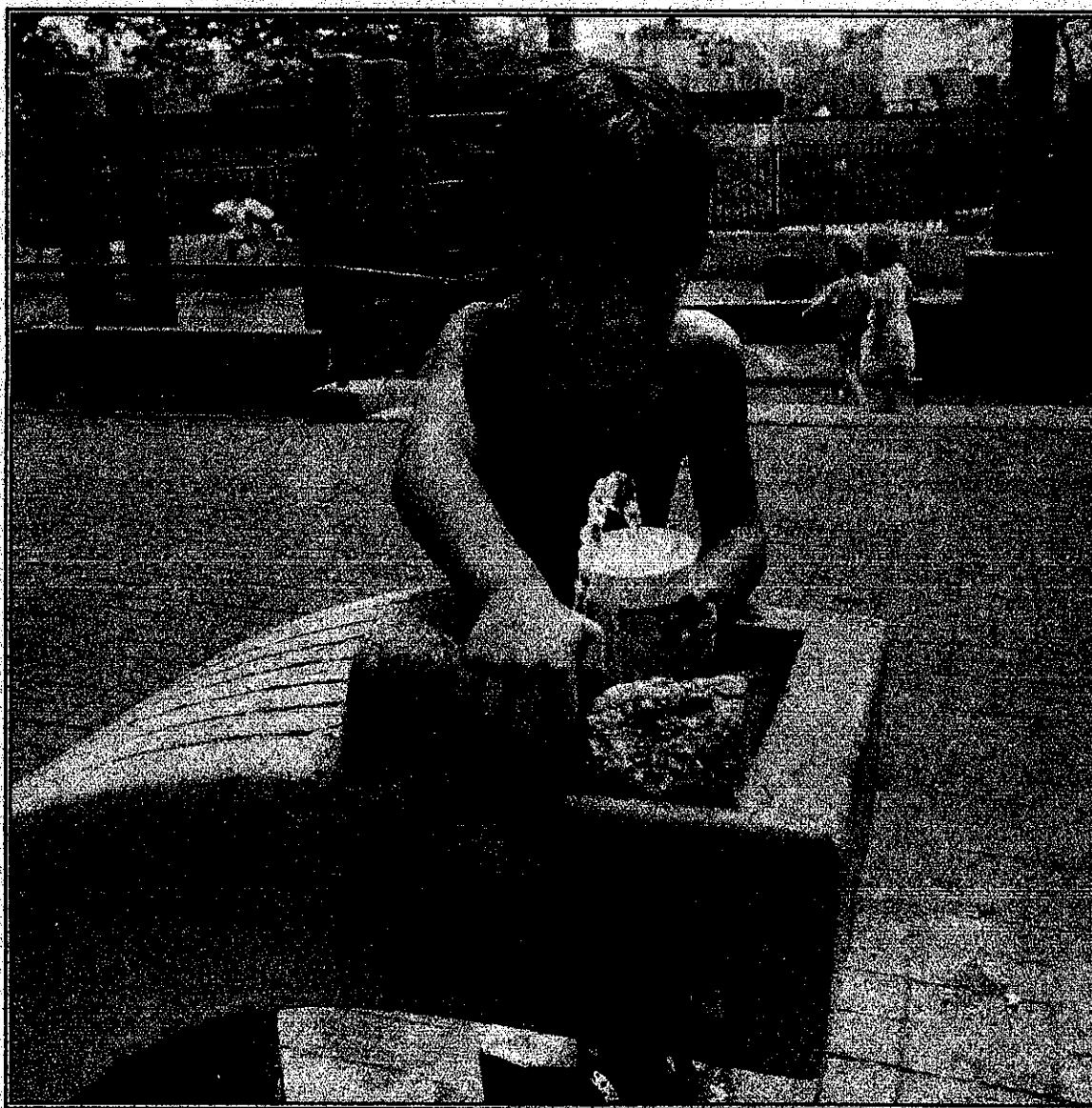


The Lead Contamination Control Act:

A Study in Non-Compliance



Natural Resources Defense Council

June 1991

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Summary

◆ Three to four million of the nation's children are burdened with toxic levels of lead in their blood. Typically, they are exposed to multiple environmental sources including paint in old housing, drinking water, ambient air, dust, soil and food. The health effects of the inhaled or ingested lead are cumulative.

◆ In 1988 Congress passed the Lead Contamination Control Act (LCCA), which directed the states to establish programs to identify and eliminate the hazard of lead in school or day care drinking water, and to include provisions for public notification of drinking water analyses. (Another focus of the Act was community programs for screening infants and children for elevated blood lead levels.) The Act required the federal Environmental Protection Agency (EPA) to compile and distribute to the states a list of lead-containing water coolers, and also to publish a guidance document for the states that would provide assistance to schools and school districts in their efforts to test drinking water from all outlets and to remediate sub-standard situations.

In this report, NRDC describes the results of a survey of 50 states and 3 territories that was undertaken in an attempt to document whether, or to what extent, the LCCA has achieved its purpose.

◆ NRDC's survey found that:

(1) Of the 50 states and 3 territories (referred to hereinafter as "53 states"), 17 reported that drinking water from one or more outlets in about 1,650 day care or other pre-school facilities had been sampled and analyzed for lead. This figure represents 0.6% of licensed child care facilities in the United States, and a mere 0.1% of the total number of facilities, which includes 1,000,000 unlicensed ones. Thirty two states had no information on day care testing and 4 states reported an "impression" that some testing may have been done. The under-five population in these latter

36 states is 14 million, of whom 3.5 million are estimated to be poor.

(2) Forty-seven states reported that school drinking water had been sampled and analyzed. However, only 4 reported sampling in 95-100% of their schools. Twenty-seven states reported sampling in 25% to 82% of their schools, and 16 reported sampling in "a few" to 25%. It was virtually the rule, moreover, that even when the number or percentage of schools testing was known, the number of sites tested, the location of the sites, and the conditions of sampling could not be accurately stated. Six states did not know whether any of their schools had tested, and 5 described their estimates as "impressions". These 11 states are home to 16 million children, or 35% of the total school age population of the United States.

(3) Thirty-three of the 47 states that reported sampling of school or day care drinking water provided lead level data. Twenty-seven of the 33 reported their results as numbers or percentages of analyses that exceeded EPA's then-recommended standard of 20 ppb of lead. Exceedances ranged from none to 90% of samples tested. Only 6 states provided numerical lead levels; of these, many individual samples contained lead in concentrations of hundreds and thousands of parts per billion.

(4) Thirty-three states distributed the well-written and useful EPA guidance manual to all their schools.

(5) Thirty-three states reported efforts at remediation, even if only in a few schools.

(6) Twenty states indicated their understanding of the public notification requirement of the LCCA.

(7) Inventories of not-lead-free water coolers, as listed by the EPA, were taken by schools in 19 states.

◆ On the whole, the nationwide assessment of lead in school drinking water that should have

been stimulated by the LCCA has not occurred; instead, the states' attempts to comply have been glaringly inadequate. Sixty-five percent of school age children reside in those states that, one way or another, made some effort to check school water for lead, but the schools and outlets tested were often minimal in number; not only were most classrooms, kitchens, corridors, and play areas left untested, but large percentages of the schools -- even in the "good" states -- were never involved in the program.

◆ An especially egregious result of this ineffective implementation of the LCCA is that the youngest children, the under-five population most susceptible to the insidious or severe effects of lead poisoning, has not benefitted from its enactment.

◆ It is clear that the purpose of the Lead Contamination Control Act has not been achieved and is unlikely to be unless the Act is amended. On the basis of the foregoing findings, NRDC recommends that amendments be enacted to:

(1) Require testing of school and day care drinking water to detect lead concentrations exceeding 5 ppb (a stringent but achievable level);

(2) Specify that certified testing laboratories be used, and direct EPA to make a list of such laboratories available;

(3) Require states to establish a program to test school and day care drinking water within a specified period of time, submit results to the relevant state agency and EPA within 60 days of testing, and make the results publicly available;

(4) Require EPA to collect and publish the state data within 1 year of enactment of the amendments; and

(5) Authorize citizen enforcement of non-compliance with the testing, reporting, and notification requirements of the Act.

It is also imperative that Congress both authorize and appropriate adequate funds to guarantee effective implementation. The millions of children at risk from lead contamination in their school and day care drinking water are a vulnerable population. As the intended beneficiaries of the Lead Contamination Control Act, they deserve far better compliance with this important health protection measure than they have thus far received.

Introduction

Lead is a heavy metal that is toxic to humans. Children are especially vulnerable because their lead burdens are more concentrated per unit of body weight, and their activities predispose them to greater exposure. Even at very low levels in the blood, subtle effects can include reduced IQ, lowered attention span, impaired hearing, and poor classroom performance. Children with higher blood lead levels may exhibit nonspecific symptoms such as headache, stomach ache, anemia, or irritability. Acute lead poisoning, now relatively infrequent, can result in stupor, coma, kidney damage, severe brain damage, or death.

There are no precise measurements of the number of U.S. children under age 6 with blood lead levels above the criterion value of 15 micrograms per deciliter (ug/dl), at which adverse central nervous system effects have been documented^[1], but a report prepared in 1988 by the Agency for Toxic Substances and Disease Registry (ATSDR) of the United States Public Health Service supports an estimate of 3 to 4 million^[2]. Most of these children, but by no means all, are the poor and socially disadvantaged.

Lead gains access to the body primarily through inhalation and ingestion. Ambient air lead levels have diminished since federal requirements mandating reduction of lead in gasoline became effective. Dust and soil continue to be significant sources of exposure because of industrial use of lead-containing products and the persistence of lead-based paint in millions of old buildings. Food is contaminated by lead in air, dust, water, and leaded containers. Drinking water is a hazard because delivery systems may contain lead in conduits, fittings, or storage vessels.

The most widespread attention has been given to lead-based paint; in the form of friable fragments that are peeled and eaten or become components of dust and soil, old paint is clearly the major key to elevated lead body burdens in children. It has become an appropriate environmental target for public health agencies, community activists, and child advocacy groups.

However, the presence of lead in the body is cumulative and every source that adds to the body burden of children must be considered a threat to their health. Drinking water is a ubiquitous contributor to the problem. In its comprehensive 1988 Report to Congress, the ATSDR noted^[3] that

Virtually all children are potentially exposed to some level of lead in drinking water.

About 3.8 million children are exposed to residential drinking water containing the proposed EPA level of 20 ug/l* or higher.

Children under six years old and exposed to lead in residential drinking water at levels high enough to result in toxic Pb-B [blood lead] levels number 241,000

Children of school age have potential exposure to lead in drinking water in school buildings. Numbers cannot be estimated at this time.

In addition to children of school age, as many as 10 million children below school age now attend day care centers, family care centers, preschools, and prekindergartens where they too

* 1 ug/l (microgram per liter) may be expressed as 0.001 mg/l (milligrams per liter), or more usually as 1 ppb (part per billion).

"have potential exposure to lead in drinking water" in their respective facilities. These exposures add to the lead they may ingest with their home drinking water. The problem is exacerbated by the fact that lead in drinking water is absorbed more completely than lead from other sources, especially when the water is drunk between meals or on an empty stomach.

To date, Congress has acknowledged the lead problem by enacting laws that control lead in paint, ambient air, hazardous waste, and drinking water. Unfortunately, the laws have been largely overdue, inadequate, under-funded and poorly enforced, and the regulations have been halfheartedly administered and implemented. A recent illustration of this less-than-aggressive approach to addressing the lead problem, and the subject of this report, is the Lead Contamination Control Act of 1988 (Appendix A).

