The Aluminum Association
Incorporated
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BY EMAIL TRANSMITTAL (info@ccemtl.org)

June 4, 2004

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 draft report *Taking Stock: A Special Report on Toxic Chemicals and Children's Health in North America.*

Dear Mr. Kennedy:

The Aluminum Association represents over 80 producer and supplying members to the aluminum industry in the United States, representing over 200 plants in primary production, secondary recovery. fabricating and manufacturing. We are interested in the draft report, *Taking Stock: A Special Report on Toxic Chemicals and Children's Health in North America.* Although we share the goals of the report to insure that society is adequately assessing, preventing and reducing risks to our children's health, we do not believe that the draft report presents a positive effort in that regard.

The Aluminum Association concurs with numerous manufacturing groups and the North American Metals Council which find the use of EDF Scorecard classifications of toxicity to be problematic. Specifically, The Association disagrees with the toxicity classification of Hydrogen Fluoride as a neurotoxic and developmental toxicant. Hydrogen Fluoride, is not classified as such by the US CDC in their Toxological Profile, released in 2003 by ATSDR. The toxicity of Hydrogen Fluoride has been studied extensively, and is currently understood to have primary human health effects as a respiratory irritant and, at extremely high exposure levels (well above the current occupational exposure level of 2.0 mg/m^3), lung and heart damage. Virtually all the toxicity data available for fluoride in respect to children's health is related to fluoride exposure from drinking water, and has no relevance to the evaluation of children's health effects resulting from air exposure to HF.

The Aluminum association has supported research efforts to identify any possible health effects resulting from exposure to aluminum. Please review attachment 1, *Aluminum and Health: A Review of the Issues, the Efforts, and the Knowledge*, for a comprehensive review of the literature on this issue. The Association is unaware of any research at this time which implicates aluminum as developmental toxicant in children.

No causal relationship has been found between aluminum and Alzheimer's Disease (AD). The World Health Organization and both the Alzheimer's Society of Canada and Alzheimer's Association (U.S.) find that the overwhelming medical and scientific opinion is that the research carried out to date does not demonstrate a causal relationship between aluminum and Alzheimer's Disease. As stated in one recent study, "The aluminum hypothesis for AD was first advanced before the current explosion of basic scientific and epidemiological information on the causes and associations of the disease and, in the opinion of most observers, in increasingly peripheral to the main areas of advance in understanding."[1] Further, Aluminum Oxide (Alumina and its fibrous form) is an extremely insoluable aluminum containing compound, and as such, is highly unlikely to result in a neurotoxic health effect. The form of exposure that the public might have to aluminum resulting from the release of Aluminum Oxide is entirely ignored when a correlation is made between the majority of health studies and aluminum oxide. . Studies on aluminum neurotoxicity have routinely focused on soluble Al^{+3} salts and no studies have demonstrated any relation between aluminum oxide and neurological effects.

We support the statements provided on April 30 by C. Van Houtte, President, Aluminium Association of Canada concerning consideration of aluminum substances, as listed in the report, as Suspected Human carcinogens and neurotoxins. The AAC letter points out that some patients with kidney failure, undergoing dialysis, developed a specific neurological condition, called dialysis encephalopathy.

> *This condition was associated with exposure to aluminum in the dialysis fluid combined with long term medical use of aluminum compounds for phosphate removal. It has been demonstrated that this condition is both clinically and pathologically absolutely different from those of Alzheimer's Disease and can be avoided by controlling aluminum intake in these individuals. These are patients who have no useful kidney function. Even natural substances like sodium, potassium and urea accumulate in their bodies to life-threatening levels because they are unable to excrete them normally. These substances, too, exert severe neurological symptoms.*
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> *A few studies suggest that, over a lifetime of working as aluminum welders, without breathing protection, some individuals developed symptoms that may be linked to the aluminum exposure.*
> *Other studies found no such effects. The U.S. Agency for Toxic Substances and Disease Registry refers to cases of brain and bone disease (acquired through dialysis) in children with kidney disease, as well as bone disease in children taking some medicines containing aluminum. Children with kidney failure undergoing dialysis are in very bad medical condition, where normal body functions are no longer working,*

[1] E. Storey and C.L. Masters, "Amyloid, Aluminum and the Aetiology of Alzheimer's Disease," Medical Journal of Austrailia, 256-259 (1995).

The Association further concurs with ACC's comments concerning the use of EDF data.

> *Your report indicates that the lists were compiled by Environmental Defense, from 'government and academic sources'. There is no indication, however, that any consideration was given by Environmental Defense to the reasons for which the substances were listed, nor the research on which the listings are based. In addition, no information is provided indicating when the lists used to generate the Environmental Defense report were last reviewed for scientific accuracy and currency – e.g. the ATSDR final report on Aluminum was made in1999 and states a specific minimum risk level of 2 mg/Kg/Day – oral intake. In the absence of such considerations, linkage of aluminum fume and dust or aluminum oxide to children's health, rather than informing, could seriously mislead the public about risk to health causing unnecessary anxiety and undue personal health concerns. It is of note that the Joint FAO/WHO Expert Committee on Food Additives established, in 1989, a Provisional Tolerable Weekly Intake for aluminum of 7 mg/kg body weight / week.*

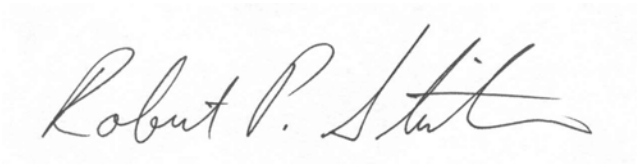
Prior to publication of the report, we request an opportunity to review the studies on which the decisions related to inclusion of aluminum fume and dust and aluminum oxide are based, to understand how these substances could have any relevance to children's health.

The "Taking Stock Report" also relies on an inappropriate use of Toxic Release Inventory (TRI) data to address potential risk. In characterizing the substances by way of tabularizing the largest releases and transfers of 'carcinogens, neuro-toxicants and developmental toxicants', there is no consideration in the report of the mode of the release and its potential for exposure to children or the public. As a result, 'releases' of substances by transfers to recycling centers or to proper waste disposal centers is essentially considered equivalent to atmospheric releases in assessing potential risk. The totaling of all transfers and releases of substances results in a biasing in the report to indict many metals and metal compounds as health risks without regard to the large scale recycling and waste disposal transfer programs that prevent potential exposures to the public. We believe that the report should reassess release data to account for the type of release and to better address potential exposure pathways, rather than focusing on gross aggregated TRI data for risk prioritization.

In light of the dramatic flaws in the draft report, and the need for a complete reanalysis of the methodologies and data for assessing children's health risks, we request opportunity to comment on revised drafts of the CEC "Taking Stock" report before it is made final. In our view, extensive revision of the draft report is necessary, requiring a subsequent review and comment period.

Please contact my office if you have any questions (202 862-5132 or bstriete@aluminum.org).

Sincerely,



Robert P. Strieter
Vice President
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