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PUBLIC HEARING

before

ASSEMBLY ENERGY AND ENVIRONMENT COMMITTEE

ASSEMBLY BILL NUMBERS: 4049, 4050, 4051, 4052,  
4053, 4054, 4055, 4056,

and

ASSEMBLY RESOLUTION NUMBERS: 189, 190, 191, 192

(Lead Toxicity Package)

October 15, 1990  
Room 418  
State House Annex  
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Assemblyman Robert G. Smith, Chairman  
Assemblyman Neil M. Cohen, Vice Chairman  
Assemblyman Arthur R. Albohn  
Assemblyman Jack Collins

ALSO PRESENT:

Assemblyman John A. Villapiano  
District 11

Raymond E. Cantor  
Office of Legislative Services  
Aide, Assembly Energy and  
Environment Committee

\* \* \* \* \*

Hearing Recorded and Transcribed by  
Office of Legislative Services  
Public Information Office  
Hearing Unit  
State House Annex  
CN 068  
Trenton, New Jersey 08625





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STATE HOUSE ANNEX, CN-068  
TRENTON, NEW JERSEY 08625-0068

ALBERT PORRONI  
*Executive Director*  
(609) 292-4625

ARTHUR S. APPLEBAUM  
*Director of Public Information*  
(609) 292-4661

LORI O'MARA-VAN DRIESEN  
*Manager, Publications & Communications*  
(609) 292-4661

HERMAN HAMMERSCHMIDT  
*Operations Assistant*  
(609) 292-4661

G. GARY SULLIVAN  
*Projects Coordinator*  
(609) 292-4661

**MEMORANDUM**

TO: Kathy Crotty  
Executive Director, Senate Majority

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Executive Director, Senate Minority

Richard J. Coffee  
Executive Director, Assembly Majority

Donald Sico  
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Bob Lupp  
Reference Services, N. J. State Library

Raymond E. Cantor  
OLS Aide, Assembly Energy and Environment Comm.

Susan Stemberg  
Librarian, OLS Library

Monica Brooks  
Coordinator, Bill Room

FROM: Arthur S. Applebaum *ASA*  
Director of Public Information

David Inverso *D.I.*  
Coordinator, Hearing Unit

DATE: December 4, 1990

SUBJECT: **TRANSCRIPT INFORMATION MISPRINT  
ASSEMBLY ENERGY AND ENVIRONMENT PUBLIC  
HEARING TRANSCRIPT, OCTOBER 15, 1990**

The public hearing transcript of the **Assembly Energy and Environment Committee** hearing which took place October 15, 1990, incorrectly included Assembly Bill No. 4049 as part of the Lead Toxicity Package. The actual bill that should have been included is **Assembly Bill No. 4029**. This bill is available through the Office of Legislative Services Bill Room.

Thank you.







ROBERT G. SMITH  
CHAIRMAN  
NEIL M. COHEN  
VICE-CHAIRMAN  
THOMAS J. DUCH  
ARTHUR R. ALBOHN  
JACK COLLINS

**New Jersey State Legislature**  
**ASSEMBLY ENERGY AND ENVIRONMENT COMMITTEE**  
STATE HOUSE ANNEX, CN-068  
TRENTON, NEW JERSEY 08625-0068  
(609) 292-7676

REVISED  
NOTICE OF A PUBLIC HEARING

The Assembly Energy and Environment Committee will hold a public hearing to take testimony on the Lead Toxicity package:

The Lead Toxicity package includes the following bills:

\*A-4049, A-4050, A-4051, A-4052, A-4053, A-4054,  
A-4055, A-4056, \*AR-189, AR-190, AR-191 and  
\*AR-192

The hearing will be held on *Monday, October 15, 1990 at 9:30 a.m. in Room 418 in the State House Annex, Trenton, New Jersey.*

*The public may address comments and questions to either Raymond Cantor, Aide to the Assembly Energy and Environment Committee or Stephen Kuepper. Persons wishing to testify should contact Elva Thomas, committee secretary, at (609) 292-7676.*

Issued 10/5/90  
\*Reissued 10/9/90







ROBERT G. SMITH  
CHAIRMAN  
JIL M. COHEN  
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**COMMITTEE NOTICE**

TO: MEMBERS OF THE ASSEMBLY ENERGY AND  
ENVIRONMENT COMMITTEE

FROM: ASSEMBLYMAN ROBERT G. SMITH, CHAIRMAN

SUBJECT: **COMMITTEE MEETING - October 15, 1990**

*The public may address comments and questions to Raymond E. Cantor  
Committee Aide, and Stephen Kuepper or make bill status and scheduling  
inquiries to Elva Thomas, secretary, at (609) 292-7676.*

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The Assembly Energy and Environment Committee will meet on **Monday,  
October 15, 1990 immediately following the public hearing** which begins at  
9:30 A.M, in Room 418, State House Annex, Trenton, New Jersey to consider  
the following bills:

A-4049 (pending introduction)	Requires DEP to conduct pilot project to determine lead exposure routes; appropriates \$60,000.
A-4050 Smith, R.	Imposes tax on paint and allied products for lead toxicity projects.
A-4051 Smith, R./Duch	Requires testing of certain children for lead toxicity; appropriates \$1,200,000.
A-4052 Bryant/Rooney	Establishes certification program for lead paint abatement workers and inspectors; establishes "Lead Abatement Worker Certification Fund," appropriates \$90,000.
A-4053 Mecca/Moran	Establishes a State lead toxicity awareness and information program; appropriates \$50,000.
A-4054 Schwartz/Villapiano	Requires DCA to develop model lead abatement program for residential buildings; appropriates \$90,000.

A-4055 Charles/ Bush	Prohibits sale of lead solder and use in plumbing.
A-4056 Kenny/Scerni	Establishes presumption that lead toxicity is due to lead paint in residence.
AR-189 Collins/Schwartz	Memorializes President, Congress, and Housing and Urban Development to provide for abatement of lead paint in housing.
AR-190 Gill/Duch	Memorializes President, Congress, and EPA to require lead content labeling for lead-containing products.
AR-191 Foy/McGreevey	Memorializes Secretary of the United States Department of Labor to apply standards limiting employee exposure to lead in the workplace to the construction industry.
AR-192 Albohn/Spadoro	Memorializes U.S. Secretary of Health and Human Services to develop methods and protocols for detecting lead levels in blood at concentrations lower than currently tested for.



ASSEMBLY, No. 4049

STATE OF NEW JERSEY

INTRODUCED OCTOBER 15, 1990

By Assemblymen KELLY and McENROE

1 AN ACT concerning neighborhood crime prevention groups and  
2 supplementing Title 52 of the Revised Statutes.

3  
4 BE IT ENACTED by the Senate and General Assembly of the  
5 State of New Jersey:

6 1. This act shall be known and may be cited as the  
7 "Neighborhood Crime Prevention Act."

8 2. As used in this act:

9 "Organization" means any neighborhood crime prevention  
10 organization, incorporated or unincorporated, organized not for  
11 pecuniary profit or financial gain and no part of the assets,  
12 income or profit of which is distributable to, or inures to the  
13 benefit of, its members, directors (or their equivalent) or officers  
14 except to the extent permitted by law, and engages in one or  
15 more of the organization activities defined in this section.

16 "Organization activities" means activities of neighborhood  
17 crime prevention, geared towards the heightened awareness and  
18 practice of community members in techniques stressing the  
19 reduction of opportunities for crimes to occur and the increased  
20 possibility of police apprehension of criminals. The term shall  
21 also mean activities to develop and strengthen a sense of  
22 neighborhood identity and a constructive attitude in that  
23 neighborhood. Activities may include, but not be limited to,  
24 tenant-lobby patrols, auto patrols, street-foot patrols, home and  
25 business security surveys, and distribution of crime prevention  
26 literature and equipment. Organization activities may also  
27 include the involvement of senior citizens and youth in escort  
28 services, auxilliary police services and the utilization of  
29 community outreach through publicity of approved anti-crime  
30 techniques. Organization activities shall not be interpreted to  
31 authorize the possession, carrying, use or distribution of firearms  
32 or other deadly weapons regardless of whether the appropriate  
33 firearms permits or licenses have been obtained.

34 3. a. The Attorney General may enter into contracts, either on  
35 his own initiative or upon application of an organization or the  
36 municipality having jurisdiction over such organization, for the  
37 performance of organization activities. These contracts shall be  
38 entered into, however, only after appropriate findings by the  
39 Attorney General and subject to the limitations set forth in this  
40 act. Preference shall be given to those organizations in high  
41 crime areas.

1       b. Prior to entering into, renewing, extending or replacing a  
2 contract with an organization, the Attorney General shall make a  
3 finding that the organization is a bona fide organization which  
4 has been in existence for at least one full year within a  
5 three-year period immediately prior to application for funding as  
6 a corporation or an unincorporated, but organized group, and has  
7 demonstrated by its activities that it has the ability to establish  
8 and maintain tenant-lobby, street-foot patrols, or auto patrols or  
9 other approved activities in the proposed neighborhood. The  
10 Attorney General shall also find that the activities proposed are  
11 needed by the neighborhood and that the proposed activities  
12 utilize resident involvement to the fullest extent possible. A  
13 finding shall also be made as to the ability of the organization to  
14 acquire or gain access to the requisite staff, office facilities, and  
15 expertise to enable it to perform the activities which it proposes  
16 to undertake pursuant to the contract.

17       c. In determining whether to enter into, renew, extend or  
18 replace a contract with an organization pursuant to this act, the  
19 Attorney General shall investigate, to the extent deemed  
20 necessary or appropriate, and establish that:

21           (1) the geographic boundaries proposed by the applicant for  
22 such a contract define a recognized or established neighborhood  
23 or area within the municipality;

24           (2) the activities proposed by the organization are reasonably  
25 calculated to have a generally positive effect on the prevention  
26 of crime and on the reduction of the fear of crime within the  
27 neighborhood and are designed to provide additional and  
28 particular focus when necessary to address the needs of senior  
29 citizens;

30           (3) the presence of the organization within the neighborhood  
31 has not resulted in and will not result in a decrease in the crime  
32 prevention activities performed by existing police agencies in the  
33 neighborhood;

34           (4) the organization has coordinated and will continue to  
35 coordinate its activities with existing police agencies;

36           (5) the organization's officers, directors and members  
37 represent the residents and the legitimate interests of the  
38 neighborhood, and they will carry out the contract in a  
39 responsible manner;

40           (6) a majority of the directors of the organization are  
41 residents of the neighborhood;

42           (7) the plan submitted by the organization demonstrates that  
43 the organization will recruit and utilize neighborhood volunteers  
44 and will, to the extent possible, acquire loaned or donated  
45 equipment for the performance of its activities;

46           (8) the plan submitted by the organization demonstrates that  
47 the organization when hiring employees will give priority, to the  
48 extent possible, to residents of the neighborhood who are either



1 unemployed or not fully employed.

2 Nothing contained within the contract shall impose liability  
3 upon the Attorney General or the community for injury incurred  
4 by any person during the performance of any approved activities.

5 d. A contract under this act shall be limited in duration to  
6 periods of one year, but may thereafter be renewed, extended or  
7 succeeded by new contracts from year to year in the discretion of  
8 the Attorney General for up to an aggregate of four additional  
9 years. Each contract shall also define with particularity the  
10 neighborhood or portion thereof within which the organization's  
11 activities shall be performed under the contract. The contract  
12 shall also set forth the organization's obligations to provide  
13 training in approved crime prevention techniques and in  
14 community relations to those who may perform crime prevention  
15 activities for the organization.

16 e. A contract shall require the organization to maintain books,  
17 records and accounts deemed appropriate and to make them  
18 available for review by the Attorney General. These accounts  
19 shall be current and maintained in conformance with generally  
20 accepted accounting principles and practices.

21 f. Nothing in this act shall preclude a municipality from  
22 applying to or contracting with the Attorney General on behalf of  
23 qualifying auxiliary police services.

24 4. a. A contract entered into with an organization shall  
25 provide for payment to the organization for approved activities  
26 to be performed by it.

27 b. Payment to organizations pursuant to this act shall be  
28 restricted to sums required for the payment of salaries and wages  
29 of employees, and for the purchase of necessary equipment for  
30 the execution of approved activities. Nothing contained herein  
31 shall be interpreted to authorize expenditures leading to the  
32 possession, utilization, carrying, or distribution of firearms or  
33 other deadly weapons, regardless of whether the appropriate  
34 firearms permits or licenses has been obtained. Qualifying  
35 equipment expenditures may include, but shall not be limited to,  
36 locks and audio warning devices for use by financially needy  
37 residents, patrol vehicles, radios, signs, gasoline, support services  
38 for crime victims, publicity and office supplies. Authorized  
39 expenditures shall not include salaries of, or fees for, the hiring  
40 of private guards.

41 c. Payments shall be made by the Attorney General to an  
42 organization not less frequently than quarterly, at or prior to the  
43 commencement of each such time period, to compensate the  
44 organization for the organization activities.

45 d. No organization receiving payments pursuant to this act  
46 shall receive or be eligible to receive any other funds of the State  
47 for activities performed by it under the contract. To the extent  
48 other state funds are received in violation of this subsection,

1 payments otherwise due under this act shall be accordingly  
2 reduced.

3 5. The Attorney General shall, by rules and regulation  
4 promulgated under section 7 of this act, provide for the review,  
5 at periodic intervals, of the performance of organizations under  
6 their respective contracts with the Attorney General. The  
7 reviews shall as far as possible coincide with payment periods.  
8 These reviews shall, among other things, be for the purposes of  
9 ascertaining the quality and quantity of the organization  
10 activities performed, the conformity to contract provisions and  
11 the financial integrity and efficiency of the organization.  
12 Contracts may be terminated by the Attorney General upon a  
13 finding of substantial non-performance or other breach by the  
14 organization, and contracts shall be modified and negotiated,  
15 from time to time, in light of the actual performance, new or  
16 changed conditions, or otherwise.

17 6. The Attorney General shall render technical services and  
18 assistance as it may possess or as may be available to it to enable  
19 the organizations to comply with the intent and provisions of this  
20 act. The Attorney General is authorized to take all steps  
21 necessary to encourage the formation, organization and growth of  
22 new organizations. The Attorney General may also contract with  
23 municipal and other public agencies and with persons for the  
24 provision of technical services and assistance which may include:  
25 preparation and submission of proposals for entering into  
26 contracts with the Attorney General by qualified organizations;  
27 preparation and submission of reports required under the  
28 contracts or regulations issued by the Attorney General by  
29 qualified organizations; internal structure and management of  
30 such organizations; recruitment and training of personnel by  
31 organizations; preparation of plans and projects, negotiation of  
32 agreements and compliance with requirements of programs in  
33 which organizations may become engaged in the course of their  
34 activities; and other technical advice or assistance relating to the  
35 performance or rendition of organization activities.

36 7. The Attorney General shall adopt rules and regulations for  
37 the administration of this act, pursuant to the "Administrative  
38 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), which shall  
39 include provisions concerning eligibility requirements for  
40 contracting with the Attorney General; the form of applications  
41 for contracts; supervision and evaluation of organizations;  
42 reporting, budgeting and record keeping requirements; provisions  
43 for renegotiation, modification termination, extension and  
44 renewal of contracts; provisions for technical services and  
45 assistance to organizations; and other matters not inconsistent  
46 with the purposes and provisions of this act as deemed necessary.

47 8. This act shall take effect on the first day of the seventh  
48 month after enactment except that section 7 shall take effect  
49 immediately.

## STATEMENT

This bill, entitled the "Neighborhood Crime Prevention Act," is designed to help both fledgling and successful community based crime prevention organizations.

Neighborhood organizations seeking to develop and strengthen a sense of neighborhood identity may be authorized by the Attorney General to enter into contracts with him for the provision of approved activities. These activities might include tenant-lobby patrols, auto patrols, street-foot patrols, home and business security surveys, and the distribution of crime prevention literature and equipment. Payment to the organizations would be restricted to funds for salaries and wages of employees and for the purchase of necessary equipment. Expenditures may not be made for private guards or for weapons.

The bill requires the Attorney General to investigate each organization before entering into, renewing, extending or replacing a contract with the organization. Among other things, the investigation would ensure that the organization was coordinating with existing police agencies, representing the legitimate interests of the neighborhood, and giving priority in hiring to neighborhood residents who are either unemployed or not fully employed.

It is the sponsor's belief that the funding of crime prevention initiatives by neighborhood groups will help to bolster local police forces in fighting crime.

The bill is based on similar legislation enacted in Rhode Island.

## PUBLIC SAFETY

Provides assistance to neighborhood crime prevention groups.





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\*  
\* BILL NO. AC-030 \*  
\*  
\* Date of Intro. \_\_\_\_\_ \*  
\*  
\* Ref. \_\_\_\_\_ \*  
\*  
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\* NOTE TO \* Notify OLS if you require changes in this document. \*  
\* \* A revised copy for introduction will be prepared on \*  
\* the legislative computer system. \*  
\* SPONSOR \* Hand-written changes will not appear in the printed \*  
\* bill. \*  
.....

AN ACT imposing a tax on paint and creating a "Lead Toxicity Detection and Prevention Fund" in the Department of the Treasury, and supplementing Title 54 of the Revised Statutes.

ENVIRONMENT

Imposes tax on paint and allied products for lead toxicity projects.

PRIME Sponsor

Robert A. Smith

CO-Sponsors

James J. Giff  
Don M. Smith

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT imposing a tax on paint and creating a "Lead Toxicity Detection and Prevention Fund" in the Department of the Treasury, and supplementing Title 54 of the Revised Statutes.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey*:

1. As used in this act:

"Director" means the Director of the Division of Taxation, in the Department of the Treasury;

"Manufacturer" means a person who, as all or part of the business of that person, manufactures and sells at wholesale any type of paint;

"Net sale value" means the sale value, exclusive of shipping costs and State and federal taxes;

"Paint" means paints, varnishes, lacquers, enamels, and allied products as defined for the purposes of the federal Bureau of the Census' "Census of Manufactures";

"Pre-tax year" means the calendar year immediately preceeding the tax year;

"Receipts" means the received or receivable net sale value, as per completed contract order, of paint shipped from a manufacturer located in this State; and

"Tax year" means the calendar year in which the tax levied pursuant to this act is due and payable.

2. a. There shall annually be imposed a tax of one-half of one percent (.5%) of the receipts of each manufacturer for the pretax year.

b. Not later than March 1 of each tax year, each manufacturer shall file with the director a return showing its receipts from shipments of paint for the pretax year; and remitting twenty-five percent (25%) of the total amount due for that tax year. The remaining tax due shall be remitted in equal installments submitted not later than June 1, September 1, and December 1, respectively, of the tax year.

3. a. There is established, in the Department of the Treasury, a nonlapsing revolving fund entitled the "Lead Toxicity Detection and Prevention Fund." The fund shall be maintained by the State Treasurer and may be held in depositories selected by the Treasurer, and may be invested and reinvested as other funds in the custody of the treasurer, in the manner provided by law. The fund shall be credited with all revenues raised pursuant to this act, all returns on the investment thereof by the State Treasurer, and any principal and interest received in repayment of loans which may be made from the fund.

b. Moneys in the fund shall be appropriated for the purposes of lead toxicity screening and follow-up by the State Department of Health pursuant to P.L. . c. (C. )(now before the Legislature as Assembly Bill No. .... of 1990), for the lead toxicity awareness and information program conducted by the Department of Human Services pursuant to P.L. . c. (C. )(now before the Legislature as Assembly Bill No. .... of 1990), for the pilot project on identification of lead sources by the Department of Environmental Protection pursuant to P.L. , c. (C. )(now before the Legislature as Assembly Bill No. .... of 1990), and for the development of a model lead abatement program by the Department of Community Affairs pursuant to P.L. , c. (C. )(now pending before the Legislature as Assembly Bill No. .... of 1990) and for start up funding for a certification program for lead inspectors and removal workers, pursuant to P.L. , c. (now before the Legislature as A-.... of 1990). For the first calendar year following enactment, monies may, upon certification to the State Treasurer from the Director of the Division of Budget and Accounting, be transferred from the fund to replace monies expended from the General Fund for the aforementioned program.

c. Funds exceeding the amount necessary for the programs delineated herein, if any, may be appropriated to the Department of Health for the provision to appropriate local boards of health of technical advice or assistance in enforcing lead abatement measures pursuant to P.L.1971, c. 366 (C. 24:14A-1 et seq.).

4. The director with the State Treasurer may, pursuant to the "Administrative Procedure Act," P.L. 1968, c. 410 (C. 52:14B-1 et seq.) adopt such rules or regulations as are necessary for the implementation of this act.

5. This act shall take effect January 1 next following enactment.

## STATEMENT

This bill imposes a tax of one-half of one percent (.5%) on the receipts of paint manufacturers in the State of New Jersey. The tax will be levied on the "net sale value" of paint, varnish and allied products shipped from such manufacturers. The bill defines "net sale value" as amounts received or contractually receivable, minus shipping and taxes.

Revenues from the tax will be deposited in the "Lead Toxicity Detection and Prevention Fund," a nonlapsing, revolving fund created by the bill to help finance the testing of children for lead toxicity and homes for lead content, environmental lead testing, research into methods of lead abatement, and public education concerning lead poisoning.

According to the latest available data, the tax imposed by this bill will raise approximately \$3,755,000 per year for the fund.

## ENVIRONMENT

Imposes tax on paint and allied products for lead toxicity projects.



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\*  
\* BILL NO. 22 CAC 51 \*  
\*  
\* Date of Intro. \_\_\_\_\_ \*  
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\* Ref. \_\_\_\_\_ \*  
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\* the legislative computer system. \*  
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\* bill. \*  
\*.....

AN ACT concerning the testing of high-risk children for lead exposure and toxicity,  
supplementing Title 26 of the Revised Statutes, repealing parts of P.L. 1985, c. 84,  
and making an appropriation.

ENVIRONMENT

Requires testing of certain children for lead toxicity; appropriates \$1,200,000.

PRIME Sponsor

Robert A. Smith

CO-Sponsors

James J. Gill  
W. Henry  
Samuel H. Smith  
Stephen J. Smith

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT concerning the testing of high-risk children for lead exposure and toxicity, supplementing Title 26 of the Revised Statutes, repealing parts of P.L. 1985, c. 84, and making an appropriation.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey*:

1. The Legislature finds and determines that:

a. Lead toxicity is the most prevalent disease of environmental origin among American children today, and young children under five years of age are at special risk because of their susceptibility to the potency of lead as a neurologic toxin;

b. At considerably lower exposure levels than those used in previous testing programs, the effects of lead absorption on children can include mental retardation, severe learning disabilities, and permanent, significant neurologic impairment, the social costs of which could be quite substantial;

c. Preliminary testing under the "lead toxicity abatement and control program," and other initiatives of the State Department of Health indicate that, while early childhood exposure to lead may be widespread throughout the State, there are certain municipalities in which the risk of exposure is much higher than the Statewide average;

d. Because of the practical difficulties of removing lead already dispersed into the environment, young children will continue to be exposed to lead for years; and

e. Because local health departments have limited resources for testing, and because uniform testing and follow-up are crucial "first steps" in addressing the problem of lead toxicity in children, it is incumbent upon the Legislature and the State Department of Health to assume a more active role in childhood lead screening.