The LCCA was an amendment to the Safe Drinking Water Act of 1974; its sponsors hoped to eliminate health hazards to children posed by the presence of lead in their schools' drinking water by directing the states to establish programs to identify and remove the lead. According to an informational flyer published and widely distributed by the EPA^[4], the unit of the federal government responsible for its implementation, the LCCA requires:

The identification of water coolers that are not lead-free. The repair or removal of water coolers with lead-lined tanks. A ban on the manufacture and sale of water coolers that are not lead free. The identification and resolution of lead problems in schools' drinking water. The authorization of additional funds for lead screening programs for children.

The law's programs and provisions are intended to affect:

Secondary and primary schools, kindergartens and day care centers. Water cooler manufacturers and distributors. Federal, state and local agencies.

Mandatory language in the Act includes a directive to EPA "to publish guidance to assist schools, local education agencies, and day care centers in discovering the levels of contamination in drinking water coolers and taking actions to reduce contamination." (§1464(b)). The Act also requires EPA to publish a list "identifying the brands and models of water coolers that are not lead free." (§1463(a)). Further, the LCCA directs the Consumer Product Safety Commission (CPSC) "to issue an order requiring manufacturers and importers of coolers with lead lined tanks to either repair the coolers, replace the coolers, or recall the coolers and provide a refund to the owners." (§1462). The law also prohibits the "future manufacture and sale in interstate commerce of any water cooler that is not lead free." (§1463(b)).

Purpose of the Survey

In addition to the mandatory language cited above, the LCCA also charges the states "to complement the EPA guidance document and testing protocols [by providing] a list of qualified laboratories so that school authorities and the general public can test their tap water for lead"^[5], but it does not explicitly require that testing be done or that certified laboratories be used. Since funding for state activities (with respect to the testing and remediation of drinking water) was only authorized but never appropriated, many states have interpreted the testing and

remediation program provision of the LCCA as merely hortatory and encouraging. The purpose of NRDC's survey, therefore, was to determine the extent to which compliance with the intent or even the spirit of the Act has been achieved during the two and a half years since it was enacted.

How the Survey was Conducted

Following enactment of the LCCA, the governor of each state and territory was asked by the Regional EPA Administrator to designate a state agency and officer to administer the LCCA and to advise the regional office of the appointment. The Federal EPA provided NRDC with the list of officers and agencies.

In June 1990 NRDC wrote to the designee in each state and 3 territories (the District of Columbia, Puerto Rico, and the Virgin Islands, which hereinafter shall be included in references to "53 states")^[6], requesting

information on the programs and activities that have been established and carried out by your agency pursuant to the Lead Contamination Control Act, 42 U.S.C. §300j-24(d). Specifically, [NRDC is] interested in knowing about the activities carried out by your office concerning lead in drinking water, materials distributed by your office to public schools, private schools, and day care centers, and any testing for lead in drinking water that has been done by your agency, any other agency, or any school in [the respective state].

NRDC also wrote to the ten EPA Regional Administrators requesting information that had

been returned by the states to their offices^[7]. (The other territories will be referred to separately, below.)

About 40 states replied during the summer of 1990; the responses varied from terse to expansive. The non-responding states were contacted a second time. Telephone calls were made in some instances to clarify responses. In due course and to varying degrees the 53 states and ten regions had some degree of contact with NRDC.

In addition to direct responses from the states and from the EPA regions, information about compliance was available from third and fourth sources. The third was EPA's quarterly LCCA Questionnaire Summary^[8], in which data are presented for all the states and some territories. For the present survey the Questionnaire Summary dated November 16, 1990 (the most recent one through April 1991) was used; information in the Summary is tabulated under the following headings: Implementation, Legal Requirements, Manual Distribution*, Seminars/Training, Who is Testing, Case Histories, # of Schools Testing, and Regional Plans. (The Questionnaire for daycares is slightly different.)

The fourth source was the EPA Inspector General's audit^[9] of the Lead in Drinking Water Program as administered by the Office of Drinking Water in EPA Headquarters and Region III, and EPA's response to it.^[10] The five states in Region III are DE, MD, PA, VA, and WV. (Abbreviations for states are listed in Appendix C.) Although the District of Columbia is in Region III, it was not included in the Report.

* The excellent EPA document entitled Lead in Schools' Drinking Water.

All available information was tabulated, and the entry for each state was sent to that state's responsible officer with a request for corrections and/or additions^[11]. The 34 responses to this request were as varied as the original ones in that they ranged from careful updating and amplification to return of the data sheet initialled and without comment. The substance of each response was incorporated into Table I.

Results

Table I presents in alphabetical order the data for 53 states that were extracted from the sources described above.

Responsible State Agencies

Inspection of the entries indicates that responsibility for administration of the LCCA was vested in a variety of agencies and combinations of agencies that deal administratively with health, environment, education, human resources, natural resources and/or social services (Appendix B).

There was no discernible connection between the kind of agency or agencies that had been designated and a state's effectiveness in administering the Act. Division of responsibility did sometimes appear to result in absence of responsibility or at least uncertainty about where it resided. For some states the imposition of new and expanded tasks unaccompanied by new and expanded funding was daunting; on the whole, though, retrieval of useful information did not appear to depend solely upon funding, as no state received any federal monies for this activity and almost all complained of shortages of resources. The impression was inescapable that concern about the question -- *ARE OUR CHILDREN EXPOSED TO LEAD IN THEIR SCHOOLS?*

DRINKING WATER? -- governed the energy and inventiveness that were applied to finding its answer.

The entries in Table I were re-worked by region. Arranged under new headings for Table II, they yield a modest amount of information, as follows:

Testing in Daycares

Seventeen states reported testing of drinking water in daycares. Thirty-two states could supply no information whatever about their day care or preschool facilities. Another 4 (listed under "impressions") thought "some" testing of day care drinking water may have been done. The population of children up to age 5 in these latter 36 states is about 14,000,000, of whom 3,500,000 are estimated to be living in poverty^[12].

There are more than 77,000 center-based child care facilities in the United States and at least 200,000 licensed family day care or group day care centers. These care for children of all ages, from infancy up, but the attendees are mostly preschoolers. In addition, it is calculated that well over a million non-licensed facilities care for young children in a variety of uninspected settings^[13]. As best we can estimate, the 17 states that reported testing sampled one or more drinking water outlets in about 1,650 day care centers. This represents 6% of the approximately 26,000 licensed facilities in those states; it is a vanishingly small 0.1% of the possible 1,275,000 licensed and unlicensed facilities in the whole country.

Testing in Schools

Forty-seven states reported sampling of school drinking water: 16 in a "few" to 25% of their

schools, 27 in 25% to 82%, and four in 95% to 100%. (These were CO, DC, PR, VI.)

Six states did not know the number or percentage of schools, if any, in which testing had been done. Five states described their estimates (usually the ones that said "a few") as "impressions". The latter 11 states have school age populations (ages 5 to 17) totalling over 16,000,000^[14].

The nationwide school age population in attendance at 84,000 public and 25,000 private elementary and secondary schools is about 46 million^[15]. For 35% of them there is no evidence that drinking water in any of their schools has been tested for lead content.

Lead Level Data

As prelude to this section on lead level data, the heterogeneity and incompleteness of the states' responses must be emphasized. Not every state - not even the ones that attempted valiantly to comply with the LCCA - was able to record the number of its schools. Sometimes the number of districts was given. Sometimes public schools were counted but not private schools. The number of day care or other preschool centers was even less frequently or precisely known. Some states had figures for registered daycares, but not for unregistered or unlicensed ones. Data on analyzed water samples were expressed variously in terms of percentage or number of schools that tested, percentage or number of districts that tested, or number of sites that had been sampled, with or without an indication of the number of schools the analyzed samples represented. The conditions of sample collection were often not specified (i.e., whether the samples were first draw* or flushed, and if the latter, the length of the periods of flushing). It

was not always clear whether the samples were collected from coolers identified by EPA as not-lead-free or from other coolers or from regular faucets or fountains. Sites such as classrooms, corridor, playground, or food preparation areas were generally not identified.

Of the 47 states that reported sampling and analyzing any school or day care drinking water, only 33 provided results of their analyses. Of these, 27 states expressed the results as exceeding or not exceeding EPA's then-recommended standard, usually specified as 20 ppb, and 6 provided actual lead levels. The column in Table I headed "Extent and Nature of Data Returned to State Coordinators" contains these disparate and not easily compared or summarized lead level measurements. The data appear in another form in the column in Table II headed "% samples or facilities having >20 ppb Pb, for any # of samples or sites tested," where there are listed -- as stated -- percentages of water samples from some (usually unstated) number of fountains, faucets, coolers, bubblers, rooms, areas, schools, or districts that had >20 ppb lead.

The four states that tested in 95 to 100% of their schools reported as follows:

Colorado: 5-10% of samples (including 1200 collected in one county) exceeded the 20 ppb standard.

District of Columbia: 5 percent of its 180 schools had some outlets that exceeded the standard.

Puerto Rico: there are no coolers that are on the EPA list and no levels over 20 ppb in

* Drawn after standing for hours or days, and therefore more likely to contain lead.

existing fountains and faucets.

Virgin Islands: the few outlets in its 60 schools that exceeded the standard on first draw were within the standard after flushing.

For the 33 states that provided results of their analyses of drinking water samples from a "few" to 82% of their schools, the percentages of samples exceeding 20 ppb of lead varied much more widely than in the 4 states listed above, ranging from zero to 91%. Absolute values often exceeded EPA's regulatory Maximum Contaminant Level of 50 ppb and in some schools were reported at over 100, 500, 750, 1000, and 5000 ppb*. The single highest lead level reported was 12,000 ppb (see below).

There are limitations, too, to the actual lead level data that were provided by 6 states. But it was gratifying to receive real measurements, and perusal of them is instructive.

Thus, Maine (whose school drinking water program antedated the enactment of LCCA) reported that in 1989, 12% of 1200 refrigerated fountains contained over 20 ppb of lead in first draw samples; flushing reduced the lead levels.

* On May 7, 1991 EPA announced that it was repealing the enforceable 50 ppb MCL for lead. Instead of revising the standard downward to 20 ppb as EPA had proposed in 1988, the Agency is establishing a treatment requirement including corrosion control, source water treatment, public education and lead service line replacement, triggered by exceedances of a lead action level of 0.015 mg/l (15 ppb) or 1.3 mg/l (1300 ppb) of copper in 10% of household drinking water taps sampled. If exceeded, the action level triggers a multi-year process of studies and implementation of optimal corrosion control treatment. The action level for the new treatment requirements is not an enforceable standard.

46% of overnight samples contained over 20 ppb; the highest value was 404 ppb. Of unrefrigerated outlets, 30% of 2095 contained over 20 ppb with a high value of 5400. The 30% figure was reduced to 13% after flushing.

Indiana conducted a series of extensive, carefully designed random surveys of about one tenth of its 4700 schools. The 3-5% occurrence of lead levels over 20 ppb was reduced after flushing to about 1% of outlets and drinking fountains. The highest level recorded was 27 ppb. In 1989, Indiana recommended that 10 ppb be used by its schools as the standard for lead in drinking water.

Wisconsin tested 120 samples from various outlets in 75 schools and 3 pre-schools. Of these, 109 (91%) had levels of lead that exceeded the 20 ppb standard, and 37 samples were above 50 ppb; the highest value was 999.

