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AIRBORNE LEAD REDUCTION ACT OF 1984

HEARING
BEFORE THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
NINETY-EIGHTH CONGRESS

SECOND SESSION

ON

S. 2609

A BILL TO AMEND THE CLEAN AIR ACT WITH REGARD TO MOBILE
SOURCE EMISSION CONTROL

JUNE 22, 1984

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I would therefore like to ask Senator Durenberger to make any remarks he cares to at this time before we bring up our first witnesses.

Senator Durenberger.

**OPENING STATEMENT OF HON. DAVE DURENBERGER, U.S.
SENATOR FROM THE STATE OF MINNESOTA**

Senator DURENBERGER. Mr. Chairman, I want to thank you for scheduling this hearing. As you have indicated, when the committee considered the Clean Air Act Amendments of 1984, I offered an amendment to ban the sale of leaded gasoline and subsequently introduced legislation to accomplish the same end.

Although the committee at that time was not prepared to report a ban, I am counting on this hearing to build some momentum that will ban lead at the earliest possible date.

Lead, as you have indicated, poisons kids—your kids and mine. So it comes as a surprise to find out that the principal source of lead in our environment is the family car. Automobiles are, in effect, high-speed aerosol cans of lead poisoning that clog up our city streets in large numbers twice a day. And the ironic thing is that automobiles don't need leaded gasoline. We won't be dumping our cars on a junk heap when we ban lead.

Although we have done a little to get the lead out, we have been doing too little for 10 years now; 45 percent of the gasoline sold in the United States today contains large amounts of lead. And it's out there because people want big engines that don't knock. It's out there because Detroit won't improve engine performance as European auto manufacturers already have done.

It's out there because alternative octane enhancers, which cost fractions of a cent more per gallon than lead, are priced at the pump 22 cents higher. It's out there because millions of Americans misfuel to save a few pennies on a gallon of gasoline. And it's out there because some refiners don't want to make an investment for public health until the marketplace for gasoline makes upgrading to unleaded an economic necessity.

We have known, Mr. Chairman, for hundreds of years that lead is toxic. Some historians attribute the fall of the Roman Empire to the lead content of wine and its use in unglazed pottery.

And there is a famous letter from Benjamin Franklin to his friend Benjamin Vaughan written in the year 1786 on the health effects of lead. Mr. Chairman, I would ask that the whole of Mr. Franklin's letter be printed in the hearing record after my comments this morning.

Senator STAFFORD. Without objection, it will be.

Senator DURENBERGER. But if I could, I would like to read one paragraph which describes what I believe to be the first legislation banning lead in this Nation.

Mr. Franklin said:

The first thing I remember of this kind was the general discourse in Boston when I was a boy, of a complaint from North Carolina against New England rum, that it poisoned their people, giving them dry bellache, with loss of the use of their limbs. The distilleries being examined on occasion, it was found that several of them used leaden still-heads and worms, and the physicians were of the opinion that the mischief was occasioned by the use of lead. The Legislature of Massachusetts thereupon

passed an act prohibiting, under severe penalties, the use of such still-heads and worms thereafter.

Now, Mr. Chairman, 200 years later, we have startling new evidence which indicates that lead, even at low levels, is far more harmful to humans than previously thought. Those who run a special risk are young children and pregnant women. In children, high levels of lead affect the central nervous system, causing irreparable brain damage, mental retardation, coma, and death. At low levels, levels found in tens of thousands of today's kids, lead causes poor performance on intelligence tests, higher incidence of speech impairment, academic failure, and a larger number of psychiatric referrals.

Studies that will be brought to the attention of the committee this morning show that children suffer lower average IQ's of 1 to 3 points at blood lead levels that are all too common in this Nation today.

We will, of course, hear other evidence and arguments. We will hear that lead is being phased out gradually, that if we just sacrifice the health of a few more children, it will be gone with a minimum of regulatory cost. And the plight of millions of old, small, and specialty engines, from Buicks to Toros to chainsaws, will be put before the committee in the hope that our love for the engine will keep us from acting one more time.

Some say that the new tiger down at EPA will surely get the lead out of our tanks—and I hope he's there for as long as it takes us to ban lead. But I haven't seen the regulation. I know the hurdles it faces when it does come out, and I remember too well his predecessor.

I am convinced that we will ban lead by an act of this Congress. I am hopeful that members of the committee and its distinguished chairman will help me find the legislative vehicle this year.

I would be glad to set up a target earlier than 1988, and I am sure that we can meet the lubrication needs of the old, small, and specialty engines without using it in quantities and vehicles where it is unnecessary.

Let me close, Mr. Chairman, with one more quote from Benjamin Franklin's letter:

This, my dear friend, is all I can at present recollect on the subject. You will see by it that the opinion of this mischievous effect from lead is at least above 60 years old; and you will observe with concern how long a useful truth may be known and exist before it is generally received and practiced on.

Mr. Chairman, it's my hope we can practice on the truth we learn today before this year is out.

