

APPENDIX A

Filed 11/14/17

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA SIXTH APPELLATE DISTRICT

THE PEOPLE,

Plaintiff, Cross-defendant and Respondent,

v.

CONAGRA GROCERY PRODUCTS COMPANY et al.,

Defendants and Appellants;

THE SHERWIN-WILLIAMS COMPANY,

Defendant, Crosscomplainant and Appellant. H040880 (Santa Clara County Super. Ct. No. CV788657)

After a lengthy court trial, the People of the State of California (plaintiff) prevailed in this representative public nuisance action against defendants ConAgra Grocery Products Company (ConAgra), NL Industries, Inc. (NL), and the Sherwin-Williams Company (SWC).¹ The trial court ordered ConAgra, NL, and

¹ Plaintiff's action was brought on behalf of the residents of Santa Clara County, San Francisco City and County, Alameda

SWC to pay \$1.15 billion into a fund to be used to abate the public nuisance created by interior residential lead paint in the 10 California jurisdictions represented by ConAgra, NL, and SWC (collectively defendants) challenge the court's judgment on many grounds. They contend, among other things, that the court's judgment is not supported by substantial evidence of knowledge, promotion, causation, or abatability. Defendants also challenge the judgment on separation of powers and due process grounds, claim that they were erroneously denied a jury trial, and assert that the trial court made other prejudicial procedural and evidentiary errors.² We conclude that the trial court's judgment must be reversed because substantial evidence does not support causation as to residences built after 1950. We also direct the trial court to hold further proceedings on remand regarding the appointment of a suitable receiver. We reject the remainder of defendants' contentions.

I. Plaintiff's Evidence at Trial

"[L]ead is a toxin and causes irreversible brain damage." Childhood lead poisoning is "the number one environmental health problem for children" in California. "Childhood lead poisoning at the level at which it is occurring is definitely an epidemic in California." "The most common source of lead exposure to children in California is lead-based paint

County, Los Angeles County, Monterey County, City of Oakland, City of San Diego, San Mateo County, Solano County, and Ventura County. In this opinion, we will refer to these two cities, seven counties, and one city and county as the 10 jurisdictions.

² This is but a partial list of their contentions. SWC and ConAgra also each assert an individual contention.

and how it contributes to soil and dust contamination in and around housing." Experts have reached a consensus "that lead-based paint is a predominant source of childhood lead exposure [in] pre-1978 housing." Children in pre-1946 housing are subject to "three times the percentage of elevations in blood lead level" as those in post-1978 housing. Lead in homes accounts for at least 70 percent of all childhood lead poisonings. Lead paint is a major contributor to blood lead levels because the lead content of paint is high, while most other lead sources have only trace amounts. And the most common type of lead paint contains white lead carbonate, which is highly absorbable. Between 1929 and 1974, more than 75 percent of the white lead carbonate produced in this country was used in lead paint. Through the 1940s, lead paint contained as much as 50 percent lead.

"Children are exceptionally vulnerable" to lead because "they explore their environment with typical hand-to-mouth contact behavior." Lead paint chips "taste sweet," which may explain why children ingest them. Young children are at especially high risk from

³ "Lead-based paint" is not the only source of childhood lead exposure. Children in the 10 jurisdictions have also been exposed to lead from occupational sources (such as lead dust brought home by construction workers), leaded gasoline, imported goods (such as pottery, Mexican candy, and toys), home remedies (such as "Greta" and "Azarcon"), cosmetics, jewelry, spices, and chapulines (grasshoppers).

⁴ "'Lead-based paint' means paint or other surface coatings that contain an amount of lead equal to, or in excess of: $[\P]$ (a) one milligram per square centimeter (1.0 mg/cm2); or $[\P]$ (b) half of one percent (0.5%) by weight." (Cal. Code Regs., tit. 17, § 35033.) This is what we mean when we use "lead paint" in this opinion.

residential lead paint because they spend the vast majority of their time in their homes. Infants and young children also absorb much more lead than older children and adults. Because children are smaller, lead intake has a proportionally larger impact on their bodies, and children absorb lead more easily. Children are also more vulnerable to the toxic effects of lead because their biological systems are still developing.

The "brain effects [of lead exposure] in children are irreversible," so the "only option is to prevent the exposure in the first place." There is "no safe exposure level" for lead "[b]ecause no measurable level of lead in blood is known to be without deleterious effects, and because once engendered the effects appear to be irreversible." Blood lead levels less than 5 micrograms per deciliter (mcg/dL)⁵ can cause children to suffer impaired intellect and behavioral problems.⁶ "[E]ven among children with the lowest levels of lead exposure," studies suggest that "there is ongoing harm down to the lowest measurable levels." "[B]lood lead levels below 5 micrograms per deciliter are associated with decreased academic achievement, diminished IQ scores, or intellectual abilities, cognitive abilities, attention-related behavior problems and antisocial behaviors " Lead exposure as a child continues to impact the body when the child becomes an adult. It "has reproductive effects, it has impacts on things like

⁵ A microgram (mcg) is a millionth of a gram. A deciliter (dL) is a tenth of a liter.

⁶ Bone lead levels are a better indicator than blood lead levels of the impact of lead on intellectual abilities. Blood lead levels may underestimate the impact of lead exposure.

birth weight, and even fertility, delays fertility," and it can be associated with cardiovascular disease.

Even intact lead paint poses a potential risk of future lead poisoning to children because lead paint surfaces will inevitably deteriorate. "[A]ll paint eventually deteriorates. On certain surfaces it deteriorates more rapidly than others[;] mainly those surfaces are high-use surfaces, such as windows and Paint deteriorates when it is exposed to ultraviolet light, water, fungus (such as mildew), friction, or abrasion. More than one-third of pre-1978 homes nationwide with intact lead paint have lead dust. In contrast, only 6 percent of homes without lead paint have lead dust. Lead in soil adjacent to homes generally comes from lead paint, not leaded gas emissions, because post-1978 housing has no soil lead.8

Most of the housing in the 10 jurisdictions was built before 1980, with the percentages ranging from 51 to 83 percent and is therefore presumed to contain lead

 $^{^7}$ "'Lead-contaminated dust' means dust that contains an amount of lead equal to, or in excess of: [¶] (a) forty micrograms per square foot (40mg/ft²) for interior floor surfaces; or [¶] (b) two hundred and fifty micrograms per square foot (250mg/ft²) for interior horizontal surfaces; or [¶] (c) four hundred micrograms per square foot (400mg/ft²) for exterior floor and exterior horizontal surfaces." (Cal. Code Regs., tit. 17, § 35035.)

⁸ "Lead-contaminated soil' means bare soil that contains an amount of lead equal to, or in excess of, four hundred parts per million (400 ppm) in children's play areas and one thousand parts per million (1000 ppm) in all other areas." (Cal. Code Regs., tit. 17, § 35036.)

paint.⁹ Pre-1940 homes are three times as likely to have lead-based paint hazards, 10 with 86 percent having lead-based paint hazards and 67 percent having "significant" lead-based paint hazards such as "deteriorated lead-based paint." 11 "[H]omes with leadbased paint are 10 times more likely than homes without lead-based paint to have dust lead levels on floors and on window sills above the federal limits." And "homes with lead-based paint are more likely to have soil lead levels on the exterior of the home above the EPA [(federal Environmental Protection Agency)] criteria limits." Even when lead paint is "intact," soil levels can exceed EPA limits. Lead paint creates soil lead "by the friction and impact surfaces, opening and closing windows and doors on a home with lead-based paint," from the deterioration of exterior lead paint, and from "sanding and scraping" when repainting. When there is lead in the soil, it is often tracked into the home, creating household lead dust.

Since the 19th century, the medical profession has recognized that lead paint is toxic and a poison. An 1878 article by an English doctor recognized that the

⁹ "'Presumed lead-based paint' means paint or surface coating affixed to a component in or on a structure constructed prior to January 1, 1978." (Cal. Code Regs., tit. 17, § 35043.)

¹⁰ "Lead hazard' means deteriorated lead-based paint, lead contaminated dust, lead contaminated soil, disturbing lead-based paint or presumed lead-based paint without containment, or any other nuisance which may result in persistent and quantifiable lead exposure." (Cal. Code Regs., tit. 17, § 35037.)

¹¹ "Deteriorated lead-based paint' means lead-based paint or presumed lead-based paint that is cracking, chalking, flaking, chipping, peeling, non-intact, failed, or otherwise separating from a component." (Cal. Code Regs., tit. 17, § 35022.)

use of lead paint on the interiors of homes could have poisonous effects on the people who lived in the home. An 1895 article by a San Francisco doctor recounted how a child had been poisoned by lead paint that she had scratched off her crib. A 1904 article by a doctor in Queensland, Australia described multiple cases of children being poisoned by lead dust from lead paint on walls and railings of a house. He believed that the lead dust had been ingested by the children after it got on their fingers and thereby into their mouths. His investigation found lead dust on interior walls where the paint was still in "good condition." 12 authoritative 1907 textbook edited by a noted American doctor, which was widely used in medical education, discussed the 1904 article and observed that children had been poisoned by lead paint on woodwork in their homes that had produced lead dust and gotten onto their hands.¹³ These articles "recognized the dust pathway from paint on a wall, to dust on the floor, to the hands of children, into their mouth[s], as a way of ingestion."

¹² In 1922, Queensland, Australia banned lead paint from areas to which young children had access.

¹³ Plaintiff presented an expert who testified that in 1909 public health officials and doctors were suggesting that there be legislation banning lead paint due to the risk of exposure for children. This expert cited his own 2005 article in which he asserted that researchers had stated in 1909 that "[p]aint containing lead should never be employed where children, especially young children, are accustomed to play," and "[a] number of European countries banned lead-based paint soon thereafter." He also relied on a seven-page "annotated bibliography" that he had prepared, which listed, but did not include, numerous articles that he had reviewed.

Many medical articles by doctors in the early 20th century described lead poisoning of children from lead paint. A 1917 article by an American doctor discussed the 1904 Australian article and also described the cases of multiple children who had gnawed lead paint off furniture and died. A 1926 article discussed the case of a child who had died from lead poisoning after she "gnawed" lead paint off her bed. A 1933 article pointed out that "children get exposed to lead-based paint in the homes by their common tendency to put things in their mouth[s]." It also stated that most cases involved infants and small children and that children were more susceptible to lead poisoning than Another 1933 article noted: "It must be obvious that for every child who becomes paralysed by lead there must be literally hundreds who have been affected by the poison in some more or less minor degree." "[T]he extent of the lead paint menace has been minimized, and in consequence, literally thousands of children have been allowed to run the risks of lead absorption."

Published medical articles in this era recognized that even small amounts of lead could cause children to suffer harm. A 1931 British Medical Journal article discussed the "insidious" effects of "infinitesimal doses of lead" over a long period of time. A 1935 American medical journal article suggested that there were "insidious" "cumulative effects of infinitesimal doses of lead" that could be "obscure." A 1938 British medical article stated that "the harmful effects of continued small doses of lead begin from the moment the lead is absorbed" and can lead to a long series of "subtle" harms. It opined that "there is no threshold below which still smaller doses can be regarded as being

without some adverse effect." A 1943 American medical journal article discussed the impact of early childhood subacute lead poisoning on a child's intelligence and subsequent academic achievement; it called for a ban on interior residential use of lead paint.

Knowledge about the toxic properties of lead paint was not limited to the medical profession. In May 1910, the United States House of Representatives' Committee on Interstate and Foreign Commerce held a hearing on a bill aimed at preventing lead poisoning. The bill would have required products containing white lead to "be labeled conspicuously and securely with a skull and crossbones and the words: 'White lead: poison." The sponsor of the bill noted that France had already "entirely prohibited the use of white lead because of its injurious character" and that "all countries of Europe" had already enacted legislation like his proposal. He spoke of "the injurious effect of these atoms of white lead that are filling the air now; they come loose from doors, from window sills, from everywhere, we inhale them and consequently disease is caused which physicians do not understand and can not say what it really is, but it is, in many cases, simply a case of lead poisoning." proponent of the bill observed that "the most eminent scientists and doctors of Great Britain" had "found that the small particles that result from chalking, especially from internal painting and external painting as well, when taken by inhalation into the lungs, are absorbed and become a poison to the system." This congressional hearing was attended by an attorney for "practically all of the paint manufacturers of this country" who stated their opposition to the proposal. The bill failed.

A few years later, in 1914, Henry Gardner, who was the assistant director of the Institute of Industrial Research and also the director of the Paint Manufacturers Association's Educational Bureau, published a speech that he had given to the International Association of Master House Painters and Decorators of the United States and Canada at that association's annual convention in February 1914. In this speech, Gardner acknowledged that "the presence of [white lead] dust in the atmosphere of a room is very dangerous to the health of the inmates" and that "[l]ead poisoning may occur through inhalation of [lead] dust"

Despite this evidence of the toxic properties of white lead, the main use for white lead in the 20th century was as a pigment for paint. NL, SWC, and ConAgra's predecessor, Fuller, were among the handful of companies that manufactured white lead carbonate pigments during the 20th century, and all three of them used white lead carbonate pigment to make paint. NL, SWC, and Fuller were all leaders in the lead paint industry, and they knew at that time that lead dust was poisonous. They were also aware that lead paint "powders and chalks" "soon after it is applied" and routinely produces lead dust after a couple of years.

¹⁴ Plaintiff's experts defined "lead-based paint" as either paint containing lead pigment or paint that was "either considered 100 percent or 70 percent pure white lead . . . or alternatively mixed paint with . . . 'high-lead content."

In 1922, NL, SWC, and Fuller were making white lead carbonate pigment, using it in their paints, and promoting white lead pigment in paint for use on and in residential homes. Sales of white lead peaked in 1922. There was a decrease in the use of lead paint in the 1920s and early 1930s. By 1944, during World War II, the use of lead paint for residential interiors had declined to a low level.

NL manufactured white lead carbonate pigment from 1891 to 1978, and it had manufacturing facilities in San Francisco and Los Angeles that manufactured white lead carbonate pigments in California between 1900 and 1972. It sold those pigments to California paint manufacturers, used them in its own paint products sold in California, and advertised and promoted paint products containing those pigments for residential use within the 10 jurisdictions during that same period. NL "kept up with the medical literature" about lead poisoning. NL's 1912 annual report acknowledged that lead dust was a "danger to the health" of workers exposed to it in the making of white lead. By the mid to late 1920s, NL knew that children who chewed on things painted with lead paint could get lead poisoning and die from it. Nevertheless, NL's lead paints were marketed for residential use and sold in and advertised in the 10 jurisdictions between 1900 and 1972. NL produced a handbook for consumers in 1950 that instructed them to use lead paint on the interiors of their homes.

ConAgra's predecessor, Fuller, manufactured white lead carbonate pigment from 1894 until at least 1958. Fuller manufactured white lead carbonate pigment at its San Francisco factory until 1898, when it moved its factory to South San Francisco. At this factory, Fuller

refined white lead carbonate and was a "major producer" of lead paint. Fuller also had a plant in Los Angeles. Fuller's lead paints were sold at its own stores and by independent dealers in all 10 jurisdictions between 1894 and 1961. Fuller knew that lead dust was poisonous. In 1919, an article about Fuller's South San Francisco plant noted that lead dust is poisonous.

SWC began manufacturing paints containing white lead carbonate pigments in 1880. SWC's internal publication, The Chameleon, published an article in 1900 that acknowledged the many dangers of lead paint. It stated: "A familiar characteristic of white lead is its tendency to crumble from the surface, popularly known as chalking"; "It is also familiarly known that white lead is a deadly cumulative poison"; and "This noxious quality becomes serious in a paint that disintegrates and is blown about by the wind." In 1910, SWC bought a lead mine, which it utilized to manufacture white lead carbonate pigment from 1910 to 1947 for use in its own paints. SWC stopped manufacturing white lead carbonate in 1947, but it continued to make lead paint until 1958. 16 SWC had plants in Emeryville and later in Los Angeles that manufactured paint containing white lead carbonate. SWC continued to sell lead paint until 1972. SWC removed all lead from its residential paints by the end of 1972.

Two trade associations, the Lead Industries Association (LIA) and the National Paint, Varnish, and Lacquer Association (NPVLA) promoted the use of

¹⁵ Fuller also produced and sold non-lead paints.

¹⁶ Some of SWC's paints did not contain white lead pigment.

lead paint. Fuller, NL, and SWC were members of both the LIA and the NPVLA. The LIA, which was created in 1928, promoted the use of white lead pigments in residential paint by sponsoring two advertising campaigns, the Forest Products Better Paint campaign and the White Lead Promotion campaign, in the first half of the 20th century. The LIA knew that white lead was being attacked from "a health standpoint," and these campaigns were designed to increase the consumption of lead.

The LIA provided its members with information about lead hazards and lead poisoning that was available in medical and scientific literature at the time. NL was present at a 1930 LIA board of directors meeting at which a 1930 article about lead poisoning of babies and children from chewing lead paint off of cribs was discussed. The article, which ran in the U.S. Daily, a publication "Presenting the Official News" of the government, stated that lead poisoning from "chewing paint from toys, cradles, and woodwork" was "a more frequent occurrence" than previously thought and noted that even a small amount of lead could kill a child. The article also noted that "[c]hildren are very susceptible to lead" and that the "most common sources of lead poisoning in children are paint on various objects within reach of a child and lead pipes "

In 1934, the LIA launched its Forest Products campaign, which promoted lead paint for interior residential use. At a 1935 LIA annual meeting, it was acknowledged that childhood lead poisoning disproportionately affected poor and minority children and that there were thousands of cases annually. Yet the LIA fought against the imposition of regulations

on lead. A 1937 LIA conference on lead poisoning was attended by representatives from NL and SWC, and Fuller received a transcript of the conference. Both industrial lead poisoning and childhood lead poisoning were discussed at the 1937 conference. There was discussion of research that showed it was nearly impossible to get rid of lead once it got into a child's body. Attendees at the conference were asked by the head of the LIA not to discuss what they learned at the conference in order to avoid unfavorable publicity connecting lead paint to lead poisoning. The LIA's Forest Products campaign continued through 1941.

The NPVLA, unlike the LIA, represented paint manufacturers regardless of whether they used lead pigments.¹⁷ The NPVLA ran advertising campaigns promoting paint throughout the first half of the 20th century. One was called Save the Surface in 1920 and 1921. The other was called Clean Up Paint Up and was ongoing in 1949. All three companies were involved in both advertising campaigns. Neither of the NPVLA's campaigns distinguished between lead paint and non-lead paint, but these campaigns included advertisements promoting all three companies' lead paint products.

Lead paint was banned in the United States in 1978. (County of Santa Clara v. Atlantic Richfield Co. (2006) 137 Cal.App.4th 292, 302 (Santa Clara I).) In 1991, the Centers for Disease Control (the CDC) set the "level of concern" for lead at a blood lead level (BLL) of

¹⁷ Fuller was a member of the NPVLA from 1933 to 1962. NL was an NPVLA member from 1933 to 1977. SWC was a member of the NPVLA from 1933 to 1981.

10 mcg/dL.¹⁸ In 2012, the CDC replaced this standard with a "reference value" of 5 mcg/dL, which represents the top 2.5 percent of BLLs in children under the age of five. "[T]he reference value simply denotes the worst or the highest exposed children in a population." At that point, national data reflected that 5.3 percent of children living in pre-1950 housing had BLLs exceeding that value, while only 0.4 percent of children living in post-1978 housing had BLLs exceeding that value.

In 1995, the California Legislature enacted the Childhood Lead Poisoning Prevention Act of 1991. (Health & Saf. Code, §§ 105275, 124125; Stats. 1995, ch. 415, § 8.) This act created the Childhood Lead Poisoning Prevention Program (CLPPP). (Health & Saf. Code, § 124125.) The Childhood Lead Poisoning Prevention Branch (CLPPB), a division of California's Department of Public Health, was accorded the role of coordinating the state's approach to childhood lead exposure and childhood lead poisoning. The CLPPB devotes its resources to outreach, education, case management programs to track those who have been lead poisoned or exposed to lead, and programs to address lead hazards. The CLPPB also contracts with and supervises 43 county CLPPPs.

The CLPPB focuses on children who are one or two years old. Health care providers are required to order that a child be screened for lead poisoning at age one and at age two if "the child receives services from a publicly funded program for low-income children." (Cal. Code Regs., tit. 17, § 37100.) Medical laboratories

 $^{^{18}}$ The impact of blood lead levels below 10 mcg/dL was not well understood until 2005.

are required to report all BLLs to the CLPPB. (Health & Saf. Code, § 124130; Stats. 2002, ch. 931, § 11.) The CLPPB considers it a "case" of lead poisoning if a child's BLL exceeds 19.5 mcg/dL or persistently exceeds 14.5 mcg/dL. In such cases, a public health nurse and an environmental health specialist visit the child's home to try to determine potential sources of the lead poisoning.

National average BLLs have declined precipitously since the 1970s, falling by about 90 percent. In 1980, it was estimated that 88.3 percent of children had BLLs in excess of 10 mcg/dL. By 2008, it was estimated that less than one percent of children had BLLs over 10 mcg/dL. Nevertheless, in 2010, around 22,000 children under the age of six in California had BLLs over 4.5 mcg/dL. And at the time of trial in 2013, California had more than 2,000 children with BLLs over 10 mcg/dL and more than 15,000 additional children with BLLs over 5 mcg/dL. Children in California with BLLs over 9.5 mcg/dL represented 0.35 percent of California's children.²⁰

Children in the 10 jurisdictions are continuing to be exposed to lead from the lead paint in their homes and to suffer deleterious effects from that lead. Although only a small percentage of the children in these jurisdictions are screened for lead, thousands of children are found to have BLLs of concern each year.

¹⁹ The prevalence of elevated BLLs in children under the age of six in California appeared to have declined 60 percent from 2003 to 2010.

²⁰ Because the laboratories doing the tests lack the ability to report precise results, BLLs of 4.5 are rounded up to 5 and BLLs of 9.5 are rounded up to 10.

Lead poisoning from lead paint is "the number one environmental children's health issue in Alameda The primary cause of lead poisoning in County." Alameda County is lead paint. About 75 percent of Alameda County's homes are pre-1980, which amounts to 430,000 units. Nearly 174,000 of those units are pre-1950. Alameda County is able to screen only 46 percent of the children under the age of six who are poor and live in pre-1978 homes. County's CLPPP opens a case only when there is a lead-poisoned child with a BLL of 20 mcg/dL or two BLLs of 15 mcg/dL. In 2012, 14 children met that standard in Alameda County. That triggers an investigation of the home and education of the parents about sources of exposure. There is no funding for remediation. Alameda County's CLPPP also tries to do outreach and education to families with children who have BLLs of 5 mcg/dL or higher,²¹ but there is no funding for dealing with these children. In 2010, there were 14 children in that category.

Lead poisoning is the top pediatric environmental health problem in Los Angeles County. The most common source of lead poisoning in Los Angeles County is lead paint chips and lead paint dust. Lead paint is a "severe environmental health concern" in Los Angeles County. In Los Angeles County, 77 percent of the housing was built before 1978, which is more than 2.6 million housing units. More than 900,000 of those housing units are pre-1950. Los Angeles County's investigators have often found lead

²¹ The limits of detection do not permit such precise measurement, so the CLPPP actually provides these services when the BLL is over 4.5 mcg/dL.

paint dust in homes with intact lead paint. In 2010, Los Angeles County had about 6,500 children under the age of six with BLLs of greater than 4.5 mcg/dl. Los Angeles County's CLPPP generally does not do "primary prevention" but only screening and "secondary prevention." Los Angeles County's CLPPP handles about 75 to 100 cases of lead poisoning each year. In at least 75 percent of those cases, lead paint is a potential source of the lead poisoning. At least 70 percent of those cases involve pre-1978 housing.

