

SUPREME COURT OF THE STATE OF NEW YORK  
APPELLATE DIVISION: FIRST DEPARTMENT

In the Matter of the Application of NEW  
YORK CITY COALITION TO END LEAD  
POISONING, *et al.*

Petitioners-Plaintiffs-Respondents,

for a Judgment pursuant to Article 78  
and § 3001 of the Civil Practice Law and  
Rules

-against-

PETER VALLONE, as Speaker of the New  
York City Council; *et al.*

Respondents-Defendants-Appellants.

New York County  
Clerk's Index No.  
120911/99

**AFFIDAVIT OF MARTIN RUTSTEIN, PH.D.,  
IN OPPOSITION TO  
RESPONDENTS-DEFENDANTS-APPELLANTS'  
MOTION FOR A STAY**

State of New York     )  
                              :ss.:  
County of Orange     )

MARTIN RUTSTEIN, Ph.D., being duly sworn, states as follows  
under oath:

1. I make this affidavit in opposition to respondents-  
defendants-appellants' ("appellants") motion for a stay of the  
Judgment entered below on February 22, 2001. This affirmation is  
based upon my own personal knowledge.

2. I am a Professor (since 1970) of Geological Sciences at  
the State University of New York at New Paltz. My qualifications  
include a doctorate in Geology, with concentrations in experimental  
mineralogy, physical chemistry, and geochemistry from Brown  
University in 1969. A major portion of my professional career has

been devoted to research concerning the detection and analysis of environmentally hazardous minerals, particularly lead and asbestos, and I have published extensively in this field. A copy of my *curriculum vitæ* is annexed hereto.

3. I was the founder of Environmental Management Systems, Inc. and Materials Analysis Research Systems (MARS), multi-service environmental consulting firms which performed field measurements, field investigations, laboratory analysis, and general consulting, with primary expertise in asbestos, lead, indoor air quality, and general environmental pollutants in the ambient environment, both indoor and outdoor. I also work with Environmental Management Solutions, Inc. as a consultant, particularly with respect to analytical and pollution problems, and also consult with EMS concerning quality assurance and quality control.

4. I have performed thousands of tests for lead with X-Ray Fluoroscope ("XRF") machines, both in the laboratory and in the field. I have also provided training in the field of lead paint detection. I have testified in court as an expert in the field of lead paint detection in over a dozen cases. See, e.g., H & H Equities Inc. v. Baez, L&T Index No. 99510/94, N.Y.L.J., Oct. 11, 1995, at 29 (Civ. Ct. Bronx Co.), aff'd, 175 Misc.2d 486 (AT 1st Dep't 1997).

5. I have reviewed the March 12, 2001, Affidavit of Dr. Jessica Leighton, annexed to appellants' motion, with respect to the issues concerning XRF machines. Dr. Leighton's assertion that

0.7 milligrams per square centimeter ("mg/cm<sup>2</sup>") "is an invalid standard to lead paint testing equipment that exists today" (Leighton affidavit ¶ 11) is simply wrong.

6. The assertions made by Dr. Leighton are strikingly similar to arguments the City made five years ago in the related New York City Coalition to End Lead Poisoning ("NYCCELP") v. Giuliani case, when the plaintiffs successfully challenged the Health Department's attempt to raise the regulatorily permissible level of lead on painted surfaces from 0.7 milligrams per square centimeter ("mg/cm<sup>2</sup>") to 1.0 mg/cm<sup>2</sup>. The Supreme Court ultimately rejected the Health Department's arguments and struck down those changes, and the Appellate Division affirmed. NYCCELP v. Giuliani, 173 Misc.2d 235, 239-40 (S. Ct. N.Y. Co. 1997), aff'd, 248 A.D.2d 120 (1st Dep't 1998). Part of the record in that proceeding was my affidavit (dated November 14, 1996, a copy of which is attached as Exhibit 120 hereto) in support of the plaintiffs' position, wherein I explained why the City's arguments for raising the bar on the quantity of lead permitted in painted surfaces were not justified:

