

April 13, 2005

To: Mr. William V. Kennedy
Executive Director
Commission for Environmental Cooperation

From: George F. Vary
Executive Director
American Zinc Association

Re: Reply to Comments of Environmental Defense on Draft Report, "Taking Stock A Special Report on Toxic Chemicals and Children's Health in North America"

The American Zinc Association, with members in the U.S., Canada and Mexico, has just become aware of the letter to you from John Balbus of Environmental Defense regarding the above-referenced draft ("ED letter").¹ Even though the ED letter was filed months after the deadline for comments on the Draft, in the event that any consideration is given thereto AZA submits this brief reply and requests its inclusion in the record and publication on CEC's website.

I. As to Essentiality, the ED Letter Totally Misreads Comments on the Draft

The ED letter (at 3) states that "[s]ome commenters complain that some of the substances included on the suspected toxicants list, such as manganese, copper, and zinc, are essential trace elements in the human diet." That simply was not the substance of zinc comments. What was clearly stated was not that essential elements should have been exempt from listing, as the ED letter would read the comments, but, rather, that the Draft totally ignored the essential nature of metals such as zinc, and this silence posed health risks to children,

AZA's Comments plainly said:

"[T]he Draft itself may exacerbate what is a real public-health problem in children—zinc deficiency—by frightening parents into withholding needed dietary zinc from children." (at 1).

"The Draft can be searched wholly in vain for even a hint that zinc is an essential nutrient for children." (at 3).

"A recent study estimates that 459,000 children under five years of age who die annually worldwide could be saved with zinc supplementation. Again, nowhere in the Draft is anything about zinc saving children's lives mentioned, or even hinted." (at 3-4).

¹ All references herein shall be the same as those in the comments of AZA originally filed with respect to the Draft on May 11, 2004 ("AZA Comments").

Comments of the Government of Canada are to precisely the same effect:

“Language should be inserted in the report to ensure the appropriate public health message remains, which is that pregnant mothers and young children must have sufficient levels of...zinc in their diets to avoid developmental deficiencies.” (at 10).

So, too, did the U.S. Government’s comments note this failing in the Draft:

“We recommend inclusion of a statement to indicate that while toxic chemicals released in the environment include metals, some of these metals are considered to be essential elements in the diet. A dietary deficiency would cause similar detrimental effects on the health of children, including the developing fetus....The statements relating to dietary intake will help send an appropriate public health message....” (at 14).

Thus, the ED letter’s central thesis—that some complained merely about essential metals’ presence in the Draft—is demonstrably wrong.

II. The ED Letter Fails to Address the Draft’s Critical Inconsistencies With the Scorecard

Central to AZA’s position was that the Scorecard did not list zinc and most zinc compounds anywhere as a suspected neurotoxicant, while the Draft--based on the Scorecard-- listed zinc and its compounds as the largest suspected neurotoxicant.. See AZA Comments at 1-2. The U.S. Government’s comments, again, agreed with AZA:

“There also appears to be some inaccuracies in the translation of the Score Card lists of chemicals to the PRTRs used in the report. For example, in some cases, the report references a chemical and its compounds, but the Environment Defense Score Card List references only a subset of all compounds considered.” (at 3).

The ED letter, while doggedly defending the Scorecard, never mentions this essential point raised by AZA, and, thus, apparently concedes the validity thereof.

III. The ED Letter’s Reliance on ATSDR is Strange – ATSDR Supports AZA!

Attempting to breathe life into the Draft and the Scorecard with respect to zinc, the ED letter (at 3) makes vague references to some evaluation from the University of Tennessee and the ATSDR. These citations, however tenuous, add nothing to the Draft.

First, neither the University of Tennessee nor the ATSDR is cited in the Scorecard as a source for including zinc or any zinc compound in the Scorecard. Of course, the Draft states that its lists of neurotoxicants and developmental toxicants were prepared from the Scorecard, and nowhere else. Therefore, these after-the-fact citations were not used in the Scorecard, and they can provide no support for the resultant Draft.

Second, rather than taking the ED letter's subjective interpretation of ATSDR's findings, here's what the ATSDR Toxicological Profile for Zinc specifically has to say:

"Zinc is essential for proper growth and development of young children. Mothers who did not eat enough zinc during pregnancy had a higher frequency of birth defects and gave birth to smaller children (lower birth weight) than mothers whose zinc levels were sufficient. Very young children who did not receive enough zinc in the diet were smaller, both in length and in body weight, than children who ate enough zinc." (at 5).

"Available studies have not presented evidence of ...developmental effects in humans or animals following inhalation of zinc compounds." (at 12).

"No studies were located regarding developmental effects in humans or animals after inhalation exposure to zinc." (at 32).

"No studies were located regarding the potential of zinc to cause developmental effects in humans after inhalation or dermal exposure." (at 101).

"While a detailed discussion of zinc deficiency is beyond the scope of this document, there is considerably more information on the effects of zinc deficiency on the developing fetus in pregnant women than exists for the effects of excess zinc during pregnancy. Maternal zinc deficiency can result in intrauterine growth retardation, teratogenesis, or embryonic or fetal death...Zinc supplementation during pregnancy is usually sufficient to prevent these outcomes. Similarly, zinc deficiency during early life can result in adverse effects, including skin rash, diarrhea, anorexia, and growth failure, with more severe instances resulting in detrimental effects on the immune and nervous system...infants appear to be particularly sensitive to zinc deficiency." (at 85).

In essence, ATSDR mirrors the AZA Comments and those of Dr. Barbara Levine on the critical need of the fetus and young children for zinc, as well as supporting the proposition that zinc deficiency—not toxicity—is by far the larger health problem.

IV. Conclusion

The ED letter adds nothing to, nor certainly in any way detracts from, the comments previously submitted by AZA, fails to address central AZA points, and embraces a study by ATSDR that, in fact, supports AZA's position.