Lead paint is a serious environmental health concern in Monterey County. In Monterey County, 66 percent of the housing was built before 1980, which accounts for between 89,000 and 90,000 units. Between 18,000 and 19,000 of those units were built before 1950. Each year, Monterey County's CLPPP receives between 13 and 15 new cases where there has been a report of a BLL of 20 mcg/dL or two BLLs of 14.5 mcg/dL or greater. The children are generally between the ages of one and three. For those cases, it conducts a full assessment of the home. Each month Monterey County receives 10 to 20 reports of a child with a BLL of 4.5 mcg/dL or higher. A substantial number of cases of lead poisoning in Monterey County have been attributed to imported foods.

Lead-based paint hazards in Oakland homes are "coming close to crisis mode." In Oakland, 80 to 90 percent of the housing is pre-1978, which accounts for about 174,000 units. Each year, Oakland's Lead Safe Housing Program receives 16 to 20 referrals from Alameda County's CLPPP to assess homes where lead-poisoned children live.

In the City of San Diego, 60.5 percent of the housing was built before 1980. There are about 300,000 pre-1978 housing units of which more than 62,000 are pre-1950. The City of San Diego has a Lead Safety Healthy Homes Program that offers education, outreach, risk assessments, and lead inspections. More than half of the 2,700 lead inspections completed in the City of San Diego between 2005 and 2013 identified lead hazards.

In San Francisco, 94 percent of the homes were built before 1978, which is more than 317,000 housing units, and 68 percent were built before 1950, which is more than 235,000 housing units. About 22,000 housing units in San Francisco that are occupied by low and moderate income families are believed to have lead-based paint hazards. San Francisco's CLPPP contacts parents when a child tests at 2 mcg/dL or higher. Only very infrequently is the source of the child's lead exposure anything other than lead paint. In 2010, when San Francisco tested 10,300 children under the age of six, 959 children tested between 4.5 and 9.5 mcg/dL, and 35 tested higher. Since 2010, San Francisco has been "seeing increasing numbers" of Each year, San Francisco lead exposed children. issues about 200 notices to correct lead paint and soil lead hazards.

The number one source of lead poisoning in San Mateo County is lead paint. Lead paint in pre-1978 housing is a public health problem in San Mateo County. This includes intact lead paint because it will inevitably deteriorate. In San Mateo County, 80 to 90 percent of the housing is pre-1978, which is more than 200,000 housing units. More than 56,000 of those units are pre-1950.

"[L]ead paint is the number one environmental cause of poisoning of children in Santa Clara County" and is a threat to public health there. In Santa Clara County, two-thirds of the housing stock is pre-1978, which is more than 426,000 housing units. More than 61,000 of those are pre-1950. Although in 2010 Santa Clara County could only afford to test less than 20 percent of the more than 150,000 children under the age of six who lived in the county, 339 of them had BLLs between 4.5 mcg/dL and 9.5 mcg/dL, and 71 had BLLs over 9.5 mcg/dL. Most of the children with elevated BLLs lived in pre-1978 housing. "[O]nce those children are determined to be lead poisoned, it is too late."

Lead poisoning of children is a "very significant problem" in Solano County, and it "causes substantial harm even at the lowest levels of exposure" such as 5 mcg/dL. "The harm is very substantial, the harm is permanent. Children's IQs are affected . . . they have impairment of memory, difficulty with problem solving, inattentiveness " Only about 20 percent of the 32,000 children under age six in Solano County are tested for lead. This is due to lack of access to medical care for poor children. In 2010, at least 100 children in Solano County had BLLs over 4.5 mcg/dL. Between 2001 and 2012, the sole source of lead exposure was lead paint for 55 percent of the children in Solano County with a BLL of 20 mcg/dL or higher or two BLLs of 15 mcg/dL. In many of the other cases, lead paint was a contributing source. Between 75,000 and 80,000 homes in Solano County were built before 1978, which is about 51 percent of all of the homes. More than 18,000 of those units are pre-1950. Solano County has no resources for code enforcement of lead paint hazards in homes or for remediation.

Ventura County has almost 174,000 pre-1978 housing units. Almost 20,000 of those are pre-1950. In 2010, Ventura County had 34 children with BLLs higher than 10 mcg/dL and 271 children with BLLs over 5 mcg/dL. Ventura County's CLPPP does not do any environmental investigation as to children with BLLs between 5 and 15 mcg/dL. For those children, Ventura's CLPPP provides only educational material.

The CLPPs lack the ability to engage in primary prevention, which seeks to prevent lead exposure in the first place. Instead, the CLPPs largely target children who have already been exposed to lead. Abatement would be primary prevention. Although it is not feasible to remove all lead from every home in the 10 jurisdictions, primary prevention could be substantially furthered by lead inspections, risk assessments, education, and remediation of identified lead hazards in homes in the 10 jurisdictions.

II. Defense Evidence At Trial

BLLs in children under the age of six nationally have been dropping since the 1970s, going from a geometric mean of 15 mcg/dL in the late 1970s to 1 mcg/dL in 2009/2010. The percentage of children under the age of six with BLLs exceeding 10 mcg/dL has dropped over that period from more than 80 percent to less than one-half of one percent. A similar drop has occurred for children under the age of six with BLLs over 5 mcg/dL. The same is true in the western region, which includes California, where the geometric mean for BLLs is about 25 to 30 percent lower than in other regions. In most of the 10

jurisdictions, BLLs and the percentage of elevated BLLs also dropped from 2007 to 2012.

A defense expert testified that the lower BLLs reflected decreasing exposure of children to lead. It was his opinion that leaded gasoline was largely responsible for both soil lead and dust lead and that there was "very little impact of exposure to lead from paint on community-wide blood lead levels."

Another defense expert testified that the current understanding of childhood lead poisoning was unknown before 1970. In his view, the amount of lead considered toxic and awareness of "the pathway by which lead gets into the child's body" had both "changed radically over the years." He asserted that in the first decade of the 20th century lead poisoning was considered an "industrial disease of adults." No tests were available to measure a BLL. It was not until the 1930s that a BLL test became available. This defense expert testified that, prior to 1920, there were no cases in the United States of a child ingesting lead paint from a household surface. By 1940, interior use of lead paint was dwindling. In 1951, Baltimore banned lead paint for interior use. In 1953, there was a general call for lead paint not to be used for interiors.

This defense expert testified that in 1971, the medical community's understanding was that lead poisoning did not cause significant symptoms until the BLL exceeded 60 mcg/dL. In 1970, the United States Surgeon General determined that a BLL of 40 mcg/dL should be considered "evidence suggestive of undue absorption of lead" It was not recognized until 1974 that children could consume lead originating from lead paint from household dust, rather than only

from flakes and chips. In 1985, the CDC set an "intervention level" for BLLs at 25 mcg/dL. In 1991, the CDC set the "level of concern" for BLLs at 10 mcg/dL.

A defense epidemiologist testified that it was not clear even in 2003 whether BLLs below 10 mcg/dL produced cognitive deficits. This expert testified that a subsequent study authored by one of plaintiff's experts showing such deficits was flawed. This expert had not studied childhood lead exposure, but he testified that the evidence was inconclusive whether there were cognitive effects of BLLs below 10 mcg/dL.

SWC presented a statistician who testified that SWC had contributed only 6,732 tons of lead to California over the period from 1894 to 2009 out of a total of 217,784 tons of lead consumed in California during that period, which was just ".1 percent" of the total lead. On cross-examination, he conceded that his estimate was limited to lead manufactured by SWC between 1910 and 1947, which was the only period when SWC manufactured lead. SWC continued to make lead paint after 1947. His estimate was also based primarily on national data about lead consumption to which he had applied a ratio based solely on population to determine what he thought was California's consumption.

Another defense expert testified that lead paint does not inevitably deteriorate. He asserted that if lead paint is "maintained properly and re-coated as needed on a regular maintenance cycle," it will not deteriorate. His premise was that repainting would be needed every three to five years. On crossexamination, he admitted that lead paint would deteriorate over time, particularly on friction surfaces like windows. He also admitted that repainting would require surface preparation, which would often mean sanding or scraping, in order to provide a surface to which the new paint would adhere.

The defense's abatement expert testified that the replacement of windows and doors that have been painted with lead paint is "a very intrusive and disruptive process" that involves "guys in moon suits, [and] respirators." That process can disturb other hazardous waste, such as asbestos, and lead to the discovery of mold issues. The remediation of floors and soil would also be invasive, labor intensive, and time consuming. He also suggested that the abatement estimates for remediation plan's unrealistically low. He believed that remediation would often take a week or more and could increase the risk of lead exposure for the residents of the home. He also testified that replacing windows does not lower BLLs and that remediation can result in higher BLLs.

III. Procedural Background

In March 2011, plaintiff filed a fourth amended complaint (FAC) for public nuisance.²² It named as defendants ConAgra, NL, SWC, Atlantic Richfield Company (ARCO), E.I. Du Pont de Nemours and

²² We need not discuss at length the long and complicated procedural history of this case, which was originally filed in 2000. This case has already produced one published decision by this court (*Santa Clara I, supra*, 137 Cal.App.4th 292) and another by the California Supreme Court (*County of Santa Clara v. Superior Court* (2010) 50 Cal.4th 35 (*Santa Clara II*)). We will discuss these decisions only where they are relevant to the issues before us in this appeal.

Company (DuPont), and 50 Doe defendants.²³ The FAC alleged that the presence of lead in homes was a public nuisance and that defendants were "liable in public nuisance" because they had created or assisted in the creation of this public nuisance.²⁴ Plaintiff sought abatement, injunctive relief, costs, and attorney's fees. The parties stipulated that the FAC concerned only residential buildings and no public buildings.

The court struck defendants' jury demands, and the case was tried to the court in July and August 2013. In March 2014, the court issued an amended statement of decision and an amended judgment. The court's amended statement of decision, which was over 100 pages long, made numerous findings. The court expressly found that, "[s]ince antiquity, it has been well known that lead is highly toxic and causes severe health consequences when ingested" and that "[e]ven relatively low levels of lead exposure have severe health consequences." It found that lead paint is prevalent in the 10 jurisdictions, "inevitably deteriorates," and is the primary source of lead exposure for young children living in pre-1978 housing in the 10 jurisdictions. As a result, children in these jurisdictions are continuing to be exposed to lead from lead paint even though residential lead paint was banned in 1978. The court expressly found that ConAgra, NL, and SWC each had "actual knowledge of the hazards of lead paint," "including childhood lead

²³ The trial court found that ARCO and DuPont were not liable, and they are not parties to this appeal.

²⁴ Defendants' demurrer to the FAC was overruled. The court also denied summary judgment motions by NL and SWC.

poisoning," when they promoted lead paint for interior residential use. The court's judgment required defendants to pay \$1.15 billion into an abatement fund that would pay for lead inspections, education about lead hazards, and remediation of particular lead hazards inside residences in the 10 jurisdictions. Defendants timely filed notices of appeal.²⁵

IV. Discussion

A. Substantial Evidence Issues

A public nuisance cause of action is established by proof that a defendant knowingly created or assisted in the creation of a substantial and unreasonable interference with a public right. (*Santa Clara I, supra*, 137 Cal.App.4th at pp. 305–306.)

Defendants contend that plaintiff failed to produce substantial evidence in support of its public nuisance cause of action. They assert that substantial evidence does not support the trial court's findings that (1) they had actual knowledge of the public health hazard posed by interior use of lead paint at the time they promoted and distributed it; (2) they promoted lead paint for interior use; (3) their conduct caused the public nuisance to occur; and (4) the nuisance is abatable, lead paint poses an imminent danger, and abatement will lower BLLs.

1. Standard of Review

Defendants contend that their claims that substantial evidence does not support the trial court's judgment raise questions of law that we must review de novo. They cite *Smith v. Selma Community Hosp.* (2008) 164 Cal.App.4th 1478 (*Smith*) as support for

²⁵ Plaintiff also appealed, but it later dismissed its appeal.

this contention. *Smith* is inapposite. In *Smith*, the Court of Appeal was reviewing a governing board's decision reviewing a judicial review committee's decision. The board, which was exercising substantial evidence review, concluded that the committee's decision was not supported by substantial evidence. Since the Court of Appeal was reviewing the board's decision that substantial evidence did not support the committee's decision, the Court of Appeal necessarily exercised independent review. (*Smith*, at pp. 1515–1516.) As we are not reviewing another reviewing body's decision as to whether a third body's decision was supported by substantial evidence, we do not exercise independent review. Instead, we exercise ordinary deferential substantial evidence review.

"'When a finding of fact is attacked on the ground that there is not any substantial evidence to sustain it, the power of an appellate court begins and ends with the determination as to whether there is any substantial evidence contradicted or uncontradicted which will support the finding of fact." (Foreman & Clark Corp. v. Fallon (1971) 3 Cal.3d 875, 881.) "'[W]e have no power to judge of the effect or value of the evidence, to weigh the evidence, to consider the credibility of the witnesses, or to resolve conflicts in the evidence or in the reasonable inferences that may be drawn therefrom." (Leff v. Gunter (1983) 33 Cal.3d 508, 518.) Our role is limited to determining whether the evidence before the trier of fact supports its findings. (Reddy v. Gonzalez (1992) 8 Cal. App. 4th 118, 123.)

Defendants claim that we may not presume implied findings in plaintiff's favor because there were "key ambiguities" in the trial court's statement of decision that they brought to the court's attention but the court did not resolve.

"When a statement of decision does not resolve a controverted issue, or if the statement is ambiguous and the record shows that the omission or ambiguity was brought to the attention of the trial court . . . , it shall not be inferred on appeal . . . that the trial court decided in favor of the prevailing party as to those facts or on that issue." (Code Civ. Proc., § 634.) "To bring defects in a statement of decision to the trial court's attention within the meaning of section 634, objections to a statement of decision must be 'specific.' [Citation.] The alleged omission or ambiguity must be identified with sufficient particularity to allow the trial court to correct the defect. [Citation.] 'By filing specific objections to the court's statement of decision a party pinpoints alleged deficiencies in the statement and allows the court to focus on the facts or issues the party contends were not resolved or whose resolution is ambiguous.' " (Ermoian v. Desert Hospital (2007) 152 Cal.App.4th 475, 498.) "[A] trial court is not required to respond point by point to issues posed in a request for a statement of decision. "The court's statement of decision is sufficient if it fairly discloses the court's determination as to the ultimate facts and material issues in the case." [Citations.]" (Id at p. 500.)

After trial, each defendant submitted a proposed statement of decision, and plaintiff submitted proposed findings of fact and law and a proposed order. In December 2013, the court issued a proposed statement of decision. Plaintiff and defendants filed objections to the proposed statement of decision. The

court subsequently filed an amended statement of decision and an amended judgment.²⁶

Defendants' appellate briefs identify six "key ambiguities" that they assert they brought to the court's attention but the court failed to address in its statement of decision. The alleged "ambiguities" they identify are: (1) "Whether the court found any part of defendants' recitation of the historical knowledge of lead hazards to be incorrect;" (2) "What level of lead exposure the court referred to as being 'lead poisoning'"; (3) "What facts about lead's hazards the court found that defendants 'actually knew'"; (4) "Which of defendants' promotions for interior paint the court found to be a basis for liability"; (5) "On what basis the court included housing built after 1950"; and (6) "what public rights."

"[I]t is settled that the trial court need not, in a statement to decision, 'address all the legal and factual issues raised by the parties.' [Citation.] It 'is required only to set out ultimate findings rather than evidentiary ones.' [Citation.] "'[U]ltimate fact[]'" is a slippery term, but in general it refers to a core fact, such as an element of a claim or defense, without which the claim or defense must fail. [Citation.] It is distinguished conceptually from 'evidentiary facts' and

²⁶ In January 2014, the court issued a statement of decision. Plaintiff submitted a proposed judgment, and defendants objected to the proposed judgment. The court entered judgment followed by an amended judgment. Defendants moved to vacate the judgment and for a new trial. The court denied the motions for new trial and to vacate the judgment. Plaintiff moved to modify the statement of decision and the judgment, and the court filed an amended statement of decision and a second amended judgment.

'conclusions of law.' " (Yield Dynamics, Inc. v. TEA Systems Corp. (2007) 154 Cal.App.4th 547, 559.)

Only one of defendants' six alleged "ambiguities" arguably pertains to a "core fact" rather than an SWC's objections to the court's evidentiary fact. proposed statement of decision asked the court to "define 'harmful' " with respect to defendants' knowledge of lead's harmful nature. SWC argued that this was important because the state of knowledge at the time defendants promoted lead paint did not include knowledge of the risks of low-level exposure to deteriorating lead paint. ConAgra adopted SWC's objections and also asked the court to "specify what hazard it finds that Fuller knew when it promoted lead paint for residential interior use, and when Fuller knew exposure to lead at even minute levels was harmful." ConAgra requested that the court specify "what 'harm' each defendant 'knew.'" NL objected to the court's proposed knowledge findings and asked that the court "specifically identify the knowledge that NL had at that time." We address the court's treatment of the "harms" and "hazards" issue in the course of our analysis of defendants' challenge to the court's knowledge findings. In all other respects, we reject defendants' claim that the court failed to resolve an ambiguity as to a "core fact" because we conclude that the alleged ambiguities concerned evidentiary facts.

Before we embark on our substantial evidence review, we note that we cannot rely solely on the expert testimony produced by plaintiff. Plaintiff's expert witnesses testified to conclusions that would appear on their face to establish both the actual knowledge and promotion elements of plaintiff's case. One of plaintiffs experts testified: "These Defendants manufactured white lead carbonate; these Defendants knew of the hazards of lead during the time that they were manufacturing white lead carbonate; these Defendants advertised, promoted, and sold their lead and/or lead [based] products while they had knowledge of the hazards of lead; these Defendants advertised, promoted, and sold their lead and/or lead containing products for use in and around homes within each of 10 jurisdictions; suitable substitutes were available for white lead; these Defendants, through their trade association, downplayed the hazards of lead; and these Defendants, through their trade associations, fought the imposition of regulations." And plaintiff's experts testified to even more specific conclusions: "Sherwin-Williams had actual knowledge about the hazards of lead as early as 1900."

If we could accept plaintiff's expert witnesses' testimony at face value, this testimony would itself support the trial court's findings. However, we may not do so. "'The chief value of an expert's testimony in this field, as in all other fields, rests upon the *material* from which his opinion is fashioned and the *reasoning* by which he progresses from his material to his conclusion; . . . it does not lie in his mere expression of conclusion." [People v. Bassett (1968) 69 Cal.2d]

²⁷ The material upon which the expert relies may provide substantial evidence to support the expert's conclusion. However, there are limitations on an expert's testimony about that material. "What an expert *cannot* do is relate as true case-specific facts asserted in hearsay statements, unless they are independently proven by competent evidence or are covered by a hearsay exception." (*People v. Sanchez* (2016) 63 Cal.4th 665,

122, 141.) "Where an expert bases his conclusion upon assumptions which are not supported by the record, upon matters which are not reasonably relied upon [by] other experts, or upon factors which are speculative, remote or conjectural, then his conclusion has no evidentiary value. [Citations.] In those circumstances the expert's opinion cannot rise to the dignity of substantial evidence. [Citation.] When a trial court has accepted an expert's ultimate conclusion without critical consideration of his reasoning and it appears the conclusion was based upon improper or unwarranted matters, then the judgment must be reversed for lack of substantial evidence." (Pacific Gas & Electric Co. v. Zuckerman (1987) 189 Cal.App.3d 1113, 1135–1136.) "If [the expert's opinion is not based upon facts otherwise proved, or assumes facts contrary to the only proof, it cannot rise to the dignity of substantial evidence." (Estate of Powers (1947) 81 Cal.App.2d 480, 485–486.)

Consequently, a conclusion expressed by an expert cannot provide by itself substantial evidence to support a finding unless the basis for the expert's conclusion is itself supported by substantial evidence. Our substantial evidence review must include a critical examination of the material upon which the experts based their conclusions in order to determine whether that material provides substantial support for those conclusions.

^{686.)} We will consider defendants' hearsay challenges in section $\mathrm{IV}(J)(l)$ of this opinion.

2. Actual Knowledge

Defendants claim that the trial court did not find actual knowledge, but only constructive knowledge, and that its knowledge findings are not supported by substantial evidence.

Constructive knowledge would not be sufficient to support plaintiff's public nuisance cause of action. The standard set by this court in Santa Clara I is actual knowledge, not constructive knowledge. "[L]iability is premised on defendants' promotion of lead paint for interior use with knowledge of the hazard that such use would create. This conduct is distinct from and far more egregious than simply producing a defective product or failing to warn of a defective product [¶] A public nuisance cause of action is not premised on a defect in a product or a failure to warn but on affirmative conduct that assisted in the creation of a hazardous condition. Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards." (Santa Clara I, supra, 137 Cal.App.4th 292, 309-310, boldface & italics added.) By tethering the public nuisance cause of action to affirmative promotion for a use defendants knew to be hazardous, this court necessarily set forth an actual knowledge standard. If the standard had been only constructive knowledge, the affirmative promotion of a product for a particular use that was hazardous would not have been "far more egregious" than simply failing to warn of a defective product.

We reject defendants' claim that the trial court did not find "actual knowledge." The trial court's statement of decision expressly found that all three defendants had "actual knowledge of the hazards of lead paint—including childhood lead poisoning" when they produced, marketed, sold, and promoted lead paint for residential use. It found: "ConAgra had actual knowledge of the hazards of lead paint including childhood lead poisoning—for the duration of its production, marketing, and sale of lead pigments and paint for home use"; "NL had actual knowledge of the hazards of lead paint, including childhood lead poisoning"; "SW[C] had actual knowledge of the hazards of lead paint—including childhood lead poisoning—for the duration of its production, marketing, and sale of lead pigments and lead paint for home use."

While the standard we established in Santa Clara I is actual knowledge, our substantial evidence review remains deferential, and we must accept any reasonable inferences that the trial court drew from the evidence before it. The fact that the trial court was required to find actual knowledge does not mean that the court could not rely exclusively on circumstantial evidence to support such a finding. The only limit on the trial court's reliance on inferences from circumstantial evidence to establish actual knowledge is that those inferences may not be speculative or conjectural. "'"Actual knowledge can be inferred from the circumstances only if, in the light of the evidence, such inference is not based on speculation or conjecture. Only where the circumstances are such that the defendant 'must have known' and not 'should have known' will an inference of actual knowledge be permitted." [Citation.]' " (Romero v. Superior Court (2001) 89 Cal.App.4th 1068, 1082.) This distinction between what a defendant must have known and what a defendant should have known is crucial. Proof of actual knowledge focuses on what information a defendant must have been aware of, while proof of constructive knowledge rests on a defendant's duty to discover information.

We reject defendants' claim that the court left undefined the nature of the "hazard" or "harm" that defendants had knowledge of when they promoted lead paint for interior residential use. The court expressly found that defendants "learned about the harms of lead exposure through association-sponsored conferences." It expressly found that defendants knew in the 1930s that "the dangers of lead paint to children were not limited to their toys, equipment, and furniture." The court expressly found that defendants knew both that "high level exposure to lead—and, in particular, lead paint—was fatal" and that "lower level lead exposure harmed children." The court also found that, by the 1920s, defendants knew that "lead paint used on the interiors of homes would deteriorate, and that lead dust resulting from this deterioration would poison children and cause serious injury."