2. As used in this act:

"Child" means a person aged nine months to six years;

"Commissioner" means the State Commissioner of Health;

"Department" means the State Department of Health;

"Lead toxicity" means a significantly elevated blood lead level, as determined by the commissioner in conformance with standards established by the federal Center for Disease Control;

"Priority I municipality" means a municipality designated as evidencing the highest risk for lead toxicity among children, according to the State Sanitary Code adopted pursuant to section 7 of P.L. 1947, c. 177 (C. 26:1A-7), and section 4 of P.L. 1985, c.84 (C.26:2-133); and

"Screening" means applying detection techniques to symptomatic and asymptomatic children to determine the presence or absence of lead toxicity.

3. a. Within the limitation of funds appropriated for the purposes of this act, the commissioner, by regulation adopted pursuant to the "Administrative Procedure Act," P.L. 1968, c. 410 (C. 52:14B-1 et seq.), shall establish a schedule and procedures for the screening and follow-up of children in Priority I municipalities. The screening shall be in accord with standards adopted by the federal Center for Disease Control. The follow-up shall include tracking of children with lead toxicity by the department or by a county or municipal health department, to which the tracking is delegated by the department, until blood lead levels drop below toxic levels, or until age six, as the case may be, and referral for subsequent medical management as appropriate, and notification of parents or guardians of cases of lead toxicity, and of the importance of treating it early. The follow-up shall also include appropriate testing of the dwelling unit in which the child resides, and, as appropriate, the soil surrounding that unit, and notifying the owner of the unit of the requirements and procedures necessary and available for ameliorating lead toxicity.

b. The procedures established pursuant to subsection a. of this section may include the use of county, municipal, or school district facilities, or local health facilities approved by the department with testing performed under the direction of private physicians, or of county or municipal health officials, as appropriate. The department shall establish methods and procedures for carrying out the tests, and evaluating the results thereof. In such instances, the department shall reimburse the county, municipality, school district, health facility, or private physician as the case may be, for the testing, including in such reimbursement, where appropriate, the fees charged by private physicians or laboratories.

c. Within the limits of funds appropriated or otherwise made available for the purposes of this act, the commissioner may require screening of children in municipalities other than Priority I municipalities, which screening shall be conducted and reported in the manner set forth in subsections a. and b. of this section.

d. The commissioner may exempt a child from the lead toxicity testing provisions of this act if the parent or guardian of the child objects to the testing in writing on the grounds that the testing conflicts with his religious tenets or practices.

4. The commissioner may, by rule or regulation promulgated pursuant to the "Administrative procedure Act," P.L. 1968, c. 410 (C. 52:14B-1 et seq.), require all private physicians, hospitals and medical clinics in this State to report cases of lead toxicity among children to the department. Such rule or regulation shall provide for the maintenance of anonymity, by the reporting physician or clinic where the child and his family are concerned, and in using the information so received to help identify the geographical distribution of lead toxicity throughout the State.

5. The commissioner shall annually report to the Governor and the Legislature, no later than June 1 of each year, on the screening and follow-up program required by this act. The report shall also include a summary of any lead abatement undertaken as the result of action taken by the State, or any county or municipal government and, to the greatest degree possible, abatements undertaken voluntarily by private persons. The report shall also include such recommendations for legislation as the commissioner deems appropriate.

6. There is appropriated, to the Department of Health from the General Fund, the sum of \$1,200,000.00 for the purposes of this act during the first 180 days following enactment. Thereafter, there shall be appropriated, from the "Lead Toxicity Detection and Prevention Fund," created pursuant to P.L. ...., c.... (C.....), such sums as are necessary to defray the costs of this act. The amount appropriated in this section from the General Fund shall be repaid to the General Fund from the "Lead Toxicity Detection and Prevention Fund." None of the funds appropriated pursuant to this section shall be used for departmental administrative expenses.



7. The department may set aside up to 10% of the funds appropriated pursuant to this or any other act appropriating funds for testing for, or the abatement of, lead toxicity for the purpose of providing loans to municipal boards of health to abate lead paint nuisances pursuant to section 9 of P.L. 1971, c. 366 (C. 24:14A-9). The department shall establish criteria for making the loans and procedures for repayment of the loans to the department.

8. The commissioner shall adopt rules or regulations, pursuant to the "Administrative Procedure Act," P.L. 1968, c. 410 (C. 52:14B-1 et seq.) to implement the provisions of this act.

9. Sections 2, 5, 6, 7 and 8 of P.L. 1985, c. 84 (C. 26:2-131, 26:2-134, 26:2-135, 26:2-136 and 26:2-137, respectively) are repealed.

10. This act shall take effect January 1 next following enactment.

#### STATEMENT

This bill provides for a mandatory screening program for children in high-risk municipalities (as identified by the State Department of Health) for blood lead toxicity. The bill also allows the department to test high-risk children in other municipalities. Under current practice, the bill would essentially require the department to perform two blood tests on up to 177,000 children -- one test at age nine to twelve months; and one at age eighteen to twenty-four months. The program would use cut-off levels set by the Centers for Disease Control, and would include certain medical follow-up for children with lead toxicity.

The testing program, along with annual reports on the program, would replace a more limited program set forth in P.L. 1985, c. 84 (C. 26:2-130 et seq.), most of which is repealed by the bill. Other aspects of the repealed statute are dealt with in companion legislation.

This bill appropriates \$1,200,000 for the first 6 months of the program. It is intended that additional funds be made available through annual appropriations acts or supplements thereto.

It is estimated that, during its first full year of operation, the testing program will cost approximately \$2,400,000.

#### ENVIRONMENT

Requires testing of certain children for lead toxicity; appropriates \$1,200,000.

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\* BILL NO. 124052 \*  
\* Date of Intro. \_\_\_\_\_ \*  
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AN ACT concerning the abatement of lead-based paint hazards, creating the "Lead Abatement Worker Certification Fund," supplementing P.L.1975, c.217 (C.52:27D-119 et seq.), and making an appropriation.

#### ENVIRONMENT

Establishes certification program for lead paint abatement workers and inspectors; establishes "Lead Abatement Worker Certification Fund," appropriates \$90,000.

PRIME Sponsor

CO-Sponsors

*Will Bryner*  
*John Long*  
*James J. Gull*  
*Steve Thomas*  
*Richard L. ...*  
*Ed Kennedy*

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT concerning the abatement of lead-based paint hazards, creating the "Lead Abatement Worker Certification Fund," supplementing P.L.1975, c.217 (C.52:27D-119 et seq.), and making an appropriation.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey*:

1. As used in this act:

"Commissioner" means the Commissioner of Community Affairs;

"Department" means the Department of Community Affairs;

"Lead abatement" means a comprehensive process of removing lead-based paint from a building or structure, and includes determining each location in the building or structure that contains lead-based paint, removing or encapsulating lead-based paint, containing dust and debris therefrom, and cleaning up and disposing of the resultant waste; and

"Lead inspection" means a process of sampling and testing for lead contamination or other hazards, including lead-based paint, and lead contaminated surface and airborne dust.

2. The department shall develop, offer or approve training courses which shall be required for the certification of lead abatement workers and lead inspectors.

(1) The training course for lead abatement workers shall include, but shall not be limited to, instruction in: general renovation and lead abatement techniques; the known health effects of lead toxicity and possible routes of exposure of workers and occupants during abatement of lead-based paint hazards; various techniques and methods of abating lead-based paint hazards; safe methods of lead abatement and safe work practices for the protection of workers and occupants, including the enclosure of work areas; proper cleanup of debris and lead bearing dust during and after lead abatement; the safe handling, transport and disposal of hazardous lead waste; and such other health and safety concerns as the department may deem appropriate or necessary.

(2) The training course for lead inspectors shall include, but shall not be limited to, instruction in different techniques and methods of assessing total lead hazards in buildings or other



structures before, during and after abatement of lead hazards, including knowledge of different lead testing techniques, radiation safety and any other requirements the department may deem necessary and appropriate.

The training courses, to the greatest extent possible, shall be modeled on that offered by University of Medicine and Dentistry of New Jersey. The training course curriculum shall be reviewed periodically by the department, and shall be updated as necessary to insure that the training course reflects the most current information available.

3. Beginning not later than 360 days following the effective date of this act, every person who performs lead abatement work shall first procure certification from the department or shall perform the work under the direct on-site supervision of a certified person. No certification shall be issued unless the applicant has completed a course of training offered or approved by the department, and, if required by the department, has completed an examination, on lead abatement work offered or certified by the commissioner pursuant to section 2 of this act. Application for certification shall be made to the department in a manner and on such forms as may be prescribed by the department. The certification shall be in writing, shall be dated when issued and shall be signed by the commissioner. The certification shall be carried upon the worker's person and shall be readily available for inspection by representatives of the commissioner.

4. Beginning not later than 360 days following the effective date of this act, every person who performs lead inspections shall first procure certification from the department. No certification shall be issued unless the applicant has completed a course of training and, if required by the department, completed an examination, on lead inspections certified or offered by the department pursuant to section 2 of this act. Application for certification shall be made to the department in a manner and on such forms as may be prescribed by the department. The certification shall be in writing, shall be dated when issued and shall be signed by the commissioner. The certification shall be carried upon the worker's person and shall be readily available for inspection by representatives of the commissioner.

The department shall certify as a lead inspector any person who is employed by the State of New Jersey, or a municipal board of health in this State, who, at the time of enactment of the rules and regulations adopted pursuant to this act, performs lead inspections requiring the knowledge necessary for certification pursuant to this act.

5. Every business firm which contracts to perform, or represents itself as qualified to perform lead abatement work or lead inspections, shall first procure the appropriate certification of the business firm. Certification of a business firm may be satisfied by demonstrating, pursuant to rules and regulations adopted by the department pursuant to the "Administrative Procedure Act," P.L. 1968, c. 410 (C.52:14B-1 et seq.), that it has sufficient personnel to perform full time on-site supervision of all workers performing lead paint abatement at all job sites where the business firm is reasonably likely to become involved. In addition, for a firm that is a sole proprietorship, the owner shall become certified; in the case of a partnership, a partner shall become certified; and, in the case of a corporation, a senior executive officer shall become certified.

6. No business firm shall either directly or indirectly perform lead abatement work without first obtaining a performance permit for a job site from the commissioner. A performance permit may be issued to perform lead abatement work if it is demonstrated that there are sufficient certified personnel to perform full-time, on-site supervision of all workers performing lead abatement work at the job site. The performance permit shall be in writing, shall contain an expiration date, and shall be signed by the commissioner. The performance permit shall be readily available at the work site for inspection by representatives of the commissioner.

7. Notwithstanding the provisions of sections 3 and 4 of this act, if the department requires successful completion of an examination to procure certification, any person who successfully completes a training course, required for certification by the department, shall be authorized to perform or supervise lead abatement work or lead inspections, depending on the type of certification sought, for six months following completion of the training course or until successful completion of the required examination, whichever occurs first.

8. Complete certification shall be for a three-year period. Application for recertification shall be made to the department at least 60 days prior to the expiration date of the certification. Certification shall not be transferable. No certification or recertification shall be issued until a certification fee has been paid in full to the department. Application and certification fees shall be established by the commissioner, by rule or regulation adopted pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), in an amount sufficient to cover the costs to the department of administering and enforcing the provisions of this act. The department may establish continuing education requirements for recertification.

A person shall have 90 days from the expiration date of a certification to renew an expired certification, after which date the person shall be required to apply for a new certification. The 90-day grace period shall not entitle a person to perform any services for which certification is required.

A copy of the certification shall be conspicuously displayed for public review in the business office of a business firm engaged in the business of abating lead-based paint hazards or conducting lead inspections. When engaged in on-site abatement or inspection activities, a person certified pursuant to this act shall carry on his person for inspection by an authorized public official, a copy of his certification.

9. An on-site supervisor shall be responsible for the training of any person performing lead abatement work under his supervision, who are not certified pursuant to this act, in safe work practices while performing lead abatement work, and for assuring that such practices are followed during the course of the work. The nature, manner or scope of such training may be prescribed by the rules and regulations of the department.

10. This act, and the rules and regulations adopted pursuant thereto, shall be enforced by the commissioner or his representative, who shall have the right of entry to all pertinent premises and the right to review any records for the purposes of inspection and information.

11. Any person who hinders or delays the commissioner or his representative in the performance of his duty to enforce this act, or fails to obtain certification required by the provisions of this act, or refuses to make his certification accessible to the commissioner or his representative, or otherwise violates any provision of this act or any rule or regulation adopted under this act, is guilty of a disorderly persons offense.

12. a. The department may deny, suspend, revoke, or refuse to renew a certification for good cause, including:

(1) violating, or abetting another to commit a violation of this act, including any rule or regulation adopted pursuant to this act, or order issued hereunder;

(2) making a false statement on an application for certification, or in providing other information required by the department;

(3) misrepresentation of qualifications, or fraudulently obtaining certification; and

(4) engaging in practices during lead abatement work contrary to safe procedures established therefor, which pose a significant health risk to employees or to occupants.

b. Before suspending, revoking, or refusing to renew a certification, the department shall afford the applicant or certificate holder an opportunity to be heard in accordance with the provisions of the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.).

c. Suspension, revocation, or refusal to renew a certification shall not bar the department from pursuing against the applicant or certificate holder any other lawful remedy available to the department.

d. Any employer or any person whose certification is revoked shall be ineligible to apply for certification for three years from the date of revocation.

e. If the department has reason to believe that a condition exists that poses an imminent threat to the public health, safety or welfare, it may order the certificate holder to cease operations pending the outcome of the hearing.

13. a. If a person violates any of the provisions of this act, including any rule or regulation adopted thereunder, the department may:

(1) institute a civil action in a court of competent jurisdiction to enjoin the violation, and the court may proceed in the action in a summary manner;

(2) impose a civil administrative penalty of not more than \$1,000 for the first offense, not more than \$5,000 for the second offense, and not more than \$10,000 for the third and each subsequent offense. If the violation is of a continuing nature, each day of violation subsequent to receipt of an order to cease the violation constitutes an additional, separate and distinct offense; or

(3) file a civil action in a court of competent jurisdiction to collect a civil penalty of not more than \$1,000 for the first offense, not more than \$5,000 for the second offense, and not more than \$10,000 for the third and each subsequent offense. If the violation is of a continuing nature, each day of violation subsequent to receipt of an order to cease the violation constitutes an additional, separate and distinct offense;

b. No civil administrative penalty shall be levied except subsequent to the notification of the violator by certified mail or personal service. The notice shall include: a reference to the section of the statute, regulation, order or certification condition violated; a concise statement of the facts alleged to constitute the violation; a statement of the amount of the civil penalty to be imposed; and a statement of the violator's right to a hearing. The violator shall have 20 days from receipt of notice within which to deliver to the department a written request for a hearing. Subsequent to the hearing and upon a finding that a violation has occurred, the department may issue a final order assessing the amount of the penalty. If no hearing is requested, the notice shall become a final order upon the expiration of the 20-day period. Payment of the penalty is due when a final order is issued or when the notice becomes a final order. Agreement to, or payment of a civil administrative penalty shall not be deemed to affect the availability of any other enforcement provision in connection with the violation for which the penalty is levied.

c. Any person violating an administrative order of the department or a court order issued pursuant to paragraph (1) of subsection a. of this section, or who fails to pay a civil administrative penalty when due and owing as provided in subsection b. of this section, is subject to

a civil penalty not to exceed \$10,000 per day of the violation. Each day's continuance of a violation constitutes a separate and distinct violation. Any penalty imposed under this subsection may be recovered with costs in a summary proceeding pursuant to "the penalty enforcement law" (N.J.S.2A:58-1 et seq.).

d. The department may compromise and settle any claim for a penalty under this section in such amount as the department may determine to be appropriate and equitable under all of the circumstances.

e. Any person who fails to contest or to pay, in whole or in part, a civil administrative penalty imposed pursuant to this section, including payments required to be made pursuant to a payment schedule therefor, within 30 days of the date that the penalty is owing, shall be subject to an interest charge on the amount of the penalty owing from the date that the amount was owed. The rate of interest shall be that established by the New Jersey Supreme Court for interest rates on judgments, as set forth in the Rules Governing the Courts of the State of New Jersey.

14. a. There is established, in the Department of Community Affairs, a nonlapsing revolving fund entitled the "Lead Abatement Worker Certification Fund." The fund shall be maintained by the commissioner, and shall be credited with all penalties, monies and fees assessed and collected pursuant to this act and any earnings on the investment thereof. The commissioner shall report by December 31 annually, to the State Treasurer and to the Joint Budget Oversight Committee, or its successor on income, expenditures and the balance of the fund.

b. Moneys in the fund shall be used by the department for the purposes of administering and enforcing the provisions of this act.

15. Not later than 180 days after the effective date of this act, the department shall adopt, in accordance with the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), rules and regulations necessary to implement the provisions of this act, and shall have procured adequate personnel and materials for the appropriate courses, tests, or both.

16. There is appropriated from the General Fund to the Department of Community Affairs, the sum of \$90,000 as start-up funding for the purposes of this act. Such sum shall be repaid to the General Fund from the "Lead Detection and Abatement Fund" established pursuant to P.L. , c. (C. ) (now before the Legislature as Assembly Bill No. .... of 1990).

17. This act shall take effect immediately.

#### STATEMENT

Lead is a ubiquitous and powerful toxin, with no known beneficial function in the human body. Children are highly vulnerable to lead poisoning due to their exposure to lead-based paint in a substantial number of older dwellings in this State. It is, therefore, of critical importance that this lead hazard be abated.

However, the safe and effective removal and proper disposal of lead-based paint from residential structures requires the training of the personnel directly and indirectly involved. The provisions of this bill are intended to insure safe abatement practices and reduce exposure to lead by employees and residents.

This bill would require that, within six months of enactment, the Department of Community Affairs develop a program for the certification of lead abatement workers and lead inspectors. No person would be authorized to perform lead abatement work unless he becomes certified by completing a training program and/or an examination, or works under the direct supervision of a certified person. No person would be authorized to perform lead inspections unless he is certified pursuant to the act. Finally, a performance permit would have to be procured before the performance of any lead abatement work.

Enforcement of the bill's requirements would be performed by the Department of Community Affairs, which shall have the right of entry to inspect certificates on-site. A person violating the act would be subject to suspension, revocation of refusal to renew a certificate, a disorderly persons offense, as well as penalties of \$1,000 for the first offense, \$5,000 for a second offense, and \$10,000 for the third and subsequent offense.

The bill would establish the "Lead Abatement Worker Certification Fund" into which shall be deposited all fees, penalties and other monies and any interest thereon collected to be used to administer and enforce the bill's provisions. The bill appropriates \$90,000 for start-up costs, to be repaid to the General Fund from the tax imposed on manufacturers' receipts on paint pursuant to P.L. , c. (C. ) (now before the Legislature as Assembly Bill No. .... of 1990). Subsequent costs are to be defrayed by the fees and fines collected pursuant to the bill.

#### ENVIRONMENT

Establishes certification program for lead paint abatement workers and inspectors; establishes "Lead Abatement Worker Certification Fund," appropriates \$90,000.



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\* BILL NO. 24053 \*  
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AN ACT establishing a State lead toxicity awareness and information program,  
supplementing P.L.1985, c.84 (C.26:2-130 et seq.), and making an appropriation.

ENVIRONMENT

Establishes a State lead toxicity awareness and information program; appropriates  
\$50,000.

PRIME Sponsor

CO-Sponsors

*Joseph A. Mercuri*  
*Bob Kennedy Jr.* *Thomas*  
*Steve* *Charles*

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT establishing a State lead toxicity awareness and information program, supplementing P.L.1985, c.84 (C.26:2-130 et seq.), and making an appropriation.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. The Legislature finds and declares that lead toxicity has long been known to cause severe, even irreversible damage to the renal system, red blood cells, and reproductive organs; as well as damage to the brain and nervous system, resulting in learning disabilities, mental retardation and even death; that, while lead toxicity affects persons of all ages, pre-school age children and fetuses are particularly at risk of permanent physical and mental impairment from even low level exposure; that in recognition of the dangers of lead toxicity, the federal and state governments have acted, among other things, to proscribe or limit the lead content of household paints, plumbing solder, motor fuels, and drinking water, and lead discharges to land, air and water; that despite these and other efforts, lead toxicity, or the threat of lead toxicity, remains a pervasive and serious environmental health problem and concern due to the residual presence of lead previously introduced into the environment, particularly through the use of lead-based paint and lead additives in motor fuels; that, while lead toxicity is often identified as a health problem of children from lower socio-economic families in deteriorating housing in older urban-suburban communities, the dangers of lead toxicity respects neither class nor geographical boundaries; that recent research has resulted in a substantial lowering of lead absorption levels, or the point at which serious physical and mental disabilities could occur; that a lower lead absorption level makes imperative the development of a State-wide preventive program; that lead toxicity prevention is socially, medically and economically a more desirable and cost-effective strategy than treating the oftentimes irreversible, adverse health effects of lead toxicity; that many of the major non-occupational sources of lead exposure may be found in or around the home; that lead toxicity is preventable and the exposure to lead sources, particularly in the interior or exterior of dwelling units, can be drastically reduced by simple housekeeping measures, and the abatement or sealing of lead-based paint;

that a State program of lead poison prevention and lead source abatement cannot, however, be successful without the support and active involvement of the citizens of this State; and that public support and involvement requires an active Statewide informational program directed at heightening public awareness of the dangers of lead toxicity, and the opportunities for prevention and lead source abatement.

2. a. The Office for Prevention of Mental Retardation and Development Disabilities, in the Department of Human Services, established pursuant to P.L.1987, c.5 (C.30:1AA-10 et seq.), in consultation with the Departments of Health, Environmental Protection and Community Affairs, shall establish an inter-agency, State lead toxicity prevention awareness and information program to sensitize parents, teachers, health professionals, public officials, community leaders, neighborhood groups, homeowners, and renters to the health dangers of lead poisoning, particularly to infants and pregnant women living in high risk surroundings; to acquaint these target groups and the general public with the most common environmental sources of lead exposure; to inform them of lead toxicity detection and prevention measures, and of safe, cost-effective lead source abatement or elimination techniques that can be employed within the home, or in the neighborhood or community; and to encourage or help mobilize individual self-help, neighborhood and community actions to reduce public exposure to excessive lead levels.

b. The informational program components shall include:

(1) Collection of information and materials on lead toxicity, the treatment and prevention thereof, and on lead source abatement or elimination techniques;

(2) Preparation and periodic updating of multi-media informational materials to increase public awareness of: the health dangers of excessive lead exposure; possible lead sources within the home and in the community; symptoms and health effects of excessive lead exposure and lead toxicity; and the utility of blood-lead screening of children under six years of age and pregnant woman, particularly those residing in high risk

communities, neighborhoods or dwellings, identified as having a higher-than-average risk of incurring lead toxicity. The material shall also identify lead toxicity prevention and lead abatement measures that can be taken to reduce or eliminate exposure to environmental sources of lead;

(3) Translation into Spanish or, as needed, other languages of core informational materials prepared pursuant to paragraph 2 of this subsection;

(4) Dissemination of the information collected or prepared pursuant to paragraphs (1), (2) and (3) of this subsection to health professionals, schools (including nursery schools or child care centers), local public officials, community and neighborhood groups, and to homeowners or renters, with particular concentration on those segments of the population, communities or neighborhoods with a higher than average risk of exposure to excessive lead levels;

(5) Sponsorship, organization or coordination of State and regional conferences on lead poisoning issues and problems for health professionals, public officials, teachers, and the general public in order to heighten public awareness of the dangers therefrom, and of the availability of various diagnostic, treatment, prevention and abatement strategies or techniques; and

(6) Assisting and providing interagency technical support to local public officials and community and neighborhood groups in developing, publicizing or implementing local lead toxicity awareness, detection, treatment, prevention, and source abatement strategies.