15. The City justifies its change from a standard of less than 0.7 mg/cm<sup>2</sup> to less than 1.0 mg/cm<sup>2</sup> of lead in paint as concurring with United States Department of Housing and Urban Development (HUD) Guidelines. Of course, the HUD Guidelines are not regulations or statutes. Nor do they prohibit local jurisdictions from setting stricter standards, based on local environments. Indeed, in support of the City's reliance upon HUD guidelines for changing from the 0.7 mg/cm<sup>2</sup> to the 1.0 mg/cm<sup>2</sup> standard, DoH Commissioner Hamburg's Affidavit (at page 9, ¶ 18) quotes HUD's rationale that the "1.0 mg/cm<sup>2</sup> level is within the range of 0.7 mg/cm<sup>2</sup> to 2 mg/cm<sup>2</sup> typically used as abatement standards by local... Childhood Lead-Paint Poisoning Prevention Programs." 52

Fed. Reg. 4872 (1987) (emphasis added). New York City, long a leader in lead paint and environmental regulation, need not follow the same rules as Mississippi or fall to the lowest common denominator set for the entire nation. Few jurisdictions, if any, must deal with lead paint in dwellings to anywhere near the same extent as New York City.

16. Most importantly, from my experience in conducting thousands of lead paint x-ray fluorescence ("XRF") measurements in dwellings where children are already poisoned, in many of these dwellings the paint had reading of more than 0.7 mg/cm<sup>2</sup> or more but less than 1.0 mg/cm<sup>2</sup> of lead, and no other source of the lead poisoning was known. An XRF test of a thick accumulation of leaded and non-leaded paint layers may yield values less than 1.0 mg/cm<sup>2</sup> of lead; however, when the surface or substrate is damaged, the layers fragment and present a clear and immediate danger. The change in the regulatory standard to 1.0 mg/cm<sup>2</sup> will simply exclude many poisoned and potentially poisoned children from protection by defining away the lead hazards in their home.

17. The City apparently is also asserting that the move to relax the standards on lead paint from 0.7 mg/cm<sup>2</sup> to the 1.0 mg/cm<sup>2</sup> is motivated by the limitations of the measurement instruments. I am familiar with the HUD and EPA studies referred to in the City's answering affidavits in opposition to the pending intervention motion. Commissioner Hamburg's reliance on HUD's conclusions back in 1987 concerning the accuracy and precision of XRF instruments is misplaced, given the substantial improvements in XRF technology in the intervening nine years. Modern XRF instruments are, in some cases, capable of detecting lead levels all the way down to 0.0 mg/cm<sup>2</sup> with an precision level of  $\pm 0.1$  mg/cm<sup>2</sup>. See, e.g., Performance Characteristic Sheet for LeadStar XRF, annexed as Exhibit F.

18. Even assuming that field instruments were incapable of measuring these lower levels of lead content, however, doesn't mean they shouldn't be regulated; or at least subject to a risk assessment. A condition which is defined as "lead free" because it is below regulatory limits may not necessarily be "lead safe." The federal Centers for Disease Control ("CDC") defines lead paint as 0.06% by weight, which is far lower than the regulatory limits used by New York City. Similarly, HUD recommends risk assessments for lower XRF measurements. In as much as any measurable amount of lead in paint can produce

environmental exposure, these low lead conditions should trigger a requirement for risk assessments as well. XRF instruments can be used as a screen for these possible low lead conditions.

Affidavit of Martin Rutstein, Ph.D., Nov. 14, 1996, at 7-9 (emphasis in original).

7. The above-quoted considerations I set forth five years ago are, if anything, even more compelling today. The technology of lead detection instruments has advanced to the point where XRF devices can detect lead paint levels down to the level of 0.1 mg/cm<sup>2</sup> within an accuracy of a few percent. For example, the NITON XL-309 Spectrum Analyzer XRF routinely produces analytical confidence levels of 95 to 99.7% for most tests and for lead levels around 1.0 mg/cm<sup>2</sup>, a minimum confidence level of 95%, a value that can be increased to 98.25 to 99.75% by the operator.