In Louisiana, the mean lead level for 3,927 initially sampled outlets was 19 ppb. Screening samples validated in early 1991 showed that outlets with over 20 ppb of lead content had means ranging from 112 ppb in 72 (1.8%) coolers to 593 ppb in 8 (0.2%) icemaking machines. 399 outlets overall (10.2%) exceeded 20 ppb. The highest individual lead level, taken from a water fountain in a public school kindergarten classroom, was 12,100 ppb.

Iowa reported that by early 1991, 48% of its 800 schools had returned the surveys distributed by the Departments of Public Health and Education (Human Services for daycares), 34% had sampled their water, and 32% had reported; 27% had samples that exceeded 20 ppb. Of 1300 daycares, 44% had returned their surveys, 25% had sampled their water and 22% had reported; 8% had samples that had lead levels over 20 ppb. The highest first-draw samples ranged from 100

to 3700 ppb.

In almost 4,000 samples from 304 of about 540 public schools in North Dakota, mean lead levels were 11 ppb; in non-public schools, mean lead levels were 6 ppb, and in day care centers 5 ppb. In Indian Reservation schools, 50 tests gave mean lead levels of 24 ppb with one school having particularly high levels. Excluding that school, only 1 in 25 outlets exceeded the recommended standard. (It is of interest that 87 samples of water from government buildings in North Dakota had mean Pb of 26 ppb.)

Note About New York City

The New York State response to the NRDC survey is shown in Table I and is part of Region II data in Table II. However, we report separately on the City of New York because a Centers for Disease Control Surveillance Summary in the December 1990 issue of *Morbidity and Mortality Weekly Report*^[16] documents in detail the continuing gravity of the childhood lead poisoning problem in New York City. Also, the New York City Bureau of Lead Poisoning Control Program (BLPC) is the largest city childhood lead poisoning prevention program in the country and had investigated on its own initiative (before enactment of LCCA) the question of lead in school drinking water. Early in 1988 the Department of Health surveyed 96 schools (approximately 10% of all school facilities) to determine whether lead levels in drinking water exceeded 50 ppb. One of the 96 had several outlets that consistently exceeded 50 ppb, and the implicated lead pipe service line was replaced. (Seven other schools had levels in water from at least one outlet at 20 ppb or higher on first draw; after flushing they were all reduced to below 20 ppb.)

In 1989, after the LCCA became law, coolers

in all schools in all boroughs were inventoried and any that had been identified by EPA as not lead free or that could not be identified were disconnected (23 in all). Replacements were generally not sought. During 1989 and 1990, in response to requests or complaints, 11 schools were tested for the presence of lead in water. The Board of Education stated that "all schools were found acceptable", a judgment based on the continuing use of EPA's recently repealed 50 ppb standard. In fact, at least 5 of the schools had one or more tests (in one case 4 of 6) that exceeded 20 ppb. The Board of Education has been aware that the EPA standard for lead is being revised downward and at present it investigates for possible remedial action any report of water containing a level higher than 20 ppb.

No comprehensive information was available about private schools or daycares, although limited personal inquiry suggested that water sampling and analyzing had been done in some of them.

Note About Other Territories

In addition to the 53 states represented in Tables I and II, there are 6 other territories under United States jurisdiction, all of them included in EPA Region IX.

American Samoa EPA reported that drinking water in their 40 schools was at or below the 50 ppb standard for lead.

Guam EPA conducted tests in 1988 and 1989, with follow up planned for 1991. 24% of the 284 coolers in the island's 34 public schools contained lead at levels of 20 ppb or above. The single highest value was 70 ppb. Data on 19 private schools and day care centers were incomplete. Reports for the Navy and Air Force facilities on Guam showed a limited number of

coolers for Navy facilities that had lead levels at 50 ppb or over (sites not specified), and for the Air Force, which tested child development and youth centers specifically, levels over 20 ppb and as high as 540 ppb were found at 27 of 70 sites. The Air Force reported that "all water fountains or sinks that were greater than 50 ug/l were removed or replaced."

NRDC received no lead-in-school-drinking-water data for the Federated States of Micronesia, the Republic of the Marshall Islands, the Commonwealth of Northern Mariana Islands, or the Republic of Palau. Concerning the latter two, the EPA Questionnaire Summary of 11/90 reports that neither jurisdiction has any day care facilities, that both have distributed the EPA Manual, that 10 schools in CNMI and 6 in ROP were testing their drinking water, and that the respective environmental agencies of both territories have done sampling and are available for technical and educational assistance.

Cooler Inventory Information

State Administrators of the LCCA, Regional EPA offices, and the Federal EPA Office of Drinking Water all seemed to lack the appropriate mechanism for retrieving comprehensive information about water cooler inventories. Of course, the mechanism most needed, the power to *require* the information, is not explicit under the terms of the Act. As encouraging and helpful as many state agencies tried to be, no state accomplished anything close to a total inventory of its school and preschool coolers (or faucets or fountains). (The single exception does not appear in our tabulated data; Guam tested all the coolers in all its schools.) Nineteen states (Table I, next to last column, and Table II) indicated that some inventory had been taken or was definitely planned*. In the state of Washington, for exam-

ple, where there are 1700 public schools, 390 private schools, and 3000 licensed day care centers, "90% of all entities" reported that water cooler inventories had been done. Indiana, as a different example, inventoried fewer than 5% of the schools in the state: it had model numbers of coolers for 43% of the 10% of schools covered by its surveys. South Carolina inventoried water coolers in 60% of its school districts (number of schools not specified). While taking inventory and testing water samples, some states identified lead-containing coolers that were not on the EPA lists, e.g., Iowa and North Dakota.

Schools or school districts had been encouraged by most state coordinators not only to inventory their schools' water coolers (and to sample and analyze the water in them) but to send their results to the CPSC, or to call CPSC with questions. NRDC had difficulty finding out how much contact schools and school districts had with CPSC. Under the Freedom of Information Act, we did finally receive from the CPSC a printout of about 1200 schools, school districts, state commissions or other education/health/environment agencies that "contacted the CPSC with regard to lead and drinking water"^[17]. We were cautioned that

due to the extensive number of contacts (both telephonic and written) with hundreds of school officials across the nation, the list by its very nature may not be complete. Also, the list does not differentiate the school's involvement in water testing since no matter what the school's initial reply was, the Commission responded with a letter instructing the school to contact the manufacturer directly.

* The EPA list of not-lead-free water coolers is presented in Appendix D.

For example, a school on the mailing list may be there even though it responded that it did not have any of the water coolers originally listed by the Environmental Protection Agency in the Federal Register as having lead lined tanks.

The list was surprising because even though all initial sources (described under "How the Survey was Conducted") yielded an approximation of only 19 states that had done any inventory of their water coolers, inquiries or other communications were received by CPSC from individuals or agencies in 39 states. They came overwhelmingly from a few states (Texas, Missouri, etc.) with one to a dozen entries for others. This hundred percent discrepancy simply pointed up again the inability of state coordinators of the LCCA to insist on a return flow of information.

Schools, principals, superintendents or custodians had been advised by Halsey Taylor (the major manufacturer of water coolers) that under its negotiated Consent Order Agreement with CPSC, schools could apply for replacement of leaded models. CPSC released to the NRDC, also under FOIA, Halsey Taylor's reports of its activity for the months of July through November 1990^[18]. These reports showed that by June 29, 1990, Halsey Taylor had mailed an IMPORTANT NOTICE packet to 31,000 public and private schools, 29,000 day care centers, 3,200 colleges/universities, 50 state LCCA coordinators and 3,000 to 4,000 Y's, boys or girls clubs, etc. (Halsey Taylor appeared to be the only manufacturer involved in this effort even though at least 2 others had produced models that were not lead free.)

The covering letter to "Dear Water Cooler Owner"^[19] specifies that a replacement cooler or refund can be obtained if the existing unit is

"1) a tank style cooler manufactured before April 1, 1979, and 2) has been shown by *water testing* to contribute more than 20 part per billion lead to the drinking water." Water testing protocols are carefully described, as are procedures for obtaining replacements or refunds. The owner has to complete a summary chart listing the serial numbers of all water coolers eligible for corrective action and the water test results for each of them. Reports or other documentation of water test procedures and results must be submitted. Owners must also execute an affidavit (provided with the covering letter) which states that the water test results are "true and complete", and promises that the owner will scrap or destroy existing water coolers upon receipt of replacement units or refund checks. Owners must provide Halsey Taylor with an identification tag from each affected water cooler, a photograph of the tag, or other appropriate identification. For further information the water cooler owner is asked to call Halsey Taylor's toll free telephone number at 800-635-2358.

By the end of November 1990, about 8,000 mail or phone inquiries had been received by Halsey Taylor. 1,373 coolers were properly identified, and 514 replaced. 105 refunds were also sent. It is tempting to speculate that other of the 8,000 inquirers may have been deterred from pursuing the quest for replacement or refunds by the stringency (however justifiable) of the recall requirements.

The LCCA coordinator for Halsey Taylor told NRDC in February, 1991 that even though the water cooler must (according to the rules) have been manufactured before April 1979, certain coolers with high lead content manufactured after 1979 might under special arrangements be replaced by the company.

EPA Manual, "Lead in Schools' Drinking Water"

The LCCA directs EPA "to publish a guidance document and a testing protocol to assist schools in determining the source and degree of lead contamination in school drinking water supplies and in remedying such contamination."²⁰(§1464(b)) The document published in January 1989 (labeled "interim", although no final document has been published) is an excellent source of information, instruction, and even inspiration. It was distributed nationwide to LCCA coordinators who are enjoined by the Act to "provide for the dissemination to local educational agencies, private non-profit elementary or secondary schools and to day care centers of the guidance document and testing protocol." (§1464-(c)) According to the EPA LCCA Questionnaire Summary for 11/90, 44 states distributed the manual to public (and sometimes private) schools or systems, and 28 to daycares. However, the replies NRDC received indicate (Table II) that only 33 state agencies sent copies of the manual directly to their schools. The other 11 sent single copies or excerpts from the manual to school superintendents, private school principals, and day care/preschool administrators, together with order forms or ordering information. (The manual, GPO-055-000-00281-9, is available at \$3.25 from House Document Room, House of Representatives, Washington D.C., 20515.)

Since the manual is a valuable resource, and especially so for raising awareness about the problem of childhood lead poisoning, it would be reassuring to know that school principals, superintendents, day care owners, etc., did actually order and use it. That information is not available, but we do know that state coordinators (almost all) drew heavily and helpfully on it in

their covering letters to schools and school systems.

Remediation

Thirty-three states (not the same 33 that distributed the manual to individual schools) instituted acts of remediation either upon notification of excessive lead levels in the drinking water of tested schools, or upon identification of water coolers that were on EPA's not-lead-free list (even if they were not sampled and analyzed). The most frequent remediation response was to disconnect implicated water coolers, with or without subsequent replacement. In some states the source of lead contamination of water from faucets or other outlets was persistently sought, and when it was located, pipes, service connectors, or joints were replaced. NRDC received a few specific descriptions of such remedial measures.