3. There is appropriated from the General Fund to the Office for Prevention of Mental Retardation and Developmental Disabilities, in the Department of Human Services, the sum of \$50,000 for implementing the provisions of this act in the first calendar year following the effective date of this act. Thereafter, there shall be annually appropriated such sums from the "Lead Toxicity Detection and Prevention Fund" as shall be necessary to assure appropriate levels of funding for programs established pursuant to this act. Monies appropriated pursuant to this section from the General Fund shall be paid back to the General Fund from monies deposited in the "Lead Toxicity Detection and Prevention Fund," established pursuant to P.L. , c. (C. ) (pending in the Legislature as Assembly Bill No. .... of 1990).

4. This act shall take effect immediately.

## STATEMENT

Lead toxicity has long been acknowledged to be the single most important environmental source of mental retardation, and various learning disabilities among pre-school aged children, and a major childhood disease. Among the recommendations of The Governor's Council on the Prevention of Mental Retardation, established pursuant to Executive Order 72 of 1984, was the adoption of State programs for the prevention of lead toxicity, and the screening and treatment of pre-school aged children for elevated blood-lead levels (Programs for Preventing the Causes of Mental Retardation, 1985). In recognition of the public health dangers of lead toxicity, the council, which in 1987 was renamed the Governor's Council for Prevention of Mental Retardation and Developmental Disabilities, created an Interagency Task Force on Lead Poisoning Prevention. That task force has, in turn, adopted a proposed lead action agenda for implementation by the State. This bill, which is part of a package of lead toxicity bills, seeks to enact one of the major recommendations of the interagency task force.

The bill directs the Department of Human Services to establish a State lead toxicity awareness and information program. Among other things, the program would strive to sensitize parents, teachers, health professionals, public officials, community leaders, neighborhood groups, homeowners and renters to the health dangers of lead toxicity, and advise them of available detection, treatment, and source abatement techniques.

Despite the great strides made by federal and state governments to reduce or eliminate the use of lead in various consumer products, environmental exposure to lead remains a significant public health problem. Infants and young children residing in dwelling units constructed prior to 1980 are particularly exposed to the dangers of lead toxicity during their neurological development, since the major source of child lead toxicity is lead-based paint within the home. Lead toxicity from paint and related sources is, however, preventable, and there exist a number of simple and inexpensive housekeeping measures as well as home improvement

measures that could be taken to reduce lead exposure levels.

The purpose of the State lead toxicity awareness information program is to increase public sensitivity to the dangers of lead toxicity and to stimulate self-help measures by households, and neighborhood and community groups.

The bill makes a first-year, start-up appropriation of \$50,000, to be combined with \$150,000 in federal money to carry out the State program. The appropriation will allow the Office for Prevention of Mental Retardation and Developmental Disabilities to greatly expand, both programmatically and geographically, its current lead prevention program.

#### ENVIRONMENT

Establishes a State lead toxicity awareness and information program; appropriates \$50,000.

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\* BILL NO. 121254 \*  
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\* Date of Intro. \_\_\_\_\_ \*  
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AN ACT concerning lead abatement in and around residential buildings, supplementing  
P.L.1975, c.217 (C.52:27D-119 et seq.) and making an appropriation.

#### ENVIRONMENT

Requires DCA to develop model lead abatement program for residential buildings;  
appropriates \$90,000.

PRIME Sponsor

Schwartz, J. D. Ullmann

CO-Sponsors

[Signature]  
James J. Hill  
Benny J.  
Donald J.  
Walter J.

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT concerning lead abatement in residential buildings, supplementing P.L.1975, c.217 (C.52:27D-119 et seq.) and making an appropriation.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. a. The Commissioner of Community Affairs, in consultation with the Commissioner of Environmental Protection and the Commissioner of the Department of Health, shall undertake a study in order to develop a model program for State and local efforts for the detection and abatement of lead-based paint in residential buildings. The model program shall be flexible enough to be implemented in municipalities and counties of different sizes containing residential buildings of diverse ages and types, shall offer various financing methods, and shall incorporate developing technologies. The model program shall contain technical guidelines, strategies and standards for safe, effective and affordable monitoring, detection and removal of lead-based paint in residential buildings and shall also contain recommended testing protocols for the detection of lead hazards, reliable and cost-effective lead abatement strategies, training methods for lead abatement workers, environmentally sound standards for the disposal of lead contaminated materials generated by lead abatement activities, and post-abatement lead dust-level standards.

b. In conducting the study and preparing the model program, the Commissioner of Community Affairs shall:

(1) Research the practicability and feasibility of available technologies for the accurate testing of single and multi-family residential properties for lead contamination;

(2) Investigate techniques and methods for the environmentally-sound and safe abatement, cleanup and disposal of lead-based paint;

(3) Develop, in consultation with the Commissioner of Environmental Protection and the Commissioner of the Department of Health, acceptable standards for post-abatement lead dust levels;

(4) Investigate technical training courses for workers involved in the abatement or removal of lead-based paint; and

(5) Identify existing federal, state, and local lead abatement and lead abatement financing programs and evaluate their feasibility for use in this State.



c. The Commissioner of Community Affairs, within one year of the effective date of this act, shall submit to the Governor and the Legislature, a written report containing the model lead abatement program and the results of the study along with recommendations for legislative and administrative action. The report shall include, but not be limited to recommendations concerning:

- (1) Reducing the risks of lead toxicity;
- (2) The roles and responsibilities of State, county and municipal agencies and officials in lead abatement;
- (3) Methods of testing for lead in single and multi-family residential property;
- (4) A model lead abatement plan for county or municipal officials;
- (5) A long-term, statewide lead abatement strategy;
- (6) Standards for the protection of workers involved in lead abatement; and
- (7) Financing strategies for use in local and State abatement efforts.

2. There is appropriated from the General Fund to the Department of Community Affairs the sum of \$90,000 to conduct the study and prepare the model lead abatement program required pursuant to section 1 of this act. Monies appropriated from the General Fund pursuant to this section shall be repaid to the General Fund from monies deposited in the "Lead Toxicity Detection and Prevention Fund" created pursuant to P.L. .... c. ..., (C.....)(now before the Legislature as Assembly Bill No. .... of 1990).

3. This act shall take effect immediately.

#### STATEMENT

This bill would require the Department of Community Affairs to conduct a one-year study in order to develop a model program for the safe, cost-effective, and efficient removal of leaded-based paint in residential housing. Exposure to lead, even at low levels, is especially harmful to children, causing irreversible central nervous system damage, lowered IQ scores, learning disabilities, and behavioral problems. The use of leaded paint, which continued until 1978, has resulted in health hazards to thousands of children in the State. The Department of

Community Affairs would be required prepare a model program containing guidelines, strategies and standards for lead abatement in residential buildings after the study and evaluation of lead detection and abatement technologies, techniques and methods for lead abatement work in residential buildings, training courses for abatement workers, and existing financing programs.

This bill makes a one-time appropriation of \$90,000.

#### ENVIRONMENT

Requires DCA to develop model lead abatement program for residential buildings; appropriates \$90,000.

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AN ACT concerning lead solder and supplementing P.L. 1975, c. 217 (C. 52:27D-119 et seq.).

ENVIRONMENT

Prohibits sale of lead solder and use in plumbing.

PRIME Sponsor

CO-Sponsors

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT concerning lead solder and supplementing P.L. 1975, c. 217 (C. 52:27D-119 et seq.).

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. a. No person shall sell at wholesale or retail any solder or flux containing lead after June 30, 1993.

b. No person shall use any solder or flux containing lead in the installation or repair of any plumbing in a residential or nonresidential facility, including wastewater plumbing, after June 30, 1993.

2. a. Any person violating any provision of this act shall be subject to the penalty provisions of section 20 of the "State Uniform Construction Code Act," P.L. 1975, c. 217 (C. 52:27D-138).

b. The Department of Community Affairs shall adopt, pursuant to the provisions of the "Administrative Procedure Act," P.L. 1968, c. 410 (C. 52:14B-1 et seq.), any rules and regulations necessary to implement the provisions of this act.

3. This act shall take effect immediately.

#### STATEMENT

This bill would prohibit the sale of lead solder and flux, and the use of lead solder or flux in plumbing after June 30, 1993. The purpose of the bill is to protect the drinking water supply from lead contamination. Alternative forms of solder and flux which are less hazardous are available. Although licensed plumbers are already somewhat restricted in their use of lead solder, private homeowners have been able to buy and use lead solder. This bill would set a stricter standard by making lead solder and flux unavailable to private homeowners, and ban their use in all plumbing activities.

#### ENVIRONMENT

Prohibits sale of lead solder and use in plumbing.

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AN ACT concerning lead toxicity and supplementing Title 2A of the New Jersey Statutes.


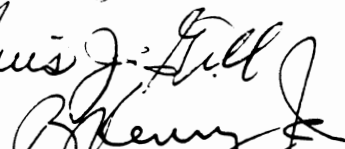
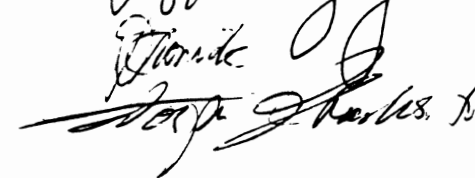
ENVIRONMENT

Establishes presumption that lead toxicity is due to lead paint in residence.

PRIME Sponsor



CO-Sponsors

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ACT concerning lead toxicity and supplementing Title 2A of the New Jersey Statutes.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

1. In a cause of action alleging injury or damage due to lead toxicity filed subsequent to the effective date of this act, there shall exist a rebuttable presumption that any injury caused by lead toxicity is due to exposure to lead paint in the person's dwelling, if it can be shown that the lead toxicity existed at or before the age of seven, that, when the person lived in the dwelling, there was lead paint on the interior surfaces of the dwelling, and that the person lived in the dwelling for a period of time, prior to age seven, deemed reasonably likely to cause, or be a significant factor in causing, lead toxicity.

As used in this section, "dwelling," means any building or structure or portion thereof which is occupied in whole or in part as the primary residence of one or more persons. "Interior surfaces" shall include but shall not be limited to window sills, window frames, doors, door frames, walls, ceilings, stair rails and spindles or other appurtenances, including equipment inside of a dwelling. "Lead toxicity" means a level of lead in the bloodstream as defined by the Centers for Disease Control of the Public Health Service, United States Department of Health and Human Services.

2. This act shall take effect immediately.

## STATEMENT

This bill would establish a rebuttable presumption that any injury, caused by lead toxicity to a child aged seven years or less, is due to that child's exposure to lead paint in his dwelling, if the child has lived in the dwelling for a period of time that would be reasonably likely to cause, or be a factor in causing the lead poisoning. Children under the age of seven are most sensitive to the toxic effects of lead in their environment because of their hand-to-mouth activities and a high rate of intestinal absorption. Under current law, the local board of health may order the abatement of lead in a dwelling place if an occupant has a case of lead poisoning or is at high risk of lead intoxication. However, lead toxicity continues to be a serious public health problem. This bill would provide increased incentives to an owner of a lead contaminated residence to remediate his property.

## ENVIRONMENT

Establishes presumption that lead toxicity is due to lead paint in residence.





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AN ASSEMBLY RESOLUTION memorializing the President and the United States Congress to enact legislation, and the federal Department of Housing and Urban Development to adopt regulations, to establish lead-based paint abatement measures and programs for residential structures, and to provide financial assistance to State and local governments for lead-abatement programs.

ENVIRONMENT

*Housing and Urban Development*

Memorializes President, Congress, and ~~HUD~~ to provide for abatement of lead paint in housing.

PRIME Sponsor

*Frederic Schwab*

CO-Sponsors

*Luigi DiLillo*  
*Bob Kennedy Jr*  
*Walter D. ...*

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

*AN ASSEMBLY RESOLUTION* memorializing the President and the United States Congress to enact legislation, and the federal Department of Housing and Urban Development to adopt regulations, to establish lead-based paint abatement measures and programs for residential structures, and to provide financial assistance to State and local governments for lead-abatement programs.

WHEREAS, Lead toxicity is the most common and preventable environmental disease in children in the United States; and

WHEREAS, Scientists and physicians have long known that lead toxicity causes permanent neurological damage in children, and recent studies show that even low blood-lead levels during childhood, when no symptoms are exhibited, can cause permanent damage to the central nervous system, result in lowered intelligence test scores, learning disabilities, reduced speech and language processing skills, and can contribute to increased school absenteeism and drop-out rates; and

WHEREAS, At least 65 per cent of New Jersey's housing stock may contain lead-based paint, representing a potential public health hazard of alarming magnitude; and

WHEREAS, Congress has mandated that the United States Department of Housing and Urban Development eliminate the hazards of lead-based paint in dwelling units in public housing facilities, indicating that lead toxicity among children has been, and continues to be, a serious public health problem; and

WHEREAS, The removal of lead-based paint in a manner that does not create toxic fumes and dust residue, which would further endanger the health and safety of the residents of the contaminated dwelling, is difficult and expensive; and

WHEREAS, It is imperative that lead-based paint abatement and removal programs for contaminated residences be one of the Department of Housing and Urban Development's highest priorities, that childhood exposure to lead in paint be reduced, that funds be devoted to those ends to finance abatement projects to the maximum extent possible, and that the abatement and removal of lead-based paint be required as a condition of eligibility for federally assisted rehabilitation programs; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The President and the United States Congress are respectfully memorialized to enact legislation, and the federal Department of Housing and Urban Development is respectfully memorialized to adopt regulations that would place the abatement of lead-based paint in housing as their highest priority, to reduce the hazard of lead toxicity by providing financial assistance to State and local governments for lead abatement projects, and to condition eligibility for federal financial assistance for housing construction and rehabilitation programs upon the agreement to abate lead-based paint.

2. Duly authenticated copies of this resolution, signed by the Speaker and attested by the Clerk, shall be transmitted to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, the majority leader of the United States Senate, the minority leader of the United States Senate, the majority and minority leaders of the United States House of Representatives, every member of Congress elected from this State, the Secretary of the Department of Housing and Urban Development, the Commissioner of the New Jersey Department of Environmental Protection, the Commissioner of the New Jersey Department of Health, and the Commissioner of the New Jersey Department of Community Affairs.

#### STATEMENT

This resolution memorializes the President and the United States Congress to enact legislation, and the federal Department of Housing and Urban Development to adopt regulations, to reduce the health threats of exposure to lead-based paints as quickly as possible. Because the use of lead-based paint did not end until 1978, millions of people continue to be exposed to the health hazards of lead toxicity. The exposure to lead is especially harmful to young children and developing fetuses. Studies have shown that even low blood levels of lead in children causes permanent damage to the

central nervous system, lowered IQ scores, learning disabilities, reduced attention span, and poor performance in school. Therefore, in order to prevent continued injury to children, this resolution requests increased Federal funding for State and local programs devoted to the removal of lead-based paint in dwelling units.

#### ENVIRONMENT

Memorializes President, Congress, and <sup>Housing and Urban Development</sup> ~~HUD~~ to provide for abatement of lead paint in housing. NB

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AN ASSEMBLY RESOLUTION memorializing the President and Congress to enact legislation, and the federal Environmental Protection Agency to adopt regulations, requiring manufacturers of products containing dangerous levels of lead to include lead content levels and safe usage instructions on product labels.

#### ENVIRONMENT

Memorializes President, Congress, and EPA to require lead content labeling for lead-containing products.

PRIME Sponsor

CO-Sponsors

*Frank Gill*  
*Pat Kenny*  
*Donna*  
*Steve*

Same as \_\_\_\_\_ 1989

\_\_\_\_\_ 1990

*AN ASSEMBLY RESOLUTION* memorializing the President and Congress to enact legislation, and the federal Environmental Protection Agency to adopt regulations, requiring manufacturers of products containing dangerous levels of lead to include lead content levels and safe usage instructions on product labels.

WHEREAS, With estimates of three to four million children having lead levels in their blood that are high enough to cause health problems, lead toxicity is the most prevalent disease of environmental origin among American children today; and

WHEREAS, Exposure to lead at commonly experienced levels can cause permanent, significant neurological impairment in children as well as additional health problems in adults; and

WHEREAS, As a result of decades of highly dispersive uses of lead in a variety of products, contamination of the environment with unacceptable levels of lead is widespread, and, because of the practical difficulties of removing lead already dispersed in the environment, children and adults will continue to be exposed to such lead for years; and

WHEREAS, The continued manufacture, import, processing, use, and disposal of lead-containing consumer and other products causes further exposures to lead sources or releases of lead to the environment, and such exposures or releases contribute to further environmental contamination and unsafe lead exposures; and

WHEREAS, Reports indicate that more than 1.4 million pounds of lead were emitted into the environment in New Jersey in 1988; and

WHEREAS, An effective way for consumers to minimize their exposure to lead is through education about the lead content of the products they purchase and which contain significant amounts of lead, and instruction in the proper way to utilize such products; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The President and the Congress of the United States are respectfully memorialized to enact legislation, and the federal Environmental Protection Agency is respectfully memorialized to adopt regulations, establishing a threshold percentage or threshold percentages above which lead-containing products threaten consumers' health, and requiring manufacturers of products containing such percentages of lead to include lead content levels and safe usage instructions on product labels.

2. Duly authenticated copies of this resolution, signed by the Speaker and attested by the Clerk, shall be transmitted to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, the majority and minority leaders of the United States Senate and the United States House of Representatives, every member of Congress elected from this State, the Administrator of the United States Environmental Protection Agency, the Region II Administrator of that agency, the Commissioner of the New Jersey Department of Environmental Protection, the Commissioner of the New Jersey Department of Health, and the Commissioner of the New Jersey Department of Human Services.

#### STATEMENT

This resolution would memorialize the President and the Congress of the United States to enact legislation, and the federal Environmental Protection Agency to adopt regulations, requiring manufacturers of products containing dangerous levels of lead to include lead content levels and safe usage instructions on product labels.

With estimates of three to four million children having lead levels in their blood that are high enough to cause health problems, lead toxicity is the most prevalent disease of environmental origin among American children today. Young children are at special risk because of their susceptibility to the potency of lead as a neurological toxin. At exposure levels that are commonly experienced, the effects of lead on children include permanent, significant neurological impairment, and additional health effects can occur in adults similarly so exposed. Reports indicate that more than 1.4 million pounds of

lead were emitted into New Jersey's environment in 1988. An effective way for consumers to minimize their exposure to lead is through education about the lead content of the products they purchase, and instruction in the safe way to utilize such products. Requiring manufacturers of products containing lead to include lead content levels and safe usage instructions on product labels will help provide that education and instruction.

#### ENVIRONMENT

Memorializes President, Congress, and EPA to require lead content labeling for lead-containing products.



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AN ASSEMBLY RESOLUTION memorializing the Secretary of the United States Department of Labor to expand current lead exposure standards so that they are applicable to the construction industry.

#### ENVIRONMENT

Memorializes Secretary of the United States Department of Labor to apply standards limiting employee exposure to lead in the workplace to the construction industry.

PRIME Sponsor

CO-Sponsors

*T. R. J. McHenry*  
*James J. Gill*  
*B. Kenny J.*  
*Joseph D. Baturo*  
*Thomas*  
*Wesley H. H. H.*

Same as \_\_\_\_\_ 88/89

\_\_\_\_\_ 90/91

AN ASSEMBLY RESOLUTION memorializing the Secretary of the United States Department of Labor to expand current lead exposure standards so that they are applicable to the construction industry.

WHEREAS, Exposure to lead in the workplace constitutes a known health hazard to construction workers in the State of New Jersey which results in a continuing increase in cost to the health care and insurance systems in this State; and

WHEREAS, The Secretary of the United States Department of Labor has the authority to promulgate regulations affecting health and safety standards in the construction industry pursuant to the "Occupational Safety and Health Act of 1970," (29 U.S.C. §651 et seq.), and the "Contract Work Hours and Safety Standards Act," (40 U.S.C. §327 et seq.); and

WHEREAS, The standards adopted by the Secretary of Labor limiting employee exposure to lead in the workplace are not presently applicable to the construction industry; and

WHEREAS, It is in the public interest for the Secretary of Labor to assure that lead exposure standards are made applicable to the construction industry; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The Secretary of the United States Department of Labor is respectfully memorialized to expand current standards limiting employee exposure to lead in the workplace so that they are applicable to the construction industry.

2. Duly authenticated copies of this resolution signed by the Speaker and attested by the Clerk shall be transmitted to the Secretary of the United States Department of Labor and to every member of Congress elected from the State of New Jersey.

## STATEMENT

This resolution memorializes the Secretary of the United States Department of Labor to expand current standards limiting employee exposure to lead in the workplace so that they are applicable to the construction industry. The Secretary of Labor has authority to promulgate health and safety standards applicable to the construction industry pursuant to the "Occupational Safety and Health Act of 1970," (29 U.S.C. §651 et seq.), and the "Contract Work Hours and Safety Standards Act," (40 U.S.C. §327 et seq.). At present, there are no federal standards limiting employee exposure to lead that apply to the construction industry. Pursuant to section 6 of the "Occupational Safety and Health Act of 1970," (29 U.S.C. §655), the Secretary of Labor has promulgated standards limiting employee exposure to lead in the workplace as set forth in 29 C.F.R. §1910.1025, but 29 C.F.R. §1910.1025 (a) (2) provides that these standards are not applicable to the construction industry.

If promulgated, these standards would protect construction workers from lead exposure in the workplace, a known health hazard.

## ENVIRONMENT

Memorializes Secretary of the United States Department of Labor to apply standards limiting employee exposure to lead in the workplace to the construction industry.



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OR Albert ~~W~~  
 James F. Gilt ~~W~~  
 B. Kenney Jr. ~~W~~  
 Foreack  
~~W~~ Charles Jr.

Same as \_\_\_\_\_ 1989  
1990

AN ASSEMBLY RESOLUTION memorializing the Secretary of the United States Department of Health and Human Services to develop methods and protocols for detecting lead levels in blood at concentrations lower than currently tested for.