The trial court's express findings made clear that the "harms" and "hazards" of which defendants had actual knowledge included that (1) "lower level lead exposure harmed children," (2) "lead paint used on the interiors of homes would deteriorate," and (3) "lead dust resulting from this deterioration would poison children and cause serious injury." Because the trial court made the express findings that defendants sought in their objections to the court's proposed

statement of decision, we are not precluded from drawing inferences in support of the trial court's decision. In any case, the court's express findings fully suffice to support its decision.

Here, the trial court properly focused on evidence of information that defendants *must have been aware of* under the circumstances. This evidence was sufficient to support a reasonable inference that each defendant *must have known* by the early 20th century that interior residential lead paint posed a serious risk of harm to children.

First, evidence before the trial court established that, by 1914, it was well known in the paint manufacturing industry that deteriorated lead paint on residential interiors, particularly doors and windowsills, released "small particles" of lead into the air, which were "very dangerous" to and could be ingested by humans and "poison" them.

In May 1910, the United States House of Representatives' Committee on Interstate and Foreign Commerce held a hearing on a bill aimed at preventing lead poisoning. The bill would have required products containing white lead to "be labeled conspicuously and securely with a skull and crossbones and the words: poison.' " 'White lead: Congressman Richard Bartholdt, who was the sponsor of the proposal, explained to the committee that "the painters of the United States," who had originally opposed the proposal, had "practically all come around now" to supporting regulation of white lead. Bartholdt pointed out that France had already "entirely prohibited the use of white lead because of its injurious character"

and that "all countries of Europe" had already enacted legislation like his proposal.

Bartholdt explained: "We know very little of the injurious effect of these atoms of white lead that are filling the air now; they come loose from doors, from window sills, from everywhere, we inhale them and consequently disease is caused which physicians do not understand and can not say what it really is, but it is, in many cases, simply a case of lead poisoning." One of the proponents of the bill told the committee that "the most eminent scientists and doctors of Great Britain" had "found that the small particles that result from chalking, especially from internal painting and external painting as well, when taken by inhalation into the lungs, are absorbed and become a poison to the system." He also stated that an "eminent scientist" in London had said that occupying a room that had been painted with white lead was "dangerous."

Eugene Philbin attended the hearing as "counsel for, I think, practically all of the paint manufacturers of this country—the leading ones," to state their opposition to the proposal. Philbin said that he represented not only the "Paint Manufacturers' Association" but also the "National Paint, Oil, and Varnish Association." Philbin objected to the "poison provision" on the ground that it was "entirely unnecessary" and would "create a fear on the part of the consumer." The bill failed.

A few years later, in 1914, Gardner, the director of the Paint Manufacturers Association's Educational Bureau, published a speech that he had given to the International Association of Master House Painters and Decorators of the United States and Canada at that association's annual convention in February 1914. In this speech, Gardner acknowledged that "the presence of [white lead] dust in the atmosphere of a room is very dangerous to the health of the inmates." He observed that "[l]ead poisoning may occur through inhalation of [lead] dust...." Gardner suggested that "white lead flatted with turpentine" was to blame for the disintegration of white lead paint into white lead dust.²⁸ However, Gardner expressed the belief that "the use of flatted white lead has been largely abandoned for wall and ceiling decoration, and its place has been taken by the more sanitary leadless Flat Wall Paints."

Notwithstanding Gardner's belief, interior residential use of lead paint continued throughout the first half of the 20th century despite widespread knowledge in the paint industry of the toxic properties of white lead. NL, SWC, and Fuller were all leaders in the lead paint industry. SWC proclaimed itself in 1901 to be "the largest manufacturer of Prepared Paint in the world." In 1934, SWC called itself the "World's Largest Paint Producer" and identified itself as "one of the country's largest producers of White Lead." NL took pride in its position as a leader in the white lead industry since 1891. In 1912, NL made more than 20 different brands of Dutch Boy White Lead for painting, the brand that it had adopted in

²⁸ In 1914, it had long been a common practice to mix lead paint with turpentine. That practice did not end. Fuller's 1931 White Lead Paint brochure instructed users to mix the lead paint with turpentine. NL's 1950 Handbook on Painting recommended mixing lead paint with turpentine when painting interior woodwork.

1907. By the late 19th century, Fuller was the leading seller of white lead on the West Coast and was "one of the strongest concerns dealing in paints, oils and glass in the United States."

NL, SWC, and Fuller, as leaders in the lead paint industry were well aware in the early part of the 20th century that lead dust was poisonous. They were also aware that lead paint "powders and chalks" "soon after it is applied" and routinely produces lead dust after a couple of years. Both the May 1910 congressional hearing and the published 1914 Paint Manufacturing Association speech plainly discussed the dangers posed by interior residential use of lead paint. Because defendants were leaders in the paint industry at that time, they must have been aware of hazards related to their products that were well known in the paint industry. It is neither speculative nor conjectural to draw a reasonable inference that leaders in the paint industry were aware of a serious hazard caused by their product when this hazard was generally known in their industry. Indeed, it would be unreasonable to infer that, notwithstanding general knowledge of the hazard of their products within the industry, defendants somehow managed to avoid learning of this hazard.

Second, the reasonable inference arising from the 1910 and 1914 evidence of what was generally known in the paint industry was further supported by evidence that Fuller, NL, and SWC were each the recipient of confirmatory information about this hazard from the LIA in the 1930s. Each of the defendants was a member of the LIA in the 1930s when the LIA promulgated information to its members about the "frequent occurrence" of children

being poisoned by lead paint from "toys, cradles, and woodwork," which included the fact that even a small amount of lead could kill a child. The LIA information given to its members (including all three defendants) referenced a national newspaper article that had stated that "[c]hildren are very susceptible to lead" and that the "most common sources of lead poisoning in children are paint on various objects within reach of a child and lead pipes" Defendants, as the recipients of this information from the LIA, must have been aware at that time, in the early 1930s, of the hazard to children created by the interior residential use of lead paint. The fact that this information confirmed the prior information of which they also must have been aware served to solidify the foundation for the trial court's actual knowledge findings.

All of this evidence provided substantial support for the trial court's actual knowledge findings as to the three defendants under our deferential standard of review. "The fact that it is possible to draw some inference other than that drawn by the trier of fact is of no consequence. . . . We must therefore view the evidence in the light most favorable to the prevailing party, giving it the benefit of every reasonable inference" (Jessup Farms v. Baldwin (1983) 33 Cal.3d 639, 660.)

Here, the evidence, while circumstantial, was sufficient to support reasonable inferences that defendants *must have known* in the early 20th century that interior residential lead paint posed a serious risk of harm to children. Since these reasonable inferences support the trier of fact's express findings that NL, SWC, and Fuller harbored the requisite actual

knowledge, our deferential standard of review precludes us from drawing contrary inferences, and we must uphold the trial court's actual knowledge findings.

ConAgra claims that there was no evidence that its predecessor, Fuller, knew in the early 20th century that the use of lead paint in residential interiors would pose a public health hazard. It maintains that Fuller either did not know that children were consuming lead paint or knew of only "isolated cases" of such behavior that did not amount to a public health hazard. ConAgra also contends that Fuller could not have been aware of the risk of lower BLLs, since no test for BLLs existed at the time, and could not have known of the specific pathways by which children consume lead dust, which were not proved until much later.

By 1914, as a major producer of lead paint since the previous century, Fuller was well aware of the public health hazard posed to children by interior residential lead paint. The 1910 congressional hearing and the 1914 published speech provide very circumstantial evidence of Fuller's actual knowledge. Fuller could not have failed to learn from the hearing and the article that deteriorated interior residential lead paint posed a "very dangerous" risk to the "health" of the inhabitants of those residences. Of course, this knowledge was reinforced by information that the LIA distributed to its members, including Fuller, in the 1930s discussing how it was a "frequent occurrence" that children were poisoned by lead paint from "toys, cradles, and woodwork" and noting that even a small amount of lead could kill a child.²⁹

In light of these facts, there is no merit to ConAgra's claims that Fuller did not know children were consuming lead paint, that Fuller believed that such events were infrequent, and that Fuller could not have known that a small amount of lead could harm a child. Since Fuller was aware that deteriorating interior residential lead paint exposed the occupants of the residence to "very dangerous" lead dust, knowledge of the specific pathway by which children consume lead dust was not essential for Fuller to be aware that lead paint on residential interiors posed a risk of serious harm to children.

ConAgra also claims that the evidence was insufficient to show Fuller's knowledge because the trial court erroneously permitted plaintiff's experts to opine about Fuller's knowledge. Since the material

²⁹ ConAgra contends that Fuller could not acquire knowledge through the LIA because the LIA was not Fuller's agent. It was Fuller's *own participation* in the LIA that led it to acquire the requisite knowledge, not by means of any agency relationship between Fuller and the LIA.

ConAgra argues that the trial court could not reasonably rely on Fuller's knowledge through the LIA because the court found that ARCO did not have knowledge through the LIA. The trial court's finding as to ARCO did not expressly relate to the LIA. The court found only that ARCO and its predecessors did not have knowledge of "adverse health effects from exposure to residential lead paint during the relevant time period." Indeed, the court's rejection of liability for ARCO was based primarily on a lack of evidence connecting ARCO's predecessors to the 10 jurisdictions. ConAgra makes no attempt to demonstrate that the evidence of Fuller's participation in the LIA was identical to that of ARCO's predecessors.

upon which the experts' opinions were based provides substantial support for those opinions, the court did not err in admitting and relying on those opinions. We assess ConAgra's claim that some of the documents relied on by the experts were inadmissible hearsay in section IV(J)(l) of this opinion.

ConAgra asserts that Fuller was aware of the dangers of lead dust solely in the occupational context. As we have already explained, the evidence supports the trial court's finding that Fuller was aware of the risks posed by lead paint on residential interiors. We reject ConAgra's challenge to the sufficiency of the evidence to support the trial court's express finding that Fuller was aware of the public health hazard to children posed by lead paint in residential interiors.

NL claims that the evidence was insufficient to support the trial court's actual knowledge finding because plaintiff was required to prove that NL had "knowledge in the early 1900s that children could get dangerous levels of blood lead from intact lead paint anywhere in any home ... via invisible dust." NL's claim is misleading. Our review of the trial court's actual knowledge finding requires us to examine the record to determine whether there is substantial evidence that NL knew in the early 1900s that interior residential lead paint posed a significant risk of harm to children. We need not find evidence that NL understood *precisely how* children could be harmed by interior residential lead paint so long as there is substantial evidence that NL knew that interior residential lead paint posed a significant risk of harm to children.

Our examination of the record reveals that it contains substantial evidence that NL had the requisite actual knowledge by 1914. The 1910 congressional hearing and the 1914 published speech were sufficient to make a leader in the lead paint industry aware of the risk of serious harm that interior residential lead paint posed to children. NL claims that there was not substantial evidence that it was aware in the early 20th century of the risks to children of "low-level" lead exposure. Since the information of which NL was aware suggested that even adults were at serious risk from interior residential lead paint, NL could not have failed to understand that the risk to children would be at least as great. NL, like Fuller, subsequently gained further knowledge, from its participation in the LIA, that children who ingested even very small amounts of lead could suffer serious harm. The LIA informed its members in the 1930s that even a small amount of lead could kill a child. And, at a 1937 LIA conference, a doctor informed LIA members that "[t]o get rid of the lead in children is almost impossible."

We find substantial evidence in the record to support the trial court's finding that NL had actual knowledge of the risk of harm to children from interior residential lead paint.

SWC claims that the trial court's finding that it had actual knowledge of the risk of harm to children from interior residential use of lead paint was based on "hindsight" because SWC could not have known "of today's alleged risk to children from ultra-low BLLs that can come from ingesting lead in household dust." SWC's premise is flawed. The trial court's actual knowledge finding may be upheld if there is

substantial evidence that SWC was aware at the relevant time that interior residential lead paint posed a significant risk of harm to children. It was not necessary for there to be proof that SWC was aware of the precise pathway by which children were exposed to lead and or that those harms could occur even at low BLL levels, particularly since there was no BLL test in existence at the relevant time.

The evidence presented at trial established that SWC knew no later than 1900 that lead paint was prone to deterioration and that it posed a serious risk of harm to those exposed to it. SWC began making lead paint in 1880. By 1900, it knew that, because lead was a "deadly cumulative poison," and lead paint tended to deteriorate, lead paint could be seriously dangerous.

SWC claims that its knowledge in 1900 of risks from deteriorating lead paint was limited to exterior use of lead paint, but the trial court could have reasonably concluded that SWC knew that the deterioration of interior residential lead paint would pose an even more serious risk that would be heightened with respect to young children who were necessarily confined to the interiors of their homes. We conclude that substantial evidence supports the trial court's finding that SWC had actual knowledge of the serious risk of harm to children from interior residential lead paint.

3. Creating or Assisting in Creating a Public Nuisance: Promotion

Defendants challenge the trial court's findings that they affirmatively promoted lead paint for interior residential use. "'[T]he critical question is whether the defendant created or assisted in the creation of the nuisance.'" (Santa Clara I, supra, 137 Cal.App.4th at pp. 305–306.) "A public nuisance cause of action is not premised on a defect in a product or a failure to warn but on affirmative conduct that assisted in the creation of a hazardous condition. Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards." (Santa Clara I, at pp. 309–310, italics added.)

Defendants claim that the court could not base its promotion findings on their advertising without violating the First Amendment.³⁰ They also contend

Furthermore, the only case they cite in support of this claim is one in which the Court of Appeal acknowledged that a heightened standard of review is appropriate where the issue is whether a communication is unlawful. (San Francisco Unified School Dist. ex. rel. Contreras v. First Student, Inc. (2013) 213 Cal.App.4th 1212, 1228.) In that case, the trial court had issued an injunction barring certain communications. (Id. at p. 1228.)

³⁰ In a reply brief, defendants claim for the first time that we must apply a heightened standard of substantial evidence review to the court's promotion finding because "First Amendment rights are at stake." Appellate courts ordinarily do not consider new issues raised for the first time in an appellant's reply brief because such a tactic deprives the respondent of the opportunity to respond to the contention. (*Reichardt v. Hoffman* (1997) 52 Cal.App.4th 754, 764–765 (*Reichardt*).) It is only upon a showing of good cause for failing to raise the issue earlier that an appellate court will address an issue that is initially raised in the reply brief. (*Ibid.*) We decline to address this issue as defendants have made no showing of good cause, and plaintiff has had no opportunity to address this issue.

that reliance on the promotional advertising activities of the LIA and the NPVLA would violate their First Amendment right to free association.³¹ In addition, the three defendants individually challenge the sufficiency of the evidence to support the court's findings that each of them affirmatively promoted lead paint for interior residential use.

Defendants' reliance on the First Amendment is misplaced. While "the creation and dissemination of information are speech within the meaning of the First Amendment" (Sorrell v. IMS Health Inc. (2011) 564 U.S. 552, 570), "[t]he Constitution . . . accords a lesser protection to commercial speech than to other constitutionally guaranteed expression." (CentralHudson Gas & Elec. Corp. v. Public Service Commission of New York (1980) 447 U.S. 557, 562–563 (Central Hudson).) "[T]here can be no constitutional objection to the suppression of commercial messages that do not accurately inform the public about lawful The government may ban forms communication more likely to deceive the public than to inform it, [citations], or commercial speech related

Here, the only plausible First Amendment issue is defendants' contention that their "promotion" of lead paint for interior residential use was protected by the First Amendment. The trial court's order did not bar any communications. In any case, since we conclude as a matter of law that their advertisements were not protected by the First Amendment, application of a heightened standard of review would not assist defendants.

³¹ Defendants objected in the trial court on First Amendment grounds to evidence that they had used commercial speech to promote lead paint for interior residential use. They also objected on First Amendment freedom of association grounds to evidence based on their membership in the LIA and the NPVLA. The court overruled both objections.

to illegal activity, [citation]."³² (Central Hudson, at pp. 563–564.)

"[T]he State does not lose its power to regulate commercial activity deemed harmful to the public whenever speech is a component of that activity." (Ohralik v. Ohio State Bar Ass'n (1978) 436 U.S. 447, The California Supreme Court has already acknowledged that holding defendants liable in this case for the public nuisance created by their promotion of lead paint for interior residential use will not "prevent defendants from exercising any First Amendment right or any other liberty interest. Although liability may be based in part on prior commercial speech, the remedy will not involve enjoining current or future speech." (Santa Clara II, supra, 50 Cal.4th at p. 55; see also People v. Superior Court (Olson) (1979) 96 Cal. App. 3d 181, 195 [imposing civil "penalties for the negligent dissemination of untruthful or misleading advertising does not offend the First Amendment."].)

Defendants' lead paint promotional advertising and participation in trade-association-sponsored lead paint promotional advertising were not entitled to any First Amendment protections. Promotion of lead paint

³² "If the communication is neither misleading nor related to unlawful activity, the government's power is more circumscribed. . . . Compliance with this requirement may be measured by two criteria. First, the restriction must directly advance the state interest involved; the regulation may not be sustained if it provides only ineffective or remote support for the government's purpose. Second, if the governmental interest could be served as well by a more limited restriction on commercial speech, the excessive restrictions cannot survive." (Central Hudson, supra, 447 U.S. at p. 564.)

for interior residential use necessarily implied that lead paint was safe for such use. If defendants promoted lead paint for interior residential use while knowing that such use would create a public health hazard, then their promotions were misleading and not entitled to any First Amendment protection. If, on the other hand, defendants did not promote lead paint for interior residential use, or did not know at the time they did so that such use would create a public health hazard, those promotions would not establish that defendants created or assisted in the creation of a public nuisance. As any wrongful promotions would be misleading and not entitled to First Amendment protection, we find no First Amendment bar to the trial court's reliance on defendants' promotions.

Defendants also make individual challenges to the sufficiency of the evidence to support the trial court's findings that each of them affirmatively promoted lead paint for interior residential use while knowing of the public health hazard that such use would create. Our review of these contentions requires us to examine, among other things, the hundreds of advertisements upon which plaintiff relied to show that defendants had promoted lead paint for interior residential use. We must note at the outset that, for a number of reasons, a large number of these advertisements did not promote interior residential use of lead paint.

Some of these advertisements expressly promoted only *exterior* use of lead paint. Others promoted a particular brand without specifying any particular paint. Numerous advertisements promoted lead paint as "house paint" without expressly promoting it for interior use.

Another group of these advertisements promoted interior use of a particular paint without identifying that paint as a lead paint, and without other evidence that the particular paint promoted for interior use in these advertisements was a lead paint. Stipulations between plaintiff and NL and between plaintiff and SWC established that certain paints promoted by NL and SWC were lead paints, but there was no such stipulation with regard to Fuller or as to paint companies acquired by NL or SWC. And many of the advertisements were not specific enough to identify the promoted paint as one of those identified in the stipulations.

Many of the advertisements were not placed by NL, SWC, or Fuller, but instead by a paint store or a hardware retailer. While there was evidence that SWC financed half of the cost of its authorized dealers' local advertisements and that NL "consistently supported dealers' local advertising," plaintiff's expert acknowledged that there was no such evidence as to Fuller. As there was no evidence that Fuller had any involvement in the placement of advertisements by hardware and paint stores, advertisements by those stores cannot be attributed to Fuller and cannot show that Fuller promoted lead paint for interior residential use. 33

³³ For instance, a 1916 Santa Clara County "Farmers Union" advertisement promoted for interior use a lead paint made by a company acquired by Fuller. A 1934 advertisement placed by a Monterey hardware store promoted Fuller's lead paint "for use on interior and exterior surfaces." A 1940 Solano County hardware store advertisement promoted Fuller's lead paint for "interior surfaces." A 1942 Monterey County paint store advertisement promoted Fuller's lead paint for interior use. A 1949 Vallejo paint

Plaintiff also relied on the LIA's two promotional campaigns. The member companies that participated in these campaigns funded them. Fuller was a member of the LIA from 1928 to 1958. SWC was a member of the LIA from 1928 to 1947. NL was an LIA member from 1928 to 1978. NL and Fuller participated in both of the LIA's campaigns; SWC participated in only the Forest Products campaign and contributed funds to that campaign only from 1937 to 1941.

Because the LIA's promotional campaigns affected multiple defendants, we detail those campaigns at the The Forest Products campaign, which ran from 1934 to 1941, was aimed at having manufacturers of lumber, window frames, and doors endorse lead paint. The purpose of the Forest Products campaign, which was active in California, was to promote the use of lead paint on lumber and in residences. In 1934, the LIA persuaded lumber manufacturers associations on the West Coast to recommend the use of lead paint on lumber by "enclos[ing] 'Painting Instructions' folders with all bundles of siding" in 1935.34 In 1938, the LIA persuaded the Western Pine Association to paint its model home at the San Francisco World's Fair "inside

store advertisement promoted Fuller's lead paint as an "all-purpose house paint."

³⁴ Plaintiff's expert testified that these painting instructions included "methods for how to use paint on sidings and on floors and on objects in homes" (Italics added.) The painting instructions were not in evidence, and the expert relied solely on an LIA document that referred only to "siding." The expert also asserted that these instructions pertained to "siding interiors," but he did not explain why the word "siding" would have been used in the 1930s in reference to interior paneling.

and out with white lead and publicize this specification." Also in 1938, the LIA persuaded "sash [(window frame)] and door manufacturers" to put labels on 20,000,000 sashes and doors "featuring the use of white lead and high-grade prepared paint." In 1939, the LIA board was apprised that, due to the Forest Products campaign, " '[a]ll of the principal producers of soft and hard lumber in the United States such as redwood, cypresses, cedar, pine and others, now specify white lead or high grade prepared paint which contain white lead."

The LIA's White Lead Promotion campaign, which ran in two phases, phase one from 1939 to 1944 and phase two from 1950 through 1952, was intended to increase the market for white lead.35 This campaign produced hundreds of advertisements promoting white lead. LIA advertisements in 1939 and 1940 expressly promoted lead paint for interior residential use. A 1939 LIA advertisement in the Hardware Retailer reproduced a letter to the LIA from the Douglas Fir Plywood Association touting lead paint for interior walls and ceilings in addition to "exterior siding." In 1940, LIA advertisements in "National Painters Magazine" and "American Painter and Decorator" promoted interior residential use of lead paint and proclaimed such things as "white lead lends itself ideally to any paint styling desired by owner or architect, inside or out." 1940 LIA advertisements in American Paint and Oil Dealer, American Painter and Decorator, National Painters Magazine, The Painter

³⁵ Other LIA advertisements in 1939 and 1940 did not expressly promote lead paint for interior use and mentioned only exterior use.

and Decorator, American Builder, Hardware Retailer, and Hardware Age all promoted lead paint for interior residential use.

By 1941, the LIA's campaigns had created a great increase in the sale of lead paint compared to non-lead paint. During the war, lead paint sales declined, and they continued to decline after the war. The LIA briefly revived the White Lead Promotion campaign in the early 1950s, but it subsequently stopped specifically promoting white lead paint. Although the LIA's campaigns did not reverse the long-term trend of less use of lead pigments, these campaigns did prolong the use of lead pigments that otherwise probably would have ceased to be used.³⁶ More white lead was used during the Depression (the late 1920s and 1930s) than had been used previously, and the LIA attributed this increase to its campaigns.