8. Dr. Leighton's statements appear to imply that the 1.0 mg/cm<sup>2</sup> standard was scientifically established over the 0.7 mg/cm<sup>2</sup> standard on a health basis. This is completely without foundation. The 1.0 mg/cm<sup>2</sup> figure is a technology-based standard, not a health-based standard. Lead is not healthy for children at any level, and there is no question that a wall with, say, a surface coating containing 0.6 mg/cm<sup>2</sup> of lead can cause a human lead health hazard

from both degrading paint and the associated lead-containing dust and is quite capable of poisoning of a child.

9. Rather, the 1.0 mg/cm<sup>2</sup> standard – and for that matter the 0.7 mg/cm<sup>2</sup> standard – were set a number of years ago based upon what was the lowest level that could be measured within an acceptable level of accuracy and precision at that time (the “Practical Quantification Limit”). This was never the same thing as determining the level of safety from a health basis. Even at the present time, EPA, in its lead regulations under Toxic Substances and Control Act § 403 (15 U.S.C. § 2683)<sup>1</sup> distinguishes between “health-based action triggers” and “technology-based clearance levels.” EPA selects technology-based measurements since the Agency does not believe that it has sufficient technical basis for identifying health-based triggers.

10. For that reason, in 1978 the Consumer Product Safety Commission set the permissible amount of lead in new paint manufactured for sale at the level of 0.06% by weight – a figure that would generally translate out to far less than even 0.7 mg/cm<sup>2</sup> when applied to most surfaces, because that figure was the lowest measurable amount. Indeed, the Occupational Safety and Health Administration (OSHA) regulates “any” amount of lead in

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1. Part of the Residential Lead-Based Paint Hazard Reduction Act of 1992, enacted as Title X of the Housing and Community Development Act of 1992 and commonly known as “Title X.”

construction projects. 29 CFR § 1926.63. If there is "any" lead present in disturbed materials, then the employer must take steps to ascertain exposures and protect workers. If we protect workers against any amount of lead in their workplace, why should we do less for our children in their homes?

11. I am unaware of any studies that prove it is safe to leave unabated deteriorated lead paint in a young child's home if it tests in the 0.7 mg/cm<sup>2</sup> to 0.9 mg/cm<sup>2</sup> range, but unsafe if it tests at 1.0 mg/cm<sup>2</sup> or above. There is simply no such threshold from a health standpoint. And measuring lead paint with modern XRF instruments at the 0.7 mg/cm<sup>2</sup> level is eminently doable and fully defensible; indeed, we have been doing so for many years in New York City. I understand, in fact, that the entire state of Maryland, which has one of the more active lead poisoning prevention programs in the nation, uses the 0.7 mg/cm<sup>2</sup> standard today. See Md. Code Ann. Envir. § 6-1001(c)(1); Md. Regs. Code Title 26, § 16.01.02(B)(7).

12. In sum, I believe allowing a less stringent standard will only promote the continued existence of dangerous and hazardous levels of lead in children's environments. The only basis for a less stringent level would have to be inadequate instrument capabilities or an unwillingness to regulate hazardous conditions. We now have instruments that can easily overcome the analytical concerns voiced by some in the past. We now must be

ready and willing to face and solve the challenges posed by levels of lead that are not uncommon. And we must face the problem of dealing with hazardous levels of lead in ambient dust that result from the ongoing ageing and degradation of lead-containing paints in residences. Only then can we know that we have taken reasonable and common sense steps to protect our children against an insidious danger that is clear to some, but apparently invisible to others.

/s/ *Martin Rutstein*  
MARTIN RUTSTEIN, Ph.D.

Subscribed and sworn before me  
this 27 day of March, 2001.

/s/  
NOTARY PUBLIC