WHEREAS, With national estimates of three to four million children having lead levels in their blood that are high enough to cause health problems, lead toxicity is the most prevalent disease of environmental origin among American children today; and

WHEREAS, Exposure to lead at commonly experienced levels can cause permanent, significant neurological impairment in children as well as additional health problems in adults; and

WHEREAS, Mounting scientific evidence indicates that even low levels of lead in the blood once considered "safe" can pose a serious threat to a young child, causing a slowdown in intellectual development, reduced IQ scores, impaired hearing, and serious behavioral problems; and

WHEREAS, The Interagency Lead Poisoning Prevention Task Force of the New Jersey Governor's Council on the Prevention of Mental Retardation recently proposed that improved testing methodologies are required because of the concern that lower levels of lead in blood are indicative of potential neurological damage, and that former screening methods may not adequately identify children with such low blood lead levels; now, therefore,

BE IT RESOLVED *by the General Assembly of the State of New Jersey:*

1. The Secretary of the United States Department of Health and Human Services is respectfully memorialized to develop methods and protocols for detecting lead levels in blood at concentrations lower than currently tested for, and adjust those levels to new levels proposed by the Centers for Disease Control of the Public Health Service.

2. Duly authenticated copies of this resolution, signed by the Speaker and attested by the Clerk, shall be transmitted to the Secretary of the United States Department of Health and Human Services, every member of Congress elected from this State, the Commissioner of the New Jersey Department of Human Services, and the Commissioner of the New Jersey Department of Health.

#### STATEMENT

This resolution would memorialize the Secretary of the United States Department of Health and Human Services to develop methods and protocols for detecting lead levels in blood at concentrations lower than currently tested for.

With estimates of three to four million children having lead levels in their blood that are high enough to cause health problems, lead toxicity is the most prevalent disease of environmental origin among American children today. Young children are at special risk because of their susceptibility to the potency of lead as a neurological toxin. At exposure levels that are commonly experienced, the effects of lead on children include permanent, significant neurological impairment, and additional health problems can occur in adults similarly so exposed.

Mounting scientific evidence indicates that even low levels of lead in the blood once considered "safe" can pose a serious threat to a young child, causing a slowdown in intellectual development, reduced IQ scores, impaired hearing, and other serious learning or behavioral problems. The Interagency Lead Poisoning Prevention Task Force of the New Jersey Governor's Council on the Prevention of Mental Retardation recently proposed that improved testing methodologies are required because of the concern that lower levels of lead in blood are indicative of potential neurological damage and that former screening methods may not adequately identify children with such low blood lead levels.

#### ENVIRONMENT

Memorializes U.S. Secretary of Health and Human Services to develop methods and protocols for detecting lead levels in blood at concentrations lower than currently tested for.





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ASSEMBLYMAN ROBERT G. SMITH (Chairman): Good morning everyone. This is the Assembly Energy and Environment Committee. We have a two-phased meeting today. The first phase is a public hearing on a series of lead initiatives, which are listed for consideration by the Committee, later this morning. We have a number of speakers who have indicated a desire to testify on this very serious problem in New Jersey, and what we're going to try to do is jump between speakers of opposing points of view.

I understand that Dr. Bernie Goldstein is with us. Dr. Goldstein also has to testify at another hearing this morning, so we're going to try to get him on first, and out, since he has to go to the other hearing. Dr. Goldstein, why don't you approach the Committee table? Just for the record, if you would identify yourself, we'd appreciate it.

B E R N A R D D. G O L D S T E I N, M.D.: I'm Dr. Bernard Goldstein. I direct the Environment on Occupational Health Sciences Institute, a joint program between Rutgers University, the University of Medicine and Dentistry of New Jersey, and Robert Wood Johnson Medical School, that looks at the environmental problems in terms of basic research and various policy options that can be taken with them.

ASSEMBLYMAN SMITH: Then, Dr. Goldstein, if you would, your testimony.

DR. GOLDSTEIN: Thank you. I've been involved in environmental medicine since 1966 and I think the-- It's very instructive to look at how what we have learned about lead and how it has affected how we've been acting in trying to deal with it. On many occasions during this past two or three decades, we have decided, as a nation, that lead is a problem; it is a problem particularly to children, and we're going to do something about it; and we did whatever it was. At one point it was to take some of the lead out of the gasoline, and at other points it was other efforts, such as removing lead from

outside paint, which occurred many years ago. Each time we did that, we said, "Okay, that's fine. We've now taken care of the lead problem."

Science has moved ahead and developed studies which have clearly shown that, in fact, the amount of lead that was left in our society was still a threat to children -- no question about it. And as we get to be better and better in doing our studies, as we get to be more capable of measuring both the lead and the effects of the lead in the body, and the end points of changes in children's behavior and IQ, we get to realize that lower and lower levels of lead are affecting us, so that, at present, it is very clear that almost miniscule levels of lead -- levels of lead that many years ago, or not so many years ago, we would have thought had been harmless -- that, in fact, at those levels we are affecting how children develop their normal brains. Simply, the brain power of our population is affected by these levels of lead.

I could go into detail if you like, into the various studies, but I think I won't pursue that point, but rather shift to another point that I think is important concerning the issue. And that is: Where is the lead? Can we just assume that we know where all the parts of the lead threat exists, and that we can just deal with them one at a time as we have in the past? Or, must we be much more careful in trying to approach the children, who themselves are at risk?

We recently found out through one of our physicians associated with our clinic, that there was a nurse that he knew who said that her husband worked in a factory that made the plastic bags that we put around bread. You go to the supermarket to buy some bread; it's got a plastic bag around it. The outside paint on that bag -- the outside pigments that describe the bread and describe the beautiful grain fields; that told you about all the healthy aspects of these grains -- was lead paint. Well, we went into our local A&P in Westfield

-- did it around a couple of other places in the State -- and found that on all but one bag of bread that we bought, the plastic on the outside had lead paint on it.

Now, we thought of this originally as a problem in terms of the waste stream. It would get into the waste stream; to some extent it would be incinerated. The lead would get out and be breathable, and anytime you burn things that have lead, the lead comes out in small particles so sufficiently small, that it gets deep into the lungs and absorbed into the body. But we found that it was worse than that. We found out that a lot of people are actually recycling those bags -- good idea to recycle -- but they first turn the bag inside out before they put food in there. We have mothers tell us that they remove the-- They want to get rid of the crumbs inside which might be moldy before they put their child's lunch in there. So now you have the food touching the lead paint. That's not a very good idea and not something that one would recommend. But yet, when we did a study to find out how prevalent this was -- and we did a study in the Highland Park area, looking at families with small children -- one out of six families recycled by turning the bag inside out and storing food in there. So here we have this insidious poison, a poison that is very subtle in its effects, and yet here's just one more way in which it can affect us.

So our feeling is that there's a fair amount of lead that's out there, and the way to approach this is to approach it by trying to -- wherever we can -- get rid of the lead, but also to be looking at the children themselves, do the best job we can in screening children to be sure that we can identify those who have the higher levels of lead in their system, and to find out why and to do the best abatement that we can. So we would strongly support approaches that would lead to a decrease in the risk of lead poisoning to children because of

identifying those children who do have the highest levels and also to look at ways to abate this problem. Thank you.

ASSEMBLYMAN SMITH: Okay. Are there any questions for Dr. Goldstein? (no response) If not, Dr. Goldstein, thank you for coming forward today.

Our next speaker will be Joan Cook Lockhart -- Dr. Joan Cook Lockhart, from the Lead Poisoning Prevention Project. Dr. Lockhart.

J O A N C O O K L O C K H A R T, Ph.D: Hello. My name is Joan Cook Lockhart. I'm a social scientist, speaking here today as the Director of a project which produced the "Get the Lead Out" package which I brought with me today and which, if anyone after the meeting would like a copy, we'll be glad to make sure that they get one.

I thank the Committee for holding hearings today on what I consider to be the number one environmental threat to children, lead toxicity. A group of committed scientists, writers, and medical people worked together to produce this package because we wanted to alert communities about the danger of lead. It was produced by Concerned Parents for Head Start with funding from the Fund for New Jersey and the Office for Prevention. We, thus far, have distributed about 150 packages which included video tapes.

What I'd like to tell you today, why we became increasingly committed to producing this package-- We used to think that lead affected only children who lived in the inner city and ate paint chips from the walls of dilapidated housing. But we now know, that by merely being children, by playing, a child can pick up lead contaminated soil and dust and ingest it from the lead that they pick up on their hands or by the dust that they breathe. By the way, the lead in the soil largely, I am told, comes from lead in gasoline -- that legacy of lead in gasoline that goes -- went out of the lead, the cars, and then goes down into the soil, and also by the



weathering of paint. And most of that paint was put onto the homes between the turn of the century and the late 1960s. At the same time, in Australia, lead paint was banned from about 1924 onward, based on medical research.

At levels of lead once thought safe, lead can harm adults as well as children. It can damage a child's IQ permanently, can cause kidney damage, and can contribute to anemia, among other things. To put the incidents of lead toxicity in perspective, in 1988 approximately 12,000 children in the United States were lead-poisoned. In the same year, about 7000 children were affected by viral meningitis, about 3000 had whooping cough, and about 3000 children had measles.

Education becomes a more important tool of prevention as levels of lead thought toxic drop. New research shows that lead is toxic at levels much lower than we had ever thought affected people. To give you some perspective on this, in the 1950s if a child had a blood lead level over 60 -- that's 60 micrograms per desolitre; a desolitre is 1/10 of a litre -- he was treated in the hospital. In the 1960s a blood lead level of 40 was considered an undue burden. In the 1970s that was lowered to 30 micrograms per desolitre. And now the level is 25 and the CDC convened a panel to lower that level yet once again. If the level goes to 10 micrograms per desolitre, according to the Environmental Defense Fund, nearly 70% of the children in Newark and 70% of the children in Jersey City will be considered to have elevated blood lead levels. And, certainly, in the Philadelphia area, there is a similar number expected to have elevated blood lead levels if the level is lowered to 10.

Lead can pose a barrier to school success. It not only causes mental retardation, but the research shows that toxicity can cause attention disorders and behavioral disruptions. That's enough to cause school failure. We might offer the finest educational program in the nation, but if our

children cannot listen or pay attention to that which is being taught, we cannot succeed in developing children who can reach their potential.

As we recognize that lead toxicity at lower levels causes a problem, it means that more agencies must cooperate just as many cooperated to produce this package. And certainly, education is important when it can make a difference to physicians and to parents who might have their children tested. In fact, sometimes you have interesting results from education. We presented the package at a Rotary Club, and after the meeting a veterinarian came up to me and said, "You know, I treat about three puppies a week for lead poisoning." And it wasn't till that moment that I realized that not only children but puppies play in soil that's contaminated by lead. And we have a new golden retriever who knows the meaning of the word "pica." He picks up everything and eats it: stones, pebbles, tissues, and paint.

So, indeed, all of us can easily meet lead poisoning in our own lives. In fact, one family only found out that they were lead poisoned because the dog died. In an autopsy, they discovered the dog died of lead poisoning, and thereby recognized that they all were at risk. They had been renovating a Victorian home.

Lead poisoning is an equal opportunity toxicant. Indeed, President Bush's dog, Millie, was lead poisoned while the White House was being renovated, and you may have read that in The New York Times some weeks ago. But it's important to educate the public, the people at risk such as pregnant women, who we now know can pass their blood lead level -- the lead in their blood to the developing fetuses -- and the professionals who must care for our health.

We can act to recycle lead and to remove the lead from our environment, only if we know it's a problem. And as the levels of lead drop that we now know are toxic, primary

prevention or removing the lead from the environment becomes the best way to begin to reduce those levels that affect children. Thank you.

ASSEMBLYMAN SMITH: The 12,000 figure that you cited -- The 12,000 deaths--

DR. LOCKHART: They're not deaths, but--

ASSEMBLYMAN SMITH: Lead poisoning cases?

DR. LOCKHART: Yes.

ASSEMBLYMAN SMITH: That was a--

DR. LOCKHART: Center for Disease Control.

ASSEMBLYMAN SMITH: CDC statistic?

DR. LOCKHART: Yes.

ASSEMBLYMAN SMITH: And doing a rough calculation just on the percentage of New Jersey's population compared to the United States -- I think we're 3.3% of the U.S. population -- that would be approximately 400 cases in New Jersey.

DR. LOCKHART: We have higher than that.

ASSEMBLYMAN SMITH: We have higher than that? Why would New Jersey have a higher incidence of lead poisoning for children?

DR. LOCKHART: Well, I'm sure that Dr. Tucker could give more environmental information, but as I understand it, we have a legacy of lead in our State that may not be true in other states. For example, it's the Northeast Corridor where you have a lot of lead on the housing. We have largely frame housing that has been painted with exterior paint. For example, in Toronto, there were two cases of lead poisoning in one year. They were very upset about it. But they have largely brick homes; so does Baltimore. We had, I believe, approximately 1500 lead poisoning cases, but the Health Department could give you better, more accurate statistics on that.

ASSEMBLYMAN SMITH: Okay. Thank you, Dr. Lockhart. Are there questions for Dr. Lockhart?

ASSEMBLYMAN ALBOHN: Just one or two quick questions. Dr. Lockhart, what is your degree that entitles you to the term "Doctor?"

DR. LOCKHART: I'm a social scientist. My background is medical anthropology.

ASSEMBLYMAN ALBOHN: Medical anthropology. All right. I wanted to question the medical aspects of your background, but you do have a degree in medicine then?

DR. LOCKHART: No, it's within the social science.

ASSEMBLYMAN ALBOHN: Social sciences, okay.

DR. LOCKHART: Yes.

ASSEMBLYMAN ALBOHN: It's not really a medical degree then; it's purely a social science degree?

DR. LOCKHART: Well, anthropologists are often considered on the cusp of science. We're sort of soft/hard science and hard/soft science.

ASSEMBLYMAN ALBOHN: But there's not a great deal of chemistry or biology in your background?

DR. LOCKHART: Not enough to be considered a medical person.

ASSEMBLYMAN ALBOHN: I just wanted to make that clear to the members of the Committee--

DR. LOCKHART: Please do.

ASSEMBLYMAN ALBOHN: --and the testimony that you gave, a lot of your testimony sort of hinged on supposedly scientific evidence, which is strictly hearsay as far as you're concerned then.

DR. LOCKHART: Well, it's essentially research that I have done as library research.

ASSEMBLYMAN ALBOHN: Library research, yes. Because there's some of the groups that you mentioned also, that are not exactly -- that I think distort their titles a little bit. The Environmental Defense Fund, for example, is a lobbying organization and not a scientific organization. So, I would

not put too much faith in estimates that come from the Environmental Defense Fund.

DR. LOCKHART: They base their-- To be fair to the Environmental Defense Fund, that was based on Federal research by the Agency for Toxic Substances Research. I'd be glad to give you the references on that. It was based on Federal research.

ASSEMBLYMAN ALBOHN: Thank you very much.

DR. LOCKHART: All right.

ASSEMBLYMAN SMITH: Any other questions for Dr. Lockhart?

ASSEMBLYMAN COHEN: Mr. Chairman? Through the Chair, when was the Federal research conducted?

DR. LOCKHART: The Federal research? I think in 1988 or 1987, but I'll be glad to look up the reference and give it to you at the end of the meeting.

ASSEMBLYMAN SMITH: Thank you, Dr. Lockhart. Our next-- I'm not quite sure, did I see Madeline Brown come in? (Aide informs Chairman that Ms. Brown has not arrived) All right, who has the lead paint sign, as well? I saw a lead paint sign back there. Is that from you, Dr. Tucker?

R O B E R T T U C K E R, Ph.D (from the audience): Yes, we have some posters from children that I'll talk about when I come up.

ASSEMBLYMAN SMITH: Okay. All right. Well, let me ask Madeline Brown from the Newark Lead Project to come forward. I guess we're not giving you a chance to even get your materials comfortably set down. Ms. Brown, if you'd take the chair? Good morning.

M A D E L I N E B R O W N: Good morning.

ASSEMBLY SMITH: And, if you'd identify yourself for the Committee?

MS. BROWN: Okay. My name is Madeline Brown. I'm the Program Coordinator for the Jersey City Lead Poisoning

Prevention Program. Working with the lead cases in Jersey City, I recognize that this is a multifaceted problem, crossing all socioeconomic groups. Before we can experience any decrease in numbers and children who are afflicted with this problem, the problem must be addressed from different perspectives as the legislative package in front of you denotes.

There must be various approaches to these problems. Just to highlight: Medically, we need some private doctors to look for lead in their private cases. A more sensitive screening test must be developed to detect the lower levels of lead CDC is now saying we must address. Educationally, the word must be gotten out; lead is very accessible in our environment and presents a danger to our health, both children and adults. Financially, financial supports must be put in place to make certain that safe abatement, in a timely manner, does take place.

In Jersey City, the Neighborhood Housing Service developed a loan program. It's a revolving loan program that generates moneys back into the system. But the citizens in the community have a great deal of paranoia with this loan program because there's a concern that a city agency would have a lien on their property. I think if the statewide program was put into place, it would relieve some of the paranoia and we could almost make certain that lead abatement would occur in a timely manner. That's just one of the approaches that I feel very, very strongly about. I think it's legislation 3(a) and 3(d) that deal with loan programs. That's all my comments.

ASSEMBLYMAN SMITH: Ms. Brown, could you tell us what you're finding in Jersey City with regard to the lead project and the impact on children?

MS. BROWN: With the amount of children tested?

ASSEMBLYMAN SMITH: Yes.

MS. BROWN: We tested about 6000 to 7000 children under the age of six in the city. I do have to say this also:

It's only one-third of that group of children who are at risk. That's why I feel very strongly that private docs need to look for lead in their own practices. What we're doing in Jersey City is, we're touching base with children who are parts of programs, WIC, Head Start, Immunization, etc. But the private doc's child we don't have access to, because they don't access themselves to these programs. So we're only testing about one-third of our population at risk, and our range varies from 1% to 2% positivity rate. That doesn't seem like an astronomical amount of children, but lead poisoning, you have to remember, is preventable. We aren't testing all the children we'd like to test, and with those who we are testing, we are seeing about a 2% positivity rate. These are children that confirm to be truly lead-burdened, and who we know are going to carry some residual damage throughout their lives.

ASSEMBLYMAN SMITH: When you determine that a child has been damaged by exposure to lead, what is it that the Jersey City Lead Project can do for the child?

MS. BROWN: Okay. Medically manage the child. We have a physician on board that treats the child, if need be. Medically management also consists of monitoring the child's lead level. Then environmentally, we must intervene. Once you identify a child who's been burdened with lead, you must remove the source, and that's what the program attempts to do. That most often is where we meet our limitations or where we're restricted the most. There just aren't moneys available. There's not enough knowledge in the community in regard to safe abatement. I don't know if you're aware, but if you do an abatement poorly, you put the child at greater risk. You put other siblings in the house at greater risk. You also expose your workmen to the risk of becoming lead burdened. So those are some of the needs that I see, particularly in our community.

ASSEMBLYMAN SMITH: Are there questions for Ms.

Brown? (no response) Thank you, Ms. Brown, for testifying this morning.

We've had three witnesses describing some of the extent of the problem in New Jersey. Let me ask one of the speakers opposed to the package to come forward: Carla Israel, from the Chemical Industry Council, in opposition to parts of the package.

C A R L A I S R A E L: Thank you, Mr. Chairman. I've also brought with me Dave Lloyd from the National Paint and Coating Association, who will speak on the same bills.

D A V I D L L O Y D: With your permission, Mr. Chair?

ASSEMBLYMAN SMITH: Well, a little bit of individual initiative was exercised by Ms. Israel in this case, but we'll allow it. (laughter) I'm certain that it won't happen again. Go ahead.

MS. ISRAEL: No, Mr. Chairman. If you'd like, we can separate. That's not a problem.

ASSEMBLYMAN SMITH: No, no, it's all right. Go ahead.

MS. ISRAEL: I'm Carla Israel, Director of Government Affairs for the Chemical Industry Council of New Jersey and the Paint Council of New Jersey. I'm here to testify basically on two bills of the package. While we support the package overall, there are two specific bills that we have some problem with, Mr. Chairman, and members of the Committee.

One of them is A-4050, which would impose a tax on paint and allied products for lead toxicity projects. I'll let Mr. Lloyd talk to the specifics of the issue. However, I'll just raise one point, and that is, in the bill you've set out to raise approximately \$4 million through this .5% tax. And the only point I'd like to make, Mr. Chairman, is that the rest of the bills in this package seem to appropriate \$1.5 million for the projects that you list. Why the discrepancy, I ask, number one, and what do you plan on doing with the other \$2.5 million in this time of fiscal budgetary constraints and



whatnot? On that same issue, I would ask you, sir, to consider second referencing these bills to the Appropriations Committee, since they do carry such a large, if you will, price tag with them.

The other bill that I have a problem with is A-4056, which establishes presumption that lead toxicity is due to lead paint in residences. While studies show that where there is lead-based paint, it is a contributor to lead poisoning, it's not the only contributor to lead poisoning. I fail to see the rationale, if you will, on how you can establish sole presumption on lead paint in residences, when there are other sources out there such as lead in gasoline and those types of instances. With your permission now, Mr. Chairman--

ASSEMBLYMAN SMITH: Mr. Lloyd?

MR. LLOYD: Yes. Mr. Chairman, members of the Committee: My name is David Lloyd. Some of you may remember I used to work for the New Jersey Business & Industry Association, so it's nice to be back in friendly and familiar surroundings once again. I'm now Director of the Division of State Affairs for the National Paint and Coating Association.

Basically, we have a problem with two of the bills in this package, both mentioned by Carla Israel. First, we feel that the tax bill, as proposed, places an unfair burden on paint manufacturers in this State. It puts them at a competitive disadvantage with manufacturers out-of-state. It would tax, obviously, products which are shipped out-of-state. It's just unfair and anti-New Jersey manufacturer.

Most of the reports that I've seen indicate that the paint industry really no longer uses lead to anywhere near the extent that it once did. In fact, it began phasing out the use of lead way back in 19-- Well, in the middle '40s, it started cutting back. Instead, the paint industry switched to two other products: Lithapone, which is a combination of white zinc, sulfide, and barium sulfate and titanium dioxide. I have

a chart here that I would be glad to leave with you. It shows that whereas lead use was reduced significantly down to the point where it's almost nonexistent, the use of the other products has increased to more than make up for it.

We would also submit that the bill is unfair because even in those situations where you have old lead-based paint surfaces, they're not the sole cause of lead in the environment. We all know that up until the early '70s there was lead in gasoline; almost every car used leaded gasoline. One of the problems with lead is that it doesn't go away. So the lead that has been used ever since the use of lead in gasoline is still with us in one form or another, basically in the soil.