With this background in mind, we proceed to review defendants' individual contentions.

a. ConAgra

ConAgra contends that there is not substantial evidence that Fuller promoted lead paint for residential interiors with the requisite knowledge because (1) Fuller's post-1929 advertisements did not tell consumers to use lead paint on residential interiors, (2) Fuller's post-1935 advertisements did not mention lead or were only for exterior paint, (3) Fuller did not sell any lead paint for interiors after 1948, and (4) Fuller did not participate in the LIA's promotions.

 $^{^{36}}$ It was unclear whether white lead sales would have declined more quickly if there had been no White Lead Promotion campaign.

Evidence at trial established that Fuller sold lead paint in the 10 jurisdictions from 1894 to 1961. Between 1894 and 1948, Fuller marketed two lead products: Pure Prepared Paint and Pioneer White Lead in Oil.³⁷ Fuller also marketed paints and other coatings that did not contain lead. Fuller's lead paints were sold at its own stores and by independent dealers in all 10 jurisdictions between 1894 and 1961. Plaintiff's experts testified that Fuller promoted the use of white lead by distributing brochures for consumers and painters that instructed them to use Fuller's lead paints for residential interiors and They also exteriors. asserted that advertisements in the 10 jurisdictions instructed consumers to use Fuller's white lead paints on their residences.

A large number of the advertisements for Fuller products in the record are not for Fuller's lead paint but for other Fuller paints or coatings.³⁸ Another group of these advertisements simply generally advertised Fuller paints with no specification of which ones or without specifying for what purposes, or with specifications of the purposes for each paint that did not suggest that Fuller's lead paint be used for interiors. Plaintiff's expert testified: "In my expert opinion, they all are advertising Fuller Paints which contain lead. And they are actually ads that are

³⁷ Fuller also owned the Phoenix and Nason paint companies and marketed Phoenix's lead paint.

³⁸ The record contains hundreds of advertisements for Fuller products. Fuller advertised its "Nitrokote," "Fullerglo," "Enamel," and other specific paints, and there was no evidence that these paints contained lead.

informing consumers to use Fuller products without any acknowledgment they are containing lead. Some of them have lead in it, some don't." Since plaintiff's expert acknowledged that Fuller made both lead paint and non-lead paint, the mere fact that Fuller advertised its products does not establish that it promoted its lead paint for interior residential use. We disregard plaintiff's expert's testimony on this point because it lacks any rational basis in the evidence.

Many advertisements in the record were for Fuller's lead paint but did not expressly suggest that it be used for interiors. Some of these advertisements described Fuller's lead paint as "house paint." However, another group of Fuller advertisements explicitly promoted Fuller's lead paints for "all" residential purposes. For example, a 1927 Monterey Fuller advertisement promoted Fuller's lead paint "for all general purposes." Fuller advertisements in 1937 in the San Francisco Chronicle and the Los Angeles Times described Fuller's lead paint as "all purpose, 'house' paint." While these advertisements suggested that Fuller's lead paint could be used for any purpose, including interior residential use, the most important evidence of Fuller's promotion of its lead paint for interior residential use was Fuller's 1931 brochure for its lead paint. This brochure's "Directions for Use" instructed consumers to use this lead paint for residential Since Fuller's advertisements frequently interiors. suggested that consumers obtain brochures from a Fuller dealer, the brochure's "Directions for Use" amounted to instructions to all of those who purchased Fuller's lead paint to use it for residential interiors. Fuller also participated in both of the LIA's promotional campaigns in the 1930s and 1940s, which promoted lead paint for interior residential use.

This evidence rebuts ConAgra's contentions. Fuller did promote its lead paint after 1929 and after 1935, both by instructing consumers to use its lead paint for interior residential use and by participating in the LIA's campaigns promoting lead paint for interior residential use. It is immaterial whether Fuller's advertisements mentioned the word "lead" so long as the paint promoted in the advertisement was a lead paint, as it was. Fuller's claim that it ceased to produce and sell lead paint in 1948 is immaterial even if true. It was not necessary to show that Fuller continued to assist in the creation of the public nuisance throughout the entire period if its conduct constituted a substantial factor in causing the public nuisance (an issue we address in section IV(A)(4) of this opinion). Fuller's claim that it did not participate in the LIA's promotions was rebutted by substantial evidence at trial.

We conclude that there is substantial evidence that Fuller itself promoted its lead paint for interior residential use at least beginning in 193 1 and that it continued to do so as part of the LIA's promotional campaigns in the 1930s and 1940s. Since the evidence supports the trial court's finding that Fuller knew of the danger that such use would create for children at that time, there is substantial evidence that Fuller promoted lead paint for interior residential use with the requisite knowledge.

b. NL

NL contends that its advertisements were not misleading because they merely described how well lead paint would protect and beautify interior walls and woodwork. As we have already explained, promotion of lead paint for interior residential use was inherently misleading because it implicitly asserted that it was safe for such use when it was not. NL also asserts that the court's promotion finding cannot be upheld because there was no evidence that NL promoted lead paint for interior residential use after 1950. As we have noted above, the period during which a defendant assisted in the creation of a public nuisance is relevant only as to causation; it does not rebut a showing of affirmative promotion with the requisite knowledge.

Substantial evidence supports the trial court's finding that NL affirmatively promoted lead paint for interior residential use with the requisite knowledge. NL stipulated that it manufactured, sold, and promoted lead paint for residential use in the 10 jurisdictions from 1900 to 1972 and that its "White Lead-in-Oil," "Dutch Boy House Paint 104," "Dutch Boy House Paint 111," and "Dutch Boy House Paint 116" contained white lead. No evidence was produced at trial that any other NL paint products contained white lead.³⁹

³⁹ Many of the advertisements in the record were for Bass-Hueter products. NL purchased Bass-Hueter Paint Company in 1916, and Bass-Hueter merged with NL in 1930. No evidence was produced at trial that any specific Bass-Hueter paints contained white lead. Although the record contains 1931 advertisements for Bass-Hueter paints that promoted interior residential use, there is no evidence that those paints were lead paints. A 1933 Santa Clara County hardware store advertisement promoted Bass-Heuter Pure Lead and Oil Paint, but it did not suggest that it be used for residential interiors. Although Bass-Heuter advertisements in 1922 in Solano County

Plaintiffs expert testified that NL promoted its Dutch Boy lead paint for interior residential use. NL produced "little illustrated books [in which] children were provided with both a story and a coloring pallet of paint that basically depicted the ways in which Dutch Boy white lead paint protected children from all sorts of onslaughts." He testified that NL "[s]pecifically promoted the use" of lead paint in "play" rooms, . . . homes and on to surfaces and even on their furniture." Plaintiff's expert also noted that NL's advertisements did not necessarily disclose whether NL's lead paint contained lead and did not always distinguish between the use of lead paint on interiors and its use on exteriors. As we will explain, the material upon which plaintiff's expert based his testimony provides substantial support for his testimony.

NL's advertisements from the early 20th century demonstrate that NL repeatedly promoted its lead paint for interior residential use. A 1915 NL advertisement in the San Francisco Chronicle did so. A 1924 NL advertisement in National Geographic Magazine did so. A 1929 NL advertisement in the Los Angeles Times did so. 1929 NL advertisements in the San Francisco Chronicle and the Oakland Tribune promoted lead paint for "your stucco house or for any other surface." (Italics added.) A 1938 San Diego

and in 1925 in Santa Clara County described Bass-Heuter paints as having "permanent pigments, a base consisting of a combination of pure carbonate of lead and oxide of zinc, ground in refined linseed oil," there is no indication that these advertisements were admitted or could properly be admitted for their truth. Accordingly, the Bass-Hueter advertisements do not establish that NL promoted lead paint for interior residential use.

advertisement by a paint store promoted Dutch Boy, NL's brand, as "All Purpose Lead." A 1950 San Diego advertisement by a paint store promoted NL's lead products for interior residential use. And NL participated in both of the LIA's promotional campaigns in the 1930s and 1940s promoting lead paint for interior residential use.

NL's 1929 "paint book" for children showed a "Dutch Boy Painter" who tells the children, "This famous Dutch Boy Lead of mine [¶] Can make this playroom fairly shine [¶] Let's start our painting right away [¶] You'll find the work is only play." The book showed children stirring and painting with clearly labeled containers of Dutch Boy White Lead paint and then playing in their newly painted playroom. At the end of the book, it said: "For durable economical paint inside or outside [¶] Paint with lead [¶] Dutch Boy Every page of the "paint book" White-Lead." instructed children to give their parents the "coupon" in the middle of the book.⁴⁰ NL's paint book contained "paper chips of paint" for children to use to color the pictures in the book. NL used this paint book as a promotion "for many years." This paint book obviously promoted lead paint for interior residential use.

NL's 1949 salesman's manual instructed NL's salesmen that NL's lead paints could "handle *any* painting job, exterior or interior" on any building. The manual told the salesmen that NL's "Lead Mixing Oil" was appropriate for "interior surfaces."

NL's 1950 "Handbook on Painting" encouraged the use of white lead paint on interior surfaces: "On

⁴⁰ In NL's 1949 salesman's manual, NL noted that the "paint book" was one of its "most successful promotions" of its paint.

interiors white lead is desired for its unique richness and solid beauty of finish. Also, the durability of white lead paint enables it to stand up under frequent washing—a big money saver in such places as hospitals and hotels." "The customary flat paint for interior work is made by mixing white lead with either Lead Mixing Oil or flatting oil." "Dutch Boy Lead Mixing Oil, when mixed with white lead in the proper proportions, makes flat paint that can be used on exterior as well as interior surfaces." "Furthermore, white lead and Lead Mixing Oil has the sturdy wear and beauty of finish characteristic of all white lead paint, whether exposed to weather or used inside. [¶] White lead and Lead Mixing Oil can be used for all coats on plaster and wallboard." NL's instructions for use in this handbook explicitly advocated the use of lead paint on interiors.

Substantial evidence supports the trial court's finding that NL affirmatively promoted lead paint for interior residential use with the requisite knowledge. NL extensively promoted its lead paint for interior residential use from 1915 through 1950. Because NL knew of the danger to children from lead paint on residential interiors no later than 1914, substantial evidence supports the trial court's finding that NL's subsequent promotions of lead paint for such use were done with the requisite knowledge.

c. SWC

SWC contends that plaintiff did not present evidence of any advertisement by SWC promoting lead paint for interior residential use.

SWC stipulated that it began manufacturing lead paint in 1880 and began manufacturing white lead carbonate pigment in 1910. SWC manufactured Old Dutch Process (ODP) white lead in oil from 1910 to 1947. SWC manufactured "Inside Floor Paint," some colors of which contained white lead, between 1910 and 1913. SWC's other white lead paints were some of its SWP "house paint" colors until 1950, some of its "Family Paint" colors in the 1940s,⁴¹ its "Porch and Deck" paint, and its "Concrete & Stucco" paint.⁴² SWC also sold Monarch House Paint, ACME Quality House Paint, and Lowe Brothers High Standard House Paint, which were all lead paints. In a 1934 promotional booklet, SWC proclaimed that it was the "world's largest paint producer" and "one of the country's largest producers of White Lead."

⁴¹ SWC and plaintiff stipulated that there was "no evidence" that SWC's "Family Paint," a paint that was intended for and promoted for interior residential use, "ever contained white lead sulfate" or "ever contained white lead carbonate pigment prior to 1941." Interestingly, SWC's 1926 training manual for its representatives stated that Family Paint, which it stated "will give good service on inside work," contained "White Lead Sulfate" pigment. SWC and plaintiff also stipulated that they had discovered no post-1936 advertisements for SWC's Family Paint.

In view of the parties' stipulations, we are required to disregard evidence that SWC's Family Paint was promoted for interior residential use prior to 1941. 1901 and 1904 advertisements in the Los Angeles Times promoted SWC Family Paint for interior use. A 1923 SWC advertisement in the San Francisco Examiner promoted SWC's Family Paint as "an all-round paint for inside use." A 1926 advertisement in the Oakland Tribune promoted SWC Family Paint as a "household paint."

⁴² For instance, SWC's SWP Mildew Resisting White paint contained lead prior to 1954. Some of the colors in SWC's SWP Colors contained lead until 1950. In 1938, SWC also sold a lead paint called Zilo.

SWC promoted and sold its white lead products for residential use in the 10 jurisdictions. The primary message conveyed in advertisements for SWC's paints, Monarch paints, and ACME's paints was that there was a specific coating for each purpose and that it was important to get the right coating for each type of use. For example, a 1903 SWC advertisement read: "No matter what you want to paint, ... you'll get best results and save money if you use [¶] THE SHERWIN-WILLIAMS PAINTS [¶] A special paint for each A large group of SWC advertisements simply generically advertised SWC's brand, without specifying any particular paints. Many SWC advertisements were for SWC's non-lead "Kemtone" paint.

Advertisements for SWC's SWP House Paint often specified that it was for exterior use. Others simply referred to SWP as "house paint" without mentioning interior use. Still others identified SWP as being for "wood surfaces" or for all "woodwork" surfaces. However, there were also advertisements promoting SWP for interior residential use. 1904 SWC advertisements in the Los Angeles Times and the San Diego Union promoted SWP for "inside" use. ⁴³ In addition, SWC participated in the LIA's Forest

⁴³ Although many of the advertisements for SWC paints were placed by hardware stores or other retailers, SWC paid half of the cost of advertising by its authorized dealers, so these advertisements may properly be attributed to SWC. A 1924 lumber store advertisement in Monterey for Monarch lead paint suggested that it could be used for interiors. However, the stipulation between SWC and plaintiff was that this paint contained lead between 1925 and 1930, which does not include 1924 when this advertisement was placed.

Products campaign from 1937 to 1941, which promoted lead paint for interior residential use and particularly for use on doors and window frames.

SWC had the requisite knowledge in 1900 of the public health hazard posed by lead paint, but it nevertheless continued to promote lead paint for interior residential use thereafter. This evidence supports the trial court's finding that SWC engaged in the requisite wrongful promotion.

4. Causation

Defendants contend that plaintiff did not produce substantial evidence that their promotions of lead paint for interior residential use were a substantial factor in *causing* the nuisance that the trial court required them to abate. First, they contend that there was no evidence that their promotions actually had an impact on the use of lead paint on residential interiors. Second, they contend that their wrongful promotions were too remote from the current presence of any public health hazard created by interior residential lead paint, which, they claim, is largely due to owner neglect, renovations, intervening actors (architects, painters, etc.), and repainting that has taken place in the interim. Third, they argue that, because they did not promote lead paint for interior residential use after 1950, they could not be held responsible for use of lead paint on residential interiors of homes built after 1950. The trial court's judgment required defendants to remediate interior lead paint in all homes built before 1980, even though most of those homes were built after 1950. Fourth, they maintain that there was no evidence that their promotions of lead paint for interior residential use had a causal connection to the water leaks and soil lead that the court ordered them to remediate. Fifth, defendants claim that plaintiff was required to show that their individual lead paints are currently present in a large number of homes in the 10 jurisdictions. Sixth, they argue that due process requires that their liability for remediation be proportionate to their individual contributions.

Causation is an element of a cause of action for (Melton v. Boustred (2010) 183 public nuisance. Cal.App.4th 521, 542.) "A connecting element to the prohibited harm must be shown." (In re Firearm Cases (2005) 126 Cal.App.4th 959, 988 (Firearm Cases).) The parties agree that the causation element of a public nuisance cause of action is satisfied if the conduct of a defendant is a substantial factor in bringing about the result. (Citizens for Odor Nuisance Abatement v. City of San Diego (2017) 8 Cal.App.5th 350, 359 [applying substantial factor standard in a public nuisance action].) "The substantial factor standard is a relatively broad one, requiring only that the contribution of the individual cause be more than negligible or theoretical.' [Citation.] Thus, 'a force which plays only an "infinitesimal" or "theoretical" part in bringing about injury, damage, or loss is not a substantial factor' [citation], but a very minor force that does cause harm is a substantial factor [citation]." (Bockrath v. Aldrich Chemical Co., Inc. (1999) 21 Cal.4th 71, 79.)

a. Impact and Remoteness

In this case, there was plenty of evidence that defendants' affirmative promotions of lead paint for interior residential use played at least a "minor" role in creating the nuisance that now exists.

First, all three defendants participated in the LIA's Forest Products campaign. The Forest Products campaign began in 1934. In 1935, the LIA reported that its Forest Products campaign had resulted in some manufacturers of leadless paints "changing their formulas to include lead." In 1939, the LIA reported to its members that, as a result of the Forest Products campaign, (1) "[a]ll the principal producers of soft and hard lumber in the United States ... specify white lead or high grade prepared paint which contains white lead" through the "distribution of painting instruction leaflets (2,000,000 copies)"; (2) "[s]ome paint companies have increased the lead content of their paint"; and (3) "sash and door manufacturers" would be producing "20,000,000 labels to be affixed to nearly all the sash and doors in the United States, featuring the use of white lead and high-grade prepared paint." In 1941, the LIA reported that the benefits of the Forest Products campaign were continuing. "Lumber associations continued distributing, at their own expense, thousands of painting leaflets recommending white lead or the highest grade prepared paints to be used on their products" and that the "National Door Manufacturing Association" was "the latest to use painting leaflets" to promote the use of white lead. The lumber manufacturers were continuing to include "painting instruction leaflets" with their lumber products. Since lead paint on doors and windows is one of the most hazardous uses for children due to the dust created by their friction surfaces, this campaign played a significant role in creating the nuisance that now exists.

Second, both NL and Fuller gave consumers of their lead paints explicit instructions to use those paints on residential interiors. Fuller's 1931 brochure for its lead paint contained "Directions for Use" instructing consumers to use this lead paint for residential interiors. Since Fuller's advertisements frequently suggested that consumers obtain brochures from a Fuller dealer, the brochure's "Directions for Use" constituted instructions to all those who purchased Fuller's lead paint to use it for residential interiors. NL produced its 1929 paint book, which promoted lead paint for interior residential use, and NL published its 1950 "Handbook on Painting," which explicitly recommended that consumers use white lead paint on interior surfaces.

by persuading window and door sum, manufacturers to attach written recommendations to all windows and doors that lead paint should be used on those windows and doors, all three defendants certainly played a significant role in causing lead paint to be used on at least some of those windows and doors. Further, NL and Fuller, by explicitly instructing consumers to use their lead paints on residential interiors, played an even more direct role in causing lead paint to be used in such a manner. Again, the trial court could reasonably infer that at least some of those who were the targets of these recommendations heeded them. That is all that the substantial factor test requires.

We cannot credit defendants' claim that there was no evidence that their promotions were even "a very minor force"—"a substantial factor"—in causing the presence of lead paint on residential interiors in the 10 jurisdictions. The LIA's extensive advertising campaigns, in which all three defendants participated, affirmatively promoted to painters, architects, retailers, and consumers the use of lead paint on residential interiors, and each defendant individually promoted to consumers lead paint for use on residential interiors in the 10 jurisdictions. The LIA judged its promotional campaigns to be a success, and the fact that lead paint remains in place on residential interiors in many homes throughout the 10 jurisdictions decades after all of these promotions ceased reflects that this belief was accurate. We find the inference that each individual reasonable defendant's promotion of lead paint for interior residential use, both through the LIA promotional campaigns and their individual promotions, were at least "a very minor force" in leading to the current presence of interior residential lead paint in a substantial number of homes in the 10 jurisdictions.

Defendants also contend that their wrongful promotions were too remote from the current hazard to be its "legal cause." They claim that, due to the lapse of time, this hazard is more closely attributable to owner neglect, renovations, painters, architects, and repainting. "A tort is a legal cause of injury only when it is a substantial factor in producing the injury." (Soule v. General Motors Corp. (1994) 8 Cal.4th 548, 572.) "'" 'Legal cause' exists if the actor's conduct is a 'substantial factor' in bringing about the harm and there is no rule of law relieving the actor from liability. [Citations.]" '[Citations.]" "The doctrine of proximate cause limits liability; i.e., in certain situations where

the defendant's conduct is an actual cause of the harm, he will nevertheless be absolved because of the manner in which the injury occurred." '" (*Lombardo v. Huysentruyt* (2001) 91 Cal.App.4th 656, 665–666.)

'Proximate cause involves two[Citation.] 'One is cause in fact. An act is a cause in fact if it is a necessary antecedent of an event.' [Citation.] ... [¶] By contrast, the second element focuses on public policy considerations. Because the purported causes of an event may be traced back to the dawn of humanity, the law has imposed additional 'limitations on liability other than simple causality.' [Citation.] 'These additional limitations are related not only to the degree of connection between the conduct and the injury, but also with public policy. Thus, 'proximate cause' "is ordinarily concerned, not with the fact of causation, but with the various considerations of policy that limit an actor's responsibility for the consequences of his conduct." '" (Ferguson v. Lieff, Cabraser, Heimann & Bernstein (2003) 30 Cal.4th 1037, 1045.) "[T]here is no bright line demarcating a legally sufficient proximate cause from one that is too remote. Ordinarily the question will be for the [factfinder], though in some instances undisputed evidence may reveal a cause so remote that a court may properly decide that no rational trier of fact could find the needed nexus." (People v. Roberts (1992) 2 Cal.4th 271, 320, fn. 11.)

Defendants argue that they should be absolved of responsibility for the current hazard because their wrongful conduct was "too remote" and "attenuated" from the current hazard.44 This was a question of fact for the trial court. A rational factfinder could have concluded that defendants' wrongful promotions of lead paint for interior residential use were not unduly remote from the presence of interior residential lead paint placed on those residences during the period of defendants' wrongful promotions and within a reasonable period thereafter. The connection between the long-ago promotions and the current presence of lead paint was not particularly attenuated. Those who were influenced by the promotions to use lead paint on residential interiors in the 10 jurisdictions were the single conduit between defendants' actions and the current hazard. Under these circumstances, the trial could have reasonably concluded defendants' promotions, which were a substantial factor in creating the current hazard, were not too remote to be considered a legal cause of the current hazard even if the actions of others in response to those promotions and the passive neglect of owners also played a causal role. The court could therefore have concluded that defendants' promotions were the "legal cause" of the current nuisance.

⁴⁴ The cases that defendants rely on provide no support for their argument. For instance, the portion of *Cabral v. Ralphs Grocery Co.* (2011) 51 Cal.4th 764 (*Cabral*) that they cite concerned a duty determination, not a causation determination. (*Cabral*, at p. 779.) The firearm manufacturers in *Firearm Cases, supra*, 126 Cal.App.4th 959, unlike defendants, did not affirmatively promote their products for a dangerous use. (*Firearm Cases*, at pp. 988–989.) *City of Chicago v. American Cyanamid Co.* (Ill. App. Ct. 2005) 355 Ill.App.3d 209 was decided under Illinois law.

b. Post-1950 Homes

We find merit in defendants' claim that the record lacks substantial evidence to support the court's finding that their wrongful promotions were causally connected to post-1950 homes containing interior lead paint built before 1980.

Plaintiff claims that defendants' wrongful promotions "sustained, increased, and prolonged the use of lead paint in homes throughout the 20th century." (Italics added.) It asserts that this can be "inferred" from the "sheer breadth of Defendants' promotional activities" and the fact that there is currently lead paint in homes in the 10 jurisdictions. Plaintiff also claims that NL continued to promote lead paint for interior residential use beyond 1950.