The EPA LCCA Questionnaire Summary, in the column headed "Case Histories" (which could not be precisely described, but which we infer to be references to exceedances that were corrected), records a "yes" for each of 21 states, (i.e., these states sent EPA descriptions of one or more cases of above-standard lead levels that they remediated), "probably" for 1 state, "no" for 32, and "unknown" for 1. (These add up to 55 instead of our baseline 53 because DC is omitted and AS, CNMI, and ROP are included.) For states reporting on daycares, the numbers are "yes" - 7, "probably" - 1, "no" - 43, and "unknown" - 2. (CNMI and ROP have no day care facilities.) There was probably more activity than these numbers suggest because many states wrote that they responded to requests for technical assistance.

Public Notification

The Act states that "the results of any testing [of drinking water from coolers and from other sources of lead contamination] shall be available in the administrative offices of the local educational agency for inspection by the public, including teachers, other school personnel and parents. The local education agency shall notify parent, teacher and employee organizations of the availability of such testing results." (Section 1464 (d)(2)) Despite the mandatory language of the statute, only 20 states appeared explicitly to refer to or acknowledge this provision of the Act, usually by advising school superintendents, principals or directors of daycares that they must notify parents, teachers, etc., "of the availability" of testing results. One state, Nevada, provided illustrative public notices (doorknob hangers, formal letters or bill stuffers, and news releases) designed for water suppliers that would be readily adaptable by schools or school districts. The frequent reaction to this requirement, however, was that since testing school drinking water was in the first instance only advised and not mandated, the public notification requirement could not be expected to be widely observed.

Conclusions and Recommendations

The LCCA of 1988 has probably had some salutary effect on the nation's children:

◆ As a result of its enactment, a comprehensive, practical manual, *Lead in Schools' Drinking Water*, was prepared and published by EPA and moderately well distributed by the states.

Publication of a useful document is encouraging even if its readership cannot be counted, nor

the attention it commands accurately assessed, nor the actions stimulated by it catalogued and documented. The evidence that the manual was well used resides in the many excellent covering letters ("a" in 4th column of Table I) that drew on it to describe the health effects of lead in children, to review the sources of environmental lead, and to encourage measures responsive to its recommendations. It may, too, have fostered in teachers and administrators a heightened sensitivity to the possibility that the behavior and achievement of some children might be related to blood lead levels, a factor theretofore not considered.

◆ It is also a good outcome that some number of children have been spared unneeded increments of lead intake as a result of the removal of some number of not-lead-free coolers, bubblers, or fountains from their school environments.

Forty seven of the 53 states did test a few to 100% of their schools and daycares for lead in drinking water (as well, perhaps, as water used in food preparation). And 19 states were methodical about identifying, sometimes testing, and usually removing coolers that the EPA had listed as not-lead-free.

On the whole, though, the nationwide assessment of lead in school drinking water that should have been stimulated by the LCCA is glaringly inadequate. 65% of school age children reside in those states that, one way or another, made some effort to check school water for lead, but the schools and outlets tested were often minimal in number; not only were most classrooms, kitchens, corridors, and play areas left untested, but large percentages of the schools - even in the "good" states - were never involved in the program.

A more egregious aspect of the ineffectiveness of the LCCA is the fact that the population most

susceptible to the insidious or severe effects of lead poisoning has not been advantaged by its enactment. Children of preschool age are in attendance at over one million two hundred seventy five thousand facilities, of which about a fifth are licensed or regulated. Of that fifth, only 0.6% have monitored any of their drinking water, and of the total, the figure is 0.1%

NRDC's recommendations, therefore, are focused on the need to correct the shortcomings of the LCCA. Basically the Act should be amended to:

- (1) Require testing of school and day care drinking water for lead concentrations exceeding 5 ppb;
- (2) Specify that only certified testing laboratories be used and that EPA make a list of such laboratories available;
- (3) Direct states to establish a program to perform the testing; report the results to the relevant state agency and the EPA within a specified time frame, and make the results publicly available;
- (4) Require EPA to collect and publish the state data within 1 year of enactment of these amendments;
- (5) Authorize citizen enforcement of non-compliance with the testing, reporting, and notification requirements of the Act.

In addition, Congress must both authorize and appropriate adequate funding, so that full compliance by states, schools and school districts can be achieved. Appropriate recommendations, often eloquently stated, were made to schools and school districts by state coordinators. Their letters and telephone comments to NRDC reflect the frustration of conscientious public servants

who lack the resources but not the desire to comply with the Act's constructive intent. Our recommendations incorporate many of their suggestions.

It may be realistic at this time to hope for an improved Lead Contamination Control Act, as well as other legislation that would move the United States toward elimination of childhood lead poisoning. 1991 could be a watershed year in the annals of lead poisoning control progress: two federal agencies, the Department of Health and Human Services and the Environmental Protection Agency, have produced studies^{[21][22]} that for the first time acknowledge the extent of the childhood lead poisoning problem and -- clearly a breakthrough -- the need for a comprehensive approach to its solution. The impression that the federal government is "attending" was reinforced by the statement of the Surgeon General at a recent meeting of the American Academy of Pediatrics^[23]: she included lead poisoning in her litany of critical issues in childhood health in the United States, stating that "[t]hree million children living in metropolitan areas are exposed to enough lead to place them at risk to adverse health effects." And she promised that "this time, rhetoric will not be enough -- action will be the response --."

Child advocates throughout the nation will be watching to see whether the present Administration can, on the issue of lead poisoning, be as good as its word. The Congress must also do its part to address the remaining sources of exposure to this widespread and insidious threat to our children's health.

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7. Letter 8-9-90 from Andrew Kass to EPA Regional Administrators.
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21. *Strategic Plan for the Elimination of Childhood Lead Poisoning*, Centers for Disease Control, Department of Health and Human Services, February 1991.
22. U.S. Environmental Protection Agency. Strategy for Reducing Lead Exposure. February 1991.
23. Surgeon General of the U.S. Antonia C. Novello: Address to Spring Session of American Academy of Pediatrics, San Diego, CA, March 18, 1991.

Abbreviations and symbols for Tables I & II*

(a, b, c, d, e)	a - covering letter
	b - EPA <i>Lead in School Drinking Water</i> manual
	c - list of EPA not-lead-free coolers
	d - list of certified or qualified laboratories
	e - other (EPA pamphlets, questionnaires, follow up mailings, maps, copy of LCCA, etc.)
dc	day care or preschool centers or facilities
dw	drinking water
f/u	follow up
h	health
hc	health care
m	mean
nd	no data available
Pb	lead
ppb	parts per billion
priv	private
publ	public
sch	school, schools
w	water
Audit 9/90	EPA Audit of Lead in Drinking Water Program for Region III
11/90Q	EPA LCCA Questionnaire Summary dated 11/16/90
-	we have no information
~	approximately
>	more, greater, higher than
<	less, smaller, lower than

* Abbreviations for states are listed in Appendix C.

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
AL	IV	Department of Environmental Management	a, b (order form), c, d, e (EPA booklet, reply form)	4 meetings 2 workshops	certified labs
AK	X	Department of Environmental Conservation	b (but not to dc)	no	sch or dc (11/90Q)
AZ	IX	Department of Environmental Quality	a, b, c, d, e (USCPSC letter)	yes (11/90Q)	sch or dc (11/90Q)
AR	VI	Department of Health	a, b, c, d	ADH meetings with each of the State's 16 Educ. Cooperatives; training for sch that planned to test	sch, dc, sample; Health Dept or private labs analyze

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
1440 (130 districts)	200	1504	replies from 39% publ sch districts, 7% priv sch and dc (of 1704). In 582 sch (18.5%), 789 of 4,079 (19%) w coolers were EPA-listed as not lead free. 700 of those (89%) were tested; 1.1% contained >20ppb. 107 (26%) were removed, released or "rendered inoperable", some without testing (7/90). "tested 50% of public schools" (11/90Q)	emphasis on water coolers, but with ref to all outlets; no reference to public notification requirement
-	-	-	a "few sch" reported results to 1 of 3 DEC regions (6/90), 7 sch testing (11/90Q)	regret "failure [by Congress] to appropriate money"; no reference to public notification
1788	-	-	approx 30% testing (11/90 Q); "routinely receives evaluations of drinking water systems from public sch and dc"	no data or results supplied, no ref to 20ppb standard; ref to recommendation for remediation; no reference to public notification requirement
329 dist.	-	-	ADH lab: 358/7766 (5%) sites in 210 sch dist > 20ppb; 599 resampled; 174 /210 dist "fully compliant." Priv labs: 252/4225 (8%) sites in 102 sch/sch dist/dc > 20ppb; 394 resampled; 94/102 "fully compliant." Work ongoing (2/91)	clear advice that sources other than coolers be tested; numerous coolers and bubblers replaced, repaired, removed

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
CA	IX	Department of Health Services	a, b (to superintendents), d (on request)	no	sch (11/90Q)
CO	VIII	Department of Health (Water Quality Control Division)	b (11/90Q)	yes(11/90Q)	DH lab private labs
CT	I	Department of Health Services (Water Supply Section)	a, b, c, d, e (protocols for testing, etc) to local and regional school districts, primary and secondary sch, local health depts, local water utilities	5 workshops	sch and state labs, up to 5/sch, then commercial labs
DE	III	Department of Health and Social Services	a, b (how to obtain), c, d	no	DE approved labs
FL	IV	Department of Environmental Regulation	a, b, c, d, e (news release pamphlet, fact sheet, LCCA, etc)	conf with FL Schools Plant Management Association	state and certified labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
~ 1015 districts	-	~800	no knowledge by DHS of results of testing in schools	effort by CA to monitor lead in sch dw antedated LCCA, but no data are available; state has own public notification requirement about possibility of lead contamination
-	-	-	95% of sch testing; 1200 samples in one county; 5-10% overall > 20ppb; no info re lead levels	remediation recommended when > 20ppb is reported; no ref to public notification requirement
169 municipal-ities	800-1000	approx 1500 regis-tered	one half of sch had sampled water systems for lead, "fewer" dc; 400 sch (11/90Q)	attendance at work-shops optional; "flushing appeared to control lead levels to <20ppb"; private water utility refused to release test data; question about compliance with public notification requirement
168	113	212 dc 24 other	17/19 dist tested; 98/720 samples (14%) > 20ppb; all remediated (Audit 9/90)	sch know they are responsible for lead free water at tap whether or not they own water supply
2600	2000	4600	1485 sch in 66/67 county sch sys have begun LCCA program; in 16 counties, testing of w coolers only; of > 14,500 samples, 1276 (9%) had Pb levels > 20ppb (some > 50ppb)	well organized distribution of helpful and encouraging materials and response/data forms; database to be compiled; specific about all water taps and coolers; indication of requirement for public notification; suspicion noted that brass fixtures (even if they meet SDWA standard) contribute lead to dw

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
GA	IV	Department of Education (Facilities and Transportation Division)	a, c, e (plumbing profile form, instructions for collecting samples) to LEAs; dc rec'd info from Dept of Human Services	6 statewide workshops	local water utility, state Health Dept, EPD approved labs (11/90Q)
HI	IX	Departments of Health and Education	a, b (to public sch and dc) (11/90Q), e (notification of possibility of lead contamination of water)	"presentations" (11/90Q)	certified commercial labs (11/90Q)
ID	X	Department of Education	a, b, c, d, e (reply forms)	no	sch and dc; certified labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
-	-	1600	>60% public schools testing (11/90Q)	January 1990 mentioned as target date for water cooler repair, replacement; no state request for lead level or plumbing profile reports; public notification requirement not cited
~232 (K-12)	~136 (K-12)	~280 (6 weeks to 6 years)	70 coolers (assume sch) tested, 4 exceed 20ppb	LCCA does not require testing and reporting of exceedance of standard; notification is made to school directly; testing for roof catchment lead levels is on case-by-case basis
113 districts	150	~900	public: 349 water coolers in 30 districts; 1 lead-lined (removed), 15 lead-soldered (further testing); 14 districts did other tests, of which 4 exceeded EPA standard. private: 30 schools, 13 coolers, 4 lead-soldered, 3 tested ok, 1 to be removed; 16 other sites tested, 1 exceeded standard, will flush. dc: 3 tested w coolers, 7 other sources; all OK "30 sch testing" (11/90Q)	since 50ppb standard was used, # violation was probably greater (8/90); no follow up planned; no lead levels specified for the positives; public notification requirement not cited

