



ASARCO

**Director
Environmental Services and Compliance Assurance
Environmental Affairs Department**

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BY E-MAIL TRANSMITTAL (info@ccemtl.org)

Mr. William V. Kennedy
Executive Director
Commission for Environmental Cooperation
393, rue St-Jacques Ouest, bureau 200
Montréal (Québec)
Canada, H2Y 1N9

RE: Comments on the March 2004 draft report *Taking Stock: A Special Report on Toxic Chemicals and Children's Health in North America*

Dear Mr. Kennedy:

ASARCO Incorporated (Asarco) is pleased to submit comments on the March 2004 draft report entitled "Taking Stock: A Special Report on Toxic Chemicals and Children's Health in North America" (Report) prepared by the North American Commission for Environmental Cooperation (CEC).

Asarco is an integrated domestic producer of primary refined copper and associated co-products, with mines and a smelter in Arizona and a refinery in Texas. In addition Asarco operates a plant in Colorado that produces specialty chemicals and high-purity metals and alloys. Asarco has been filing Toxic Release Inventory (TRI) reports for its manufacturing facilities since 1987 and for its mining activities since 1998.

Asarco supports CEC's objective of promoting the public's understanding of issues relating to the release of toxic chemicals, especially those characterized as carcinogenic, developmentally toxic or neurotoxic, and shares CEC's interest in children's health in North America and society's responsibility to adequately assess, prevent and reduce risks to children's health. However, in order to do this, it is necessary to characterize

chemicals for their health effects based on the best scientific information available and to properly portray exposures and risk.

Asarco is a member of the North American Metals Council (NAMC) and supports comments being submitted by NAMC and its members, including the Copper Development Association (CDA) and American Zinc Association (AZA).

Asarco feels that the Report has serious shortcomings relating to the characterization of chemicals with respect to health effects and the use of pollutant release and transfer registers (PRTR) data.

A. Characterization of Chemicals: Carcinogenicity, Developmental Toxicity and Neurotoxicity

Asarco's concern relates to the reliance of the CEC report for the identification of developmental toxicants and neurotoxicants on the "Scorecard" website compiled by Environmental Defense (ED or Scorecard). ED's list of chemicals is based on information derived from various sources, only one of which (the Proposition 65 list of reproductive/developmental toxicants) is based on a structured evaluation by organizations charged with making such assessments.

One particular concern is the classification of copper as a known or suspected developmental toxicant. This is particularly troubling because the latest Toxicological Profile for Copper (September 2002, Draft for Comment) states the following:

"No studies were located regarding developmental effects in humans and animals following inhalation exposure to copper."

"We do not know if copper can cause birth defects or other developmental effects in humans."

"There are limited data on the developmental toxicity of copper in experimental animals." Asarco is aware of no such data for humans.

As noted in comments being submitted by CDA, the Scorecard relies on outdated toxicity information for ingestion and inhalation of copper. The ingestion value cited is for the onset of nausea from ingesting copper in drinking water and not for any developmental effects. Similarly, the inhalation value that is cited is based on occupationally-related metal fume fever from a mixture of metals, not reflecting any developmental effects.

The ED Scorecard and the Report do not account for the ability of biological organisms to regulate copper or that copper is an essential trace element that is necessary for maintaining good health, and without which illnesses could occur. The World Health Organization has noted that, worldwide, copper deficiency is a greater problem than copper excess. Similarly, there is no acknowledgement of the essentiality of zinc for

children. As stated in comments being submitted by AZA, “ zinc deficiency - not toxicity - is central to both poor diets and deaths from low birth weights.”

Also, as AZA notes in its comments, the designation of zinc and its compounds being characterized as a “suspected neurotoxicant” is based on two very specific low-volume zinc compounds.

B. Release and Transfer Data

As acknowledged on Page 23 of the Report, shortcomings of pollutant release and transfer registers (PRTR) data are that they do not provide:

- information on toxicity or potential health effects of chemicals
- information on exposures to humans or the environment from chemicals released or transferred.
- information on risks from chemicals released or transferred.

Our comments with respects to toxicity information have been discussed in the previous section.

The Report ranks chemicals (and individual facilities) in terms of total quantities released and transferred. The ranking in terms of total releases and transfers can provide an incorrect picture of which chemicals are of the greatest concern to children’s health. This is because of the presumption that all chemicals designated as carcinogens, or developmental toxicants or as neurotoxicants, present the same risk for a given level of exposure. This is clearly not the case, since there is difference amongst the potency of chemicals. Another deficiency arises from the fact that metals are listed as a single category in the TRI program. As noted in the previous section all zinc compounds are regarded as “suspected neurotoxicant,” based on assessment of two low-volume zinc compounds.

Also, the U.S. Environmental Agency (EPA) notes on its TRI website, TRI data reflects *releases* and not *exposures* of the public to the chemicals released. Total releases do not provide information on whether the releases are to air, water or to land, or the form in which the chemical is present, or the likelihood of exposure. The Report acknowledges the air pathway as posing the greatest concern and notes that children are particularly vulnerable to air pollution. . EPA regards metals contained in solids stored on site as a release of all metal constituents in the year in which it was produced and not reflective of actual release to the land. Therefore, TRI land releases greatly exaggerate the potential exposure. In order to properly evaluate exposure to the public, it is necessary to consider the fate and transport of the chemical. For this reason, and for those cited above, PRTR data can really only serve as a first step in assessing exposure and risk.

Asarco is encouraged by the Secretariat's stated intention of conducting science review of the draft report but would like to emphasize the need to reevaluate the analytical approach and the methodology used to assess the impact of releases of toxic chemicals on children's health.

Sincerely,

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