First of all, plaintiff did not produce any evidence of an affirmative promotion by NL, SWC, or Fuller of lead paint for interior residential use after 1950. The advertisements that plaintiff identifies as post-1950 NL promotions did not promote lead paint for interior residential use. Those advertisements promoted NL's "Dutch Boy" brand of paints and identified interior residential use as one of the uses for NL's "Dutch Boy" brand of paints without suggesting that any lead paint be used for interiors. NL stipulated at trial that its "White Lead-in-Oil" and three of its "Dutch Boy" paints contained white lead, and plaintiff presented no evidence that any other NL paint product contained lead. Since NL indisputably made many Dutch Boy paints, NL's promotion of its brand for many uses, including interior residential use, did not amount to an affirmative promotion of lead paint for interior residential use. Indeed, plaintiff's argument seems to be based on the idea that the mere fact that these advertisements identified National *Lead* Company as the maker of Dutch Boy paints transformed advertisements for non-lead paints for interior use into promotions of lead paint for interior use. We reject this unfounded argument.

NL contends that the evidence could not support a finding that it caused the use of lead paint on residential interiors after 1955 because, according to NL, all lead paint bore a label marking it as not for interior residential use beginning in 1955. The only citation to the record that NL provides is to testimony by a defense expert about a standard created by the American Standards Association in 1955. The expert testified that the LIA had participated in the creation of that standard. He referenced a defense exhibit, a barely legible copy of which appears in the record, that apparently contains the 1955 standard. This standard states: "These specifications cover the requirements for coatings (such as paints, enamels, lacquers, etc. applied in liquid form) which are deemed suitable from a health standpoint to be used to paint children's toys or furniture or interior surfaces so that the danger of poisoning will be minimized if, by chance, some of this coating should be chewed off and swallowed by a "A liquid coating material to be deemed suitable, from a health standpoint, for use on articles such as furniture, toys, etc, or for interior use in dwelling units where it might be chewed by children" should not contain more than 1 percent lead. The standard states that coatings complying with it "may be marked: 'Conforms to American Standard Z66.l-1955, for use on surfaces that might be chewed by children." Notably, this standard does not impose any labeling requirement of any kind on lead paint.

Although one might draw an inference that the LIA's participation in the creation of this standard encouraged the compliance of its members, the trial court was not required to draw that inference. Indeed, the standard itself stated: "The existence of an American Standard does not in any respect preclude any party who has approved of the standard from manufacturing, selling, or using products ... not conforming to the standard." Moreover, this standard did not even suggest a label for lead paint. It pertained to a label for *non*-lead paints. Nor is there any affirmative evidence in the record that even this standard was enforced by anyone or that any defendant complied with it beginning in 1955.

Nevertheless, plaintiff's assertion that the current presence of lead paint on residential interiors itself establishes that defendants' pre-1951 promotions caused it to be placed there is speculative and attempts to eliminate the causation element entirely. While we can accept the inference that defendants' pre-1951 promotions increased the use of lead paint on residential interiors during the period of those promotions, we reject plaintiffs claim that it is a reasonable inference that the impact of those promotions may be assumed to have continued for the next 30 years. We can find no evidence in the record that supports an inference that the promotions of defendants prior to 1951 continued to cause the use of lead paint on residential interiors decades later.⁴⁵ We

 $^{^{45}}$ ConAgra contends that the court erred in treating homes built before 1981 as an "indivisible group." We do not believe that

therefore conclude that we cannot uphold the trial court's judgment requiring defendants to remediate all houses built before 1981 because there is no evidence to support causation as to the homes built after 1950.⁴⁶

c. Water Leaks and Soil Lead

Defendants also challenge on causation grounds the court's inclusion of soil lead and water leaks in its remediation plan.

This was a disputed issue at trial. Plaintiff's experts testified: "[L]ead paint gets into the soil from several routes. One is by the friction and impact surfaces, opening and closing windows and doors on a home with lead-based paint. It also results from the weathering of paint exterior on the home, rain and sun hits the paint, it deteriorates over time. And also previous paint jobs, generally where they are sanding contributed soil and scraping have to home." contamination around the Lead concentrations are highest close to the home "[b]ecause we know that the exterior is subject to weathering, because windows on the exterior often have high lead concentrations and they are subject to friction and impact, and because the previous painting

the court treated these homes as an indivisible group. The court's remediation plan explicitly assigned homes built before 1950 to the highest priority, while homes built from 1950 to 1981 were assigned a lower priority. Since the age of a home is generally discoverable, homes may be readily distinguished from one another based on the date they were built. Indeed, by limiting the remediation plan to homes built before 1981, the court's remediation plan already treated homes differently based on their age.

⁴⁶ On remand, the trial court will need to recalculate the amount of the abatement fund accordingly.

jobs could have caused sanding and scraping on the exterior of a home which often then resides as contamination of the soil close to the home."47 "[L]eadbased paint in housing now is the major source of contamination of both soil and house dust."48 Thus, plaintiff's evidence established that contributor to soil lead was lead paint on the friction surfaces of windows and doors, which are interior, rather than exterior surfaces. In keeping with this evidence, the judgment requires remediation of soil lead only where the home itself contains interior lead Under these circumstances, the evidence supports the court's implied finding that soil lead in those homes has been caused by interior residential use of lead paint.

The court's decision to include remediation of water leaks in the judgment is not a causation issue. Plaintiff did not contend that the water leaks should be remediated because they were caused by defendants' promotions. The reason why remediation of water leaks is properly part of the remediation plan is that the court did not order remediation of all interior lead paint. As water leaks could cause intact interior lead

⁴⁷ One of plaintiff's experts responded to the question "What are sources of lead in dust in *[sic]* soil, other than — your view is that the sources for dust and soil lead are lead-based paint; right?" by saying "Sure. Where leaded paints are available. I mean in the housing unit." This response does not necessarily attribute soil lead to interior lead paint as the question referred to both soil lead and household dust lead.

⁴⁸ He also testified that "lead in housing" consisted of "lead paint, lead dust in housing, and lead in soil." Plaintiff's expert testified that soil lead and dust lead inside houses are linked because "the soil is often tracked into the home on people's shoes."

paint to deteriorate and present a dangerous hazard to children, the remediation of water leaks was an appropriate lesser alternative to removal of all interior lead paint. Since defendants' wrongful promotions caused the presence of interior lead paint, the court did not err in requiring remediation designed to prevent that interior lead paint from harming children in those homes.

d. Identification of Individual Paint

Defendants contend that their promotions cannot be found to have caused the presence of interior lead paint in homes in the 10 jurisdictions without proof that paint made by each of them is currently present in those homes. This contention misconstrues the basis for defendants' liability. Defendants are liable for promoting lead paint for interior residential use. To the extent that this promotion caused lead paint to be used on residential interiors, the identity of the manufacturer of that lead paint is irrelevant. Indeed, promotions did not refer to manufacturer of lead paint, but were generic. What matters is whether defendants' promotions were a substantial factor in leading to the use of lead paint on residential interiors. Substantial evidence supports the court's causation finding on that basis.

e. Proportioned Liability

Defendants' final challenge to the court's causation finding is based on their claim that they could not be held liable except in proportion to their individual contributions to the creation of the public nuisance. They claim that due process precluded the imposition of a remedy that was "grossly disproportionate to a defendant's conduct."

None of the cases they cite concerns causation in a public nuisance case. Proportionality is not a causation issue. Defendants may be held liable for a public nuisance that they assisted in creating if their wrongful promotions were a substantial factor in the creation of that public nuisance. As we have already concluded, the evidence supports the trial court's finding at least as to homes built before 1951. Proportionate liability is something that defendants may be able to determine by means of litigation between themselves, but the fact that the remediation plan does not apportion liability among defendants does not infect the court's causation finding.

Citing the Restatement, defendants argue that "a defendant can be liable only for its own contribution to a nuisance." However, the Restatement comment upon which they rely does not support their contention. It says: "[T]he burden rests upon the defendant to produce sufficient evidence to permit the to [¶] When apportionment be made. apportionment is made, each person contributing to the nuisance is subject to liability only for his own contribution. He is not liable for that of others; but the fact that the others are contributing is not a defense to his own liability." (Rest.2d Torts, § 840E, com. B, italics added.) The trial court could have reasonably concluded that defendants did not prove that the harm was capable of apportionment. The Restatement confirms that where the harm is not capable of apportionment, each contributor is liable for the entire harm. (Rest.2d Torts, § 840E, com. c.) In this case, it is clear that the trial court properly concluded that the harm was incapable of apportionment and therefore held all three defendants jointly and severally liable for the entire harm.

5. Abatability, Imminent Danger, and Reduction of BLLs

Defendants contend that plaintiff failed to prove that defendants have the ability to abate lead in private homes or that abatement can be achieved "at a reasonable cost by reasonable means."

This court rejected defendants' "ability to abate" contention in *Santa Clara I*. "'[L]iability for nuisance does not hinge on whether the defendant owns, possesses or controls the property, nor on whether he is in a position to abate the nuisance; the critical question is whether the defendant *created or assisted in the creation of the nuisance*.'" (*Santa Clara I, supra*, 137 Cal.App.4th at p. 306.) We decline to reconsider this issue.⁴⁹

Defendants' "reasonable cost" contention is premised on *Mangini v. Aerojet-General Corp.* (1996) 12 Cal.4th 1087 (*Mangini II*). The issue in *Mangini II* concerned the statute of limitations. (*Mangini II*, at p. 1090.) Because the plaintiffs had not filed their private nuisance action within the three-year limitations period for a "permanent" nuisance, the action was barred unless the nuisance was a "continuing" one. (*Ibid.*) " '[T]he crucial test of the permanency of a trespass or nuisance is whether the

⁴⁹ The Rhode Island and New Jersey cases upon which defendants rely are not helpful as these cases did not apply California law. (*State v. Lead Industries Ass'n, Inc.* (RI. 2008) 951 A.2d 428; *In re Lead Paint Litigation* ([June 15,] 2007) 191 N.J. 405.) We discuss these out-of-state cases in section V of this opinion.

trespass or nuisance can be discontinued or abated.'" (Mangini II, at p. 1097.) The California Supreme Court held that the plaintiffs had failed to prove that the nuisance was abatable. However, the court expressly denied that its holding would be applicable where the statute of limitations was not at issue: "We express no opinion on the question whether a plaintiff who has filed a timely nuisance action is required to prove that abatement can be accomplished at a 'reasonable cost' in order to be entitled to an injunction requiring the wrongdoing party to remedy the damage to the property." (Mangini II, at p. 1090.) Defendants choose to ignore this statement, but it establishes that Mangini II provides no support for their claim. 50

Defendants' reliance on County of San Diego v. Carlstrom (1961) 196 Cal.App.2d 485 (Carlstrom) is also misplaced. Carlstrom was a case in which the defendants claimed that the abatement injunction should have offered them abatement options other than removal of the structures that the court had found to be a public nuisance. (Carlstrom, at p. 493.) The Court of Appeal found that the trial court had not abused its discretion in requiring removal. (Ibid.) We can find nothing in Carlstrom to support defendants' abatability or reasonable cost contentions.

Defendants assert that plaintiff failed to establish that lead paint poses an imminent danger of harm and that the abatement plan will reduce children's BLLs.

⁵⁰ Beck Development Co. v. Southern Pacific Transportation Co. (1996) 44 Cal.App.4th 1160 (Beck), like Mangini II, discussed abatability solely in the context of whether a private nuisance cause of action was barred by the statute of limitations. (Beck, at pp. 1216, 1219–1223.)

Plaintiff responds that it presented substantial evidence that lead paint poses an imminent risk of harm and that abatement, and particularly door and window replacement, will reduce the number of children who are poisoned by lead paint.

Defendants rely on Helix Land Co. v. City of San Diego (1978) 82 Cal.App.3d 932 (Helix) to support their claim that plaintiff failed to prove that lead paint poses an imminent danger of harm. The plaintiff in Helix attempted to allege inverse condemnation and nuisance causes of action based on its claim that its land was at greater risk of harm due to the City's actions and inactions regarding flood control. (Helix, at pp. 940, 950.) However, the plaintiff failed to allege that the City's actions "present[] a future hazard" to its land. (*Helix*, at p. 950.) The plaintiff did not allege that any damage had occurred, and the court found that it was mere speculation that damage might occur in the future. (*Ibid.*) The court rejected the plaintiff's nuisance cause of action on the ground that it had failed to allege that a "prospective nuisance" was "either probable or imminent." (Helix, at p. 951.)

Helix does not support defendants' challenge to the trial court's abatement order. In this case, unlike in Helix, there was substantial evidence that interior residential lead paint had been causing and will continue to cause harm to children in the 10 jurisdictions.⁵¹ "Almost all human activity involves some risk, and in circumstances in which Civil Code section 3479 is the only applicable statute,

 $^{^{51}}$ They also cite Beck, but in Beck, unlike this case, there was "no evidence" of potential harm from the alleged public nuisance. (Beck, supra, 44 Cal.App.4th at p. 1214.)

considerable judicial discretion has been allowed in determining whether an alleged danger is sufficiently serious to justify abatement." (City of Bakersfield v. Miller (1966) 64 Cal.2d 93, 99 (Miller).) Every year, numerous children in the 10 jurisdictions are found to be suffering from lead poisoning due to their exposure to lead paint. "[T]he lead will not disappear on its So long as interior residential lead paint continues to exist in the 10 jurisdictions, this nuisance will continue to be an ongoing and imminent risk to the health of the children in the 10 jurisdictions. The trial court did not abuse its discretion in determining that the danger posed by interior residential lead paint in the 10 jurisdictions poses a sufficiently serious and imminent risk of harm to merit abatement.

Defendants also contend that abatement is unwarranted because plaintiff failed to show that abatement will reduce the BLLs of children in the 10 jurisdictions. Plaintiff presented expert testimony that abatement is effective at reducing BLLs in children. Defendants concede that plaintiff presented such evidence, but they maintain that this expert opinion testimony was "inadmissible guesswork."⁵²

⁵² Defendants repeatedly insist that the court ordered abatement of "intact" lead paint. This insistence is misleading. With the exception of doors and windows, intact lead paint on large surfaces such as walls would not be removed. Instead, paint stabilization techniques would be applied to ensure that it remained intact. Lead-contaminated soil would be covered or removed depending on its concentration. Windows and doors that had been painted with lead paint would be replaced, as no other remediation would be effective. Thus, the court did not order abatement of all "intact" lead paint in the 10 jurisdictions. The abatement plan targeted only the highest risks, while avoiding

The trial court admitted this evidence, and defendants make no effort to demonstrate that the court abused its broad discretion in doing so. Their citation to Sargon Enterprises, Inc. v. University of Southern California (2012) 55 Cal.4th 747 (Sargon) is not helpful to their contention. Sargon held that the trial court has discretion as a "gatekeeper" to determine "whether the matter relied on [by an expert] can provide a reasonable basis for the opinion or whether that opinion is based on a leap of logic or conjecture." (Sargon, at pp. 771–772.) Defendants fail to establish that the trial court abused its discretion in finding that plaintiff's expert's opinion regarding BLL reductions had a reasonable basis. Since the evidence was properly admitted, the trial court was entitled to credit it. The substance of defendants' argument is that the trial court should not have credited this testimony, but an appellate court must defer to a trial court's credibility determinations. We reject this contention.

B. Public Right

Defendants contend that plaintiff failed to establish that interior residential lead paint interferes with any "public right." 53

"'Anything which is injurious to health . . . or is indecent or offensive to the senses, or an obstruction

the creation of additional risks of contamination that might follow from the removal of all intact lead paint.

⁵³ They also claim that, "if this were a factual question, not a legal one," we would be precluded from inferring a trial court finding on it because the trial court failed to identify any "public right" in its statement of decision even though it was pointed out to the court in objections. However, they concede that this is a legal issue, and we agree.

to the free use of property, so as to interfere with the comfortable enjoyment of life or property ... is a nuisance.' (Civ. Code, § 3479, italics added.) 'A public nuisance is one which affects at the same time an community or neighborhood, considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.' (Civ. Code, § 3480[, italics added].) ... [¶] '/P/ublic nuisances are offenses against, or interferences with, the exercise of rights common to the public.' (People ex rel. Gallo v. Acuna (1997) 14 Cal.4th 1090, 1103 [60 Cal.Rptr.2d 277, 929 P.2d 596], [first italics added, second italics are] original italics.) 'Of course, not every interference with collective social interests constitutes a public To qualify, and thus be enjoinable [or abatable, the interference must be both *substantial* and unreasonable.' ([Id. at p. 1105].) It is substantial if it causes significant harm and unreasonable if its social utility is outweighed by the gravity of the harm inflicted. (/Ibid./)" (Santa Clara I, supra, 137 Cal.App.4th at p. 305.)

Defendants concede that a "public right is one relating to common resources," but they contend that interior residential lead paint does not interfere with any "public right" because it causes only private harms in private residences. They claim that the trial court erroneously based its public nuisance finding on an "aggregation of private harms." Defendants contend that a public nuisance can exist only if it "harm[s] people in their *exercise of a public right*." (Italics added.)

Interior residential lead paint that is in a dangerous condition does not merely pose a risk of private harm in private residences. The community has a collective social interest in the safety of children in residential housing. Interior residential lead paint interferes with the community's "public right" to housing that does not poison children. This interference seriously threatens to cause grave harm to the physical health of the community's children. Defendants cite no California authority for their claim that no public right is threatened by interior residential lead paint, and we reject their reliance on Rhode Island and Illinois cases applying those states' laws, which they seem to concede are not as broad as California's.

Defendants argue that "[t]he 'public' has no right to be present inside a private home, and thus, any possible lead exposure inside a private home cannot occur in the exercise of any public right." members of the "public" reside in residential housing, and we do not accept defendants' claim that, unlike streets, residential housing is not a shared community resource. Residential housing, like water, electricity, natural gas, and sewer services, is an essential community resource. Indeed, without residential housing, it would be nearly impossible for the "public" to obtain access to water, electricity, gas, and sewer services. Pervasive lead exposure in residential housing threatens the public right to essential community resources. We reject defendants' contention that interior residential lead paint cannot interfere with a public right.

C. Regulatory Standards, Nuisance Per Se, and Separation of Powers

Defendants claim that interior residential lead paint cannot be a public nuisance because it does not violate any regulatory standards, and "[t]he court must follow state regulations declaring intact LBP [lead-based paint] not a hazard, even on friction surfaces. (H&S Code § 17920.10.)"

"Nothing which is done or maintained under the express authority of a statute can be deemed a nuisance." (Civ. Code, § 3482.) Health and Safety Code section 17920.10 does not "declar[e]" that "intact" lead paint is "not a hazard." This statute provides that buildings that contain "lead hazards," as it defines them "for the purposes of this part" (primarily deteriorated lead paint), are in violation of the Health and Safety Code. [54] (Health & Saf. Code, § 17920.10,

⁵⁴ Health and Safety Code section 17920.10 provides: "(a) Any building or portion thereof including any dwelling unit, guestroom, or suite of rooms, or portion thereof, or the premises on which it is located, is deemed to be in violation of this part as to any portion that contains lead hazards. For purposes of this part, 'lead hazards' means deteriorated lead-based paint, leadcontaminated dust, lead-contaminated soil, or disturbing leadbased paint without containment, if one or more of these hazards are present in one or more locations in amounts that are equal to or exceed the amounts of lead established for these terms in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations or by this section and that are likely to endanger the health of the public or the occupants thereof as a result of their proximity to the public or the occupants thereof. $[\P]$ (b) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code) further

interpreting or clarifying the terms 'deteriorated lead-based paint, 'lead-based paint,' 'lead-contaminated dust,' 'containment,' 'lead-contaminated soil,' regulations in Chapter (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations adopted by the State Department of Health Services pursuant to Sections 105250 and 124150 shall interpret or clarify these terms. If the State Department of Health Services adopts new regulations defining these terms, the new regulations shall supersede the prior regulations for the purposes of this part. [¶] (c) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act defining the term 'disturbing lead-based paint without containment' or modifying the term 'deteriorated leadbased paint,' for purposes of this part 'disturbing lead-based paint without containment' and 'deteriorated lead-based paint' shall be considered lead hazards as described in subdivision (a) only if the aggregate affected area is equal to or in excess of one of the following: $[\P]$ (1) Two square feet in any one interior room or space. $[\P]$ (2) Twenty square feet on exterior surfaces. $[\P]$ (3) Ten percent of the surface area on the interior or exterior type of component with a small surface area. Examples include window sills, baseboards, and trim. [¶] (d) Notwithstanding subdivision (c), 'disturbing lead-based paint without containment' and 'deteriorated lead-based paint' shall be considered lead hazards, for purposes of this part, if it is determined that an area smaller than those specified in subdivision (c) is associated with a person with a blood lead level equal to or greater than 10 micrograms per deciliter. [¶] (e) If the State Department of Health Services adopts regulations defining or redefining the terms 'deteriorated lead-based paint,' 'lead-contaminated dust,' 'lead-contaminated soil,' 'disturbing lead-based paint without containment,' 'containment,' or 'lead-based paint,' the effective date of the new regulations shall be deferred for a minimum of three months after their approval by the Office of Administrative Law and the regulations shall take effect on the next July 1 or January 1 following that three-month period. Until the new definitions apply, the prior definition shall apply."

subd. (a).) Nowhere in this statute does the Legislature declare that any other type of lead paint in buildings is not a hazard, is lawful, or is authorized by statute. All that this statute does is identify certain defined "lead hazards" as violations of the Health and Safety Code. The mere fact that not all interior residential lead paint violates the Health and Safety Code does not mean that it cannot be abated as a public nuisance. "'A statutory sanction cannot be pleaded in justification of acts which by the general rules of law constitute a nuisance, unless the acts complained of are authorized by the express terms of the statute under which the justification is made, or by the plainest and most necessary implication from the powers expressly conferred, so that it can be fairly stated that the legislature contemplated the doing of the very act which occasions the injury." (Hassell v. City and County of San Francisco (1938) 11 Cal.2d 168, 171.)

Nor does the absence of a regulation or statute declaring interior residential lead paint to be unlawful bar a court from declaring it to be a public nuisance. "The fact that a building was constructed in accordance with all existing statutes does not immunize it from subsequent abatement as a public nuisance.... It would be an unreasonable limitation on the powers of the city to require that this [presently existing] danger be tolerated ad infinitum merely because the [building] did not violate the statutes in effect when it was constructed 36 years ago." (Miller, supra, 64 Cal.2d at pp. 101–102.)

Defendants contend: "[T]he trial court declared lead paint to be a nuisance by category. This inverts the role of the two branches of government, because only the Legislature has the power to choose between declaring a nuisance per se and finding a nuisance in specific circumstances." The trial court did no such thing. "Generally a nuisance is defined as ' [a]nything which is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property ' (Civ. Code, § 3479.) This requires consideration and balancing of a variety of factors. [Citations.] However, where the law expressly declares something to be a nuisance, then no inquiry beyond its existence need be made and in this sense its mere existence is said to be a nuisance per se. [Citation.] But, to rephrase the rule, to be considered a nuisance per se the object, substance, activity or circumstance at issue must be expressly declared to be a nuisance by its very existence by some applicable law." (Beck, supra, 44 Cal.App.4th at pp. 1206–1207.)

The trial court did not declare the "very existence" of lead paint or even interior residential lead paint to be a public nuisance. The court crafted a very limited order requiring abatement of only deteriorated interior lead paint, lead paint on friction surfaces, and lead-contaminated soil at residences in the 10 jurisdictions. It did not find that lead paint itself is a nuisance per se but only that the specific targets of its order produce or contain lead that has been shown to threaten the safety of children in their homes. It is only under these limited circumstances that lead paint poses an *immediate* threat to the health of children and must be abated as a public nuisance. The court's order was well within the general authority of Civil Code section 3479, so its order was not a declaration of a nuisance per se.

