during its prioritization process and found it very valuable.

4. The States agree with the emphasis this effort has placed upon children's health issues, PBT chemicals and carcinogens. One serious concern, however, is there appears to be little emphasis upon impact of chemicals upon the environment. Many toxic chemicals have been controlled or banned because of their impact upon wildlife including fish, birds, and several mammal species. Although the States concur with a process that prioritizes chemicals based upon the three concerns identified, we recommend that EPA include ecological impacts in its assessment of the broader list of chemicals. Priority can be given to the chemicals which impact children's health, or are PBTs and carcinogens; however, identification of chemicals that have impacts outside those three toxicity criteria can also prove extremely useful to businesses interested in selecting safer alternatives to toxic chemicals currently in use.
5. States have done considerable work in the area of chemical selection and prioritization and it is recommended that EPA review and coordinate with states on this work before beginning its selection and prioritization process. Washington State, for example, generated a list of both high priority chemicals and chemicals from potential exposure sources for implementing its Children's Safe Product Act. The Washington process is available on the Internet at:
<http://www.ecy.wa.gov/programs/swfa/rules/ruleChildPilotPhase.html>. The creation of the high priority chemical list was also documented in a scientific journal by Stone and Delistraty. A copy of the paper is available at:
http://www.dtsc.ca.gov/PollutionPrevention/GreenChemistryInitiative/upload/GRSP_EIER_Exposure.pdf.

The State of Maine also created a list of priority chemicals using a similar process available at:
<http://www.maine.gov/dep/oc/safechem/index.htm>. A similar list was generated by Minnesota:
<http://www.health.state.mn.us/divs/eh/hazardous/topics/toxfreekids/index.html>.

The Interstate Chemicals Clearinghouse has compiled the state lists at a single source available at:
<http://www.newmoa.org/prevention/ic2/projects/index.cfm>. A further source of information is the Public Library of Materials (PLuM) created by the University of California at Berkeley. PLuM pulls together an updated list of priority chemicals similar to those created by the individual states. This information is available at: <http://bcgc.berkeley.edu/databases>.

The States recommend that EPA review this work and build upon efforts already completed by several organizations rather than tread ground already covered by the states.

Specific comments:

Step 1 (a) Prioritization Factors and discussion Questions for Input:

Comment 1: The first bullet identifies chemicals '*...potentially of concern for children's health (e.g., chemicals with reproductive or developmental effects.*' It may be implied in the language but we recommend that the language be defined as broadly as possible to include all impacts on children and females and males of reproductive age from before conception, during development and throughout the full human lifecycle. This should include multigenerational impacts that are becoming more of a concern as the long-term impacts of

chemicals upon human health are studied. Potential chemical impacts on female and male fertility have a direct impact upon reproductive effects. Again, this may be implied in EPA's definition of developmental and reproductive toxicity; however, it is preferred that the language be included here to better define the scope and to make it clear that chemicals impacting the parents and subsequent generations will also be included with those impacting the child. While prenatal exposures/effects may be included within the children's health factor, they warrant special consideration and it would be useful to either make it a separate factor, or to specify it within the children's health factor.

Comment 2: As mentioned in a general bullet above, the States recommend EPA include environmental toxicity, both acute and chronic, as criteria in the identification of priority chemicals. Chemicals impacting the environment are often indicators of potential impacts to humans and they can have lasting impacts upon humans through numerous pathways including decreasing species diversity, reduction in important food species (salmon, for example) and other impacts. Although the States agree with the prioritization given, these factors should be included in the evaluation process. It may be that EPA is considering some of these impacts as EPA's ECOTOX (ecological toxicity) database is listed in Table 3 of the proposal. However, ecological toxicity is not mentioned as a hazard criterion in the scoping document.

There are also other ecological chemical priority lists that could prove useful, such as those for contaminated sediments and soils. For instance, EPA Region 10 has a list of 18 or 19 sediment contaminants. In addition, EPA's work on Ecological Risk Assessment Screening Benchmarks is a useful data source for assessing chemicals from an ecological impact perspective:

<http://www.epa.gov/region5superfund/ecology/html/screeningbench.html>. Another EPA resource for screening chemicals based on ecological hazards (besides ECOTOX) is ECOSAR (Ecological Structure Activity Relationships), which is a computerized predictive system that estimates aquatic toxicity for various chemicals: <http://www.epa.gov/oppt/newchems/tools/21ecosar.htm>.

Comment 3: The States also recommend that EPA include sensitization information, particularly for the skin, eyes and respiratory system to the criteria used to identify chemicals for prioritization. As mentioned previously, the States agree with the emphasis currently laid out in the proposal; however, sensitizing chemicals can cause severe impacts in a very small portion of the population and can have a major impact on a child's quality of life. In addition, childhood allergies and respiratory problems such as asthma are on the rise and may be related to sensitizing chemicals. As with ecological toxicity, sensitizing chemicals should be identified and added to the list of priority chemicals even if they are not the first group of chemicals to be tackled under this program.

Comment 4: We recommend the addition of chemicals identified as potentially contributing to the development or progression of highly prevalent diseases such as diabetes or cardiovascular disease. For example, a recent Finnish study has found a link between a pesticide currently in commerce and diabetes. Because such diseases, although complex, are such a significant public health burden, there could be a high yield of benefit if population exposures are reduced.