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
IL	V	Department of Public Health (Department of Children & Family Services for day cares)	a, b (to school systems, with order form for schools), c, d, e (copy of LCCA, list and map of P.H. regions)	yes (training provisions for 8 Regional Engineers and 13 State Plumbing Inspectors)	private labs
IN	V	Department of Environmental Management	a, b (to school supts), c, d, e (EPA pamphlet to all dc)	5	certified labs
IA	VII	Department of Public Health, Department of Education (schools), Department of Human Services (day cares)	a, b (to all schools & daycares), c, d, e (survey forms to all schools & day cares, follow-up notices and information)	no, but extensive on site technical assistance and invest-igation	IA University Hygiene lab, certified labs
KS	VII	Department of Health and the Environment	b (order forms), c, d (to State Department of Education & Assoc of School Boards), e (statewide press release about LCCA)	no	DHE lab private labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments																								
7000 public and private	-	2700	"majority have sampled their water" (EPA region V); "only half have sampled their water" (tel conv 6/15/90) "larger school districts complying"; # testing "unknown" (11/90Q)	EPA suggested better compliance for larger districts; no f/u described; public notification requirement not cited																								
4700 inclusive			Data from 426 schools in 3 surveys <table border="1"> <thead> <tr> <th></th> <th>sta- tistical</th> <th>geo- graphic</th> <th>"mini"</th> </tr> </thead> <tbody> <tr> <td>%>15ppb</td> <td>8</td> <td>4</td> <td>10.5</td> </tr> <tr> <td>%>20ppb</td> <td>4</td> <td>3.3</td> <td>5.3</td> </tr> <tr> <td>%>20ppb after flushing</td> <td>0.8</td> <td>1.3</td> <td>-</td> </tr> </tbody> </table>		sta- tistical	geo- graphic	"mini"	%>15ppb	8	4	10.5	%>20ppb	4	3.3	5.3	%>20ppb after flushing	0.8	1.3	-	water fountain model #'s attainable for only 43.2% of sch in surveys; state recommends use of 10ppb standard; comprehensive approach to LCCA implementation and workmanlike recommendations; no reference to public notification requirement								
	sta- tistical	geo- graphic	"mini"																									
%>15ppb	8	4	10.5																									
%>20ppb	4	3.3	5.3																									
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800	-	1300	<table border="1"> <thead> <tr> <th>surveys returned</th> <th>sampled water</th> <th>reported</th> <th>Pb>20</th> </tr> <tr> <th># %</th> <th># %</th> <th># %</th> <th># %</th> </tr> </thead> <tbody> <tr> <td>800 379 48</td> <td>273 34</td> <td>256 32</td> <td>68 27</td> </tr> <tr> <td colspan="4">sch</td> </tr> <tr> <td>1300 578 44</td> <td>324 25</td> <td>291 22</td> <td>22 8</td> </tr> <tr> <td colspan="4">dc</td> </tr> </tbody> </table>	surveys returned	sampled water	reported	Pb>20	# %	# %	# %	# %	800 379 48	273 34	256 32	68 27	sch				1300 578 44	324 25	291 22	22 8	dc				identification of 2 not lead free water cooler models not on list; sch for disabled children now screening; highest levels on first-draw samples: 100 to 3700ppb; excellent recommendations for technical intervention; state wide f/u; good public notification
surveys returned	sampled water	reported	Pb>20																									
# %	# %	# %	# %																									
800 379 48	273 34	256 32	68 27																									
sch																												
1300 578 44	324 25	291 22	22 8																									
dc																												
-	-	-	160 sch testing (11/90Q); "significant #" analyses by DHE lab at no cost to sch.	no funds, therefore actions limited to those requiring "minimum of effort and expense"; public notification requirement not cited																								

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
KY	IV	Department for Environmental Protection	a, b (to superintendents), c, d, e	10 (total attendance 450-500)	certified private labs
LA	VI	Department of Health and Hospitals	a, b, e (questionnaire, copy of LCCA)	no	sch or dc doing initial sampling, state or commerical labs analyzing, state doing f/u sampling
ME	I	Department of Human Services	a, e (EPA pub 4/87, instructions, order forms, all earlier than LCCA)	no	State Public Health lab (\$5 per sample)

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
178 dists	450	1051	("not mandated")	observations about limitations of LCCA: no mandatory requirements, no funding; public notification requirement specified in informational material
1555	499	1815	48% voluntary return of questionnaires (8/90); validated initial screening samples (2/91) show outlets with >20ppb Pb content means ranging from 112 ppb (in 72 coolers [1.8%]) to 593 ppb (in 8[0.2%] ice making machines); 399 (10.2%) >20ppb outlets overall; for 3927 initial samples, mPb is ~19ppb	methodical program of distrib of containers and analytical services free of charge to facilities that elect to participate; LA Senate bill requiring dc testing not acted on; extent of remediation or parent notification not clear; highest individual Pb content found was 12,100 ppb from a water faucet in a public school kindergarten classroom
-	-	-	1988 study in Portland: 20% refrigerated fountains & 46% faucets had >20ppb 10/89: 140/1200 (12%) refrigerated fountains >20 ppb in first draw samples; of those, 13/106 had >20ppb after flushing. Overnight, 49/106 (46%) had >20ppb (highest 404); of unrefrigerated outlets, 623/2095 (30%)>20ppb (highest 5,400); 13% after flushing.	combined with other school environmental testing early in 1988; no dc program due to lack of funding; careful instructions and effort at follow-up (recommendations for removal, etc.)

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
MD	III	Department of the Environment (Lead Poisoning Prevention Program)	a (repeated mailings), b (11/90Q)	yes (11/90Q)	private, state-certified labs
MA	I	Departments of Environmental Protection and Public Health	a, b (draft), c, d, e to public sch supts, priv sch, regist dc, plumbing inspectors, Bds of Health, public water suppliers	technical assistance session in each region (1/90)	state (for fee) or commercial labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
1219	771	1580	<p>Of 1113 coolers in 1 dist, 32% had >20ppb, but not all on 1st draw, therefore figure is probably low.</p> <p>Of the 358 "problem" coolers, 72% were not on EPA list. 76 coolers had >100 ppb. All 358 were disconnected (Audit 9/90). 14/30 dist in full compliance for testing and remediation of coolers, 7/30 other sources, compliance in other dist pending; priv sch, dc ~ 10% full compliance (3/91)</p>	<p>all sch and dc informed of public notification requirement; labs using 50ppb standard notified of 20ppb recommendation</p>
98 that have own water supply	-	-	<p>1988: In 39 selected sch, 20% >20ppb on 1st draw</p> <p>1989: 600 test results rec'd, not evaluated; small number not-lead-free coolers; reports sent in by DPH, Plumbing Bd, local Bds of Health, regional dw offices</p>	<p>testing before LCCA; no distrib of EPA manual due to lack of resources; emergency plumbing code changes effected in response to one high lead level; no indication of public notification</p>

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
MI	V	Department of Public Health (Education & Social Services for information distribution)	1989: a, c, d, e to all sch/dc plus sampling and flushing protocol, recommendations, request for results, instructions for ordering b 1990: update of a, c, d, e to all sch/dc plus sampling and flushing protocol etc. (additional 300+ packets mailed in response to telephone requests)	presentations to MI School business official, MI environmental Health Assoc, etc; newsletter, journal articles	state lab for pilot testing, then commercial labs
MN	V	Department of Health (Div. of Env. Health)	a, b, c, d, e	meetings with nurses, dept of human services, dc, sch (custodians and supts), regional educ dept personnel	private labs using EPA guidelines (later certified), certified public labs, some out-of-state
MS	IV	Department of Health	a, b (recommend purchase by each district), c, e (excerpts from guidance manual, background info re lead effects, MSDH pamphlet, video tape)	Coop Ext Service personnel to EPA seminar, 3 regional state-arranged meetings	PH Lab (only one certified in state)

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
4700	1100	3500	summer 1989: sampling by 1/2 of 40 sch contacted, 1/5 of 40 dc contacted 6/90: of 740 1st draw samples in >200 sch in 25 sch districts, 8.6% >20 ppb; all 104 properly flushed samples <10ppb; by 1991: dw of 500 additional sch tested by priv labs; data on 200 sch bldgs voluntarily sent to MDPH	acknowledgement of non-requirement "by law," but recommendation made to sample; flushing reassuringly described as "simple and effective"; clear indication of public notification requirement; shortcomings of LCCA emphatically noted
1500 (in 433 districts)	622	1168 dc centers, 11,600 family dc facilities (fewer than 10 children)	5% of 2674 coolers in public sch >20ppb, 12% of 13047 taps >20ppb; 710 publ, 175-200 priv have sampled; many data collected but not yet available in reportable form (3/91)	testing in 86-88 for exemption from flushing, otherwise flushing required (state legal requirement); public notification requirement not cited
-	-	-	all public water supplies tested, all <20ppb; 700 dw samples tested by PH lab (6/25), ~ 8% >20ppb; f/u on >20ppb samples; 30% sch testing (8/90Q, 11/90Q)	good instructions and recommendations, but no data on coolers (or on dc); public notification requirement not cited

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
MO	VII	Department of Health	a, b(ordering info),c,d,e (forms for return of info, f/u mailings)	8 seminars for Dept of Education personnel	private labs
MT	VIII	Department of Health and Environmental Services (Water Quality Bureau)	a, b (11/90Q), c, d; office of Public Instruction and Water Quality Bureau sent info letters to sch, Dept of Family Services to dc	no (11/90Q)	"schools", certified labs
NE	VII	Department of Health	a, b (to admin, county supts, & ESUs) (11/90Q says manuals to schools, not to dc), c	Meetings of DH reps with county supts & ESUs	DH lab, state-certified labs
NV	IX	Department of Human Resources (Consumer Health Protection Services)	a, b (to dc, "intending" to distribute to county supts), c, d	train the trainers workshop, workshops for school officials	state HD labs or commercial labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
2733 public & private	-	1123	~ 1000 sch (37%) and ~200 dc (18%) responded to mailings; of those, 500 sch and 100 dc have tested (11/90Q) ~10% of all outlets tested (sinks, coolers, fountains) >20ppb	requirement for availability to public of inspection data emphasized – also, that dw sources other than coolers should be tested
~1000 elem and secondary	-	-	-	some telephone inquiries in response to info packet; lack of money for program
1790 public & private	-	695	1242/1790 sch testing (70%), 95% <20ppb; 136/695 dc testing (28%), all <20 ppb. 3.5% sch, no coolers; 43.5% dc, no coolers; <0.5% of all samples analyzed >20ppb.	emphasis on coolers; hardness of NE water is a "natural corrosion control device"; of 6 water coolers requiring removal, only 2 on EPA list; some on list found not to exceed standard; "contractor hired to implement LCCA" (11/90Q)
331 publ and priv		31; they all rec'd info and invit to work-shops, but haven't responded; may ask licensing agency to question	18 sch with own water supplies were <20ppb; of 331 other schools (11/90Q) "only about 10% had any outlets that exceeded standard" (12/90)	public notification affidavit and illustrative notices; info publicized at PTAs as well; schools (in addition to systems) expected to implement Act "with existing resources"; 50ppb cited as standard, but 20 ppb used for remediation; remedial action in 2 counties (lead levels not specified)