Defendants argue that the trial court's order violated separation of powers principles because the Legislature chose in 2001 not to declare the presence of lead paint in a residence to be a nuisance. They assert that the Legislature rejected a 2001 bill that would have declared the presence of lead paint in a residence to be a public nuisance and instead enacted a statute that "permits owners to maintain intact LBP in residences." Defendants misrepresent the nature of the Legislature's 2001 actions. The unpassed bill, Assembly Bill No. 422 (2001–2002 Reg. Sess.) would have enacted a statute providing that "[a]ny condition on real property that a local health department has determined poses a lead hazard risk to public children is a public nuisance for purposes of Section 3479 of the Civil Code." (Assem. Bill No. 422 (2001–2002 Reg. Sess.) as introduced and amended Feb. 20, 2001.) This bill was not limited to residences, did not address "intact" lead paint, and did not propose to declare anything to be a public nuisance absent a determination by a local agency. The enacted bill, Senate Bill No. 460, was directed toward lead hazard abatement. It enacted Health and Safety Code section 17920.10, providing that a "dwelling" would be "deemed untenantable" if it "contains lead hazards" as defined (primarily deteriorated lead paint). Senate Bill No. 460 also enacted Health and Safety Code section 17980, which mandated that an "enforcement agency" that "determined" a building contained "lead hazards" "shall commence proceedings to abate the violation by repair, rehabilitation, vacation, demolition of the building." (Health & Saf. Code, § 17980, subd. (b)(l).) And it provided for criminal charges against a person who did not comply with such an abatement order. (Health & Saf. Code, § 105256.)

First of all, "[u]npassed bills, as evidences of legislative intent, have little value." (Dyna-Med, Inc. v. Fair Employment & Housing Com. (1987) 43 Cal.3d 1379, 1396.) Furthermore, the Legislature's 2001 actions cannot reasonably be viewed as rejecting the possibility that conditions created by lead paint in the interiors of residences that posed an imminent danger to children could constitute public nuisances. authorizing abatement actions for lead hazards and criminal charges against those who did not comply with abatement orders, the Legislature took a strong stance against lead hazards in dwellings by enacting Senate Bill No. 460. Assembly Bill No. 422, unlike Senate Bill No. 460 and the trial court's order, was not dwellings limited and gave local departments the power to declare "real property" to be a public nuisance. The Legislature's rejection of Assembly Bill No. 422 was therefore not a rejection of the potential for a court to conclude that certain conditions created by lead paint in the interiors of residences and posing an imminent danger to children were public nuisances.

Defendants also submit an extended argument that the trial court's order has adverse policy implications. We are not persuaded that these arguments could support a reversal of the trial court's abatement order. It may well be that a multi-pronged approach to this problem will be necessary, with the court's abatement order serving as merely one of several methods necessary to resolve this problem. What the evidence in this case demonstrates is that defendants are wrong in claiming that California's statutory scheme

creating the CLPPB and local CLPPPs fully addresses childhood lead exposure.

The CLPPB's \$28 million annual budget is largely funded by a special fee called the Childhood Lead Poisoning Prevention fee, and also by Medi-Cal, the EPA, the CDC, and a special fund for lead-related construction. The Childhood Lead Poisoning Prevention fee, which provides about \$20 million a year, is funded by the industries that put lead into the environment. About 14 percent of those fees are paid by makers and former makers of "architectural coatings."55 The vast majority of the fees are paid by motor vehicle fuel distributors.⁵⁶ Even with the CLPPB, local CLPPPs, and state statutes addressing lead hazards, many children in the 10 jurisdictions continue to suffer serious harm from lead paint in their homes.

The evidence presented at trial demonstrated that the trial court's abatement order will reduce the risk of further harm to children in the 10 jurisdictions from lead paint. The Legislature has not precluded courts from utilizing public nuisance law to prevent further

⁵⁵ "'Architectural coating' means any product which is used as, or usable as, a coating applied to the interior or exterior surfaces of stationary structures and their appurtenances, to portable buildings, to pavements, or to curbs, such as house and trim paints, varnishes, stains, lacquers, industrial maintenance coatings, primers, undercoaters, and traffic coatings." (Cal. Code Regs., tit. 17, § 33002.)

⁵⁶ Motor vehicle fuel contained lead from the 1920s until it began to be phased out in the 1970s and 1980s. It was not eliminated until the 1990s. The percentages were not based on distribution of lead into the environment by the products but on the amount of lead used in the products.

harm, and we are aware of no public policy reason to preclude courts from taking such actions. Lead poisoning has been estimated to cost society \$50 billion a year. For every dollar that is spent on preventing lead exposure, there is a savings to society of between \$17 and \$220. We reject defendants' claims that the court's abatement order usurps the Legislature's powers.

D. Joint and Several Liability

Defendants contend that the trial court erred in imposing joint and several liability. They claim that this resulted in a "disproportionate, unfair burden" being placed on each of them when many people were involved in the creation of the nuisance.

The trial court expressly found that "[d]efendants offered no evidence that an abatement remedy can be apportioned" and that the remedy was indivisible. While liability often may be capable of apportionment in a public nuisance case, "[t]here are other cases in which the harm resulting from a nuisance is not capable of apportionment to the several contributors upon any reasonable or rational basis." (Rest.2d. Torts, § 840E, com. c.) Each defendant bore the burden of producing evidence upon which apportionment could be made. (Rest.2d Torts, § 840E, "Unless sufficient evidence permits the com. b.) factfinder to determine that damages are divisible, they are indivisible." (Rest.3d Torts: Apportionment of Liability, § 26, com. g.) When a court determines that apportionment cannot be accomplished, each defendant who contributed is liable for the entire harm. (Rest.2d Torts, § 840E, com. c.)

"Where several persons act in concert and damages result from their joint tort, each person is held for the entire damages unless segregation as to causation can be established. Even though persons are not acting in concert, if the result produced by their acts are [sic] indivisible, each person is held liable for the whole. . . . The reason for imposing liability on each for the entire consequence is that there exists no basis for dividing damages and the law is loath to permit an innocent plaintiff to suffer as against a wrongdoing defendant. This liability is imposed where each cause is sufficient in itself as well as where each cause is required to produce the result. [¶] . . . [T]he same reason[s] of policy and justice shift the burden to each of defendants to absolve himself if he can—relieving the wronged person of the duty of apportioning the injury to a particular defendant, apply here where we are concerned with whether plaintiff is required to supply evidence for the apportionment of damages. defendants are independent tort feasors and thus each liable for the damage caused by him alone, and, at least, where the matter of apportionment is incapable of proof, the innocent wronged party should not be deprived of his right to redress. The wrongdoers should be left to work out between themselves an apportionment." (Finnegan v. Royal Realty Co. (1950) 35 Cal.2d 409, 433–434.)

"[T]he mere fact that it may be possible to assign some percentage figure to the relative culpability of one negligent defendant as compared to another does not in any way suggest that each defendant's negligence is not a proximate cause of the entire indivisible injury." (American Motorcycle Assn. v. Superior Court (1978) 20 Cal.3d 578, 588–589 [citing

Finnegan].) "Principles of equitable indemnity would enable these defendants to sort out their respective liabilities. It does not affect the right of a plaintiff to recover the entire judgment from any one of them." (Sanchez v. Bay General Hospital (1981) 116 Cal.App.3d 776, 796–797.)

The trial court determined that defendants had failed to establish that the public nuisance was divisible, and we review this factual finding for Only SWC argues that it substantial evidence. presented evidence supporting an apportionment. SWC asserts that it was responsible for only a tiny percentage of "the total lead used in California from 1894 to 2009," that it paid its share of the CLPP fee, and that "thousands of persons contributed" to the presence of lead paint inside residences. The trial court could reasonably conclude that SWC's evidence did not support an apportionment of liability for the public nuisance created by the promotion of lead paint for interior residential use by defendants. evidence presented at trial did not establish that an entity's share of the total amount of lead used in California bore any relationship to that entity's liability for the amount of lead paint present in residences in the 10 jurisdictions. The evidence presented at trial indicated that nonresidential uses of lead have been the historically predominant ones. The Legislature's establishment of the CLPP fee was not intended to limit liability for promotion of lead paint for interior residential use, as that fee was not premised on such conduct but merely on total lead contribution. Finally, SWC did not establish that the "thousands of persons" who were also involved in the use of lead paint inside residences (painters, architects, homeowners, etc.) promoted the use of lead paint inside residences with knowledge of the danger such use would produce. Thus, those persons were not joint tortfeasors with defendants. Since defendants failed to show that the public nuisance was divisible, we uphold the trial court's imposition of joint and several liability for the nuisance created by defendants' conduct.

E. Collective Liability and Due Process

Defendants argue that the court erred in "categorically declar[ing] all properties with interior LBP to be a nuisance sight unseen." Defendants maintain that the court's finding of a "collective nuisance" deprived them of due process because they did not have the opportunity to inspect each individual property and defend against their liability on a residence-by-residence basis. They insist that plaintiff was required to identify the location of each individual property in order to establish a public nuisance. Defendants claim that the court's order cannot be upheld because there was no evidence that any individual defendant's lead was present in any specific They assert that access to individual properties would have permitted each of them to "rule out the presence of its WLC [white lead carbonate], to develop evidence of the primary lead sources, to prove the owner's fault, or to show that its WLC, if present, posed no imminent threat of harm to any child." They contend that due process forbids requiring any one defendant to abate a nuisance created by "others' products."

The trial court did not "declare" all interior lead paint to be a public nuisance. Instead, the court's abatement order was limited to conditions created by interior residential lead paint that placed children at imminent risk of harm. Due to the nature of the conduct that defendants engaged in, knowingly promoting lead paint for interior residential use throughout a vast area that is home to millions of people, every one of the precise locations at which these conditions currently exist has not yet been fully catalogued. Plaintiff established the existence of a public nuisance by proving that these conditions are pervasive in the 10 jurisdictions, but the enormous cost of discovering each and every one of the specific locations where remediation is necessary must be borne by the wrongdoers, in this case defendants. It cannot be that the highly insidious character of the public nuisance created by defendants renders it beyond the reach of a public nuisance abatement action.

Defendants were not deprived of due process because they were not provided with access to individual properties. None of the defendants claimed that it could differentiate "its" lead paint from other lead paint at an individual location. And even if a defendant could have proved that its paint was present in only a portion of the individual properties, the identity of the manufacturer of lead paint at a specific location was of limited relevance. Defendants were held liable for *promoting* lead paint for interior residential use. Their promotional activities were not limited to advertisements for their own lead paints. They also generically promoted lead paint for interior residential use. Furthermore, nothing precludes a defendant from testing the lead paint at specific locations during the remediation process and seeking to hold a fellow defendant liable for a greater share of the responsibility. The same is true of evidence that the hazardous condition is "the owner's fault" or that it is not hazardous.

None of the cases defendants rely upon has any import on this issue. Defendants rely on class certification cases stating that a defendant has a right to assert individual defenses to each class member's entitlement to recover. (Wal-Mart Stores, Inc. v. Dukes (2011) 564 U.S. 338, 366; Duran v. US. Bank National Assn. (2014) 59 Cal.4th 1, 29; In re Fibreboard Corp. (5th Cir. 1990) 893 F.2d 706 [asbestos class action].) This is not a class action, and no individuals seek to recover anything from defendants. Stanley v. Illinois (1972) 405 U.S. 645 is also not on point, as it concerned due process rights in an action to terminate a father's parental rights. McClatchy v. Superior Court of County of Sacramento (1897) 119 Cal. 413 does not support defendants' argument as it concerned a newspaper editor's due process right to offer a defense in a contempt proceeding.

Since defendants have failed to establish that the court's public nuisance findings and abatement order deprived them of due process by imposing "collective liability," we reject their contention.

F. Disproportionality and Due Process

Defendants argue that the court's abatement order violates due process because it "grossly exceeds" their individual responsibility for the nuisance.

The trial court found that defendants promoted lead paint for interior residential use in the 10 jurisdictions and that their conduct was a substantial factor in creating the existing public nuisance that requires remediation. Since their conduct caused the existing public nuisance that they are being ordered to abate, the burden of that remediation is not disproportional to their individual responsibilities for assisting in its creation. Defendants' reliance on punitive damages and penalty cases is misplaced. Here, defendants are not being penalized or required to pay damages of any kind. They are being required simply to clean up the hazardous conditions that they assisted in creating. Requiring them to do so is not disproportional to their wrongdoing.

Defendants also complain that the trial court imposed "retroactive liability" "in hindsight." Not so. The only conduct for which defendants are being held responsible is their promotion of lead paint for interior residential use knowing of the public health hazard that such use would create. There is no "hindsight" or "retroactive liability" involved in requiring those who knowingly engage in hazardous conduct to remediate the consequences of their conduct.

G. Denial of Jury Trial

Defendants claim that the trial court erred in denying them a jury trial. They maintain that the California Constitution guaranteed them a right to a jury trial in this public nuisance action by the government even though this was an equitable action seeking only abatement because, they argue, the common law in 1850 recognized a right to a jury trial in public nuisance actions except for an action based on a nuisance per se.

Plaintiff, NL, and ConAgra filed jury demands. However, plaintiff subsequently filed a motion to strike the jury demands and to have a court trial. Plaintiff asserted that there was no right to jury trial on a public nuisance cause of action seeking abatement or on a cause of action for equitable contribution or declaratory relief. Defendants opposed plaintiff's motion to strike the jury demands. The court granted plaintiff's motion and struck the jury demands, and the case was tried to the court.

"Trial by jury is an inviolate right and shall be secured to all ..." (Cal. Const., art. I, § 16.) Generally, "if the action is essentially one in equity and the relief sought 'depends upon the application of equitable doctrines,' the parties are not entitled to a jury trial." (C & K Engineering Contractors v. Amber Steel Co. (1978) 23 Cal.3d 1, 9.) However, "[i]t is settled that the state constitutional right to a jury trial 'is the right as it existed at common law in 1850, when the Constitution was first adopted, "and what that right is, is a purely historical question, a fact which is to be ascertained like any other social, political or legal fact." [Citations.]' "(Franchise Tax Ed v. Superior Court (2011) 51 Cal.4th 1006, 1010.)

"Our state Constitution essentially preserves the right to a jury in those actions in which there was a right to a jury trial at common law at the time the Constitution was first adopted. [Citation.] Thus, the scope of the constitutional right to jury trial depends on the provisions for jury trial at common law. The historical analysis of the common law right to jury often relies on the traditional distinction between courts at law, in which a jury sat, and courts of equity, in which there was no jury." (Crouchman v. Superior Court (1988) 45 Cal.3d 1167, 1175.)

"In determining whether the action was one triable by a jury at common law, the court is not bound by the form of the action but rather by the nature of the rights involved and the facts of the particular case the gist of the action. A jury trial must be granted where the gist of the action is legal, where the action is in reality cognizable at law. $[\P]$. . The constitutional right of trial by jury is not to be narrowly construed. It is not limited strictly to those cases in which it existed before the adoption of the Constitution but is extended to cases of like nature as may afterwards arise. It embraces cases of the same class thereafter arising." (People v. One 1941 Chevrolet Coupe (1951) 37 Cal.2d 283, 299–300 (One 1941).)

The question before us is whether in 1850 the common law recognized a right to a jury trial in public nuisance actions by the government that sought only abatement or in "cases of like nature." At the outset, we must consider exactly what cases are of "like nature" to the one before us. Many of the cases relied on by the parties are private nuisance, rather than public nuisance, cases. Others sought damages, rather than or in addition to equitable relief. Still others sought an injunction, but the nature of the injunction was not remedial, but preventative, or was an interlocutory injunction pending trial, rather than permanent relief after a full trial.

"Unlike public nuisance, which is an interference with the rights of the community at large, private nuisance is a civil wrong based on disturbance of rights in land. [Citation.] A nuisance may be both public and private, but to proceed on a private nuisance theory the plaintiff must prove an injury specifically referable to the use and enjoyment of his or her land. The injury, however, need not be different in kind from that suffered by the general public." (Koll-Irvine Center Property Owners Assn. v. County of Orange (1994) 24 Cal.App.4th 1036, 1041.) While damages may be available in both public and private nuisance actions, damages are not an available remedy in the type of public nuisance action that was brought by plaintiff in this case, a representative public nuisance action. "[A]lthough California's general nuisance statute expressly permits the recovery of damages in a public nuisance action brought by a specially injured party, it does not grant a damage remedy in actions brought on behalf of the People to abate a public nuisance." (People ex rel. Van de Kamp v. American Art Enterprises, Inc. (1983) 33 Cal.3d 328, 333, fn. 11.) Code of Civil Procedure section 731 permits such an action to "abate a public nuisance," but it does not allow the government to seek damages.

Because public and private nuisance actions are distinct, and public nuisance actions brought as representative actions are different from those brought by the government on its own behalf, our examination of this issue must focus on whether the common law in 1850 granted a right to a jury trial in a representative public nuisance action by the government seeking only abatement.

Defendants rely heavily on an 1849 treatise written by United States Supreme Court Justice Joseph Story. The Fifth Edition of this treatise explained that a "public nuisance" was traditionally punished by way of an indictment. It went on to say: "But an information also lies in Equity to redress the grievance by way of injunction.... If the soil does not belong to the crown, but it is merely a common nuisance to all the public, an information in Equity lies. But the question of nuisance or not must, in cases of doubt, be tried by a jury; and the injunction will be granted or not, as that fact is decided." (Story's Commentaries on Equity Jurisprudence as administered in England (5th ed. 1849) chpt. XXIII, § 923, p. 251.)

Justice Story's treatise provides some support for defendants' claim that they were entitled to a jury trial in this case. However, a treatise is not itself sufficient to establish this factual question. We must examine the cases cited by Justice Story as support for this passage to determine whether they reflect that a right to a jury trial was recognized in 1850 for a representative public nuisance action by the government seeking only abatement.

One of the cases cited by Justice Story was *The Attorney General v. Cleaver* (1811) 34 Eng.Rep. 297 [18 Ves. Jun. 212] (*Cleaver*). *Cleaver* was an action by the Attorney-General "at the relation of individuals" seeking a temporary and permanent restraining order against a manufacturer whose factory was causing injury to nearby residents.⁵⁷ (*Ibid.*) The issue before the court was whether to grant a request for a pretrial injunction. (*Ibid.*) The court declined to issue an injunction in advance of a trial on whether the factory constituted a nuisance. The court stated: "[I]f the soil

⁵⁷ Although the Attorney-General brought the action, the manufacturer asserted that "[t]his is not a public prosecution by the Attorney General, but at the relation of several inhabitants of the neighbourhood; and there is a wide distinction between the two sorts of Information." (*Cleaver*, *supra*, 34 Eng.Rep at p. 298.)

belongs to the Crown, there is one species of remedy for that: the Crown may abate the obstruction; as it is upon the King's soil. Where it is not upon the King's soil, but merely a public nuisance to all the King's subjects, though the suit may be in the same form, the law is laid down in treatises [citation] that upon the ground of public nuisance, and not as an obstruction upon the King's soil, it is a question of fact, which must be tried by a Jury; and, though the suit may be entertained, the Court would be bound to try the fact by the intervention of a Jury." (Cleaver, at p. 299, italics While *Cleaver* appears to support the proposition that, as of 1811, a jury trial may have been required in a representative public nuisance action seeking only an injunction, it is notable that *Cleaver* did not involve a remedial abatement order but a prohibitory injunction.

A subsequent case, Earl of Ripon v. Hobart (1834) 40 Eng.Rep. 65 [also reported at 47 Eng.Rep. 119] (Earl of Ripon), pointed out the important distinction between a prohibitory or preventative injunction and other types of injunctive relief. Earl of Ripon concerned an action brought by the government seeking an injunction to preclude the use of steam engines (instead of windmills) to drain lowlands. (Earl of Ripon, at pp. 65–67.) The plaintiffs claimed steam engines would send water more continuously and more quickly into the river than would windmills, thereby putting pressure on and damaging the river's banks. (Earl of Ripon, at p. 65.) The Chancellor refused to grant an injunction. The Chancellor described "the rule respecting the relief by injunction, as applied to such cases to be," which it described as cases of "eventual or contingent nuisance." (Earl of Ripon, at p. 69, italics added.) "If the thing sought to be prohibited is in itself a nuisance, the Court will interfere to stay irreparable mischief, without waiting for the result of a trial; and will, according to the circumstances, direct an issue, or allow an action, and, if need be, expedite the proceedings, the injunction being in the meantime continued. But where the thing sought to be restrained is not unavoidably and in itself noxious, but only something which may according to circumstances, prove so, then the Court will refuse to interfere until the matter has been tried at law, generally by an action, though, in particular cases, an issue may be directed for the satisfaction of the Court, where an action could not be framed so as to meet the question. [¶] The distinction between the two kinds of erection or operation is obvious, and the soundness of that discretion seems undeniable, which would be very slow to interfere where the thing to be stopped, while it is highly beneficial to one party, may very possibly be prejudicial to none. The great fitness of pausing much before we interrupt men in those modes of enjoying or improving their property which are prima facie harmless, or even praiseworthy, is equally manifest; and it is always to be borne in mind that the jurisdiction of this Court over nuisance by injunction at all is of recent growth, has not till very lately been much exercised, and has at various times found great reluctance on the part of the learned Judges to use it. even in cases where the thing or the act complained of was admitted to be directly and immediately hurtful to the Complainant." (*Ibid.*)

The explanation given by the Chancellor in *Earl of Ripon* illuminates the limited nature of the rules governing the power of equity courts to grant

injunctions that were evolving at that time, and that had not been explicated in *Cleaver*. The Chancellor's reluctance to grant injunctive relief without a jury trial in Earl of Ripon was due to the fact that the nuisance was "contingent," that is, prospective, and therefore an injunction would bar potentially beneficial activity. (Earl of Ripon, supra, 40 Eng.Rep. at p. 69.) That type of injunction differs dramatically from a remedial abatement order. government seeks a remedial abatement order, the nuisance is not contingent, and the remedy does not bar some prospective activity. Abatement is restricted to undoing already accomplished harmful conditions. The rule described by the Chancellor in *Earl of Ripon* did not require a jury trial in cases seeking a remedial abatement order.

The remaining cases cited by Justice Story all fall within the rule described in Earl of Ripon; they concerned prohibitory injunctions against activities that might prove beneficial and might not prove to cause the feared harm. Attorney-General v. Cohoes Co. (N.Y. Ch. 1836) 1836 WL 2625 [6 Paige Ch. 133; 3 N.Y. Ch.Ann. 928] was solely concerned with a pretrial motion to dissolve an injunction; the court denied the motion. The injunction had been obtained to prevent a mill company from breaching a canal and withdrawing water pending trial on whether the breach would create a public nuisance. (Cohoes, at pp. Attorney General v. Forbes (1836) 40 134–135.) Eng.Rep. 587 [2 My. & Cr. 123] (Forbes) was a pretrial request for an injunction to prevent the potential creation of a public nuisance.⁵⁸ Notably, in neither *Cohoes* nor *Forbes* was a jury trial required before the court granted an injunction.