Comment 5: We recommend adding chemicals detected in environmental media such as air, water, soil, and biota to the factors considered for prioritization. The only factor currently listed related to measured exposures is data from biomonitoring programs. These data are limited to a specific subset of chemicals. Since we all

breathe air, drink water, and eat food (including sport caught fish), we are exposed to many more chemicals than are measured in biomonitoring programs. California has an extensive air monitoring network, and measures water contaminants throughout the state routinely. Other states have these types of data available as well.

Step 1 (b): Data Sources, Table 1

Comment 6: Under the PBT category, the States recommend that EPA add the OSPAR (Oslo-Paris Convention) list of PBT chemicals. As the OSPAR list was developed to protect the environmental quality of the North Sea subjected to oil drilling, the list prioritizes impacts of specific chemicals upon environmental impacts and not human. Given the States' recommendation to include environmental toxicity as a criterion, this source is appropriate. Information on the OSPAR list of chemicals can be found at:

http://www.ospar.org/content/content.asp?menu=00200304000000_000000_000000. EPA may also wish to consider adding a recent list of priority persistent pollutants identified by Oregon to the list of sources. The list can be found at: <http://www.deq.state.or.us/wq/sb737/docs/P3LReportFinal.pdf>. In addition, EPA does not include Washington PBT list. Although there may not be any unique chemicals in this compared with those already identified, it would be good to add for completeness. Washington's PBT list can be found at: <http://www.ecy.wa.gov/pubs/wac173333.pdf>.

Comment 7: As mentioned previously, the States recommend EU data be included in this evaluation. For example, the EU is generating a SVHC list that includes PBT criteria including chemicals that are very persistent and very bioaccumulative (vPvB). This and any other appropriate EU source should be added to the list. The SVHC list can be found at:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

Comment 8: In the Potential Children's Health Concern category, we also recommend that EPA include the list of endocrine disrupting compounds identified by the OSPAR Commission. OSPAR has identified approximately 31 compounds, based upon their evaluation, that function as endocrine disruptors. The States recommend EPA review this information and, if applicable to the prioritization process, these EDs be included as potential priority chemicals. The link to the OSPAR site was provided in a previous comment. As another potential source of endocrine disrupting compounds, the Institute for Environment and Health's (IEH) lists of EDs could be useful:

<http://www.cranfield.ac.uk/health/researchareas/environmenthealth/ieh/ieh%20publications/w20.pdf>. We also recommend that data from the National Children's Study, when available, be included. This study, performed in partnership with both NIH and EPA, will collect both exposure data and biomonitoring data in children from birth through age 21 in 105 locations. A general description of the study is available at: <http://www.nationalchildrensstudy.gov/about/overview/Pages/ga.aspx#conducted>.

Comment 9: In the Factor 'Children's Product Use', the States suggest EPA also consider other sources of information on product testing including work done by environmental groups concerned with toxic chemicals. For example, the Environmental Working Group (EWG) has databases on cosmetics and sunscreens. Another organization, Healthystuff.org, has done sampling on children's products and provides the results of their evaluation. Washington State reviewed the EWG's database on cosmetics and found it broader and more current than the National Library of Medicine's Household Products Database. EPA would need to review the

process and evaluate the data to reach its own conclusion of whether or not these sources are pertinent to the prioritization effort. The States recommend they be considered for this process. Links to the two are:

EWG: <http://www.ewg.org/skindeep/>

HealthyStuff.org: <http://www.healthystuff.org/departments/toys/>

Step 2: Select Priority Chemicals, Table 2

Comment 10: Use and Exposure data that are provided by manufacturers to authoritative bodies, such as States, should be included as data sources in Table 2. Maine's notifications from manufacturers on priority chemicals are due in October of this year. Washington will receive notifications on its chemicals of high concern to children by August of 2012. These notifications will provide use and exposure data. In addition, states recommend EPA coordinate closely with states and local governments to determine if there are additional data available that have not been shared with EPA. For example, Washington State is currently sampling children's products for chemicals and classes of chemicals identified in its list of chemicals of high concern to children. Washington State and California also routinely samples environmental media for toxic chemicals throughout the state. This information may only be available by contacting the states directly. Although there may not be any chemicals outside of what is in EPA's initial list, the States recommend EPA work closely with interested states and local governments to obtain any state specific data, which might help with the Step 2 process.

Step: Select Priority Chemicals, Table 3

Comment 11: The Hazard Data Sources table (Table 3) lists EPA WQ criteria and EPA drinking water standards. The chemicals on these lists are a relatively small fraction of the TSCA universe. It would be beneficial to use other non-regulatory benchmarks or guidance values that have been developed, such as USGS' Health Based Screening Values (HBSLs) that provide drinking water values for toxic chemicals not addressed by EPA's standards: <http://infotrek.er.usgs.gov/apex/f?p=HBSL:HOME:1227371948795914>.

Comment 12: Several states, including California and Minnesota, have programs which conduct health effects assessments of chemicals. These programs have both public review and peer review components. These states' resources should be listed in Table 3 as sources for hazard data for screening chemicals. California has health effects assessments and quantitative risk assessments for chemicals in air (available at http://www.oehha.ca.gov/air/hot_spots/index.html) and water (available at: <http://www.oehha.ca.gov/water/phg/index.html>), as well as documents related to assessing carcinogens and reproductive toxicants under California Proposition 65 (available at: <http://www.oehha.ca.gov/prop65.html>). Soil screening values can also be found at <http://www.oehha.ca.gov/risk/soil.html>.