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
NH	I	Department of Education	a, b (provided order forms), c, d, e (short versions of EPA manual as part of mass mailing)	2 regional workshops	state (for fee) or commercial labs
NJ	II	Departments of Education, Human Services, Environmental Protection, Health	a, b, c, d, e	yes (11/90Q)	schools and state certified labs
NM	VI	Department of Health and Environment	a, b, c, d, e	yes (11/90Q)	sch & dc sampling, DH and E testing
NY	II	Department of Health	a, b, c, d, e (other EPA doc, Cornell University pamphlet) to sch Dist Supts, to Dept Soc Serv and Mental Retardation for distrib to dc	10-12 training sessions, statewide mtg with BOCES health & safety staff	county DH labs, suppliers, cert labs
NC	IV	Department of Environment, Health, and Natural Resources (Division of Env. Health)	a, b (to publ sch; ordering info for dc and non-pub sch), c, d, e(questionnaire about coolers)	3	certified commerical labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
171 dist	150	1500	10/89: believe that "most schools are testing" 11/90Q: 400-500 testing; "some" lead levels >20ppb; coolers taken out of service	testing for lead in dw before LCCA (combined with other env testing); no reference to requirement for public notification
~3500 pub & pri		>2000	>3000 have tested (11/90Q); no results available (no reporting requirement)	legislation submitted to legislature that would improve on LCCA significantly; passed by Assembly but as of 12/90 not considered by Senate
88 sch dist	-	~300	>2000 samples sent in by sch dist, >75% testing; 6/100 > 50ppb, 13/100 > 20 ppb; flushing programs initiated plus removal of fountains/Pb plumbing that contribute excess lead; ~50% dc testing	were advised of requirement for public notification; f/u letter to all priv/publ sch urging action on w cooler inventory
"upstate" ~800 NYC ~1195 (plus 100 special sch, some # of Indian sch, and 4,500 unlicensed presch)	~800	~7435 ~4175	mostly anecdotal	difficulty of demanding data when LCCA does not, also, no money; alert sent to sch that 50 ppb standard will probably become 20ppb
150 (dist)	-	6000 (priv and dc)	70% sch & dc have tested; numbers not readily available, either of sch or of lead levels (12/21/90)	notification requirement cited; rep of Div Env Health doesn't know outcomes of state testing; state resources stretched to limit

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
ND	VIII	Department of Health (Division of Water Supply and Pollution Control)	a, b, c, d, e (excellent Q/A document)	yes (11/90Q)	state labs & certified labs
OH	V	Department of Health (Bureau of State Environmental Health Services)	a, b, c, d, e (LCCA, EPA fact sheets) all to selected administrators & attendees at training sessions	8 training seminars for local h depts, training sessions for 6 misc, interested groups, US EPA conf in Chicago	state approved labs
OK	VI	Department of Health	a, b (11/90Q), c, e (EPA fact sheet) to supts; order form for b to sch	yes (11/90Q)	state or community labs (11/90Q)
OR	X	Department of Human Resources (Drinking Water Section of Health Div), Department of Education, Children's Services Division	a, notification of b, c, d. b (11/90Q)	5 regional workshops (1/3 sch districts attended)	private and county/city labs

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
540 combined		1,850 (mailings to >1700)	>56% (304 sch) publ, nonpubl have tested; publ: ~4000 tests, m lead ~11ppb; nonpubl: >220 tests, m lead ~6ppb; dc: 121 tests, m lead ~5ppb; Indian reservation sch: 50 tests, m lead 23.7ppb; (in 1 sch 1/7 outlets >20; excluding that sch, 1/25 outlets >20)	many cooperating state agencies; notification of requirement for specific remediation: flushing, new plumbing; more sch would have tested if funding were available; Elkay coolers not on EPA list tested positive; public notification requirement cited
-	-	-	-	"compliance ... gradual due to insufficient funds" for water sampling and dist of info
-	-	-	-	reference in letter to supts to requirement for publicizing results of testing
1200	400	500 (licensed)	~360 sch testing (11/90Q); numerous schools are testing but test results are not sent to the Division (3/91)	careful small water system corrosion study before 1986 amendments to SDWA and 1988 LCCA; extensive monitoring supported, no data available; public notification requirement cited in cover letters and workshops

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
PA	III	Department of Environmental Resources	a, b, c, d, e, (PA's LCCA Remedial Action Program) (all to dc managers & sch supts)	34 (1/intermediate sch unit, 3 each in Phila, and Pittsburgh, 2 in Harrisburg)	schools using certified labs
RI	I	Department of Health	a, d, e (guidance chart for testing water, recommend. to hc providers); b "too costly"	yes, seminar for dc & sch officials	state labs (free), certified labs
SC	IV	Department of Health and Environmental Conservation (Bureau of Drinking Water Protection)	a, b, c, d, e (EPA pamphlets, state DW newsletter) to private sch, pub sch dist, 650 supts, dc; TV, radio interviews	EPA-organized workshops, 7 seminars (11/90Q)	certified labs
SD	VIII	Department of Water and Natural Resources	b (dist by Dept of Ed) ("yes" 11/90Q)	yes (11/90Q)	"schools sample", State Health Dept lab tests (for fee)

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
-	-	-	Of 1195 listed w coolers in 1 dist, 47% of 65 tested had >20ppb before and after flushing (Audit 9/90)	EPA Administrator said that strong legislative effort is being made (but [1/8/91] that was with resp to Pb in plumbing which has just passed State legislature); report on LCCA in preparation
199 (37 dists)	170	250	142/250 dc tested: 49% > 5ppb, 27% > 20ppb (of 506 samples, 39% > 5ppb, 16% >20ppb); 339/412 sch tested: 81% > 5ppb, (of 2554 samples, 56% > 5ppb, 18% > 20ppb)	dc, nursery sch, elem schools tested; HD sent recommendations to hc providers; remediation recommendations include bottled water for infants if Pb = 5-20 ppb; requirement for public notification of test results emphasized
~900 91 dist	-	2953	687 sch, 57 dist reporting; in 55 dist: 5082 w coolers of which 1187 on EPA list; of 2750 tested, 204 >20ppb, 153 removed from service; 112 of 324 sch that tested had "at least one" w cooler with >20ppb Pb	"some dc testing", nd; parent notification by most sch dist
786	155	721 lic, ~4000 unregist	50% (11/90Q) >20ppb - "not many"	source of 50% fig (11/90Q) not clear to SD officials; remediation advice given to sch with lead in water >20ppb; no reference to public notification requirement

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
TN	IV	Department of Health and Environment (Division of Water Supply)	a, b (to pub sch sys, priv sch; dc), c, d, e	8	certified labs
TX	VI	Department of Health	a, b (excerpts to dc [11/90]) c, e (EPA pamphlets)	yes (11/90Q)	commercial labs
UT	VIII	Department of Health (Bureau of DW/Sanitation)	b (11/90Q), c, d, e (sampling guidance document) (all to dist supts)	seminars with sch dist reps	state labs or certified labs
VT	I	Department of Health	a, e (for b, "resources not available")	resources not avail	state lab (no charge for 2 samples/sch)
VA	III	Department of Health	a, b (11/90Q), c (proposed list, to priv sch, dc, Dept Educ), d, e (fact sheets, order form for manual, map with offices of w program, etc, to priv sch & dc plus special manual to dc); Dept of Ed dist info to publ sch	no	certified labs (some use 50 ppb standard); SDE contracted on state-wide basis to analyze lead for any public school

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
142 sch systs	600	1800	>15% sch & dc testing; data not arranged for distribution; inspection welcome (letter 6/27/90)	recommend removal of few coolers >20ppb; no faucets or other dw taps >20; not enough money for more work on LCCA; no reference to public notification requirements
~1100 dists (from 1 to many sch each)	-	-	~50% sch may have done some testing; prob <5% had >20ppb (tel conv 1/8/91)	no reference to public notification requirements
-	-	-	50% sch testing, 1% dc testing (11/90Q); in one lg sch dist, 4 w coolers on EPA list >20ppb; ok after flushing	letter from gov protesting lack of funding; notification that testing results are available; nd on dc
600	-	400	1988, before LCCA: 310/600 tested, 8% >20ppb; after lengthy flushing, 5 sch >20ppb, 1 sch >50ppb 1989: 130 sch tested refrigerated coolers; after flushing, 8 sch >20 ppb, 4 sch >50 ppb	testing for lead in dw before LCCA; recommendation to remove coolers with high lead; cooler inventory sent to CPSC; "proactive role to assist schools" (Region I report); 50 ppb cited as EPA standard; no reference to public notification requirement; no info on dc testing
1700	749	957	-	"no Federal monies" was noted; no ref to public notification

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
WA	X	Department of Social and Health Services	a,b to publ & priv sch and on request request to dc	3 for State Assn of Supts, presentations to educ service districts and to statewide educ conf	certified labs
WV	III	Department of Health and Human Resources (Environmental Engineering Div)	a (repeated mailings & f/u) b, c, d, e	EPA seminar for state rep, state seminar for RESA V area, 4 regional seminars by WVAWWA	certified labs
WI	V	Department of Natural Resources	a, c, d, e (summary of manual, f/u instructions to sch with >20ppb Pb)	meetings with Depts of Public Instruction, Health & Social Services, Industry, Labor, Human Relations	state labs private labs
WY	VIII	Departments of Education and Health and Social Services	a, b, c, e (EPA booklet)	yes (11/90Q)	"schools"

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
1700, 300 dist	390	3000 licensed	70% of public sch, 50% of priv sch, 5% dc tested some EPA-listed coolers and other outlets; sch: 24% 1st draw > 20ppb, 12% > 50ppb; dc: 11% 1st draw > 20ppb	comprehensive questionnaire returned by 97% publ sch, 86% priv. 6.5% dc; "90% of all entities" inventoried dw coolers; not-lead-free ones removed; 56% sch notified parents
~4000 pub sch bldg	~190 Christian and priv sch	~100	~100 sch testing (11/90Q), ~20 dc testing (11/90Q), bet. 5-10% of all sch had >20ppb, whether samples were taken from coolers or faucets (1/18/91)	strong criticism of LCCA: 1)needs funding 2)needs enforcement provisions and mandatory testing 3)cert labs not actually required for testing; persistent effort by designee to motivate schools to test!
-	-	-	6/90 tabulation of 120 samples from various outlets in ~75 sch & 3 presch: 109 >20, 37 >50 (as high as 999 ppb)	safe standard quoted is 50 ppb but booklet cautions about lower standard
~350	-	~45	45% testing; "impression that many facilities have checked water cooler lists and removed the not-lead-free"	suggestion that mandatory action be legislated (1/15/91); public notification requirement cited

TABLE I- Basic Information for the 50 States and 3 Territories, Listed Alphabetically