Crowder v. Tinkler (1816) 34 Eng.Rep. 645 [19 Ves. Jun. 618] (Crowder) was an action by private plaintiffs seeking a pretrial injunction to stop the defendants from building a new building and using it to store

⁵⁸ Forbes was a dispute between Bucks County and Berks County about the repair of a bridge that ran across the river between the two counties. The center of the bridge was the line between the two counties. Although the two counties had originally agreed to share the cost of repairs to the bridge, when it came time for additional repairs to the bridge, they could not reach an agreement on the mode of repair. (Forbes, supra, 40 Eng.Rep. at pp. 587–588 [2 My. & Cr., at pp. 123–124].) Berks County wanted to rebuild the entire bridge out of iron. Bucks County wanted to repair the wooden bridge. (Forbes, at pp. 588-589 [2 My. & Cr., at p. 125].) The oak joists that supported the center of the bridge ran from one county's last pier to the other county's last pier and had been funded equally by both counties when the bridge was previously repaired. (Forbes, at pp. 587-588 [2 My. & Cr., at pp. 123–124].) Bucks proposed a plan of repair that would have replaced the oak joists that supported the center with new oak joists, but Berks would not agree to that plan. Bucks was forced to alter its plan and instead repaired its half of the bridge in such a fashion that the old oak joists were left undisturbed and new joists were run only from the center of the bridge to the last pier in Bucks County. (Forbes, at pp. 588– 589 [2 My. & Cr., at pp. 125–126].) The new joists depended on the old joists for support. (*Ibid*) Berks then notified Bucks that it intended to cut the old oak joists at the center, thereby depriving the center of the bridge of any support. (Forbes, at pp. 589–590 [2 My. & Cr., at pp. 126–127].) Bucks sought a preventative injunction on the ground that the cutting of the old oak joists would create a public nuisance because the center of the bridge would be unsupported. (Forbes, at p. 589 [2 My. & Cr., at p. 127].) The court granted a pretrial injunction. (Forbes, at p. 590 [2 My. & Cr., at pp. 129–130].)

gunpowder close to the plaintiffs' paper mills and homes. (*Crowder*, at pp. 645–646, 647–648 [19 Ves. Jun., at pp. 618–619, 625].) *Crowder* is distinguishable both because it was not a representative public nuisance action and because it sought a prohibitory injunction.

Mohawk Bridge Co. v. Utica & S.R. Co. (N.Y. Ch. 1837) 6 Paige Ch. 554 [1837 WL 2675] (Mohawk *Bridge*) was an action by a bridge company seeking an injunction to prevent the erection by a railway company of a railway bridge over a river. (Mohawk Bridge, at p. 561.) The government was not the plaintiff. The New York court reasoned: "If the thing sought to be prohibited is in itself a nuisance, the court will interfere to stay irreparable mischief, where the complainant's right is not doubtful, without waiting for the result of a trial. But where the thing sought to be restrained is not in itself noxious, but only something which may according to circumstances prove to be so, the court will refuse to interfere until the matter has been tried at law by an action; though in particular cases the court may direct an issue, for its own satisfaction, where an action could not be brought in such a form as to meet the question. And in applying these principles, if the magnitude of the injury to be dreaded is great, and the risk so imminent that no prudent person would think of incurring it, the court will not refuse its aid for the protection of the complainant's rights, by injunction, on the ground that there is a bare possibility that the anticipated injury from the noxious erection may not happen." (Mohawk, at p. 563.) As in Crowder, the action in Mohawk was not brought by the government and sought a prohibitory injunction.

Baines v. Baker (1752) 27 Eng.Rep. 105 [AMB. 158] (Baines) was a nuisance action brought by a private party seeking an injunction to prevent the building of a hospital near the plaintiff's property to house patients suffering from smallpox. It was not an action brought by the government, and, like the other cases, it was an action seeking a prohibitory injunction, not a remedial injunction.

The remaining English cases cited by defendants are distinguishable on similar grounds. The Attorney General v. The United Kingdom Electric Telegraph Company (1861) 54 Eng. Rep. 899 [30 Beav. 287] (Electric Telegraph) was not an action for a remedial abatement order. In *Electric Telegraph*, the Baron and the Attorney General sought an "interlocutory injunction" to bar a telegraph company from putting telegraph wires in trenches across public highways and on land owned by the Baron. They claimed that the wires created a public nuisance. Telegraph, at p. 901.) The court found that, as to the Attorney General's action, it was "very doubtful" whether there was a public nuisance and no clear showing of any injury to the public. (*Ibid.*) Under these circumstances, the court refused to grant an injunction until the Attorney General "establish[es] the fact that the act done is a nuisance at law " (*Ibid.*) The court stated: "This case depends upon a legal right, which must be established to the satisfaction of the Court before the equity can be administered; without it, it would be impossible to say that either the acts of the company or the works amounted to a nuisance. The one side insists that the works cause an obstruction, and, on the other side, persons are found to say they do not; but no tribunal is so fit to try this question of fact as a jury, who will have the assistance of a Judge to direct them as to the law."⁵⁹ (*Electric Telegraph*, at p. 902.) While the *Electric Telegraph* opinion suggested that a jury trial

⁵⁹ Defendants cite an alternate version of this opinion in a different reporter. In the alternate version, the language is significantly different. At the beginning of the alternate version, the court says: "The main question with which I have to deal now is, whether the acts complained of do or do not amount to a nuisance. If they did, I should have no hesitation in granting an injunction; but I confess I am not at present prepared to do more than send the case to be tried before a jury, in an action at law." The court then proceeds to address the claims of the Baron and of the Attorney General separately.

Defendants quote the following language: "In ordinary cases, where the issue of a suit in equity depends upon a legal right, that right must be ascertained at law before any relief can be granted by this court." This language appears in the portion of the alternate version addressing the Baron's claim, not the Attorney General's claim, and the court took great pains to distinguish between the two claims. Hence, it is not material to the issue before us.

In the portion of the alternate version addressing the Attorney General's claim, the court says: "With regard to the fact of these posts and wires being nuisances, I am by no means clear, that upon the evidence before me I can determine whether they are or are not such; at all events, I think I cannot say that they are. In truth, the question, what is a nuisance, is one peculiarly fitted for investigation by a jury." (The Attorney-General v. The United Kingdom Electric Telegraph Company (1861) The Law Times, vol. V, N.S. at pp. 338-339.) Even if we were to accept that the alternate version is entitled to credence, it does not support defendants' claim. The court was unwilling to issue a preventative injunction because it deemed the evidence before it to be inadequate, and it simply did not rule out that it might do so after a trial before a jury. This ruling does not establish that there was a right to a jury trial at that time in a public nuisance action seeking only a remedial abatement order.

would be appropriate to determine whether the wires were a public nuisance, the court did not actually speak of a "right" to a jury trial and did not consider whether a jury trial would be required in a public nuisance action seeking only a remedial abatement order. Instead, the court simply found that the evidence before it did not justify a finding that the wires were a public nuisance and determined that this issue would be best tried by a jury in that particular case. Since the action before us did not seek a preventative injunction, and the trial court found the evidence sufficient to support a remedial injunction, Electric Telegraph is inapposite.

Walter v. Selfe (1851) 64 Eng.Rep. 849 (Walter) was a private nuisance action between private parties seeking an injunction. (*Walter*, at p. 851.) Chancery court stated that the parties had "declin[ed] to go before a jury," and it granted the plaintiffs' request for an injunction. (Walter, at p. 853.) Nowhere in the Walter opinion is there any indication that a public nuisance action by the government seeking only a remedial injunction would have been required to be tried to a jury. Imperial Gas Light and Coke Company v. Broadbent (1859) 11 Eng.Rep. 239 [7 H.L.C. 600] (Imperial) was not a public nuisance action but a private nuisance action between private parties in which the plaintiff sought an injunction to stop the defendants from manufacturing gas near his house. The opinion contains broad language: "There is no doubt whatever that before a perpetual injunction can be granted, the party applying for it must establish his right by a proceeding at law." (Imperial, at p. 242.) Since *Imperial* was a private nuisance action seeking a prohibitory injunction, its statements about the need for a proceeding "at law" (a jury trial) can only be understood as applying in that context.

The distinction between prohibitory injunctions and abatement orders was recognized in the 1850s in England. In Attorney-General v. Birmingham Council (1858) 70 Eng.Rep. 220 [4 K.&J. 528] (Birmingham), the plaintiffs sought an abatement order barring the defendants from continuing to pollute a river with sewage. (Birmingham, at p. 220.) The defendants argued before the Chancellor that under Cleaver and Earl of Ripon the Chancellor should not interfere and should leave the plaintiffs to seek a remedy at common law. (Birmingham, at p. 223.) The Chancellor rejected this argument and granted an abatement injunction. (Birmingham, at p. 228.)

The cases defendants cite from the United States are also distinguishable.⁶⁰ Pilcher v. Hart (1840) 20

⁶⁰ Appeal of McClain (1890) 130 Pa. 546 (McClain), which defendants cite in a string cite but do not discuss, was an action by a city seeking the destruction of a dam on the ground that it was a public nuisance. (McClain, at p. 560.) The Pennsylvania Supreme Court stated: "We do not question the power of a court of equity to restrain and abate public nuisances. This is settled by a line of decisions. But the authorities uniformly limit the jurisdiction to cases where the right has first been established at law, or is conceded. It was never intended, and I do not know of a case in the books where a chancellor has usurped the functions of a jury, and attempted to decide disputed questions of fact, and pass upon conflicting evidence in such cases." (McClain, at p. 562.) "We think that, under all the circumstances of this case, the defendants are entitled to a trial by jury before their property shall be condemned as a nuisance, and destroyed." (McClain, at p. 564.) While McClain was a public nuisance action by the government seeking a remedial abatement order, it has little weight as authority because it significantly postdates 1850 (by four decades) and appears to rely heavily on the fact that the

Tenn. 524 was a trespass action for damages between private parties. (Id. at p. 530.) Davidson v. Isham (N.J. Ch. 1852) 9 N.J. Eq. 186 was an action between private parties. Middleton v. Franklin (1853) 3 Cal. 238 was an action between private parties. Gunter v. Geary (1851) 1 Cal. 462 (Gunter) was an action for damages by private plaintiffs against the mayor of San Francisco for destroying the plaintiffs' house, which had been tried to a jury and resulted in a judgment for damages. (Gunter, at pp. 463–464.) None of these cases contains any indication of whether a jury trial was required at common law in 1850 in a representative public nuisance action by government seeking only a remedial abatement order.

The remaining California cases cited by defendants are similarly distinguishable. Farrell v. City of Ontario (1919) 39 Cal.App. 351 (Farrell) was a private nuisance action by a private party against a municipality seeking both damages and an injunction. (Farrell, at pp. 352–353.) The case was tried to a jury, which returned a damages verdict for the plaintiff. (Id. at p. 353.) The trial court nevertheless entered judgment for the defendants. (*Ibid.*) On appeal, the plaintiffs contended that they were entitled to a jury trial, and therefore the trial court had erred in entering judgment contrary to the jury's verdict. (Ibid.) The court in Farrell relied on Walter and *Imperial Gas* in finding that there was a right to a jury trial in this private nuisance action for damages.

requested relief was that private property be "condemned... and destroyed." The case before us does not threaten the destruction of any of defendants' private property, and a case from 1890 does not provide strong evidence of what was a common law right in 1850.

(*Farrell*, at pp. 356–357.) It held: "[U]nder the English common law as it stood in 1850, at the time it was adopted as the rule of decision in this state, 'if a plaintiff applies for an injunction to restrain a violation of a common-law right, if either the existence of the right or the fact of its violation be disputed, he must establish that right at law'; or, in other words, by a jury, if one be demanded. We conclude, therefore, that the parties here were entitled to a jury trial upon the issues as to damages and that the verdict of the jury thereon was binding." (Farrell, at p. 357.) Still, the Farrell court emphasized that "the equitable issues ... are to be determined by the court upon findings of fact made by it." (Farrell, at p. 359, italics added.) Since Farrell was a private nuisance action seeking damages, it does not tell us whether a jury trial is required in a representative public nuisance action by the government seeking only a remedial abatement order.

Pacific Western Oil Co. v. Bern Oil Co. (1939) 13 Cal.2d 60. (Pacific Western) was an action between private parties seeking a prohibitory injunction and damages. (Pacific Western, at p. 64.) The trial court awarded damages and a prohibitory injunction. (Pacific Western, at p. 66.) On appeal, the defendants contended that they had been deprived of their right to a jury trial, and the court, relying on Farrell, agreed. However, the court limited its holding to situations "wherein both legal and equitable remedies are the subject of the action." (Pacific Western, at p. 69.)

Pacific Western partly overruled McCarthy v. Gaston Ridge Mill & Mining Co. (1904) 144 Cal. 542 (McCarthy). McCarthy was a private nuisance action for damages and an injunction. Although a jury

rejected the plaintiff's damages claim, the trial court rejected the jury's verdict and awarded the plaintiff damages but no injunction. (McCarthy, at pp. 543– 545.) On appeal, the defendant contended that the plaintiff's action was one in which the defendant was entitled to a jury trial. (McCarthy, at p. 545.) The California Supreme Court disagreed. "The prevention or abatement of a nuisance is to be accomplished by means of an injunction either prohibitive mandatory, and an action therefor is within the equitable jurisdiction of the court, and is to be governed by the principles prevailing in that jurisdiction. [Citations.] The constitution does not give to a party the right to have the issues in such action tried by a jury, nor is the action within those in which the legislature has authorized a jury trial." (McCarthy, at pp. 545–546.) Pacific Western overruled *McCarthy* to the extent that it held that there was no right to a jury trial in a private nuisance action that sought both an injunction and damages. (Pacific Western, supra, 13 Cal.2d at p. 69.)

The California Supreme Court has never held that there is or is not a right to a jury trial in a public nuisance action brought by the government that seeks only a remedial abatement order. It has held that there is no right to a jury trial in a private nuisance action seeking only abatement. Sullivan v. Royer (1887) 72 Cal. 248. (Sullivan) was an action to abate and enjoin a private nuisance. A jury found for the plaintiff, and the defendant appealed, claiming that the jury had been misinstructed. The California Supreme Court held that any jury instruction errors were immaterial because there was no right to a jury trial in an equitable action to abate a nuisance.

(Sullivan, at pp. 249–250.) The court reached the same holding in Richardson v. City of Eureka (1895) 110 Cal. 441, which was also a private nuisance case. (Id. at p. 446.)

The California Supreme Court has mentioned in dicta that there is no right to a jury trial in a public nuisance case seeking only abatement. One 1941 was a forfeiture case brought by the government in which the legal owner of the vehicle claimed that he had been denied his constitutional right to a jury trial. (One 1941, supra, 37 Cal.2d at pp. 285–286.) The issue was whether an in rem forfeiture action was a common law action entitled to a jury trial in 1850. The California Supreme Court compared an in rem forfeiture action to an action to abate a public nuisance. "The right of trial by jury did not exist at common law in a suit to abate a public nuisance. (People v. McCaddon, 48 Cal.App. 790, 792 [192 P. 325].) Hence it is not a constitutional right now. [¶] Automobiles, carriages, wagons, horses, and mules, that are ordinarily used for lawful purposes, cannot be classified with narcotics, gambling paraphernalia, counterfeit coins, diseased cattle, obscene books and pictures, decayed fruit and fish, unwholesome meat, infected clothing, or other contraband, which are ordinarily used for an unlawful purpose, and are public nuisances per se. [Fn. omitted.] While property kept in violation of law which is incapable of lawful use and declared to be a nuisance *per se* may be forfeited without a trial by jury under the police power, it does not follow that property used for lawful purposes—innocent property—may be forfeited without a trial by jury where an issue of fact is joined as to whether the property was being used for an unlawful purpose or is to be taken from an innocent owner. There is no general constitutional right to a jury trial in actions for the seizure and forfeiture of contraband articles. [Fn. omitted.] But property is not contraband or a public nuisance merely because it was instrumental in the commission of a public offense.'" (*One 1941*, atpp. 298–299.)

In One 1941, the California Supreme Court cited People v. McCaddon (1920) 48 Cal.App. (McCaddon) to support the proposition that there is no right to a jury trial in a public nuisance action seeking only abatement. McCaddon was a public nuisance action by the government to abate a public nuisance. (McCaddon, at p. 790.) The claim on appeal was that the trial court had erred in denying the defendants a jury trial. (McCaddon, at p. 791.) The Court of Appeal devoted no significant analysis to the issue, instead stating: "[T]he rule is too well established to need This being an action for an discussion here. injunction, neither the constitution nor the statute requires the submission of the issues to a jury. It is not error to deny a jury in any case where such right was not granted at common law. [Citations.]" (McCaddon, at p. 792.) Not one of the citations in the court's string cite was to a public nuisance case.

Numerous Court of Appeal cases have stated that there is no right to a jury trial in a public nuisance action by the government seeking only abatement. For example, *People v. Frangadakis* (1960) 184 Cal.App.2d 540 (*Frangadakis*) was an action by the government to abate a public nuisance in which the defendants contended on appeal that they had been deprived of their constitutional right to a jury trial. The Court of Appeal, citing *One 1941*, rejected their

contention without substantive analysis. (Frangadakis, at pp. 543, 545–546.) People v. Englebrecht (2001) 88 Cal.App.4th 1236 (Englebrecht) did the same. (Englebrecht, at p. 1245.)

There is no binding California Supreme Court holding on the issue of whether a jury trial is required in a representative public nuisance action by the government seeking only a remedial abatement order. This issue is " ' "a purely historical question, a fact which is to be ascertained like any other social, political or legal fact." [Citations.]" (Franchise Tax Ed v. Superior Court, supra, 51 Cal.4th at p. 1010.) Defendants have failed to show that the trial court erred in finding that there was not a right to a jury trial under the common law in 1850 in a representative public nuisance action brought by the government seeking solely a remedial abatement The historical materials upon which order. defendants rely reflect that representative public nuisance cases brought by the government seeking only remedial abatement orders were not exclusively tried in common law courts but could be resolved in equity courts by the Chancellors. None of the cases from the 19th century involved a cause of action closely analogous to the representative public nuisance cause of action seeking only remedial abatement brought by plaintiff in this action. Given this historical record, we must reject their contention that they were deprived of their right to a jury trial.

H. Abatement Fund

Defendants contend that the trial court's abatement order was invalid because it was actually an order that they pay damages.

The trial court's statement of decision required "abatement through the establishment of a fund, in the name of the People, dedicated to abating the public nuisance" that would "be administered by the State of California," unless the State was "unwilling or unable" to do so, in which case the 10 jurisdictions would serve as receivers and administrators of the fund. "Payments into the fund shall be deposited into an account established in the name of the People and disbursed by the [CLPPB] on behalf of the People." "The Defendants against whom judgment is entered, jointly and severally, shall pay to the People of the State of California, in a manner consistent with California law, \$1,150,000,000 (One Billion One Hundred Fifty Million Dollars) into a specifically designated, dedicated, and restricted abatement fund $[\P]$... within 60 days of entry of (the 'Fund') judgment." The funds will be disbursed to the 10 jurisdictions to pay for remediation in accordance with the abatement plan. "The [remediation] program shall last for four years from the date of total payment by defendants into the Fund. If, at the end of four years, any funds remain, those monies shall be returned to the paying defendants in the ratio by which the program was initially funded. The Superior Court of California, County of Santa Clara, shall have continuing jurisdiction over the Plan and its implementation."

Defendants assert that "[t]he [abatement] Plan is nothing more than a thinly-disguised damages award to Plaintiffs for unattributed past harm to private homes over which Defendants have no control."

"An abatement of a nuisance is accomplished by a court of equity by means of an injunction proper and

suitable to the facts of each case." (Sullivan, supra, 72 Cal. at p. 249.) "'[T]he granting, denial, dissolving, or refusing to dissolve a permanent or preliminary injunction rests in the sound discretion of the trial court upon a consideration of all the particular circumstances of each individual case.' [Citation] Such an order will not be modified or dissolved on appeal except for an abuse of discretion." (Union Interchange, Inc. v. Savage (1959) 52 Cal.2d 601, 606.)

A public entity may not recover in a representative public nuisance action any funds that it has already expended to remediate a public nuisance. This court acknowledged as much in *Santa Clara I.* (*Santa Clara I.*, *supra*, 137 Cal.App.4th at p. 310.) The trial court's abatement order in this case did not attempt to award any already-incurred costs to plaintiff or to any of the 10 jurisdictions. Instead, the court's abatement order directed defendants to deposit funds in an abatement fund, which would be utilized to prospectively fund remediation of the public nuisance. None of these funds were permitted to be utilized to reimburse plaintiff, any of the 10 jurisdictions, or any homeowners for already-incurred costs.

The abatement fund was not a "thinly-disguised" damages award. The distinction between an abatement order and a damages award is stark. An abatement order is an equitable remedy, while damages are a legal remedy. An equitable remedy's sole purpose is to eliminate the hazard that is causing prospective harm to the plaintiff. An equitable remedy provides no compensation to a plaintiff for prior harm. Damages, on the other hand, are directed at compensating the plaintiff for prior accrued harm that has resulted from the defendant's wrongful conduct.

The distinction between these two types of remedies frequently arises in nuisance actions. Generally, continuing nuisances are subject to abatement, and permanent nuisances are subject to actions for damages. (Baker v. Burbank-Glendale-Pasadena Airport Authority (1985) 39 Cal.3d 862, 868–870.) As Code of Civil Procedure section 731 permits a public entity plaintiff to seek abatement of a public nuisance in a representative action, the trial court could properly order abatement as a remedy in this case.

Here, plaintiff sought the equitable remedy of abatement for the nuisance because the hazard created by defendants was continuing to cause harm to children, and that harm could be prevented only by removing the hazard. Plaintiff did not seek to recover for any prior accrued harm nor did it seek compensation of any kind. The deposits that the trial court required defendants to make into the abatement account would be utilized not to recompense anyone for accrued harm but solely to pay for the prospective removal of the hazards defendants had created. Furthermore, any funds that had not been utilized for that sole purpose by the end of the four-year abatement period were to be returned to defendants. While the trial court did require defendants to make deposits into the account to provide the funds necessary to carry out the abatement, the court's estimate of the amount that would be necessary for that purpose was just that: an estimate. The trial court could have chosen to have defendants handle the remediation themselves, but such an order would have been difficult for the court to oversee and for defendants to undertake. The court's reasonable decision to create a remediation fund overseen by a knowledgeable receiver, and ultimately by the court, was not an abuse of discretion under the specific circumstances of this case.

Because the trial court's abatement order did not require defendants to reimburse anyone for already incurred costs, defendants' reliance on County of San Luis Obispo v. Abalone Alliance (1986) 178 Cal.App.3d 848 (Abalone), which this court cited in Santa Clara I, is misplaced. In *Abalone*, the county sought to recover \$700,000 in costs that it had incurred as a result of the defendants' "blockade " (Abalone, at p. 859.) The Court of Appeal rejected the county's attempt to characterize these already incurred costs as "costs of abatement" so that they could be recovered in a public nuisance abatement action. (Abalone, at pp. 859–860.) As the court pointed out, these already-incurred costs were "damages," and therefore not recoverable by a public entity in a public nuisance abatement action. (*Abalone*, at pp. 859–861.)

The distinction between an abatement fund and damages was recognized by the Third Circuit Court of Appeals in *United States v. Price* (3d Cir. 1982) 688 F.2d 204 (*Price*). *Price* was an appeal from the district court's denial of a preliminary injunction in a case where the defendants were alleged to be responsible for contaminating a city's water supply. While the Third Circuit affirmed the district court's exercise of its discretion to deny preliminary relief, it pointed out that the district court had taken an "unduly restrictive view of its remedial powers" (*Price*, at p. 211.) "Damages are awarded as a form of substitutional redress. They are intended to compensate a party for an injury suffered or other loss. A request for funds for a diagnostic study of the public health threat posed

by the continuing contamination and its abatement is not, in any sense, a traditional form of damages. The funding of a diagnostic study in the present case, though it would require monetary payments, would be preventive rather than compensatory. The study is intended to be the first step in the remedial process of abating an existing but growing toxic hazard which, if left unchecked, will result in even graver future injury, i.e., the contamination of Atlantic City's water supply." (*Price*, at p. 212.)