Again, particularly in your older communities, the water that people drink came through lead pipes. It's really a relatively recent phenomenon that you put water through copper. But the water through lead pipes is definitely a factor. Produce, believe it or not-- When you buy produce which has been grown in an area -- almost anyplace -- it's just a question of degree. If it's more in an urban area or urban State like New Jersey, the chances are the concentrations of lead are likely to be higher in fruits and vegetables that you grow, just because of the lead that's present in the soil, the lead that's present atmospherically, in a very broad way of speaking. Smoking. If you smoke a pack-and-a-half a day you've, in effect, breathed in enough lead as if you breathe in the air in urban environments for a day.

So I'm not sure-- In fact, I'm quite positive; sure, that placing a tax solely on lead paint is fair. I don't think it is fair. I also feel that to provide funding for the other bills in the package, this particular bill, in effect, bails out those landlords who over the years have failed to properly maintain their buildings. You don't get paint chips, falling paint chips, from walls that are properly maintained. You get

rid of it. You either repaint it or you just don't let it get into such a dilapidated condition that the paint is falling off the walls.

I would also point out that the proposed tax is, in effect, a gross receipts tax, so that the profitability of the company is not even relevant. In effect, you take a company that's losing money and have them pay a .5% of their gross receipts. I don't know how much money paint companies make profit-wise. I suspect it's probably not a whole lot more than that; maybe 4% to 8% percent if they run the same percentages as the manufacturing industry generally makes. So you're taking a pretty fair-sized chunk of what could otherwise be profit, and you could even take a situation where a company is borderline and make them go into the red.

This is a particular concern in the paint industry because it's a shrinking industry. You have a few large companies that manufacture and sell paint. By and large, the industry is hundreds of smaller manufacturing facilities, almost "mom and pop"; they're certainly family-owned. Over the past couple of years, the number of mergers and the number of companies that have just gone out of business is rather frightening. Frankly, as a representative of the industry, I see the base for those who pay dues to the National Paint and Coating Association as eroding. This is the kind of legislation which could make a number of these smaller companies just say, "Oh, the hell with it; I'm not going to bother. Why should I? I don't make lead paint anymore --" which, in fact, most don't. You know, "Why should I be paying a tax for something that occurred years and years ago?"

Our suggestion is, if you want to fund this kind of a program, or if you want to deal with the problem itself, require stricter enforcement of building codes, so that you don't have -- at least that part of the program-- You're just not going to get rid of the lead present in the soil as a

result of the automobile and other sources, but you can deal with the lead-based paint problem by repainting it. That's probably the safest way to do it. For the same reasons in many respects, the presumption bill -- the bill that would create a presumption, admittedly rebuttal-- But the point is, even the EPA has come up with a study. I'll give you a copy of this, too, if you would like a copy that you can read. This, unfortunately, is rather faint print. But the EPA has done studies which indicate that even in the worse case scenario, you're not talking about paint being much more than half of the problem--

ASSEMBLYMAN SMITH: Half of the problem, did you say?

MR. LLOYD: Not much more than that, even in a worse case scenario. It's right around there. I'm not going to kid you and tell you that there aren't situations where lead-based paint isn't probably the number one significant problem. But not in every case; nowhere near. And I'm saying even in a worse case scenario. This bill provides -- doesn't provide worse case scenario. It says even any evidence of lead toxicity and you're going to point to paint. It's going to be up to the paint manufacturer defendant to overcome that presumption. I think that, frankly, is going to be difficult unless the judge or the jury is going to accept very general findings because, frankly, that's the only way you're going to be able to do it. There's no way to distinguish what kind of lead you got from paint, and what kind of lead you got from gasoline, or what kind of lead you got from smoking, and what kind of lead you got from lead pipes. It's lead.

So, a child eating soil, probably nonpaint source, and from what I understand they will eat soil containing lead from wherever it's from. We just think that the two bills are not in the best interests of the paint industry, and they are also, I believe and submit, unfair to the industry. Thank you, Mr. Chairman.

ASSEMBLYMAN SMITH: Thank you Mr. Lloyd. Are there any questions for Ms. Israel or Mr. Lloyd? (negative response) Thank you both.

Our next witness will be Glenna Gundell of the New Jersey Coalition for the Prevention of Developmental Disabilities.

G L E N N A G U N D E L L: Good morning. I'm Glenna Gundell and I'm Director of the New Jersey Coalition for Prevention of Developmental Disabilities. This is Barbara DeMarco who is sitting to my left. She is the Legislative Advisor for the Association for Retarded Citizens, the State office. The Coalition is a project of the Association for Retarded Citizens, and it's funded through a grant from the Office for Prevention of Mental Retardation and Developmental Disabilities which is located in the New Jersey Department of Human Services. The coalition represents over 200 citizens' groups and representatives from agencies and organizations with an interest in, and a dedication to, the prevention of mental retardation and developmental disabilities.

I'd like to thank you for the opportunity to speak before you today, and particularly to applaud the sponsors of the lead toxicity package for introducing such comprehensive legislation geared at reducing the lead burden in our environment. I know you're aware that lead poisoning is a leading cause of mental retardation in children. In fact, health officials believe that lead poisoning is still the most common and preventable environmental disease affecting children in the United States. Estimates show that three million to four million children have lead levels in their blood that are high enough to cause significant neurological, behavioral, and health problems. In New Jersey alone, an estimated 177,000 children are believed to be at risk of being lead poisoned. According to scientists at the Environmental Defense

Fund, the New Jersey-New York metropolitan area has the highest number of lead-burdened children.

The bills before you today are our stepping stones to solving the lead crisis in New Jersey. Public health has been measurably improved due to decades of research about lead's toxic effects, and government action to reduce lead exposure. Screening programs and public education are among the programs that have helped to reduce dramatically the number of extreme cases of lead poisoning. But we cannot stop there. We must make lead abatement in the environment, our number one priority.

I recently read an article about a young woman named Monica, who now is 17 years old. She was treated for lead poisoning when she was four, and according to the article, there were no obvious symptoms that something was wrong with Monica when she was four years old. Her lead poisoning was discovered during a routine lead screening at a neighborhood health center. She was immediately hospitalized and underwent several rounds of chelation therapy. The treatment reduced the lead levels in her blood, but it couldn't reverse the damage already done to her body. Today she has a problem with attentiveness and fine motor skills. She also has trouble reading and is often frustrated by the smallest intellectual task. The neighborhood screening program did help. It prevented her from receiving a lethal dosage of lead, but it could not reverse the damage done.

This is why the Coalition for Prevention and the ARC strongly support A-4051, sponsored by Assemblyman Smith, providing for mandatory screening programs for children in high risk municipalities for blood lead toxicity. However, the Coalition for Prevention and the ARC view this as only the beginning. Certainly the appropriations called for is a modest sum. If the funding were available, we would suggest that testing for lead toxicity be extended to all children, as well as pregnant women in New Jersey. No one is immune In fact,

30% of the children identified as lead poisoned in 1988 in Massachusetts, lived in areas not traditionally considered high risk.

Further, studies conducted by Harvard University have found that lead can pass from a pregnant mother's blood, through her placenta to her unborn child, causing lower IQ scores, developmental delays, hyperactivity, and disruptive behavior in the child once born.

Of course, programs promoting lead awareness and providing information to the public are always helpful. A-4053, sponsored by Assemblyman Mecca, would continue the efforts started by the Task Force on Lead Poisoning Prevention within the Governor's Council on Mental Retardation and Developmental Disabilities, by educating the public as to the serious threat of lead poisoning. We know that 65% of the houses built in New Jersey prior to 1970 were probably painted with lead-based paint, and that hobbies such as redecorating, or improving an older home, can be dangerous due to exposure to lead; and that in 1988, more than 1.4 million pounds of lead were reported under New Jersey's Right to Know regulations, to be emitted into our air, soil, and water. It's our responsibility to provide the answers to these questions to the citizens of New Jersey. With the help of Assembly Bill No. 4053, this information, as well as the remedies to these situations, will help sensitize parents, teachers, health professionals, and homeowners as to the health dangers of lead toxicity.

Finally, preventing the health, emotional, mental, and physical problems caused by lead exposure not only improves lives but it also saves money in health care, education, housing, and transportation. We are talking quality of life issues. The Coalition members and the ARC are convinced that the lead toxicity package, if passed, would help curb the

threat of lead poisoning in New Jersey, and I urge you to pass these bills into law. Thank you very much.

ASSEMBLYMAN SMITH: Thank you Ms. Gundell. Are there any questions for Ms. Gundell. (negative response)

MS. GUNDELL: Thank you, gentlemen.

ASSEMBLYMAN SMITH: Thank you very much. Our next speaker will be Assemblywoman Ann Mullen, who indicated a desire to testify. Assemblywoman Mullen.

A S S E M B L Y W O M A N A N N A. M U L L E N: Thank you very much, Mr. Chairman and members of the Committee. I'm actually going to change my hat today and put my Mayor's hat on, if you don't mind. I could not let this opportunity pass by to have a chance to tell you about a situation in my own community which is not, I guess, what you would think of as the traditional place for lead exposure to children. In my community, we have an old foundry, unfortunately located in an area surrounded by homes. The majority of the homes are new homes. Because of an accident that, thank God, happened where some material splashed on a car taking the paint off, an investigation was done in this area. What it revealed was that many children in this suburban community have been impacted with high lead levels in their bloodstream. I understand today it's acceptable -- anything less than 25 micrograms -- but these children have tested up to as high as 22 micrograms and very small children with incidences of 18 micrograms. I'm very, very concerned about them.

It's obvious that, in this particular case, it's coming from a foundry that uses lead in their process, and basically, I believe it's airborne because of it being an old building with an exhaust fan that is just ventilating the dust throughout the community. I'm concerned about my feeling of inadequacy, or hopelessness here, because I really don't see any action except for the fact that it has been determined that these children have high lead levels in their blood.



I think that this package of bills will go a long way into spurring some action in my community, even some parents that are reluctant to do anything, whether through financial problems or whatever. Something has to be done to correct this problem, to cure these children, and to educate the community of this very dire danger. I understand that the Federal government is considering dropping their levels of acceptancy down to 10 which would mean that the majority of these children that were tested -- and I'm not talking about one or two; I think maybe 40 or 50 -- you know, then they are definitely in danger.

Whatever I can do to be of help to you, such as supplying you with the information from my community, I would be happy to do that. It's all written up and documented by our county Board of Health. I commend you, and I thank you, on behalf of all the people of my community, and children throughout the entire State. Thank you for letting me testify.

ASSEMBLYMAN SMITH: Thank you, Assemblywoman Mullen. Our next speaker in opposition to the package will be Jack I. Silverman, M.C. Canfield Sons. Mr. Silverman, if you would come forward, please?

J A C K I. S I L V E R M A N: Thank you, members of the Committee. My name is Jack Silverman, I'm President of M.C. Canfield Sons. We're solder manufacturers. In fact, we're the oldest solder manufacturer in the United States, started in 1844, and we're here in New Jersey. As a matter of fact, there are about four or five of the leading solder manufacturers in the United States here in New Jersey. Alpha Metals is in Jersey City. We have a branch of Kester Solder from Chicago in Newark, RFE also in Jersey City, and Canfield in Edison and Union.

I want to start off by saying I am speaking only to the section that concerns the ban of lead in solder. My granddaughter, my five-month-old granddaughter, just recently

moved into Jersey City, and I'm very much concerned about children. I have six children and four grandchildren, all living here in the State of New Jersey. You're never more than two feet away, two or three feet away, from lead in solder. People just think of solder as a little wire wound on a spool, but solder is used in many, many of the important things that we utilize in our everyday living. For instance, this microphone right here, every electric light bulb, every television set, every computer, every calculator, every VCR, every automobile. There used to be 200 pounds of solder in every automobile. That's down to about 30 or 40 pounds now. Every space vehicle has solder that is made from tin and lead. The use of solder and the way it's manufactured is now being regulated by the EPA -- the Environmental Protection Agency -- and OSHA. The United States government purchases hundreds of thousands of pounds of wire solder to use in all their projects, all over the world.

I would like to read a letter. I made some copies, but I didn't know how many people were here. You can follow. It's written by the President of Kester Solder, one of the leading solder manufacturers. Incidentally, Canfield is a small company; we employ about 75 to 100 people. There are, perhaps, about 500 people employed in the solder business in the State of New Jersey. Kester Solder is in Chicago and Vern Kraemer, the President, wrote this letter:

"Legislation has been introduced in the United States Senate that may seriously affect our ability to market your products." He wrote this to all his customers. "Senator Harry Reid, Joseph Lieberman and others, which include Bill Bradley -- Senator Bradley -- have introduced S-2637, a bill that would ban most applications of lead. S-2637 mandates that no person may manufacture, process, or distribute in commerce, products including lead above a stringent mandated level. The proposed limit of lead in solder is .1%. It is widely perceived that

lead is in solder only because of its low cost. Nothing could be further from the truth. To explain: Tin, the other common metal in solder, melts at 450 degrees, while lead melts at 620 degrees. However, when alloying tin and lead together at the 63% tin, 37% lead ratio, the resulting melting point is only 361 degrees. Incidentally, that alloy, 63% tin, 37% lead, is the solder that is used in most electronic and electrical applications. In addition to physical properties of ductility, tensile strength and tolerance to thermal cycling are greatly enhanced. It is around a soldering temperature range of 100 degrees Fahrenheit over the melting point of solder that engineers and scientists have designed materials, printed circuit boards, components, and processes, which are all used in the manufacture of electrical products.

"A lengthy list of essential products includes telephones, radios, televisions, communication equipment. Nearly all forms of transportation equipment, space vehicles, avionic and navigational equipment, defense equipment, and medical monitoring instruments, all of these products depend on tin and lead. The present level of reliability of these products has taken decades to develop. To establish confidence in a new electronic system would require a massive national effort. There are no acceptable substitutes for solder or lead in solder for the majority of present soldering applications. Use of adhesives or other metals have deficiencies of one kind or another, without even considering the economics. We support proper care and handling of lead-bearing materials, including solder, but lead solders are even used to protect our health in numerous medical products and instruments. We need your help to fight this proposal." And so forth and so on -- end of letter.

The point is that solder that contains lead melts at about 361 degrees. You need an extra 100 degrees to get it hotter. If we used other solders, lead-free solders which we

do manufacture, we have to raise the temperature a couple of hundred degrees and it would destroy the printed circuits and all the components around it. As it says in the letter, it took 20 or 30 years to develop these components. We'd need another 20 or 30 years to develop new components. So, if we ban lead in solder, we'd have to give up our automobiles, televisions, VCRs, computers, and all these very important things.

I'd like to pass around here, for your observance-- This is the solder that is used in the electronics industry. (passes around spools of solder to Committee) We manufacture this solder and we private brand for AT&T and for Radio Shack, so people can go in and buy a little spool of solder and repair their own television set or repair their own computer. We manufacture it for electronics and electrical companies all over the United States. These are the electronic solders. We also make it in a bar or ingot form that's put into little solder pots that printed circuits pass through to make the printed circuitry for all the electronic industry.

We also manufacture a solder which has essentially the same components -- it's 60% tin and 40% lead -- for the stained glass industry. This is used by artists and artisans, and people who make stained glass windows for churches and beautiful Tiffany lamps. They're works of art. They are put together with this solder that contains lead in a responsible manner, and we don't think that this type of solder should be banned.

We also manufacture for AT&T, a product called "lead lashing wire." This is a copper-coated steel wire; is inside a wire that is coated with lead, and it's used, as it says, to lash wire -- the wires in the circuitry that goes through our telephone lines all over the country -- to itself and to the surrounding parts, because it has the ability to bend and keep its shape. The lead is soft so it doesn't injure the wires.

So, lead is very important, and this is one of the most important products that AT&T purchases from us under their own name. We private brand it for them and they sell to Bell and telephone companies all over the United States.

Now we do manufacture a lead-free solder. It's called "100% water-safe, lead-free solder." The flyer -- and this is the solder -- (passes flyer and solder to Committee) We manufacture that solder, and other manufacturers do also. As a matter of fact, on the Turnpike you can see our sign on one of our buildings in Edison that says, "Canfield Lead-Free Solder." This lead-free solder is used in the plumbing industry. There's a Federal law that says that wherever you bring potable water into the house, you cannot use a lead solder. Soldering copper tubing is not a very technical matter. This solder works similar to the lead solders that were used in plumbing. It works very well. There's no problem with it. It does cost about three times as much as lead solder, because tin is 10 times more expensive than lead. Tin sells for about \$3 a pound and lead sells for about 30 cents a pound, to give you an idea. You need about three pounds of solder to solder a new house, and it adds about \$20 to the cost of the house, but it works very well. We do manufacture it in accordance with United States law -- the Federal law that bans the use of lead solder in potable water systems, and we support that.

Now the bill that was introduced by the Senate, the United States Senate, originally was similar to this bill as far as solder was concerned -- and lead, the use of lead. That bill was changed around, after their hearings, so that it retains the restrictions on lead in paints, plumbing fixtures, pesticides, curtain weights, and certain toys and recreational games. It deletes the ban on lead in use in fertilizers and cosmetics, and allows for exemptions for toys and recreational game pieces that are collectors' items. It allows the EPA --

the Environmental Protection Agency -- to establish a performance standard for plumbing fittings and fixtures in lieu of the ban, if the standard is as protective as the ban. It requires the EPA to issue a regulation -- this is something new -- that prohibits the sale of lead solder to plumbers and plumbing supply retailers and wholesalers. So, not only does the present law prohibit the use of it by plumbers, they're going to eventually prohibit the ability to purchase and sell solder in plumbing supplies and for use by plumbers.

It retains the ban on lead solder for food cans, and foil for wine bottles. So the point is that where solder touches food or water, it makes sense to perhaps have some sort of a ban. But for all other uses in an industry: for electronics, for automobile repair-- Incidentally, the radiator on your automobile -- the copper brass radiator that cools your engine -- is all soldered with a lead solder, and there's no way in present form to change the use of lead solder in that area.

I'm also going to pass out a draft of a paper that we are preparing -- I only have four copies of that, if you need more copies -- that talks about lead's environmentally beneficial uses. Lead is a very, very important element. Lead has an integral role in the nation's effort -- I'm not going to read the whole thing, but I'd like to read some of it -- to care for and preserve the environment in areas of energy conservation, pollution control, and health and safety protection. Lead gives us an effective element to help achieve our environmental objectives as effectively and efficiently as possible.

Lead plays an essential role in achieving the nation's goal of conserving energy. Its uses as a component of energy efficient lighting, and the increasing application of the lead-acid battery as an alternative to the gas-consuming internal combustion engine, as well as new uses such as power

supply load-leveling and solar energy storage, make lead an important ingredient of energy conservation.

In addition to lead's contribution to controlling pollution emissions by augmenting or extending more conventional energy sources, lead also has direct application to many pollution control technologies. Lead's anticorrosive properties make it ideally suited for electrostatic precipitators, a technology widely used to control particulate and sulfur dioxide emissions. Lead's density and capacity for incorporation into other materials make it an effective noise suppressant in the workplace, in hotels, apartments, and in certain high noise areas such as airplane cabins.

Incidentally, we also manufacture lead ballast for the Trident submarines. Because it's so dense and so heavy, it could be used as ballast. Otherwise, the walls of the submarine would have to be eight feet thick if they used concrete.

Lead insures the safety and health of people working in areas of applied radiation technology, such as diagnostics and physical therapy. The same properties shielding patients from X-rays also shield workers from exposure to gamma ray radiation where nuclear materials are being used for civilian and defense purposes. One of lead's other contributions to health and safety is in the workplace, where battery powered vehicles increasingly perform tasks previously handled by vehicles powered with carbon monoxide-emitting internal combustion engines. And, we all know what's going on with the gas crisis today.

As the Congress and the EPA consider proposals that would ban and significantly limit existing and future applications for lead, they need to also assess the contribution of lead to the achievement of our major national priorities and the objectives of energy conservation and environmental protection.

It goes on to tell about the beneficial uses of lead in the environment. Lead's properties, the unique physical and chemical properties--

ASSEMBLYMAN SMITH: I'm sorry, Mr. Silverman, this will be entered into the record. There's no need to read it verbatim.

MR. SILVERMAN: All right. Okay. I just want to--

ASSEMBLYMAN SMITH: Can I ask you a question, if I might?

MR. SILVERMAN: Sure. I'll answer any questions.

ASSEMBLYMAN SMITH: One of the lead solders that you passed around has, in microscript-- I don't wear glasses; I'm 43, but so far God has been good. I don't wear glasses, but am I reading this correctly? It says: "Warning" -- this is in microtype -- "this product contains lead and may contain other toxic metals or chemicals. Ingestion or inhalation of fumes or particles released through processing could cause lead poisoning or cancer. Absorption of lead is known to cause birth defects and other reproductive harm and may result, for example, in damage to the blood and neurological systems. Use only with adequate ventilation. Use NIOSH approved respiratory protection when necessary. Wash thoroughly before eating, drinking, or smoking. Not to use in potable water service systems. This product on file with Rocky Mountain" -- whatever.

It would seem that-- One of the lawyers on the panel said, "You better get yourself a bigger warning because it's almost unreadable." But that seems to indicate that there is a serious problem with these solders. They seem to be very dangerous items.

MR. SILVERMAN: Well, that warning label was decided on by the Federal government; that anything containing lead--

ASSEMBLYMAN SMITH: You don't agree with that?

MR. SILVERMAN: I think it's overkill. I think that-- Solder does not oxidize when it is melted, if you want



to get down to the technical part of it. It does not become lead dust, or it does not get into the air, and the responsible soldering that's been carried on for-- Well, as I say, Canfield started in 1844, so it's 140 years that I know of that it has not produced any dangerous lead levels in the people who do soldering. People are soldering all over the United States day in and day out, but when this ban on soldering in plumbing came about, they requested that we put this on. That has been kicked around here and there, and that's what resulted.

ASSEMBLYMAN SMITH: Right, but it's your opinion that that's overkill as a warning?

MR. SILVERMAN: Yes

ASSEMBLYMAN SMITH: Okay. Is there anything you wish to add to your testimony today?

MR. SILVERMAN: No. I'm willing to answer any questions that anyone else has.

ASSEMBLYMAN SMITH: Anymore questions for this gentleman?

ASSEMBLYMAN COHEN: Mr. Chairman, through the Chair--

ASSEMBLYMAN SMITH: Assemblyman Cohen.

ASSEMBLYMAN COHEN: The warnings-- How did the language in the warning emanate, and when was it approved, if you know? Maybe Mr. Lloyd might know, in terms of--

MR. SILVERMAN: It emanated from the bill that banned lead in solder in potable water systems. Various states added wording here and there, so a warning label was developed that covered the necessity of language that was put out by various states and the Federal government. Most of the labels contain the same language, with a word or two changed.

ASSEMBLYMAN COHEN: I was just curious whether this was the warning-- The label came in the 1960s, the '70s. What period of time are--

MR. SILVERMAN: The label has just been added in the past four or five years.

ASSEMBLYMAN COHEN: Four or five years. Thank you, Mr. Silverman.

MR. SILVERMAN: Incidentally, I do want to mention that I have no vested interest in this, in that even though I'm the President of the company, I'll be leaving in about a year. I'm retiring. Your bill talks about 1993, or something like that, so I have no ax to grind.