State	Region	Responsible State Agency	Informational Materials Distributed (a,b,c,d,e)	Workshops/Seminars/Training	Who is Testing?
DC	III	D.C. Public Schools (Division of Safety and Security)	b (in District office), e (general publicity about lead)	training sessions by EPA personnel	commercial labs under contract to DC
PR	II	Department of Health	a, b (thru Dept of Publ Educ and Archdiocese of Catholic Sch), c, e (questionnaire)	no	DOH and PR Authority for Sewers and Aqueducts
VI	II	Department of Planning and Natural Resources	b, e (reminders to hardware stores and suppliers, health dept, publ, etc)	4 workshops	EPA certified lab in NY

TABLE I

#Schools Public	#Schools Private	#Day Cares	Extent and Nature of Data Returned to State	Comments
~180	-	10,000 pre-kindergarten & kindergarten children	of 187 sch sampled, (5 samples each), 10 (5%) >20ppb	consider sampling done thus far to be inadequate; hope program will be funded
~2000	~500	-	2000 sch, 300 dc (11/90Q) but spokesperson said (2/91) that <2000 sch have tested	no coolers on EPA list; no fountains tested; no reports of >20ppb Pb in faucets
35	25	1-2	all 60 sch have tested; 1 or 2 >20ppb on 1st draw all OK after flushing (including w. coolers, faucets, etc.)(1/91)	1989: "lack of funding impedes program implementation"

TABLE II - Collated Information for the 50 States and 3 Territories

Region	Number of States	State agency reported that water sampling had been done by:			State was able to supply:			
		a "few" to 25% of schools	25-80% of schools	95-100% of schools	no information		impressions about	
					about schools	about daycares	schools testing	daycares testing
I	4	1	5			4		1
II	4	1	1	2		2	1	2
III	6	2	2	1	1	5		
IV	8	1	6		1	4		1
V	6	3	2		1	4	1	
VI	5	1	3		1	3		
VII	4	2	2			1	1	
VIII	6		4	1	2	4	1	
IX	4	1	1			4		
X	4	3	1			2	1	
Totals	51	15	27	4	6	33	5	4

TABLE II

State was able to supply:				Specific use of or reference to 20ppb standard	% samples or facilities having >20ppb Pb, for any # of samples or sites analyzed*	Remedia-tion im-plemented (for even a few schools)	Cooler inventory reported	Distri-bution of manual to indi-vidual schools	Specific acknow- edgment of public notification require- ments
all sources of drinking water in schools	coolers only	day- cares	some lead level data (even minimal)						
6		1	5	5	8, 12, 20, 20, 27, 30, 47	6	2	2	1
3			1	2	0, 2, 3	1		4	
3	1	2	4	5	5, 10, 14, 32, 47	2	1	4	2
4	3	3	4	4	1, 8, 8, 35	7	2	5	4
4	1	2	4	4	1, 3, 4, 5, 5, 9, 12, 91	4	2	1	1
3	1	2	4	4	5, 5, 8, 10, 13	2	1	4	2
	2	3	3	3	0, 5, 8, 10, 13, 27	2	2	1	2
2		2	4	3	0, 4, 5-10, 14	5	1	6	3
2			1	1	10	2	1	2	2
3	1	2	0			1	2	4	2
30	9	17	30	31		32	14	33	19

* See text, page 7.

APPENDIX A

THE LEAD CONTAMINATION CONTROL ACT

PUBLIC LAW 100-572 [H.R. 4939]; October 31, 1988

LEAD CONTAMINATION CONTROL ACT OF 1988

An Act to amend the Safe Drinking Water Act to control lead in drinking water.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Lead
Contamination
Control Act of
1988.
Consumer
protection.
42 USC 201 note.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Lead Contamination Control Act of 1988".

SEC. 2. LEAD IN DRINKING WATER COOLERS AND IN SCHOOL DRINKING WATER.

(a) **ADDITIONAL REQUIREMENTS TO REGULATE THE SAFETY OF DRINKING WATER.**—The Safe Drinking Water Act (title XIV of the Public Health Service Act; 42 U.S.C. 300f and following) is amended by adding the following new part at the end thereof:

"PART F—ADDITIONAL REQUIREMENTS TO REGULATE THE SAFETY OF DRINKING WATER

42 USC 300j-21. "SEC. 1461. DEFINITIONS.

"As used in this part—

"(1) **DRINKING WATER COOLER.**—The term 'drinking water cooler' means any mechanical device affixed to drinking water supply plumbing which actively cools water for human consumption.

"(2) **LEAD FREE.**—The term 'lead free' means, with respect to a drinking water cooler, that each part or component of the cooler which may come in contact with drinking water contains not more than 8 percent lead, except that no drinking water cooler which contains any solder, flux, or storage tank interior surface which may come in contact with drinking water shall be considered lead free if the solder, flux, or storage tank interior surface contains more than 0.2 percent lead. The Administrator may establish more stringent requirements for treating any part or component of a drinking water cooler as lead free for purposes of this part whenever he determines that any such part may constitute an important source of lead in drinking water.

"(3) **LOCAL EDUCATIONAL AGENCY.**—The term 'local educational agency' means—

"(A) any local educational agency as defined in section 198 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 3381),

"(B) the owner of any private, nonprofit elementary or secondary school building, and

"(C) the governing authority of any school operating under the defense dependent's education system provided for under the Defense Dependent's Education Act of 1978 (20 U.S.C. 921 and following).

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“(4) REPAIR.—The term ‘repair’ means, with respect to a drinking water cooler, to take such corrective action as is necessary to ensure that water cooler is lead free.

“(5) REPLACEMENT.—The term ‘replacement’, when used with respect to a drinking water cooler, means the permanent removal of the water cooler and the installation of a lead free water cooler.

“(6) SCHOOL.—The term ‘school’ means any elementary school or secondary school as defined in section 198 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 2854) and any kindergarten or day care facility.

“(7) LEAD-LINED TANK.—The term ‘lead-lined tank’ means a water reservoir container in a drinking water cooler which container is constructed of lead or which has an interior surface which is not lead free.

“SEC. 1462. RECALL OF DRINKING WATER COOLERS WITH LEAD-LINED TANKS. 42 USC 300j-22.

“For purposes of the Consumer Product Safety Act, all drinking water coolers identified by the Administrator on the list under section 1463 as having a lead-lined tank shall be considered to be imminently hazardous consumer products within the meaning of section 12 of such Act (15 U.S.C. 2061). After notice and opportunity for comment, including a public hearing, the Consumer Product Safety Commission shall issue an order requiring the manufacturers and importers of such coolers to repair, replace, or recall and provide a refund for such coolers within 1 year after the enactment of the Lead Contamination Control Act of 1988. For purposes of enforcement, such order shall be treated as an order under section 15(d) of that Act (15 U.S.C. 2064(d)).

“SEC. 1463. DRINKING WATER COOLERS CONTAINING LEAD. 42 USC 300j-23.

“(a) PUBLICATION OF LISTS.—The Administrator shall, after notice and opportunity for public comment, identify each brand and model of drinking water cooler which is not lead free, including each brand and model of drinking water cooler which has a lead-lined tank. For purposes of identifying the brand and model of drinking water coolers under this subsection, the Administrator shall use the best information available to the Environmental Protection Agency. Within 100 days after the enactment of this section, the Administrator shall publish a list of each brand and model of drinking water cooler identified under this subsection. Such list shall separately identify each brand and model of cooler which has a lead-lined tank. The Administrator shall continue to gather information regarding lead in drinking water coolers and shall revise and republish the list from time to time as may be appropriate as new information or analysis becomes available regarding lead contamination in drinking water coolers.

“(b) PROHIBITION.—No person may sell in interstate commerce, or manufacture for sale in interstate commerce, any drinking water cooler listed under subsection (a) or any other drinking water cooler which is not lead free, including a lead-lined drinking water cooler.

“(c) CRIMINAL PENALTY.—Any person who knowingly violates the prohibition contained in subsection (b) shall be imprisoned for not more than 5 years, or fined in accordance with title 18 of the United States Code, or both.

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“(d) **CIVIL PENALTY.**—The Administrator may bring a civil action in the appropriate United States District Court (as determined under the provisions of title 28 of the United States Code) to impose a civil penalty on any person who violates subsection (b). In any such action the court may impose on such person a civil penalty of not more than \$5,000 (\$50,000 in the case of a second or subsequent violation).

42 USC 300j-24.

“SEC. 1464. LEAD CONTAMINATION IN SCHOOL DRINKING WATER.

“(a) **DISTRIBUTION OF DRINKING WATER COOLER LIST.**—Within 100 days after the enactment of this section, the Administrator shall distribute to the States a list of each brand and model of drinking water cooler identified and listed by the Administrator under section 1463(a).

“(b) **GUIDANCE DOCUMENT AND TESTING PROTOCOL.**—The Administrator shall publish a guidance document and a testing protocol to assist schools in determining the source and degree of lead contamination in school drinking water supplies and in remedying such contamination. The guidance document shall include guidelines for sample preservation. The guidance document shall also include guidance to assist States, schools, and the general public in ascertaining the levels of lead contamination in drinking water coolers and in taking appropriate action to reduce or eliminate such contamination. The guidance document shall contain a testing protocol for the identification of drinking water coolers which contribute to lead contamination in drinking water. Such document and protocol may be revised, republished and redistributed as the Administrator deems necessary. The Administrator shall distribute the guidance document and testing protocol to the States within 100 days after the enactment of this section.

“(c) **DISSEMINATION TO SCHOOLS, ETC.**—Each State shall provide for the dissemination to local educational agencies, private nonprofit elementary or secondary schools and to day care centers of the guidance document and testing protocol published under subsection (b), together with the list of drinking water coolers published under section 1463(a).

“(d) **REMEDIAL ACTION PROGRAM.**—

“(1) **TESTING AND REMEDYING LEAD CONTAMINATION.**—Within 9 months after the enactment of this section, each State shall establish a program, consistent with this section, to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from coolers and from other sources of lead contamination at schools under the jurisdiction of such agencies.

“(2) **PUBLIC AVAILABILITY.**—A copy of the results of any testing under paragraph (1) shall be available in the administrative offices of the local educational agency for inspection by the public, including teachers, other school personnel, and parents. The local educational agency shall notify parent, teacher, and employee organizations of the availability of such testing results.

“(3) **COOLERS.**—In the case of drinking water coolers, such program shall include measures for the reduction or elimination of lead contamination from those water coolers which are not lead free and which are located in schools. Such measures shall be adequate to ensure that within 15 months after the enactment of this subsection all such water coolers in

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schools under the jurisdiction of such agencies are repaired, replaced, permanently removed, or rendered inoperable unless the cooler is tested and found (within the limits of testing accuracy) not to contribute lead to drinking water.

"SEC. 1465. FEDERAL ASSISTANCE FOR STATE PROGRAMS REGARDING LEAD CONTAMINATION IN SCHOOL DRINKING WATER. 42 USC 300j-25.

"(a) SCHOOL DRINKING WATER PROGRAMS.—The Administrator shall make grants to States to establish and carry out State programs under section 1464 to assist local educational agencies in testing for, and remedying, lead contamination in drinking water from drinking water coolers and from other sources of lead contamination at schools under the jurisdiction of such agencies. Such grants may be used by States to reimburse local educational agencies for expenses incurred after the enactment of this section for such testing and remedial action.

"(b) LIMITS.—Each grant under this section shall be used as by the State for testing water coolers in accordance with section 1464, for testing for lead contamination in other drinking water supplies under section 1464, or for remedial action under State programs under section 1464. Not more than 5 percent of the grant may be used for program administration.