[The Benjamin Franklin letter follows:]

THE FAMOUS FRANKLIN LETTER ON LEAD POISONING

"To Benjamin Vaughan

"Philadelphia July 31, 1786

"Dear Friend

"I recollect that, when I had the great Pleasure of seeing you at Southampton, now a 12 month since, we had some Conversation on the bad Effects of Lead taken inwardly; and that at your Request I promis'd to send you in writing a particular account of several Facts I there mentioned to you, of which you thought some good use might be made. I now sit down to fulfill that Promise.

"The First Thing I remember of this kind was a general Discourse in Boston, when I was a Boy, of a Complaint from North Carolina against New England Rum, that it poison'd their People, giving them the Dry Bellyach, with loss of the Use of their Limbs. The Distilleries being examin'd on the occasion, it was found that several of them used Leaden Still-heads and Worms, and the Physicians were of Opinion, that the Mischief was occasioned by the Use of Lead. The Legislature of the Massachusetts there-upon pass'd an Act, prohibiting under severe Penalties the Use of such Still-heads and Worms thereafter. Inclos'd I send you a Copy of the Act. taken from my printed Law-Book.

"In 1724, being in London, I went to work in the Printing-House of Mr. Palmer, Bartholmew Close, as a Compositor. I there found a Practice, I had never seen before, of drying a Case of Types (which are wet in Distribution) by placing it sloping before the fire. I found this had the additional Advantage, when the Types were not only dry'd but heated, of being comfortable to the Hands working over them in cold weather. I therefore sometimes heated my case when the Types did not want drying. But an old Workman, observing it, advis'd me not to do so, telling me I might lose the use of my Hands by it, as two of our Companions had nearly done, one of whom that us'd to earn his Guinea a Week, could not then make more than ten shillings, and the other, who had the Dangles, but seven and sixpence. This, with a kind of obscure Pain, that I had sometimes felt, as it were in the Bones of my Hand when working over the Types made very hot, induced me to omit the Practice. But talking afterwards with Mr. James, a Letter-Founder in the same Close, and asking him if his People, who work'd over the little furnaces of melted Metal, were not subject to that Disorder, he made light of any danger from the Effluvia, but ascribed it to the Particles of the Metal swallow'd with their Food by slovenly Workmen, who went to their Meals after handling the Metal, without well washing their Fingers, so that some of the metal-line Particles were taken off by their Bread and eaten with it. This appeared to have some Reason in it. But the Pain I had experienc'd made me still afraid of those Effluvia.

"Being in Derbshire at some of the furnaces for smelting of Lead Ore, I was told, that the Smoke of the Furnaces was pernicious to the neighboring Grass and other Vegetables; but I do not recollect to have heard anything of the Effect of such Vegetables eaten by Animals. It may be well to make the Enquiry.

"In American I have often observ'd that on the Roofs of our shingled Houses, where Moss is apt to grow in northern Exposures, if there be anything on the Roof painted with white Lead, such as Balustors, or Frames of dormant Windows, etc., there is constantly a streak on the Shingles from such Paint down to the Eaves, on which no Moss will grow, but the wood remains, constantly clean and free from it. We seldom drink Rain Water that falls on our Houses; and if we did perhaps the small quantity of Lead descending from such Paint might, not be sufficient to produce any sensible ill Effects on our Bodies. But I have, been told of a case in Europe, I forgot the Place, where a whole Family was afflicted with what we call Dry Bellyach, or Colica Pictonum, by drinking Rain Water. It was at a Country-Seat, which being situated too high to have the Advantage of a Well, was supply'd with Water from a Tank, which received the Water from the leaded Roofs. This had been drunk several Years without Mischief; but some young Trees planted near the House growing up above the Roof, and shedding their Leaves upon it, it was suppos'd that an Acid in those Leaves had corroded the Lead they cover'd and furnished the Water of that with its baneful Particles and Qualities.

"When I was in Paris with Sir John Pringle in 1767, he visited La Charite, a Hospital particularly famous for the Cure of that Malady, and brought from thence a Pamphlet containing a List of the Names of Persons, specifying their Professions or Trades, who had been cured there. I had the curiosity to examine that List, and found that all the Patients were of Trades, that, some way or other, use or work in Lead, such as Plumbers, Glaziers, Painters, etc., excepting only two kinds, Stonecutters and Soldiers. These I could not reconcile to my Notion, that Lead was the cause of that Disorder. But on my mentioning this Difficulty to a Physician of that Hospital, he inform'd me that the Stonecutters are continually using melted Lead to fix the Ends of Iron Balustrades in Stones; and that the Soldiers had been employ'd by Painters, as Labourers, in Grinding of Colours.

"This, my dear Friend, is all I can at present recollect on the Subject. You will see by it, that the Opinion of this mischievous Effect from Lead is at least above Sixty Years old; and you will observe with Concern how long a useful Truth may be known and exist, before it is generally receiv'd and practis'd on.

"I am, ever, yours most affectionately,

"B. Franklin"