ASSEMBLYMAN COLLINS: Mr. Chairman?

ASSEMBLYMAN SMITH: Yes, Assemblyman.

ASSEMBLYMAN COLLINS: Okay, and I think Mr. Charles had a question, too. But I'll ask through you, Mr. Chairman. You indicated some of the other uses that maybe aren't apparent to the normal person out on the street with regard to solder. Is there any information that you have, or maybe anyone who wishes to make a comment on this, Mr. Chairman, with regard to solder being absorbed through the skin, or any of those ways -- through use of stained glass or electronics or whatever?

MR. SILVERMAN: No, solder is not absorbed-- Lead or solder is not absorbed through the skin. There are two ways that you can get solder into the body. Those are through ingestion, through eating it, or through inhalation. It is recommended, again-- Somebody mentioned something about smoking; that people when they solder are instructed not to smoke in the area. That, I still believe, is overkill, because no solder floats through the air. Lead doesn't float through the air; it just melts. See, in order to oxidize solder, you have to get it above 1000 degrees, and the solder melts at 300 or 400 or 500 degrees. So it doesn't get to the point of oxidation when you're soldering. As I said, it's overkill. If somebody were to put solder into a kettle, and melt it and melt it, and get that heat up -- and it is very difficult to get it above 1000 degrees -- then there would be lead dust.

Now, in our plant where we manufacture solder, we're under the rules of OSHA and the EPA and we have to give our

people lead level tests every six months or so and meet certain levels. The level is 40 micrograms per mililitre. If somebody has 40 or above, they have to be removed from the scene. I think in the past 10 years we've had maybe one person, and he may have come into the organization already with a high lead level. So we have people working around lead at higher degrees than the ordinary melting of solder, and their lead levels do not seem to be raised appreciably. We do have some lead dust because we're sawing it and melting it; we're skimming it. We're doing many other things with solder. We do not allow people to carry cigarettes in their pocket, because the open pack of cigarettes-- There's a possibility there could be lead dust, but that's only at those high lead levels.

ASSEMBLYMAN COLLINS: Mr. Chairman, I have two quick questions.

ASSEMBLYMAN SMITH: Yes, sir?

ASSEMBLYMAN COLLINS: You mentioned that you feel it's overkill in a number of areas, yet you do acknowledge -- and of course you'd have to -- it's the law, with regard to not allowing the use of leaded solder on plumbing fixtures and so on. Do you feel that that's a necessary law or do you feel that's overkill also? Since it doesn't oxidize--

MR. SILVERMAN: Well, let me explain the way it works. As somebody mentioned here, plumbing comes from the word "lead." Plumb means "plumbum" which is lead. It started in Rome when they brought water in on the viaducts, lead troughs, and the big cities in the world still have homes that are plumbed with lead pipe. In the City of Chicago they have copper tubing, but lead pipe brings the water from the street into the house. So we have been living with this for hundreds of years. In Europe most of the homes and buildings are way over-- You know, they're hundreds of years old. They all have lead pipe. What happens is, hard water coats the lead -- the chemicals in most water coats the lead -- and prevents the lead

from actually touching the water, after a month or two.

What happened was, out on Long Island where the water is very, very soft, and certain other areas in the United States -- I think one was Virginia; this was in 1985 -- somebody tested the water. The water was very soft. The houses were new. The water didn't get a chance to coat the tubing -- and it was copper tubing at that time -- that was soldered with lead. Some lead leached into the water, and there were tests which showed that there was lead in the water. Because some children did have high lead levels in those particular cities -- and it was something like 13 or 20 or 40 -- the law came about. Some people saw an opportunity or saw a need -- what they thought was a need -- to ban the use of solder in copper tubing in plumbing, and it spread like wildfire. When you bring children into the picture, it's like mother and apple pie. It's very hard to go against that. That's what happened.

So I do believe it is overkill compared with the problems that we have with drugs, smoking, and things like that. I think that a lot of energy, and a lot of time, and a lot of money is spent on this particular project. It's important, but a lot less important than some of the other things we have to contend with.

ASSEMBLYMAN COLLINS: One last question: If this piece of legislation goes through -- fully understanding that you're retiring -- other than your retirement, what effect do you think this piece of legislation will have on your company?

MR. SILVERMAN: Well, I think it would put all solder companies out of business--

ASSEMBLYMAN COLLINS: Out of business?

MR. SILVERMAN: Yes, because they would need-- Let's say there would be no need for soldering in the electronics industry. It would be banned, so we couldn't make--

ASSEMBLYMAN COLLINS: Well that would be nationally; ours is just dealing with New Jersey.

MR. SILVERMAN: We have a very big electronics industry here in the State of New Jersey, and New Jersey is the leader. I found that many states follow New Jersey with their legislation, so we would be uncompetitive in the world. In fact, we'd be unable to import automobiles that have lead solder in them. We would be unable to manufacture any of these electronic things.

I think it would be impossible to live in the world today without lead solder. Forgetting whether-- There are many chemicals that we live with that are -- if handled responsibly, and this has been handled responsibly over the years -- necessary items in the world that we live in today. I don't think anyone here could imagine life without television, computers, automobiles, telephones, and so forth. And there's no technology to use a lead-free solder.

ASSEMBLYMAN COLLINS: Well, just to jump on your word "overkill"-- As I read the legislation, you may have just overkilled it because it really wouldn't stop and do all that banning that you just said. It would affect the sale of solder or flux containing lead in New Jersey. But we'll wait and see where that will go. Okay, thank you.

ASSEMBLYMAN SMITH: Thank you, Mr. Silverman. Our next witness is Dr. Steven Marcus of the Poison Control Center in Newark, also the New Jersey Chapter of American Academy of Pediatricians. Okay, Dr. Marcus, for the record would you identify yourself, and take it away.

S T E V E N M A R C U S, M.D.: My name is Steven Marcus, I am a pediatrician. I'm the Chapter Chairman of the Child Safety Committee of the American Academy of Pediatrics. I'm also a Councilman for the American Academy of Pediatrics. I'm the Assistant Director of the Department of Pediatrics of Newark's Beth Israel Medical Center. I'm a board certified

medical toxicologist. I am the Medical Director of the New Jersey Poison Information and Education system. I'm also a member of the Committee on Child Development for the American Academy of Pediatrics.

ASSEMBLYMAN SMITH: All right, stop one second. Assemblyman Albohn, are his scientific credentials high enough? (laughter) Okay, Doctor, go right ahead.

DR. MARCUS: I've spent the last 23 years of my life treating lead-poisoned children and adults, and I'm kind of amazed at some of the stuff that I've heard. I apologize. I was a little bit late, but parking today was a disaster. Before I left my office this morning I had to see two adults -- one a plumber and one a painter; both of which had lead poisoning -- and two little children who had lead poisoning. When I left, there were about six other people waiting to be seen by my fellow, both children and adults with lead poisoning. So, if we think that lead poisoning is a problem of the past, we're sorrily mistaken.

Lead has been around for a long time. Actually it's been used for 5000 years. The previous speaker is quite correct. But during that 5000 years, we learned a lot about lead. We've also learned that lead causes a whole host of diseases. In fact, there's no organ system in the body that lead has not been shown to affect.

We actually reported an adult audiovisual aide person from a local community college in 1982 who, because of his lead poisoning, had defects of his heart, his pancreas, his brain, his kidney, and his liver. He was lucky because we did get to him early enough, and with proper treatment he recovered from most of those deficits. His sole problem was repairing audiovisual equipment in which his major job was to resolder connections, and he did get his lead poisoning from soldering.

Anyhow, lead is ubiquitous in our environment. It is an interesting substance. It has been very, very useful to

man, but at the same time it has caused man some horrible consequences. Today's scientific evidence suggests that there is no safe level of lead in the human body. Our work in New Jersey showed that nearly 100% of the children evaluated at a university-affiliated facility for learning disabilities-- Almost 100% of them had elevated blood levels. At the time that we did that study, we did not believe that the lead levels were high enough to warrant medical therapy, which at that time was at great risk to the individual. Currently the medical therapy that is available is a little bit safer, and those children from that period of time probably would be under therapy at the present time.

While we classically think of the inner city child or the ignorant worker as that individual who gets lead poisoning, this is no longer the case. We take care of people from all walks of life in my practice. We've seen architects whose children and family were poisoned because they stripped paint from their fireplaces. We've seen amateur potters get lead poisoning from exposure to the pottery. We've seen stained glass window hobbyists have lead poisoning because of exposure to the fumes from the lead in the solder of the stained glass windows. We've seen animals suffer the effects of lead poisoning. We've seen a dog that became paralyzed simply because somebody had decided to clean up the outside of an old barn. Luckily for the family the dog was the marker for the rest of the family, because when they made the diagnosis of lead poisoning of the dog, they then made the diagnosis of lead poisoning in a young child and probably saved that child from a lifelong problem with learning disabilities.

As far as the availability of lead-- I went to a local hardware store and told them I wanted some new paint to paint my back porch. I was tired of painting the porch every year for the last 12 years. So they handed me this can of paint and they said, "Doc, I guarantee this paint. You won't

have to repaint it." And, in my sort of ignorance, and, I guess scientific curiosity, I said, "Well, why are you so sure that this paint is going to work?" and they said, "Well, this is the paint that they use to paint highway markings." And I said, "Wait a minute. Wait a minute. What's in it?" I read the label and sure enough it had 27% lead. Now, I was an intelligent enough consumer, so I didn't buy that paint. But another individual, tired of painting his back porch, as I was, might have brought home that gallon of paint and painted his back porch, painted his windows, painted the inside of the house. There was no comment anywhere on that, except in very fine print, that it did, in fact, have lead pigments. So, it is possible to buy lead paint. It's possible to buy lead solder. And it is very possible to be exposed to considerable levels of lead.

Lead is probably the single most common environmental toxin, environmental pollutant, around today. It is the easiest of all the pollutants to measure. It is the easiest and the cheapest to remove. Now it is true that it may be difficult to remove all the lead that's been placed in our environment up to now, but as far as I'm concerned, there is no excuse, once we know the damages of lead-- Now that we know that there are safe alternatives to lead, there is no excuse to continue to put lead into our environment.

Benjamin Franklin, in the 1700s, remarked in Philadelphia, how strange it was that a good 50 years had gone by since the dangers of lead was known until the beginnings of people doing something about it. That was over 200 years ago, and I must say we haven't gone very much farther, as far as doing something about it, than in Franklin's days.

I would like to make one final comment and that is what John Kennedy said. I don't like to quote people, but sometimes their comments are far better than mine. John Kennedy stated: "Our children are our most important resource;



our only real hope for the future." When we look around and feel how bleak the situation is, financially -- or what have you in our environment-- When I look at my children I realize that they are our hope for the future; our hope for posterity. I believe that we should not poison that future. We should eliminate the use of lead in every possible way. There's no excuse for endangering our future progeny.

ASSEMBLYMAN SMITH: Dr. Marcus, a couple of questions for you. You are with the Poison Control Center in Newark?

DR. MARCUS: Yes, I am.

ASSEMBLYMAN SMITH: Okay. One of the prior speakers, I believe it was Ms. Gundell, indicated that in New Jersey alone an estimated 177,000 children are believed to be at high risk from being lead-poisoned. Can you give us some quantitative estimation, from your experience in Newark, of the number of children in New Jersey who are impacted by the lead problem?

DR. MARCUS: You know, it's really kind of difficult. Part of the problem is that we really have not had the massive amount of screening that we would have liked to have had in the past. So it's really very difficult to be sure. The number 177,000 really represents the number of children thought to live in housing that has contamination with lead. That doesn't even begin to impact on the kids whose families use lead for other purposes, or who may live downstream from a future incinerating plant, or something of that nature. Over 10% of the children we screen at our institution alone -- screened, that's not people referred to us, it's not children with symptoms -- those are just asymptomatic children screened; over 10% have lead poisoning.

Once we begin to adopt levels of lead that we know can bother the human body, and that's far lower than those levels that we now consider necessary to make the diagnosis of lead poisoning, that number will skyrocket. In fact, we believe it

is truly of epidemic proportion. If the number of children had measles whom we diagnose as having lead poisoning, it would be front-page every single day in every single newspaper in the State. A week doesn't go by that we don't see at least 10 adults and at least 15 new children that are referred to me for treatment of lead poisoning.

ASSEMBLYMAN SMITH: Can you give us any idea of the cost to society in allowing this problem to continue?

DR. MARCUS: As far as the learning disability, the costs have been estimated at well over \$100,000 per child, just for the special education needed. When you add to that the fact that the child will, no doubt, not achieve his maximum potential earning power, the losses become staggering. Those are the costs above and beyond the cost just to treat a patient with lead poisoning. One of the adults that I saw this morning is having some problems with his insurance company. So he started talking money with me, and I must admit I try to avoid that. But he told me that one cost of therapy on a new oral chelator, which really is the cheapest way to go, cost him in the neighborhood of \$1800, and that's with the medication given free by the drug company. Just the cost of laboratory requirements for follow-up, his visits, all of the incidental costs of that, were over \$1700, plus the fact that during that period of time he was off of work. He had to abandon his worksite because we would not let him have any further exposure to lead. He was self-employed. He's the owner of the contracting company, so he lost whatever money he could have earned during that period of time. The cost to society is absolutely enormous.

ASSEMBLYMAN SMITH: It does sound that way. With regard to some of the prior testimony concerning lead paint and the degree to which lead paint may or may not be part of the problem, there seemed to be an indication in earlier testimony that leaded paint-- It's very difficult to prove what is the

source of the contamination to the children, and that lead paint may not be as big a part of the problem as one might suspect. In your clinical experience in Newark, at the Poison Control Center, can you give us any idea of the proportion of the problem that may be associated with lead paint?

DR. MARCUS: Well there really are, probably, three types of lead poisoning, if I may-- One is the real serious lead poisoning that we come to see in Newark. That's all lead paint. There's no question about that. The amount of lead that we carry around in our bodies, those of us who are not eating paint chips-- A significant portion of that actually is coming from paint, but it's coming from paint through a kind of circuitous route.

What I'm saying is, paints have been manufactured through the years to chalk. That is what it's called. If you've ever run your hand outside of a building you know that some kind of a chalky stuff comes off on your hand. The paint manufacturers actually built that into it so that when you went out to your house it didn't get dirty immediately and it was always kind of rejuvenating itself. Well, what didn't go off on your hand went into the soil. It entered the water supply. Most of the people drink groundwater so you are, in fact, drinking water that's percolated through the soil that's contaminated with lead. Some of that dust is making its way into the air, so that when you walk in the air you're breathing it in. In order to adequately clean up a house, you'd have to strip all of the old lead paint out of it, and do a heck of a washup, and seal all the windows to stop anything from coming in that has kind of has been brewing for years. Yes, the majority of the serious lead poisoning we're seeing is, in fact, coming from paint.

The other sources, the lead solder, the lead that by accident found its way into our food chain, all of that represents a small, but substantial risk to all of us because

it's giving us a kind of background amount of lead; none of it good for us, but it's kind of sitting there in the background saturating -- kind of like the little storage sites throughout our body -- the storage depots. When we're then exposed to lead, in addition to that, then it becomes overwhelming to our body and that's when we get into trouble. So we may come into whatever job we do with a certain background amount of lead that shouldn't have been there in the first place, and then if we are working in an industry where we may be exposed to lead, we'll be adding lead to an already saturated body and some workers will, in fact, get into trouble much more rapidly than others.

What I'm really worried about as far as this background level of lead is, in fact, the future of our country, the future of our civilization, because of the following: One of the best ways to remove lead from a woman's body is to make her pregnant because she voluntarily gives that lead to her fetus. If she then goes ahead and nurses her baby, she's also voluntarily giving lead to her newborn baby, as well. So if we're putting out a group of woman that have an elevated lead burden, they're then going to give birth to a group of children that are starting out life without a full deck of cards. This has been going on for years and it has to stop; otherwise our future children will continue to suffer. Actually it gets compounded every generation.

If you look at the decrease in S.A.T. scores, you know, you could try to make a case for it. I don't know whether I'd want to, but certainly if you look at the various causes of problems with our society, lead has got to be there. I thought it was interesting that the previous speaker was talking about the Roman civilization with lead. What he had neglected to point out was that there are certain environmentalists who believe that the Romans and the Greeks wiped themselves out because of lead poisoning, and the

correlates (sic) of our civilization right now are not so far-fetched.

ASSEMBLYMAN SMITH: What did you think of the premise in one of the earlier witness' testimony that it would be unfair to ask the paint industry to provide funding for these programs? One of the bills in the package has a .5% revenue from the sale of paint. Do you have any comments on that concept?

DR. MARCUS: Well, you know, as I mentioned before, the majority of lead poisoning in children has come from paint. There's no question about that. The paint companies have been able to avoid litigation because there have been so many companies that have made lead paints over the years, and it's so difficult for an attorney to ever place the blame on one particular paint company. I can't really comment on true fairness. However, it seems to me that you should lay the cost of a problem on the group of people that are most responsible for that problem, and there's no question: The lead industry is the biggest cause of the problem of lead poisoning.

ASSEMBLYMAN SMITH: You mean the paint industry?

DR. MARCUS: Well, any use of lead. But as I mentioned before, by far the heaviest cause, certainly in childhood lead poisoning, has been the paint industry.

ASSEMBLYMAN SMITH: Are there questions for Dr. Marcus from the Committee?

ASSEMBLYMAN VILLAPIANO: Mr. Chairman, one quick question. I'm sorry for coming in late. My name is Assemblyman Villapiano. I'm sitting in for Assemblyman Duch today. The statement you made just then is a pretty bold statement. I'm sure you've backed it up with empirical facts. Am I right?

DR. MARCUS: Which statement?

ASSEMBLYMAN VILLAPIANO: The statement: By far the most important-- The major cause of childhood lead poisoning

is the paint industry. Is that a fact?

DR. MARCUS: Yes.

ASSEMBLYMAN VILLAPIANO: That's fact.

DR. MARCUS: One square centimeter of lead paint, that's the size of a paint chip, the size of my small fingernail, with only one layer of lead-- Okay, that one centimeter of paint with 10% lead -- not 27% as I talked about before, but 10% lead in the dry state, not in the wet state-- The 27% lead that I talked about in highway marking was in the wet state, not in the dry state. In the dry state it would be even higher than that, but one square centimeter has over 1000 micrograms of lead. The maximum allowable lead intake for an adult by the World Health Organization is 450 micrograms. It's less than one-half of that. So one square centimeter ingested by an adult represents over two times the maximum allowable World Health Organization ingestion of lead per day.

There is no question that the content of lead in paint -- the dose to a child from paint -- is far higher than anything else. If you talk about even the current applicable EPA standard for water -- 50 micrograms per litre -- a child would have to drink nine litres of water a day at that maximum standard in order to equal the same amount of lead he would get from one square centimeter of paint with only one layer of lead in it.

The average house that is used in New Jersey is somewhere in the range of 25 years old. We only thought of banning lead in paint somewhere around 15 years ago, and it wasn't an absolute ban; it was that you couldn't manufacture it anymore. Most of those houses were painted on the average of every five years, so we're going to say they have five layers of lead-based paint. Let's just multiply that two times, the adult by another five, so now you're talking about every square centimeter -- having 10 times the maximum allowable lead in an adult. There's no question that's the highest dose of lead

available and there's no question that that's the most villainous substance--

ASSEMBLYMAN SMITH: Not meaning to interrupt, but I have to ask this question: How long have we known -- when I say "we" -- western civilization -- known of the toxicity associated with lead?

DR. MARCUS: Hippocrates actually talked about a lead worker before the turn of the common era.

ASSEMBLYMAN SMITH: Why did it take so long if lead was banned in paint as of 1975? Why did it take so long to ban lead in paint in this country?

DR. MARCUS: I wish I could answer that. In England, in the mid-1800s they banned children from working in the white lead industry where they made paint. I don't have any idea why it took so long. We tend to drag our feet. When you've got a problem that is as widespread as lead is, people tend to ignore it.

As I mentioned before, if there were as many children coming to me with measles as come to me with lead poisoning, if there were as many adults coming to me with measles as lead poisoning, it would be front-page news. But it's not because it is so common that people kind of shrug their shoulders and say, "How can I get myself upset about it, because it's so common?" It's not because people like myself haven't tried.

ASSEMBLYMAN SMITH: Hopefully you'll see some results here in New Jersey. Are there other questions for Dr. Marcus?

ASSEMBLYMAN ALBOHN: Dr. Marcus, you indicated earlier in your testimony that we should eliminate the use of lead in every way possible. That's a direct quote.

DR. MARCUS: Yes.

ASSEMBLYMAN ALBOHN: So, on the other hand, however, you tell us that paint is the major cause of lead poisoning, and you also point out that the maximum daily allowable lead ingestion -- that means every day -- would be this thumbnail or

fingernail size chip of paint containing lead. Now, adding those two things together, the likelihood of an individual consuming that much paint on a continuing basis-- It seems to me that has a very low probability, except in those instances where you might have infants or small children who are of an age to gnaw at window sills in housing that has that kind of lead contamination.

Now, it seems to me that to eliminate the use of lead in every way possible is a very substantial overkill compared to correcting the kind of a problem that causes -- that is the most prevalent cause of infantile lead poisoning.

DR. MARCUS: Well, as I mentioned before, there is background lead, and there is a serious lead poisoning. As I mentioned before, all of us have a background level of lead that is contributed from all of these various sources of lead.

I like to liken it to a sponge. If you pour water on a sponge, you can pour a certain amount of water on that sponge and the sponge will absorb all of it; it won't be a spill on the countertop. If you continue to pour water on, it's going to go all over the countertop. That's what lead is, okay? If you continue to put lead onto that sponge, day after day, year after year, eventually that sponge is not going to hold any more of it.

That sponge is kind of a safe zone. Those are areas where maybe it's not going to bother the body, or just maybe scientifically we can't prove yet that it's bothering the body. But once you get beyond that capacity of that sponge to hold it, it's going to bother the body.

Now, there is no question that all of these other sources of lead contribute to our background level of lead, and all of them are -- well, I shouldn't say all of them -- many of them are totally unnecessary. There are alternatives to it. And if there are alternatives to it, there is no reason to use it. When I had my house replumbed 10 years ago, the plumber



thought I was totally crazy because I refused to let him put any lead pans into my waste system. His comment was, "Oh, it's just going to go down the sewer anyway." Well, very few sewage treatment systems do a very good job of removing all heavy metals from the water supply, so that all of you who take a shower, you're putting lead into your own drinking water. Because if you're going to drink that water that has come down from your sewage treatment center, you're going to just be drinking those heavy metals that you put into the water.

It becomes very difficult. We're going to have to eliminate that lead as well. What I'm saying is, that as long as there is an alternative to lead in that particular application, there is no reason to continue using lead. We've known about the dangers of lead for too doggone long to continue to do that.

ASSEMBLYMAN ALBOHN: Again, you're making a qualifying statement: "As long as there is an alternative to lead." Now, we were just given by the gentleman from the lead solder industry, that there really is no alternative to lead when you come to electronic devices in general.