"(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section not more than \$30,000,000 for fiscal year 1989, \$30,000,000 for fiscal year 1990, and \$30,000,000 for fiscal year 1991."

SEC. 3. LEAD POISONING PREVENTION PROGRAMS.

The Public Health Service Act is amended by adding the following new section after section 317:

"SEC. 317A. LEAD POISONING PREVENTION.

42 USC 247b-1.

"(a) GRANTS TO STATES.—The Secretary, acting through the Director of the Centers for Disease Control, may make grants to States and agencies of units of local governments for the initiation and expansion of community programs designed to (1) screen infants and children for elevated blood lead levels, (2) assure referral for treatment of, and environmental intervention for, infants and children with such blood lead levels, and (3) provide education about childhood lead poisoning. In making grants under this paragraph, the Secretary shall give priority to applications for programs which will serve areas with a high incidence of elevated blood lead levels in infants and children.

"(b) GRANT APPLICATIONS.—(1) No grant may be made under subsection (a), unless an application therefor has been submitted to, and approved by, the Secretary. Such an application shall be in such form and shall be submitted in such manner as the Secretary shall prescribe and shall include each of the following:

"(A) A complete description of the program which is to be provided by or through the applicant.

"(B) Assurances satisfactory to the Secretary that the program to be provided under the grant applied for will include educational programs designed to communicate to parents, educators, and local health officials the significance and prevalence of lead poisoning in infants and children which the program is designed to detect and prevent.

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“(C) Assurances satisfactory to the Secretary that the applicant will report on a quarterly basis the number of infants and children screened for elevated blood lead levels, the number of infants and children who were found to have elevated blood lead levels, the number and type of medical referrals made for such infants and children, the outcome of such referrals, and other information to measure program effectiveness as required under paragraph (2).

“(D) Assurances satisfactory to the Secretary that the applicant will make such reports respecting the program involved as the Secretary may require.

“(E) Such other information as the Secretary may prescribe.

“(2) The Secretary shall prepare and submit a report to the Committee on Energy and Commerce of the United States House of Representatives and to the Committee on Labor and Human Resources of the United States Senate not later than one year after the enactment of this section, and annually thereafter, on the effectiveness during the period reported on of the programs assisted under grants under subsection (a).

“(c) MAINTENANCE OF EFFORT.—No grant may be made under subsection (a) unless the Secretary determines that there is satisfactory assurance that Federal funds made available under such a grant for any period will be so used as to supplement and, to the extent practical, increase the level of State, local, and other non-Federal funds that would, in the absence of such Federal funds, be made available for the program for which the grant is to be made and will in no event supplant such State, local, and other non-Federal funds.

“(d) COORDINATION.—No grant may be made under subsection (a) unless the Secretary determines that there will be coordination between the recipient of the grant and activities within the State in which the grantee is located under titles V and XIX of the Social Security Act relating to lead poisoning prevention.

“(e) METHOD AND AMOUNT OF PAYMENT.—The Secretary shall determine the amount of a grant made under subsection (a). Payments under such grants may be made in advance on the basis of estimates or by way of reimbursement, with necessary adjustments on account of underpayments or overpayments, and in such installments and on such terms and conditions as the Secretary finds necessary to carry out the purposes of such grants. Not more than 10 percent of any grant may be obligated for administrative costs.

“(f) SUPPLIES, EQUIPMENT, AND EMPLOYEE DETAIL.—The Secretary, at the request of a recipient of a grant under subsection (a), may reduce the amount of such grant by—

“(1) the fair market value of any supplies or equipment furnished the grant recipient, and

“(2) the amount of the pay, allowances, and travel expenses of any officer or employee of the Government when detailed to the grant recipient and the amount of any other costs incurred in connection with the detail of such officer or employee, when the furnishing of such supplies or equipment or the detail of such an officer or employee is for the convenience of and at the request of such grant recipient and for the purpose of carrying out a program with respect to which the grant under subsection (a) is made. The amount by which any such grant is so reduced shall be available for payment by the Secretary of the costs incurred in furnishing the supplies or equipment, or in detailing the personnel,

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on which the reduction of such grant is based, and such amount shall be deemed as part of the grant and shall be deemed to have been paid to the grant recipient.

“(g) RECORDS.—Each recipient of a grant under subsection (a) shall keep such records as the Secretary shall prescribe, including records which fully disclose the amount and disposition by such recipient of the proceeds of such grant, the total cost of the undertaking in connection with which such grant was made, and the amount of that portion of the cost of the undertaking supplied by other sources, and such other records as will facilitate an effective audit.

“(h) AUDIT AND EXAMINATION OF RECORDS.—The Secretary and the Comptroller General of the United States, or any of their duly authorized representatives, shall have access for the purpose of audit and examination to any books, documents, papers, and records of the recipient of a grant under subsection (a), that are pertinent to such grant.

“(i) INDIAN TRIBES.—For purposes of this section, the term ‘units of local government’ includes Indian tribes.

“(j) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section not more than \$20,000,000 for fiscal year 1989, \$22,000,000 for fiscal year 1990, and \$24,000,000 for fiscal year 1991.”

SEC. 4. CERTIFICATION OF TESTING LABORATORIES.

42 USC 300j-26.

The Administrator of the Environmental Protection Agency shall assure that programs for the certification of testing laboratories which test drinking water supplies for lead contamination certify only those laboratories which provide reliable accurate testing. The Administrator (or the State in the case of a State to which certification authority is delegated under this subsection) shall publish and make available to the public upon request the list of laboratories certified under this subsection.

SEC. 5. CONFORMING AMENDMENT.

42 USC 300j-4.

Section 1445 of the Safe Drinking Water Act (title XIV of the Public Health Service Act) is amended by adding the following new subsection at the end thereof:

“(f) INFORMATION REGARDING DRINKING WATER COOLERS.—The Administrator may utilize the authorities of this section for purposes of part F. Any person who manufactures, imports, sells, or distributes drinking water coolers in interstate commerce shall be treated as a supplier of water for purposes of applying the provisions of this section in the case of persons subject to part F.”

Approved October 31, 1988.

LEGISLATIVE HISTORY—H.R. 4939:

HOUSE REPORTS: No. 100-1041 (Comm. on Energy and Commerce).

CONGRESSIONAL RECORD, Vol. 134 (1988):

Oct. 5, considered and passed House.

Oct. 14, considered and passed Senate.

APPENDIX B

STATE AGENCIES WITH RESPONSIBILITY FOR ADMINISTRATION OF THE LEAD CONTAMINATION CONTROL ACT

Department of Health - 17

Department of Health and Environment - 4

Department of Health and Environmental Conservation - 1

Department of Health and Environmental resources - 1

Department of Health and Hospitals - 1

Department of Health and Human Services - 2

Department of Health Services - 2

Department of Public Health - 2

Departments of Health, Education - 2

Departments of Public Health, Education, Human Services - 1

Department of Environmental Conservation - 1

Department of Environmental Management - 1

Department of Environmental Quality - 1

Department of Environmental Protection - 1

Department of Environmental Regulation - 1

Department of Environmental Resources - 1

Departments of Environmental Protection, Public Health - 1

Departments of Environment, Social Services - 1

Department of Education - 4

Department of Human Resources - 1

Departments of Human Resources, Education - 1

Department of Social and Health Services - 1

Department of Natural Resources - 1

Department of Environmental Health and Natural Resources - 1

Department of Water and Natural Resources - 1

Department of Planning and Natural Resources - 1

Departments of Education, Human Services, Environmental Protection, Health - 1

APPENDIX C

U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS

REGION I

CT - CONNECTICUT
MA - MASSACHUSETTS
ME - MAINE
NH - NEW HAMPSHIRE
RI - RHODE ISLAND
VT - VERMONT

REGION II

NJ - NEW JERSEY
NY - NEW YORK
PR - PUERTO RICO
VI - VIRGIN ISLANDS

REGION III

DE - DELAWARE
DC - DISTRICT OF COLUMBIA
MD - MARYLAND
PA - PENNSYLVANIA
VA - VIRGINIA
WV - WEST VIRGINIA

REGION IV

AL - ALABAMA
FL - FLORIDA
GA - GEORGIA
KY - KENTUCKY
MS - MISSISSIPPI
NC - NORTH CAROLINA
SC - SOUTH CAROLINA
TN - TENNESSEE

REGION V

IL - ILLINOIS
IN - INDIANA
MI - MICHIGAN
MN - MINNESOTA
OH - OHIO
WI - WISCONSIN

REGION VI

AR - ARKANSAS
LA - LOUISIANA
NM - NEW MEXICO
OK - OKLAHOMA
TX - TEXAS

REGION VII

IA - IOWA
KS - KANSAS
NE - NEBRASKA
MO - MISSOURI

REGION VIII

CO - COLORADO
MT - MONTANA
ND - NORTH DAKOTA
SD - SOUTH DAKOTA
UT - UTAH
WY - WYOMING

REGION IX

AZ - ARIZONA
CA - CALIFORNIA
HI - HAWAII
NV - NEVADA
AS - AMERICAN SAMOA
GM - GUAM
CNMI - COMMONWEALTH OF NORTHERN MARIANA ISLANDS
ROP - REPUBLIC OF PALAU
FSM - FEDERATED STATES OF MICRONESIA
RMI - THE REPUBLIC OF THE MARSHALL ISLANDS

REGION X

AK - ALASKA
ID - IDAHO
OR - OREGON
WA - WASHINGTON

APPENDIX D

U.S. ENVIRONMENTAL PROTECTION AGENCY LIST OF NOT LEAD FREE WATER COOLERS

Halsey Taylor Water Coolers
with at least some lead-lined tanks.

Model Numbers:

WM 8A
WT 8A
GC 10ACR
GC 10A
GC 5A
RWM 13A
WM 14A
WT 11A
WT 21A
LL 14A

Halsey Taylor Water Coolers
with lead solder (manufactured
between 1978 and the last week
of 1987).

Model Numbers:

WMA-I
SWA-I
S3/5/10D
S300/500/1000D
SCWT/SCWT-A
DC/DHC-1
BFC-4F/7F/4FS/7FS

Haws brand coolers manufactured for
Haws by Halsey Taylor containing two
tin-lead solder joints.

Model Numbers:

HC8WT	HC14W	HCBF7D
HC8WTH	HC4F	HCBF7HO
HC14WT	HC4FH	HWC7
HC14WTH	HC8F	HWC7D
HC14WL	HC8FH	HC2F
HC16WT	HC14F	HC2FH
HC4W	HC14FH	HC5F
HC6W	HC14FL	HC10F
HC8W	HCBF7	

EBCO Pressure bubbler coolers
containing a single 50-50
tin-lead solder joint on the
bubbler valve (produced from
1978 through 1981).

Model Numbers:

CP3	DP7SM	DPM8H
CP10-50	DP16M	DP7S
DP20-50	CP3H	DP7WM
DP13A	13P	EP10F
DP7M	DP3RH	CP10
DP13M-60	DP14A-50/60	DP20
CP5M	DP12N	DP8AH
DP14S	DPM8	DP5M
DP15M	C10E	DP13M
CP3-50	DP5S	CP3M
7P	DP13SM	DP13S
DP3R	EP5F	DP7WMD
DP13A-50	CP5	WTC10
PX-10	13PL	
DP7MH	DP8A	
DP14M	DP10X	
DP15MW	DP15W	