DR. MARCUS: You know, when I was in high school, I was very involved in electronics and in building my own stereo sets and all the rest of that stuff, and I was told then never to count on solder to be the electrical conductor. Just count on solder to make the seam tighter. There's no reason that you can't use other metals as well. There are lead-free solders available. You do have to heat them up a little more. You do have to be a little more careful as far as using a good heat sink, in order to protect any important device, but there still are substitutes for it, and industry has been using them. Industry has used them. If you drive along the New Jersey Turnpike, there's a solder manufacturer that has big bold type that says, "We Manufacture Lead-free Solder."

ASSEMBLYMAN ALBOHN: But solder isn't all solder, you know. There are solders that have ranges of melting points from very low to very high, and I think that we heard from the expert in the industry that the lead-free solders have a very high melting point. Since most electronic devices are based on frameworks, let's say, of organic materials which are then dip soldered, they could not possibly be made using lead-free solder.

DR. MARCUS: Well, as I said before, if there is no alternative, I'm not saying to eliminate it, but what I'm saying is that that still represents a significant risk to our environment, so that therefore, that risk should be taken with -- I'm not even going to use the term precaution -- but if we have to take a risk, we should cover ourselves for that risk. And we should cover ourselves for the dangers from that risk. If those components get thrown into a dump, that's now a toxic dump, just as toxic as if we had thrown pesticides onto that dump. Lead has to be considered as a toxic waste. If they are going to end up in our waste system, we need some way to have access to some real control of them.

ASSEMBLYMAN ALBOHN: Of course, you know, the other side of the coin is that lead is not exactly a man-made item. Lead is in the environment, will be in the environment, has been in the environment, and there's no way we're going to remove it from the environment. So what do we do about all the environmental lead that is there?

DR. MARCUS: Well, if we're talking about naturally occurring lead, you are correct. There is some naturally occurring lead. But most of the lead that occurs naturally comes from volcanoes, and there are volcanoes around the world, but if you consider the amount of lead that comes from natural sources such as volcanoes and from sea spray, there are orders of magnitudes, thousands of times different concentrations of lead that man has produced versus naturally producing. As I

stated before, it's going to be very difficult to clean up our environment, cost-wise, for lead. It can be done, but it's going to be costly and it would require a lot of work.

What I'm saying is, let's not make the same mistake as our predecessors. Let's now start looking forward and saying, "I understand that lead is a problem. I understand that lead has contaminated our environment, but let's not make the same mistake twice." Let's stop all this widespread use of lead so we stop future contamination of our environment, and let's also do something about trying to clean up the environment, but for God's sakes, let's stop putting more lead into the environment.

ASSEMBLYMAN ALBOHN: Well, of course, we've taken steps in this direction. I don't think we can turn society around overnight on something like this. We've taken-- We've eliminated or banned lead in gasoline, but for 60 or 70 or 80 years we've been burning gasoline with lead in it, and that lead is pretty widely disseminated over the environment of virtually the entire United States and certainly in the more metropolitan areas. Now certainly, there is no practical way of removing the lead from the City of Newark.

DR. MARCUS: Well, I disagree with you on that. We have done a remarkable job in Newark. Not myself, I'm just a poor practitioner, but when I came to Newark 20 years ago, 60% of the children we screened for lead poisoning had lead. It's now down to 10%, so obviously we have done something. We have cleaned up our environment. We have done something to improve the situation, so I don't think it's a lost cause. I think we can improve upon that. Our goal is to get our screening population down to close to zero.

I'd like my lead clinic to go out of business. I have no reason for my lead clinic to exist.

ASSEMBLYMAN ALBOHN: Of course, that reduction in children's cases is probably more likely to be the result of an

improvement in the housing stock in Newark, rather than changes in the environment of Newark itself.

DR. MARCUS: Well, that is exactly the point. That is, changes in the child's environment. The child's environment is his house. If you get him into a lead-free house, into a lead paint free house, you get him into a house that does not have lead in the water. If you get him into a house where the soil lead is down to an acceptable level, that child is not going to get lead poisoning.

ASSEMBLYMAN ALBOHN: But, that lists three rather difficult events to attain -- situations to attain.

DR. MARCUS: Oh, but it's been done.

ASSEMBLYMAN ALBOHN: Pardon?

DR. MARCUS: But it's been done.

ASSEMBLYMAN ALBOHN: It's been done in the house. It's not been done in the soil.

DR. MARCUS: Yes, it has.

ASSEMBLYMAN ALBOHN: You mean in a specific site, perhaps?

DR. MARCUS: Well, if you get rid of the lead paint that's on the outside of the buildings, you're going to cut down on the future amount of lead that's in those buildings. If you plant appropriately in those soils, you can also cut down on the amounts of lead.

There are ways to clean up the environment, and it has worked. It has worked in Newark; it has worked in Boston; it has worked in Baltimore. There is no reason to say it won't work. It does work. It's been shown over and over again to work.

The people at Rutgers University give a very fine course to contractors on the principles of lead abatement. We just had a course last week where there were over 100 participants learning how to safely remove lead from the environment. It can be done.

But, I think more importantly than that, again, if I have to hang it over people's heads, you know, like a bell, and keep ringing it--

ASSEMBLYMAN SMITH: Do it.

DR. MARCUS: --it's to stop lead in the future. There's no reason-- With our knowledge there's no excuse to continue putting lead into the environment. It's bad enough that we did it in the past. Now's the time to get rid of it.

If you'd like to read something interesting, read an issue of the "Journal of the American Public Health Association," about two years ago, that talked about the controversy of lead in gasoline. They published articles that were published in the 1920s warning everybody about what the effects were going to be of putting lead in gasoline, and despite that, the gasoline industry forced it on all of us. There was no reason to put lead in gasoline then, and there's no reason to put lead in gasoline now. We were led by industry-- We were forced by industry to put lead into the gasoline. We shouldn't be forced by industry to continue using lead. We made a mistake once. Let's not compound it by making a mistake again.

ASSEMBLYMAN ALBOHN: I have no further questions.

ASSEMBLYMAN SMITH: Any other questions for Dr. Marcus? (no response) Dr. Marcus, thank you very much for coming forward today.

Renee Gas, from the New Jersey Association of Plumbing, Heating and Cooling Contractors. Ms. Gas?

R E N E E G A S: Is this the mike that's on?

ASSEMBLYMAN SMITH: They're both working. Go ahead.

MS. GAS: Thank you, Mr. Chairman. My comments will be very brief.

We do not have a problem with the bill. I'm just going to really, just briefly -- 1 b.-- Since we don't manufacture, I'm not going to address that, but presently

plumbing contractors are restricted in their use, as your statement says, with regard to lead solder. There are alternative ways of soldering, and we can live with the bill.

ASSEMBLYMAN SMITH: Thank you very much.

MS. GAS: Thank you.

ASSEMBLYMAN SMITH: Our second to last speaker is Dr. Robert Tucker, from the Governor's Council for the Prevention of Mental Retardation and Developmental Disabilities. Dr. Tucker is with the New Jersey Department of Environmental Protection. He is the Director of Science and Research. He also Chairs the Interagency Task Force on Lead.

Dr. Tucker, at the beginning of today's meeting I asked that you take notes on everybody's testimony, and hopefully you would have an opportunity to provide additional information on any of those comments that were made earlier that you think we should have additional information on. After you have had a chance to discuss the prior testimony, anything that you would like to add of your own, we would most appreciate.

DR. TUCKER: I particularly appreciate being here this morning. Thank you very much for the opportunity, and thank you for the efforts in getting this legislative package before the Legislature and ultimately the public. It is particularly relevant this week because we are celebrating Prevention Week for Mental Retardation and Developmental Disabilities.

As part of that celebration, 10th and 9th grade students produced some posters on prevention through preventing lead paint exposure. I think I may give these to you, Mr. Chairman.

ASSEMBLYMAN SMITH: Certainly. I'll be happy to hold them up for the audience's benefit. (displays posters) Maybe you could describe why the children did this?

DR. TUCKER: Okay. This is Prevention of Mental Retardation, Developmental Disabilities Week, on behalf of the

Governor's Council. The Council had a contest for school children to help them get the message out and to help in the education process for lead poisoning prevention.

As the testimony that has been presented this morning indicates, one of the more subtle effects of lead exposure is to the developing fetus and the developing young child in terms of cognition. Those subtle effects are very much a concern of the Council.

I'd like to reiterate and thank Dr. Marcus very much for pointing out that the high levels of poisoning that have been found in New Jersey are particularly the result of lead paint ingestion. I think, in terms of fairness, I would very much like to see the cost of the program that have been proposed, born by those responsible for some of that past exposure.

ASSEMBLYMAN SMITH: What you're saying is, from your perspective, imposing a revenue fee on the sale of paint is not an unreasonable way in which to fund the program?

DR. TUCKER: Not at all, and certainly I agree with some of the past testimony that there are other sources of lead. One point that has been made is that we need to reduce a number of sources in addition to the environmental exposure.

The Legislature has been considering pollution prevention legislation, and again, I think this is a very appropriate way to look at avoiding some of the future problems with lead. I disagree that the present uses of lead are all necessary and beneficial. The fact that we have solders that are used by home hobbyists to put stained glass together, as Dr. Marcus indicated, has caused poisonings of some of those hobbyists.

There's a group in New York City, headed by Dr. Michael McCann, who particularly has tried to educate artists and hobbyists to the danger of using lead and other toxic substances in their activities. There is a recent New York

Times article that talked about some findings of high lead in artists' paintings, and the speculation that some of our great artists in the past-- Because of some of their medical histories, the hypothesis was that they may have suffered from lead poisoning through those activities. But it is clear from the testimony that we've had substantial amounts of exposure, both occupational exposure and exposure to the fetus and young children, which is a particular concern of the Governor's Council.

I think Mr. Silverman talked about there is a minor problem with water. In fact, in New Jersey there are waters that are very, very easy to solubilize lead.

ASSEMBLYMAN SMITH: Acidic.

DR. TUCKER: Particularly in the coastal plain area. They're acidic and they're soft. Soft waters are waters that more easily are corrosive to the plumbing.

The point about using solders in electronic equipment goes to what we do with it after it no longer works. There is a particular problem in New Jersey, as you are well aware, of disposing of all of these consumer goods, including consumer electronic goods and all of the other items that we have as a civilization, use quickly, and then throw away. The point of getting rid of lead from now on, is to reduce that amount of additional exposure into the environment.

I think the thrust of the legislation, particularly as it has to do with screening of children because of exposure to lead paint, indicates that we don't, at this point, have an opportunity to prevent that lead being in the environment, but we have an opportunity to screen the children, do something about their local environment, and try to do the preventative thing in terms of their exposure.

We're really talking about a number of different levels of prevention, and I would strongly advocate that we need to think about prevention of additional lead getting into



the environment in the future. We need to deal with the prevention of children being exposed in the immediate case.

I took some other notes. I think one thing that was mentioned, why-- And I believe Assemblyman Albohn, you asked, why has it taken so long to get the lead out, and are we worrying about small amounts? Claire Patterson, who is a geochemist at Cal Tech and who developed the clean labs to analyze the rock samples that came back from the moon, really observed that, unless you had a very clean facility and took great thought in excluding any lead contamination, you really could not do that analysis in the right way. His observation was, essentially, since we, as a species, have used lead probably going back to 5000 or 6000 years before the present era, we have essentially contaminated our environment far above any background level, and that any question of threshold for these medical effects is academic, because we are already at the level where we're seeing those medical effects that Dr. Goldstein and Dr. Marcus described.

I think, because of the lateness of the hour, I won't go through my other testimony, but I'll be glad to answer questions.

ASSEMBLYMAN SMITH: All right, let me-- One other point that was made by the Chemical Industry Council that I would like you to address: They point out that the bill that funds the lead programs, the .5% on the paint sales in New Jersey, raises an estimated \$3.75 million for these lead abatement, remediation, and education programs, and they point out that the appropriation bills in the package spend approximately \$1.5 million of that, \$3.75 million go into a non-lapsing fund, which can be used in future years. What is your estimate of the need for funding for these programs in future years? Is it wise that we consider raising that amount of money in that particular bill?

DR. TUCKER: Well, I think it's wise to start off in trying to identify the problem, and some of the bills do that in terms of additional needed screening for children. That's the largest initial amount of funding that's needed.

There's a bill that provides some money to my Department, DEP, to further identify and clarify sources of lead. There's funding for programs to start looking at better abatement procedures. In my opinion, when you get into the abatement of housing, we are going to need a lot more funding than we currently are proposing, but this is a giant step in the right direction. It's certainly not too small of an amount, and my guess is that as we start doing the screening, there is going to be additional need for carrying these programs statewide into some of the areas that we have not had screening in the past, and certainly the need for beginning to address cleaning up the problems that we find is going to be humongous.

ASSEMBLYMAN SMITH: Are there any other questions for Dr. Tucker?

Yes, sir, Assemblyman?

ASSEMBLYMAN VILLAPIANO: One quick question, Dr. Tucker. Dr. Marcus, prior to you, testified that in the City of Newark over the past 50 years, the level of contamination per child has gone from a 50% level of children, down to a 10% level. Would you say that that was because of just natural housing stock turnover? When you talk about abatement-- I guess the crux of my question is: When you talk about abatement, are we asking to get involved with a program which is probably going to happen anyhow over time -- if you understand the thrust of where I'm coming from?

DR. TUCKER: Well, there have been a number of good things that have happened in regard to lead exposure. The phasing down of lead in gasoline was very important, although that phase-down originally happened because of the need to

protect catalytic convertors in automobiles. Then there was the realization of the tremendous contribution to the health that that would cause, and measurements of average blood lead levels across the nation have shown that that was effective in bringing those blood-lead levels down.

As the person from the paint industry testified, there was a beginning of a phase-down of lead, probably in the '50s and '60s, although other testimony, including that of Dr. Marcus' has indicated that you can still buy leaded paint; there is still leaded paint put on bridges. Camden is a good example of communities lying right under the Ben Franklin Bridge, where if you sandblast that, people are exposed to that lead.

ASSEMBLYMAN VILLAPIANO: I think the crux of my question is: If we get involved with very, very costly abatement programs, is that something that we have to do, or is it going to happen if we phase out the use of lead? Is it going to happen over time in natural occurrences?

DR. TUCKER: In my opinion, we need to attack this problem as quickly as we can. The medical evidence is pointing to the fact that we are now affecting the intellectual levels of children. The evidence that has come out of Harvard and the University of Pennsylvania Medical School in Pittsburgh (sic) indicates not only do we have to worry about those kids that are clinically poisoned that Dr. Marcus deals with in his clinic, but the epidemiological studies are showing that we're having decrements in mental functioning for kids that are exposed to those lower levels. We're losing generations of intellectual development. I don't think we can afford to do that by just simply hoping that the problem will take care of itself because we phase down lead in gasoline or that there's no longer as much lead being put into the environment. We need an aggressive program to go out and identify the kids that are presently exposed at high enough levels to be treated -- the

screening program. We need to identify other sources, and I think we need aggressively to go out and deal with those.

ASSEMBLYMAN VILLAPIANO: Abate the sources.

DR. TUCKER: Yes, well--

ASSEMBLYMAN VILLAPIANO: I mean, abate the problem.

DR. TUCKER: And paint, the old paint residue in our housing stock, as has been testified to and to which I very much agree, is one of the biggest environmental pools of lead now, particularly in terms of its exposure to kids and to mothers who then may pass it on to the developing fetus. That's one of our biggest reservoirs of lead that we need to get at.

ASSEMBLYMAN VILLAPIANO: Thank you.

ASSEMBLYMAN SMITH: Are there other questions for Dr. Tucker? (no response) Thank you, Dr. Tucker.

Our last witness will be Connie-- Is it Claman?

C O N N I E C L A M A N: Yes, sir.

ASSEMBLYMAN SMITH: Connie, if you would come forward.

MS. CLAMAN: My name is Connie Claman. I live in Jersey City, and I wanted to give you a little bit more of personal perspective of lead poisoning than you've heard here.

Eleven years ago, my husband and I bought an old house, in Jersey City, which we planned to renovate. Five years ago we found that our nine-month-old daughter had very high lead levels. We were lucky that we found this out. She was going through some blood tests for something else, and they turned up that she had high lead. We wouldn't have found it out otherwise, because there is no normal screening that's done, especially through a private practice.

Once we found she had lead poisoning, we knew we had to get rid of the lead in the house. We knew that there was lead paint; it was an old house. We replaced the damaged walls, we heat-stripped moldings, we replaced all the old water lines. But every time we had my daughter treated, her lead

level would go down, and then right back up again. We had her in and out of the hospital over 50 times in the course of that year.

We found out after we had done this that our abatement solutions had caused more problems than they had solved, because knocking down plaster walls flakes the dry lead paint, which turns into dust in the air and on the floor, which children then put into their mouths. Using a heat gun on the painted walls released lead fumes into the air which she, as well as my husband and I, then breathed.

We had our water lines replaced. We had them tested just out of desperation -- a month after they had been replaced -- and the lead solder had leached into the water system. So every time we were drinking water in the beginning-- The beginning times that we drank water during the day it was full of lead, and we also found that lead was in the dirt in the backyard.

We finally moved out of the house -- my daughter and I did -- to my parents' house for six months so that my husband and some people whom we hired could help get rid of the lead in the house.

My daughter is now seven years old. She seems to be doing fine, although she does have some behavioral problems in school, which we feel could have resulted from the lead. I have two younger sons who seem to be fine, although I had my cord blood -- the umbilical cord blood -- tested on both of them and they have been tested every six months since, to make sure that they don't have high lead, also.

Lead poisoning is a totally preventable disease. I'm glad that New Jersey seems to be moving forward to get rid of this problem, because I don't want any parents or children to have to go through what we had to go through with our children.

ASSEMBLYMAN SMITH: Thank you, Ms. Claman.

Are there any questions for Ms. Claman? (no response)

Let me thank you very much for coming forward. I have no other slips from individuals indicating a desire to testify. There being none, the public hearing is closed. The meeting is adjourned for 10 minutes. We'll come back and deal with the bills.

**(HEARING CONCLUDED)**

**APPENDIX**







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## **EXECUTIVE SUMMARY LEAD'S ENVIRONMENTALLY BENEFICIAL USES**

This white paper, Lead's Environmentally Beneficial Uses, gives us what lead's critics may not wish to see—lead's present day advantages. Lead has an integral role in the nation's effort to care for and preserve the environment. In the areas of energy conservation, pollution control, and health and safety protection, lead gives us an effective element to help achieve our environmental objectives as effectively and efficiently as possible.

Lead plays an essential role in achieving the nation's goal of conserving energy. Its uses as a component of energy efficient lighting and the increasing application of the lead-acid battery as an alternative to the gas-consuming internal combustion engine, as well as in new uses such as power supply load-leveling and solar energy storage, make lead an important ingredient of energy conservation.

In addition to lead's contribution to controlling pollution emissions by augmenting or extending more conventional energy sources, lead also has direct application to many pollution control technologies. Lead's anticorrosive properties make it ideally suited for electrostatic precipitators, a technology widely used to control particulate and sulfur dioxide air emissions. Lead's density and capacity for incorporation into other materials make it an effective noise suppressant in the workplace, in hotels, apartments and in certain high noise areas such as airplane cabins.

Lead insures the safety and health of people working in areas of applied radiation technology, such as diagnostics and physical therapy. The same properties shielding patients from X-rays also shield workers from exposure to gamma ray radiation where nuclear materials are being used for civilian and defense purposes. One of lead's other contributions to health and safety is in the workplace, where battery powered vehicles increasingly perform tasks previously handled by vehicles powered with carbon monoxide-emitting internal combustion engines.

As the Congress and the EPA consider proposals that would ban or significantly limit existing and future applications for lead, they need to also assess the contribution of lead to the achievement of our major national priorities and the objectives of energy conservation and environmental protection.

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## LEAD'S ENVIRONMENTALLY BENEFICIAL USES

Lead is one of the most heavily regulated materials in commerce. Its toxic properties and the health problems associated with earlier unrestricted uses in paints and gasoline fuel additives have singled out the metal for intensive examination of potentially harmful exposure associated with present use and disposal practices. Congress has considered legislation to extensively reduce or ban lead usage in most products and the EPA is looking at the advisability of a possible ban on some or all present and future lead uses.

With the intense focus on identifying new or potential health problems from lead exposure, critics and regulators alike are overlooking a significant fact about many of the current applications of lead. Due to its particular metallurgical and chemical properties, lead has become an integral and vital component of the nation's overall effort to achieve an environmental balance by conserving energy, reducing heavy reliance on fossil fuels, limiting release of hydro-carbons and sulfur dioxide into the atmosphere, safely disposing of nuclear waste, controlling noise pollution and protecting humans from hazardous exposure in the workplace, at home and during medical procedures. While some of the environmentally beneficial functions of lead such as radiation shielding are well recognized, many important environmental applications of lead are not. This paper identifies the many ways that lead is now used in helping the nation achieve a better environment.

## LEAD'S PROPERTIES

The unique physical and chemical properties of lead make it an most effective environmental tool. The metal's high density and atomic number make it ideal for radiation shielding from X-rays and gamma rays. The density factor also recommends lead for use in sound barrier and other noise control applications. Lead's viscosity, low melting point and superconductivity make it an essential component of energy efficient flourescant lighting as well as the high intensity vapor light so widely used in street lighting and other outdoor illumination. Because lead oxidizes readily, it is universally used in chemically reactive electrolytic storage batteries which are gaining new and growing applications for purposes of energy conservation and workplace health and safety.

Lead's high resistance to corrosivity and thermal shock, along with its low electrical resistivity make it a favored metal for use in electostatic precipitators which control sulfur dioxide releases from coal fired electric power plants and other industrial facilities such as smelters and petrochemcial refineries. The same anti-corrosivity features of lead recommend it for use in the safe handling and storage of chromic, sulfurous, sulfuric and phosphoric acids. Finally, more than most metals, lead is especially adaptable to recycling with approximately 60-75 percent of today's domestic lead demand supplied by recycled metal.

## ENERGY CONSERVATION

Lead plays an essential role in achieving the nation's goal of conserving energy. Its uses as a component of energy efficient lighting and the increasing application of the lead-acid battery as an alternative to the internal combustion engine, as well as in new uses such as power supply load-leveling and solar energy storage, make lead an important ingredient of energy conservation. Also, lead's low melting point, as compared to other metals, makes the refining process relatively energy efficient.

### Lighting

Leaded glass tubing is used in all incandescent and fluorescent light bulbs because of its efficient electrical properties, low melting range and workability. Fluorescent lighting, long advanced as an energy efficient lighting alternative, has a lead glass evacuation tube, essential to its energy efficient performance. Fluorescent lights can be 5 times more efficient at illuminating than the incandescent bulb. Moreover, because they generate far less heat, they save energy in space cooling. The California Energy Commission calculates that for every 100 watts saved through more efficient fluorescent lighting, 38 additional watts are saved through lower cooling costs.<sup>1</sup>

Adaptation of the fluorescent light to wider residential use with such fixtures as the "screw-in" fluorescent bulb is expected to reduce energy use in residential lighting by the end of the century. These innovations will contribute to a substantial reduction in the amount of energy consumed from lighting in spite of a predicted doubling or tripling of total square foot illumination by the end of the century.<sup>2</sup>

In addition, high intensity discharge lamps such as sodium vapor lights now used extensively for outdoor lighting because of their effectiveness and energy efficiency, depend on leaded glass globes for their performance. Their economy and effectiveness of lighting has spurred a major conversion in outdoor lighting. For example, the City of Pittsburgh recently converted more than three quarters of its 41,000 streetlights to high pressure sodium lights at a saving of approximately \$100,000 per month on electricity and a considerable improvement in lighting.<sup>3</sup> Experiments with substitutes for leaded glass in illumination have been unsatisfactory.

### Battery Power

Use of the lead-acid battery as an alternative or auxiliary energy supply has taken on significant refinement in the past several years. Lead-acid batteries are 40 percent more powerful than those manufactured 15 years ago, allowing for a proliferation of battery operated vehicles in the workplace where they are valued as a safe and economic replacement for internal combustion powered vehicles. These same refinements have

permitted General Motors to design a new electric vehicle for general consumer use. The Impact, which GM is preparing to launch in the automobile market, is powered by 32 sealed lead-acid batteries capable of accelerating the automobile from 0 to 60 miles an hour in 8.0 seconds.<sup>4</sup> The Impact may make it possible to realize the environmental objective of reducing our dependence on the internal combustion engine. The immediate result would be cleaner, healthier air in polluted urban areas. The long run impacts may help slow global warming.

Other applications of the lead-acid battery as an auxiliary power source, with potential for reducing our dependence on fossil fuels, are showing real promise. One such use is for load-leveling in electric power service areas. Faced with severe environmental constraints on adding generating capacity, Southern California Edison is advancing the technology using mammoth storage batteries to supplement power supply during peak hours of demand. This technology, which is already in operation in Japan and West Germany, relies on a grid of giant lead-acid batteries, each with a discharge capacity of 10 megawatts over a four-hour period, to store energy during off-peak use periods and supply power during peak use periods of the day.

This new technology will allow Southern California Edison to maintain dependable service to its customers while conserving fuel, limiting hydro-carbon emissions and avoiding large construction costs for new generating capacity.<sup>5</sup> This is especially critical in the Southern California air basin where pollution control authorities are prohibiting the increase of hydro-carbon emission from all sources. The system is operational, on-line, and, according to Joseph Reese, Research Manager of Southern California Edison Co., making it possible for the utility to continue reliable service to its customers while meeting environmental air quality requirements.

Harnessing natural sources of energy from the sun and wind, which is widely advanced as an alternative energy source by most environmentalists, also relies on the lead-acid battery. To provide a continuous energy supply, most wind and sun powered systems rely on batteries to store power and supplement the system when the natural power sources are unavailable at night or when there is no wind. Substitutes for the lead-acid battery have less power density, reliability, recharging capacity, and generally perform poorly at low temperature.

## POLLUTION CONTROL

In addition to lead's contribution to controlling pollution emissions, lead also has direct application to many pollution control technologies. Lead's anticorrosive properties make it ideally suited for electrostatic precipitators; a technology widely used to control particulate and sulfur dioxide air emissions. Lead's density and capacity for incorporation into other materials make it an effective noise suppressant in the workplace, in hotels, and other high noise level areas. Likewise, lead's density and ability to block gamma rays makes it a preferred material for the handling, removal, and in some circumstances, disposal of high level nuclear spent fuels and contaminated waste materials.

### Nuclear Waste Disposal

One of the nation's most vexing environmental problems is the disposal of large quantities of nuclear contaminated waste from defense and civilian operations. Not only must our society cope with the problems associated with the safe disposal of radioactive waste from ongoing practices, but recent revelations are forcing us to deal with years of accumulated waste at federal sites around the country, due to inadequate and incompetently performed storage and disposal. The deposit sites must now be cleaned up, and the waste materials reconstituted and transported to a permanent nuclear waste repository. At present, the U. S. has no operative repository site, but several sites are under intense evaluation.

Lead will play a critical role in this nuclear waste clean up. The U. S. Nuclear Regulatory Commission states that "Lead is first in materials to be considered in any design for gamma radiation shielding." Other materials such as steel, concrete and uranium also have shielding capabilities, but the density of lead makes it more efficient for protective purposes. An 8 inch thick lead protective shield provides radioactive protection comparable to 40 inches of concrete.<sup>6</sup>

According to a Department of Energy Report, lead incorporated into the nuclear waste container as a liner or filler reduces the radiation dose rate by 79 percent.<sup>7</sup> Due to its shielding capability, lead is used to protect workers in disposal operations. It is also widely used in the design of containers for the storage and transport of spent fuels from nuclear reactors, as well as the high-level waste from national defense activities. One design for a transport container for spent fuels provides concentric layers of lead and borated cement encapsulated between inner and outer steel shells to ensure acceptable external dose rates.<sup>8</sup>

Other properties of lead that make it useful for nuclear waste management are ease of fabrication, high corrosion resistance, good thermal conductivity, ease of decontamination, resistance to radiation damage and eventual recyclability. For all of these reasons lead is being seriously examined as a potential material for incorporation into the design for nuclear

waste disposal containers in the U. S., as well as in repository containers being tested in Sweden, Canada, Argentina and Belgium.<sup>9</sup>

Experimentation at the Oak Ridge National Laboratory on vitrification of nuclear waste shows promise for the incorporation of spent fuels into lead-iron phosphate glass.<sup>10</sup> If successful, this will allow for easier and safer handling and disposal. In addition to high-level nuclear wastes there are vast quantities of low-level nuclear contaminated wastes which must be safely disposed of each day. Some of this waste is placed in lead shielded containers for transport and disposal.

### Noise Control

Because of its density and workability, lead is widely employed as a sound barrier or noise suppressant. The most common applications are in the work place where lead sheeting around machinery can reduce plant noise levels by as much as 85 percent. Workplace noise suppression is a federal requirement of the Occupational Health and Safety Administration which prefers "engineering controls" in the workplace over protective devices such as individual worker ear protectors. The density of lead makes it especially useful in workplace applications where space is at a premium.

Lead is effective in noise suppression as a sheeting or a laminate to other materials such as wood, gypsum, steel, aluminum and other building materials. Lead is also incorporated into vinyls, epoxies and other viscoelastic compounds for effective application to complex sound engineering problems. One such application is as a noise suppressant in airplane cabins.

### Air Pollution Control Technology

Due to its anti-corrosive qualities, lead has long been incorporated into the design of electro-static precipitators (ESP) for stack-gas cleaning. One type of ESP is used for acid mist applications such as in the chemical and non-ferrous metallurgical industry. These control devices, which are up to 99 percent effective in particulate removal, use lead to protect the equipment from the corrosive sulfuric acids and lead electrodes in the electro-static process.

## HEALTH AND SAFETY PROTECTION

Lead insures the safety and health of patients and medical workers in instances of radiology, diagnostic and therapeutic applications. The same properties shielding patients from X-rays also shield workers from exposure to gamma ray radiation where nuclear materials are being used for civilian or defense purposes. Lead's other major contribution to health and safety is in the workplace where battery powered vehicles perform tasks previously handled by internal combustion vehicles, protecting workers against inhalation of poisonous exhaust fumes and the potential danger of fire and explosions of fuel vapor emissions.

### Radiation Protection

Due to lead's ability to block X-rays and its workability, it is used almost exclusively in medical radiation shielding, protecting both the patient and the medical worker from harmful exposure during diagnostic X-rays and radiotherapy. Lead-glass windows protect technicians from exposure during treatment. The workability of the metal permits precision use of radiation treatment. Medical workers fashion custom made shields from castable lead alloys, protecting healthy tissues from radiation exposure in the immediate area of the treatment. Lead is also used to protect the industrial worker from exposure where X-ray is used for industrial purposes such as weld inspections.

As described earlier, lead is used to protect workers from exposure to gamma ray radiation in the civilian and defense areas of nuclear operation. Lead shields the crew from exposure in nuclear fueled submarines and protects the worker in the laboratory and the factory where radioisotopes are being used. Lead may have a new use in protecting the homeowner from radon exposure. Tests indicate that sheet lead placed beneath the concrete slab is effective in limiting indoor exposure to naturally occurring radioactive radon, a problem EPA has recently linked to increased risks of lung cancer.

The most common use of lead as a protective agent, at home and in the workplace, is in the ubiquitous cathode ray tube--the television and the computer screen. Leaded glass in the tube and the face plate of the screen protects the viewer and the worker from harmful exposure to radiation, especially in sets with color reproducing capabilities. The highest radiation release is in the funnel of the tube, and concentrations of leaded glass are higher in this area. The face plate also contains lead and is secured to the tube with a special "lead" glue. This glue, which contains high concentrations of lead oxide, is the only known substance for creating a glass-to-glass permanent seal, essential to the effective operation of the cathode tube.

## Workplace Vehicles

From lift trucks to baggage loaders, battery powered vehicles are increasingly being substituted in the workplace for conventional gas driven vehicles. They are efficient, more economic to operate, and safer. Battery operated vehicles can be used for such functions as airplane loading and fueling where an internal combustion engine poses the threat of triggering the explosion of combustible gasses. Battery powered vehicles are also widely used in enclosed work spaces such as warehouses and factories, where exhausts from conventional powered vehicles expose the workers to fumes as well as possible fire or explosion.

## CONCLUSION

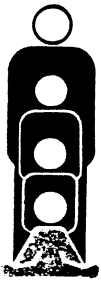
Lead is a critical element in the nation's effort to conserve energy, limit fossil fuel emissions, clean up high-level nuclear wastes and protect the worker and the patient from radiation exposure in medical diagnosis and therapy. In other areas, such as the expanding adaption of the lead-acid battery as an alternative or auxiliary source of energy, lead helps protect the worker from harmful exposure to exhaust fumes and possible fire and explosion set off when internal combustion engines ignite gas vapors.

New lead environmental control applications are under development. The use of lead-acid batteries as an auxiliary power supply to level peak load demands is a case in point. Other emerging uses may be found in radon shielding or the design of nuclear waste repositories. In many of these uses, there is no readily acceptable substitute with lead's unique properties. These positive environmental features, together with the fact that lead is already highly regulated and efficiently recycled, cautions against enactment of broad reaching laws or regulations that have the effect of removing this essential metal from our economy.



## FOOTNOTES

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New Jersey Coalition  
for Prevention of  
Developmental Disabilities

985 Livingston Avenue  
North Brunswick, NJ 08902  
201 246-2525

Glenna W. Gundell  
Director

**TESTIMONY BEFORE THE  
ASSEMBLY ENERGY AND ENVIRONMENT COMMITTEE  
OCTOBER 15, 1990**

GOOD MORNING. MY NAME IS GLENNA GUNDELL AND I AM THE DIRECTOR OF THE NEW JERSEY COALITION FOR THE PREVENTION OF DEVELOPMENTAL DISABILITIES, A PROJECT OF THE ASSOCIATION FOR RETARDED CITIZENS OF NEW JERSEY FUNDED THROUGH A GRANT FROM THE OFFICE FOR PREVENTION OF MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES. THE COALITION REPRESENTS OVER 200 CITIZENS GROUPS AND REPRESENTATIVES FROM AGENCIES AND ORGANIZATIONS WITH AN INTEREST IN, AND A DEDICATION TO, THE PREVENTION OF MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES. BEFORE I BEGIN MY TESTIMONY, I WOULD LIKE TO THANK YOU FOR THE OPPORTUNITY TO SPEAK BEFORE YOU TODAY AND TO APPLAUD THE SPONSORS OF THE LEAD TOXICITY PACKAGE FOR INTRODUCING SUCH COMPREHENSIVE LEGISLATION GEARED AT REDUCING THE LEAD BURDEN IN OUR ENVIRONMENT.

AS I AM SURE YOU ARE AWARE, LEAD POISONING IS A LEADING CAUSE OF MENTAL RETARDATION IN CHILDREN. IN FACT, HEALTH OFFICIALS BELIEVE THAT LEAD POISONING IS STILL THE MOST COMMON - AND PREVENTABLE - ENVIRONMENTAL DISEASE AFFECTING CHILDREN IN THE UNITED STATES. ESTIMATES SHOW THAT 3 TO 4 MILLION CHILDREN HAVE LEAD LEVELS IN THEIR BLOOD THAT ARE HIGH ENOUGH TO CAUSE SIGNIFICANT NEUROLOGICAL, BEHAVIORAL AND HEALTH PROBLEMS. IN NEW JERSEY ALONE, AN ESTIMATED 177,000 CHILDREN ARE BELIEVED

TO BE AT HIGH RISK OF BEING LEAD POISONED. ACCORDING TO SCIENTISTS AT THE ENVIRONMENTAL DEFENSE FUND, THE NEW JERSEY/NEW YORK METROPOLITAN AREA HAS THE HIGHEST NUMBER OF LEAD BURDENED CHILDREN AND A NEARLY SIMILAR PERCENTAGE IN JERSEY CITY ARE THOUGHT TO BE LEAD BURDENED.

THE BILLS BEFORE YOU TODAY ARE OUR STEPPING STONES TO SOLVING THE LEAD CRISIS IN NEW JERSEY. PUBLIC HEALTH HAS BEEN MEASURABLY IMPROVED DUE TO DECADES OF RESEARCH ABOUT LEAD'S TOXIC EFFECTS AND GOVERNMENT ACTION TO REDUCE LEAD EXPOSURE. SCREENING PROGRAMS AND PUBLIC EDUCATION ARE AMONG THE PROGRAMS THAT HAVE HELPED TO REDUCE DRAMATICALLY THE NUMBER OF EXTREME CASES OF LEAD POISONING, BUT WE CAN NOT STOP THERE; WE MUST MAKE LEAD ABATEMENT IN THE ENVIRONMENT A NUMBER ONE PRIORITY.

I READ AN ARTICLE ABOUT A YOUNG LADY BY THE NAME OF MONICA SANTIAGO RECENTLY. MONICA, NOW 17, WAS TREATED FOR LEAD POISONING WHEN SHE WAS 4 YEARS OLD. ACCORDING TO THE ARTICLE, THERE WERE NO OBVIOUS SYMPTOMS THAT SOMETHING WAS WRONG WITH MONICA WHEN SHE WAS 4. HER LEAD POISONING WAS DISCOVERED DURING A ROUTINE LEAD SCREENING AT A NEIGHBORHOOD HEALTH CENTER. SHE WAS IMMEDIATELY HOSPITALIZED AND UNDERWENT SEVERAL ROUNDS OF CHELATION THERAPY, A PAINFUL PROCESS IN WHICH CHEMICAL AGENTS THAT ATTACH TO LEAD LIKE MICROSCOPIC CLAWS ARE INJECTED INTO

THE BODY TO HELP FILTER OUT LEAD THROUGH KIDNEYS. THE TREATMENT REDUCED THE LEAD LEVELS IN MONICA'S BLOOD, BUT IT COULD NOT REVERSE THE DAMAGE TO HER BODY. TODAY, MONICA HAS A PROBLEM WITH ATTENTIVENESS AND FINE MOTOR SKILLS. SHE ALSO HAS TROUBLE READING AND IS OFTEN FRUSTRATED BY THE SMALLEST INTELLECTUAL TASK. THE NEIGHBORHOOD SCREENING PROGRAM DID HELP. IT PREVENTED HER FROM RECEIVING A LETHAL DOSAGE OF LEAD; BUT IT COULD NOT REVERSE THE DAMAGE DONE.

THIS IS WHY THE COALITION FOR PREVENTION AND THE ARC STRONGLY SUPPORTS A-4051, SPONSORED BY ASSEMBLYMAN SMITH, PROVIDING FOR MANDATORY SCREENING PROGRAMS FOR CHILDREN IN HIGH-RISK MUNICIPALITIES FOR BLOOD LEAD TOXICITY. HOWEVER, THE COALITION FOR PREVENTION AND THE ARC VIEW THIS AS ONLY THE BEGINNING. IF FUNDING WAS AVAILABLE, WE WOULD SUGGEST THAT TESTING FOR LEAD TOXICITY BE EXTENDED TO ALL CHILDREN AS WELL AS PREGNANT WOMEN IN NEW JERSEY. NO ONE IS IMMUNE. IN FACT 30% OF THE CHILDREN IDENTIFIED AS LEAD POISONED IN 1988 IN MASSACHUSETTS LIVED IN AREAS NOT TRADITIONALLY CONSIDERED "HIGH RISK." FURTHER, STUDIES CONDUCTED BY HARVARD UNIVERSITY HAVE FOUND THAT LEAD CAN PASS FROM A PREGNANT MOTHER'S BLOOD THROUGH HER PLACENTA TO HER UNBORN CHILD CAUSING LOWER IQ SCORES, DEVELOPMENTAL DELAYS, HYPERACTIVITY, AND DISRUPTIVE BEHAVIOR IN THE CHILD ONCE BORN.

OF COURSE, PROGRAMS PROMOTING LEAD AWARENESS AND PROVIDING INFORMATION TO THE PUBLIC ARE ALWAYS HELPFUL. A-4053, SPONSORED BY ASSEMBLYMAN MECCA WOULD CONTINUE THE EFFORTS STARTED BY THE TASKFORCE ON LEAD POISONING PREVENTION WITHIN THE GOVERNOR'S COUNCIL ON MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES BY EDUCATING THE PUBLIC AS TO SERIOUS THREAT OF LEAD POISONING. DID YOU KNOW THAT 65% OF THE HOUSES BUILT IN NEW JERSEY PRIOR TO 1970 WERE PROBABLY PAINTED WITH LEAD BASED PAINT? OR, THAT HOBBIES SUCH AS REDECORATING OR IMPROVING AN OLDER HOME CAN BE DANGEROUS DUE TO EXPOSURE TO LEAD? OR, THAT IN 1988 MORE THAN 1.4 MILLION POUNDS OF LEAD WERE REPORTED, UNDER NEW JERSEY'S ~~RIGHT~~ TO KNOW REGULATIONS, TO BE EMITTED INTO OUR AIR, SOIL, AND WATER? IT IS OUR RESPONSIBILITY TO PROVIDE THE ANSWERS TO THESE QUESTIONS TO THE CITIZENS OF NEW JERSEY. WITH THE HELP OF ASSEMBLY BILL 4053 THIS INFORMATION AS WELL AS THE REMEDIES TO THESE SITUATIONS WILL HELP SENSITIZE PARENTS, TEACHERS, HEALTH PROFESSIONALS, HOMEOWNERS ETC., AS TO THE HEALTH DANGERS OF LEAD TOXICITY.

FINALLY, PREVENTING THE HEALTH, EMOTIONAL, MENTAL, AND PHYSICAL PROBLEMS CAUSED BY LEAD EXPOSURE NOT ONLY IMPROVES LIVES BUT IT ALSO SAVES MONEY IN HEALTH CARE, EDUCATION, HOUSING, AND TRANSPORTATION. WE ARE TALKING QUALITY OF LIFE ISSUES. THE COALITION MEMBERS AND THE ARC

ARE CONVINCED THAT THE LEAD TOXICITY PACKAGE, IF PASSED,  
WOULD HELP CURB THE THREAT OF LEAD POISONING IN NEW JERSEY  
AND I URGE YOU TO PASS THESE BILLS INTO LAW. THANK YOU.

# NEW JERSEY POISON INFORMATION AND EDUCATION SYSTEM

201 Lyons Avenue Newark, New Jersey 07112

Emergency and Information  
Phone: (800) 962-1253 (in N.J. only)  
TTY (201) 926-8008

Steven M. Marcus, M.D.  
Project Director  
Office Phone: (201) 926-7443  
Fax No.: (201) 926-0013

Testimony To NJ Assembly Re: Childhood Lead Poisoning  
October 15, 1990

Lead, the metal, has had a long and nefarious existence. It has served very useful purposes for man, but, at the same time, it has caused very serious illness and death. Ubiquitous in our environment, necessary in our society, we have not yet learned the lessons of the centuries of experience with illness related to exposure to excess quantities.

Lead has been used since ancient Egyptian and Babylonian days. Illness has been reported since, at least, Hippocrates' time. Until the turn of this century lead poisoning was primarily considered a disease of the worker. Industrial hygiene laws of the 19th century already began, however, to demonstrate that children were at special risk and excluded them from workplaces using lead. At the turn of this century workers in Australia reported that children who ate paint off of their cribs were at risk for the development of seizures. In the early part of the century workers in New York and Boston reported similar events. Byers and Lord, in 1945, reported the long term effects of lead poisoning which produced seizures, but no apparent retardation, produced long term learning and behavior deficits.

Needleman in 1978 and again in 1990, published reports of serious learning disabilities which occurred in children who suffered from low-level lead exposures not serious enough to produce symptoms and below the level then thought in need of medical intervention.

Today, scientific evidence suggests that no truly safe level of lead exists. Our work in New Jersey showed that nearly 100% of children referred to a University Affiliated Child Evaluation Center have levels above that considered to be elevated by proposed Centers for Disease Control standards. Although not above the level at which, currently, medical treatment is advisable, their levels suggest a relationship between their lead exposure and their learning disorder.

While the inner city child, classically, is considered most at risk to develop lead poisoning, the more suburban and rural child is not completely spared. I have treated literally hundreds of middle and upper class children for lead poisoning. The young child who became lead poisoned watching his mother paint their



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house, the young boy who helped his father repair their porch, the architects son who helped strip their fireplaces of old paint, and the litany goes on. All of these children are at risk of failing to achieve their potential because of the accidental exposure to lead pigments which produced subtle yet significant insults to their brains.

Lead poisoning is a preventable, social illness. There is no excuse for children to go unprotected. As with other preventable diseases the cost of prevention is significantly less than the cost of treatment of the disease or its sequelae. The average DRG reimbursement for a hospitalization for lead poisoning is in excess of \$2,000. the current average outpatient cost is in excess of \$1,000. These costs are for single treatments, many children need multiple treatment courses and many times more than one child in a home becomes poisoned. The cost of deleading one apartment has been estimated at approximately \$3,000.

Benjamin Franklin once remarked, when finding lead as a damaging substance in Philadelphia, that there was a remarkable delay between the finding of the fact that lead was poisonous and the implementation of approaches to prevent illness from exposure. that was over 200 years ago and still we have not learned the lesson.

Our children's future depends on what we do to prevent damage to their delicate nervous systems. As John Kennedy said: "Children are our greatest resource. Our greatest hope for the future." Children are our greatest resource, more important than oil or gold. Let us not waste our valuable resource.

Steven M. Marcus, M.D.  
Medical Director, NJPIES  
Assistant Director, Department of Pediatrics,  
Newark Beth Israel Medical Center  
Associate Professor of Pediatrics and Preventive Medicine  
University of Medicine and Dentistry of New Jersey, New  
Jersey Medical School  
Chairman, Accident Prevention Committee,  
New Jersey Chapter of the American Academy of Pediatrics

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