While the trial court's order in this case may be requiring defendants to remediation costs, it was well within the court's discretion. The California Supreme Court presciently noted in Santa Clara II that "[t]his case will result, at most, in defendants' having to expend resources to abate the lead-paint nuisance they allegedly created, either by paying into a fund dedicated to that abatement purpose or by undertaking the abatement themselves." (Santa Clara II, supra, 50 Cal.4th at pp. 55–56, italics added.) The abatement fund ordered by the trial court was a reasonable method of prefunding the remediation that is required to abate the public nuisance created by defendants. The choice of this method was not an abuse of the court's broad discretion to fashion an appropriate abatement injunction.

Defendants briefly complain that the trial court erred "by ordering defendants to pay into a plan that provides no judicial oversight, and no mechanism for return of unused funds to defendants." We see no such flaws in the court's order. The court expressly provided that it would retain jurisdiction "over the Plan and its implementation." And it explicitly

ordered, "If, at the end of four years, any funds remain, those monies shall be returned to the paying defendants in the ratio by which the program was initially funded." Thus, there is no basis for defendant's complaints.

There is also no merit to defendants' claim that the abatement fund will somehow be "placed into the State treasury..." The trial court's order explicitly required defendants to deposit funds into "a specifically designated, dedicated, and restricted abatement fund." It plainly did not require, contemplate, or permit the deposit of those funds into "the State treasury..."

I. Laches

ConAgra contends that plaintiff's public nuisance cause of action was barred by laches.⁶¹ Plaintiff asserts that laches was not an available defense to its public nuisance abatement cause of action. The trial court expressly rejected ConAgra's laches contention in its statement of decision, but ConAgra contends that it is raising solely a legal issue upon which we exercise independent review. Although a trial court's decision on a laches issue is ordinarily subject to deferential review, the issue of whether laches is a legally available defense is a legal issue subject to de

⁶¹ Although defendants generally join each other's contentions, ConAgra's laches argument is premised on facts concerning only itself. NL makes no mention of laches in its briefs. SWC makes only the briefest mention of laches in its opening brief. Because NL and SWC have chosen not to argue this issue as to their particular facts, and ConAgra's contention is premised on facts applicable only to itself, we discuss this issue solely as it applies to ConAgra.

novo review. (City and County of San Francisco v. Ballard (2006) 136 Cal.App.4th 381, 392.)

Civil Code section 3490 expressly provides that "[n]o lapse of time can legalize a public nuisance, amounting to an actual obstruction of public right." (Civ. Code, § 3490.) ConAgra claims that this statute does not apply because interior residential lead paint does not actually obstruct any public right. As we have already explained, plaintiff established that pervasive interior residential lead paint in the housing stock of the 10 jurisdictions obstructs the public right to safe housing. An obstruction is something that impedes or hinders. (Merriam-Webster's Collegiate Diet. (10th ed. 1993) p. 803.) Interior residential lead paint "actual[ly]" impedes or hinders the public right to safe housing because it renders unsafe for young children a large amount of residential housing in the 10 jurisdictions. We reject ConAgra's claim that interior residential lead paint does not amount to an actual obstruction of a public right.

ConAgra also claims that Civil Code section 3490 does not apply here because it is not seeking to "legalize" any continuing conduct, such as putting lead paint in residential housing. Nowhere in the text of Civil Code section 3490 do we discern any indication that it is limited to continuing *conduct*. Legalize means to "make legal," and "legal" means "conforming to" the law. (Merriam-Webster's Collegiate Diet. (10th ed. 1993) p. 664.) Public nuisances are criminal. (Pen. Code, § 372.) The public nuisance created by defendants is not "conforming to" the law, and permitting defendants to avoid responsibility for abating this public nuisance would allow this *unlawful* public nuisance to continue to exist. Under these

circumstances, Civil Code section 3490 does apply, and any "lapse of time" does not preclude plaintiff's action to abate the unlawful public nuisance created by defendants.

ConAgra further asserts that "public policy" supports the application of laches in this case. "'Laches is an equitable defense based on the principle that those who neglect their rights may be barred from obtaining relief in equity. [Citation.]' " (Feduniak v. California Coastal Com. (2007) 148 Cal.App.4th 1346, 1381, italics added.) "It is clear, however, that neither the doctrine of estoppel nor any other equitable principle may be invoked against a governmental body where it would operate to defeat the effective operation of a policy adopted to protect the public." (County of San Diego v. California Water & Tel. Co. (1947) 30 Cal.2d 817, 826, italics added.)

Since laches is an equitable defense, it could not be asserted against the government, even if it were not barred by Civil Code section 3490, because such an application would defeat a public policy aimed at protecting the public. Civil Code section 3479 is an expression of the Legislature's public policy against public nuisances, and it is plainly aimed at protecting the public from the hazards created by public nuisances.

Given these conclusions, we need not consider ConAgra's extended and irrelevant argument that the public nuisance it assisted in creating was permanent rather than continuing. The trial court did not err in rejecting ConAgra's laches defense.

J. Procedural and Evidentiary Issues

Defendants contend that the trial court erred in (1) admitting hearsay documents, permitting experts to testify about hearsay documents, and considering limited purpose hearsay documents for their truth; (2) blanket making ruling disallowing recrossexamination; (3) imposing time limits and rejecting offers of proof and deposition designations; (4) changing the relevant product from white lead to lead paint during trial; (5) not allowing defendants adequate time to analyze the "RASSCLE" database, which was not fully provided to defendants until three weeks before trial; (6) not allowing defendants to inspect specific properties; and (7) not sanctioning plaintiff for spoliation of evidence. 62

1. Hearsay Documents

Defendants claim that the trial court prejudicially erred in (1) admitting hearsay documents into evidence under Evidence Code section 1280 that did not meet that statute's requirements, (2) permitting plaintiff's expert historians to give opinion testimony based on hearsay documents that were not admitted into evidence at trial or were admitted only for a limited purpose, (3) permitting plaintiff's experts to quote those limited purpose documents while

⁶² The trial court advised the parties before trial that an objection by one defendant would be "applicable to" all defendants. The court reiterated this at trial. Hence, we analyze these contentions as to all defendants even if only one of them objected at trial.

testifying, and (4) considering limited purpose hearsay documents for their truth.⁶³

a. Evidence Code section 1280

i. Background

Near the beginning of trial, defendants submitted a "Memorandum Regarding Admissibility of Scientific and Government Publications." (Most capitalization omitted.) This memorandum addressed potential exhibits described as "reports and surveys from

⁶³ Defendants' appellate briefing makes it difficult if not impossible to determine precisely which trial court rulings on defense objections are being challenged on appeal. For instance, ConAgra refers in its brief to some testimony by plaintiff's expert Markowitz. Defendants did not interject any hearsay objections to the testimony of Markowitz to which they refer. At one point, during Markowitz's testimony, ConAgra's trial counsel asked the court whether a Fuller brochure was being admitted for a limited purpose, and the court confirmed that it was. He made no objection. Hence, defendants did not preserve a hearsay objection to this testimony.

Defendants cite a written objection that ConAgra filed, objecting to any testimony by plaintiff's expert historian Rosner that Fuller's promotion of lead paint had "caused" lead paint to be present on residences in the 10 jurisdictions. It claimed that Rosner was not qualified to offer such testimony and lacked any reliable basis for such testimony. These written objections did not interject any hearsay objections or relate to the contentions that defendants make on appeal. Defendants cite a defense objection, not on hearsay grounds, to the admission of an exhibit regarding ConAgra's liability as the successor to Fuller. And they cite ConAgra's objection on "no foundation and Evidence Code sections 802 and 803" grounds to any testimony by plaintiff's expert Markowitz that Fuller had knowledge of the dangers of lead when it was promoting it. Although the court overruled these objections, there is no apparent relationship between that ruling and defendants' evidentiary contentions on appeal.

federal agencies and committees" and a single article from a medical journal. Defendants asserted that these documents would not qualify for admission under Evidence Code section 1280 because they were "not limited to public employees' records of an act, condition, or event, nor were they written at or near the time of such an act, condition, or event." They also asserted that plaintiff's experts could not testify about the contents of these documents other than to say that they had relied on them.

The trial court did not view this memorandum as an objection to anything: "It is not framed as a motion. It is not framed as an objection to testimony. I wasn't clear what it was supposed to be other than trying to educate me about some legal principles." Defendants explained that they were providing "our explanation for those objections in advance," and they then objected on hearsay and relevance grounds to plaintiff's expert historian Mushak "reading from and potentially offering" "scientific journals government reports." The court noted that Mushak was testifying as an expert and therefore could rely on inadmissible hearsay to support his testimony. It also observed that "reports and analysis" that were not admitted for their truth but solely to allow the court to evaluate the expert's testimony could be received into evidence. The court ruled that "expert witnesses testifying in this case as a general matter can rely on reports, information, which might otherwise be designated inadmissible as hearsay."

Defendants clarified that their objection was to *the admission of the documents*, not the expert's reliance on hearsay. The trial court reiterated that any hearsay documents relied on by the experts would not

be admitted for their truth but only to evaluate the expert's testimony. The court subsequently ruled: "First of all, if the documents that are being proffered are the product of a public agency, they will be admitted as an exception to the hearsay rule under Evidence Code Section 1280. That's a general proposition I don't think anyone can argue with. Experts who are testifying and who are relying on reports, analysis, and so forth, not prepared by themselves but, say, statistical analysis or something like that, those materials can come into evidence for a limited purpose to assist the Court in evaluating the expert's opinion." No defendant challenged at that time the court's statement that "documents that ... are the product of a public agency" are admissible under Evidence Code section 1280.

Defendants subsequently objected on hearsay grounds to the admission of a 2012 "monograph" prepared by the National Institutes of Health (NIH) addressing the health effects of low-level lead exposure. This monograph was introduced during the testimony of one of the experts who had helped write it. The court ruled that this document was admissible under Evidence Code section 1280. Defendants also objected on hearsay grounds to the admission of a Mineral Resources Yearbook for the year 1922 that had been prepared and published by the United States Department of the Interior in 1925. This document contained statistics for the production consumption of lead in the United States from 1917 to 1922 and a list of the companies that were producing white lead in 1922, which included Fuller, NL, and SWC.

ii. Analysis

"Evidence of a writing made as a record of an act, condition, or event is not made inadmissible by the hearsay rule when offered in any civil or criminal proceeding to prove the act, condition, or event if all of the following applies: $[\P]$ (a) The writing was made by and within the scope of duty of a public employee. [¶] (b) The writing was made at or near the time of the act, condition, or event. $[\P]$ (c) The sources of information and method and time of preparation were such as to indicate its trustworthiness." (Evid. Code, "A trial court has broad discretion in determining whether a party has established these foundational requirements. [Citation.] Its ruling on admissibility 'implies whatever finding of fact is prerequisite thereto [Citation.]' [Citation.] reviewing court may overturn the trial court's exercise of discretion' "only upon a clear showing of abuse." '" (People v. Martinez (2000) 22 Cal.4th 106, 120.)

We can see no abuse of discretion in the trial court's finding that the monograph and the mineral yearbook fell within the parameters of Evidence Code section 1280. Both of these documents demonstrated on their face that they had been prepared by public employees in the scope of their employment. The monograph described an NIH study that had been recently completed and had been extensively peer reviewed, so the trial court could have reasonably concluded that it was a writing made "at or near" the time of the study and had been prepared using sources and methods that were trustworthy. The mineral yearbook was prepared by the Department of the Interior to report on mineral production and consumption during what were no doubt the most recent years for which it had

information. The trial court could reasonably conclude that the Department of the Interior used trustworthy sources to compile this information.

Defendants do not argue the Evidence Code section 1280 issue as to any other exhibits except for a summary reference in a footnote to exhibits 8, 17, 19, and 253 as examples of documents that were admitted into evidence by the trial court over hearsay objections under Evidence Code section 1280. **Defendants** provide no further detail about these four exhibits, and they do not even provide record citations for the exhibits themselves or the rulings on their admission. Instead, they support their claim that these four exhibits were admitted into evidence over hearsay objections with a citation to the court's general unchallenged ruling that "documents that . . . are the product of a public agency" would be admissible under Evidence Code section 1280.

Despite defendants' inadequate briefing, we briefly consider the propriety of the admission of these four exhibits. Exhibit 8 is a transcript of a 1910 hearing before a Congressional committee. When it was admitted into evidence, the only defense objection was "[c]ontinuing objections," which the court overruled while citing Evidence Code section 1280. Defendants made no express hearsay objection to the admission of this exhibit, and they submit no argument on appeal as to why this official transcript of a legislative hearing was not admissible under Evidence Code section 1280. In any case, we can see no abuse of discretion in the court's determination that this official transcript was admissible under Evidence Code section 1280. Exhibit 17 is a 2013 CDC "Weekly Report," and one of plaintiff's experts testified that the CDC published such reports every week. Exhibit 19 is a 2010 World Health Organization (WHO) booklet on childhood lead poisoning that was prepared in part by one of plaintiff's expert witnesses. When these two exhibits were admitted into evidence, the defense objected "under 1280 because it is not a record of an act, condition, or event." The court overruled the objections. Again, defendants do not detail on appeal why these exhibits did not qualify for admission under Evidence Code section 1280. However, we can discern no abuse of discretion in the trial court's overruling of the objection. Both exhibits appear to be timely official records of conditions.

Exhibit 253 is a resolution of the Santa Clara County Board of Supervisors declaring National Childhood Lead Poisoning Prevention Week in 2012. When this document was mentioned by a witness at trial, the defense objected on "foundation" grounds and because it was "unsigned." Although the court admitted the document "for all purposes," it also said that it would "take it in for whatever it is worth" as a "resolution of the Board of Supervisors." The only testimony about this document was that it showed that "[t]he Board is basically recognizing that childhood lead poisoning is a significant health issue in Santa Clara County " This was not a disputed issue. Defendant makes no argument on appeal about how it could have been prejudiced by the admission of this document, and it is inconceivable that this document was considered for the truth of any of its recitals. Any error in admitting it "for all purposes" was not prejudicial.

b. Expert Testimony Based on Hearsay Documents Not Admitted At Trial

Defendants contend that the trial court erred in permitting experts to testify "based on hearsay documents that were described at trial but which were, in many instances, never admitted into evidence." With one exception, none of the record citations that defendants provide to support this contention contains any objection to expert testimony about hearsay documents that were not admitted into evidence. Instead, the record citations they provide in support of this contention are to testimony based on documents that were admitted into evidence.

The one exception is the following exchange: "Q [by plaintiff's trial counsel]. Okay. And, Dr. Markowitz, we have only touched on a handful of documents from either the Lead Industries Association or the National Paint, Varnish, and Lacquer Association here. Are these documents representative of other types of documents that you have seen in your much more extensive research and review of hundreds thousands of pages of documents? [¶] MR. GLYNN [DuPont's trial counsel]: I think that's improper to now bring in a host of undisclosed and undescribed documents. He can testify as to what he has brought to court, not something — [¶] THE COURT: I get it. You can shorten the objection. The objection is overruled. It is what it is." Markowitz responded: "Yes. These are representative of many other documents." Defendants provide in support of this argument no other record citation to any instance of an overruled defense objection to an expert testifying about an unadmitted document.⁶⁴ As the trial court's alleged error in overruling this objection resulted only in Markowitz's response to this one question, which was not prejudicial, we reject this contention.

c. Permitting Experts to Read Limited Purpose Hearsay Documents Into Record

Defendants assert that the court prejudicially erred in permitting experts to read into the record hearsay in documents that had been admitted for a limited purpose. The string of record citations that defendants provide to support this assertion, which they make without substantive analysis, primarily demonstrates that the court expressly ruled that the hearsay in these documents was being admitted only for a limited purpose. Defendants' objections were primarily limited to hearsay objections to the documents themselves.⁶⁵

⁶⁴ We do note one other similar occurrence. "Q [by plaintiff's trial counsel]. Were these opinions informed by other documents that you reviewed in [the] historical record? [¶] A [by plaintiff's expert Rosner]. Yes, certainly. [¶] Q. And are the documents you presented to the Court as the basis of your expert opinion, representations of what you have seen in other documents as well? [¶] A. Yes. [¶] MR. STERN [ARCO's trial counsel]: Objection, your Honor. Without specific discussion of those documents. [¶] THE COURT: Overruled. [¶] THE WITNESS: Yes." The trial court's alleged error in overruling this objection also was not prejudicial.

⁶⁵ For instance, the defense objected, apparently on hearsay grounds, to the admission of an 1878 medical journal article, and the court ruled that the evidence would be admitted for the limited purpose of evaluating the expert's opinion. In response to plaintiff's argument for unlimited admission, the court held open the possibility that this article might be admissible to show "notice" if plaintiff produced evidence that a defendant was aware

However, defendants did make a relevant objection at one point. The defense objected on hearsay grounds to the admission of 1937 and 1939 LIA and NPVLA documents and a 1930 newspaper article referenced in the LIA documents. The court admitted these documents for the limited purpose of evaluating the expert's opinion testimony, and it permitted the defense to enter a "continuing objection to purported opinion testimony that is based solely on information gleaned from the four comers of the document being referred to." Plaintiffs experts thereafter referenced specific portions of these documents in their testimony.

"If statements related by experts as bases for their opinions are not admitted for their truth, they are not hearsay." (People v. Sanchez, supra, 63 Cal.4th at p. 681.) "When an expert relies on hearsay to provide case-specific facts, considers the statements as true, and relates them to the [factfinder] as a reliable basis for the expert's opinion, it cannot logically be asserted that the hearsay content is not offered for its truth." (Id. at p. 682.) "When an expert is not testifying in the form of a proper hypothetical question and no other evidence of the case-specific facts presented has or will be admitted, there is no denying that such facts are being considered by the expert, and offered to the

of it. ConAgra objected on hearsay grounds to the admission of a 1919 newspaper article about Fuller's South San Francisco plant. The court ruled that the article was admissible for a limited purpose.

⁶⁶ There is no indication that the trial court or the parties viewed this "continuing objection" as applying to documents other than the LIA and NPVLA documents and the 1930 newspaper article.

[factfinder], as true." (*Id.* at p. 684.) "If an expert testifies to case-specific out-of-court statements to explain the bases for his opinion, those statements are necessarily considered by the jury for their truth, thus rendering them hearsay. Like any other hearsay evidence, it must be properly admitted through an applicable hearsay exception." (*Ibid.*) "What an expert *cannot* do is relate as true case-specific facts asserted in hearsay statements, unless they are independently proven by competent evidence or are covered by a hearsay exception." (*Id.* at p. 686.)

The trial court did not err in permitting the experts to testify about the specific statements in these documents that supported their opinions. First, the record does not establish that these documents were not within a hearsay exception. As plaintiff established below, these documents were more than 30 years old. "Evidence of a statement is not made inadmissible by the hearsay rule if the statement is contained in a writing more than 30 years old and the statement has been since generally acted upon as true by persons having an interest in the matter." (Evid. Code, § 1331.) "Ancient documents would have no effect or potency as evidence unless they served to import verity to the facts written therein. The true rule is that an ancient document is admitted in evidence as proof of the facts recited therein, provided the writer would have been competent to testify as to such facts." (Kirkpatrick v. Tapo Oil Co. (1956) 144 Cal.App.2d 404, 411.) Since the authors of the LIA and NPVLA documents and the writer of the newspaper article would likely have been competent to testify to the contents of these writings, and the members of the LIA and the NPVLA would have acted upon the statements in these documents being true, defendants have not established that these documents were inadmissible hearsay.

Second, the experts were not necessarily relying on the truth of the statements in these documents since their relevance was primarily to show what defendants were aware of at the relevant time. Finally, the trial court, which admitted these documents for a limited purpose, was well aware of the nature of the limited admissibility of these documents and, unlike lay jurors, able to distinguish between the use of the contents for their truth and the use of the documents as a basis for an expert's opinion.⁶⁷ We find no prejudicial error in the court's rulings with regard to the experts' references to these documents.

d. Reliance on Hearsay in Limited Purpose Documents

Defendants argue that the trial court prejudicially erred in considering for its truth hearsay in documents that had been admitted only for a limited purpose. Defendants have forfeited this contention because they fail to cite any indication in the record that the trial court relied on a *limited purpose* exhibit for the truth of its assertions. The only exhibits they expressly reference are exhibits 18 and 19, which were admitted for all purposes under Evidence Code section 1280 and therefore were not limited purpose documents.

⁶⁷ The court stated early on: "[T]hese matters, these reports, analyses, whatever they might be, if they are hearsay are not admitted for the truth of the matter asserted, but they are admitted for the limited purpose to assist me in evaluating the expert's opinion."

2. Disallowance of Recross

Defendants contend that the trial court prejudicially erred in ruling that there would be no recross-examination during the trial.

a. Background

After redirect of the first trial witness, one of the defense attorneys asked to recross. The court said: "No. No. One round. Direct, cross, redirect. That's it." After plaintiff's expert Rosner testified on redirect, trial counsel for ARCO and DuPont requested recross. The court denied the request. ConAgra's trial counsel objected to the denial of recross. "If the Court please, I too would like to do a brief recross-examination. May I please have a continuing objection to the denial of rights under 772 as to any witness where I actually participated in the cross-examination at issue." The court allowed him a continuing objection and overruled his objection. SWC's trial counsel joined ConAgra's objection NL's trial counsel did not join.

After redirect of plaintiff's expert industrial hygienist Gottesfeld, who had testified about lead inspections and lead assessments, SWC's trial counsel moved to "strike the redirect testimony in light of the denial of recross." The court denied the motion. It stated: "I think the Court has the discretion to alter the order of this. You might want to take a look at Evidence Code Section 320. There is some case law about that as well. I n any event, I think I am within my province to do that."

After plaintiff's witness Courtney testified on redirect, SWC's attorney asked to be permitted to "ask two questions as my redirect," but the court denied the request. SWC had done its direct exam as its cross to save time.

During redirect of plaintiff's expert Markowitz, plaintiff introduced additional exhibits. SWC's trial "[W]ith no chance to crosscounsel objected: examination [sic], they chose to proceed by summary. If they botched it, they shouldn't be able to drop this on us after cross. Your Honor, I object. If they are allowed, I would like an opportunity to study them and have this witness subject to recall so I can crossexamine them fairly and deal with them later. That's my objection." The court overruled the objection. After Markowitz's redirect, DuPont's trial counsel asked the court if it would "permit brief recross." The court said "No." No other attorney sought recross of Markowitz.

After redirect of plaintiff's final expert witness, SWC's trial counsel said: "I am assuming that your Honor's standing rule of no recross applies, and we don't have to ask for recross each time?" The court said: "That is correct." SWC's trial counsel then sought to strike the witness's testimony about an article because he would not have the opportunity to ask about it on recross. His request was denied.

At the close of plaintiff's case, SWC's trial counsel moved "to strike the testimony on redirect for all of the witnesses on the ground we were not permitted recross." The motion was denied.

b. Analysis

Defendants claim that the trial court's disallowance of all recross throughout the trial was an arbitrary ruling that cannot be upheld as an exercise of discretion because it allowed plaintiff to present evidence on redirect that defendants had no opportunity to confront.

"A witness examined by one party may be crossexamined upon any matter within the scope of the direct examination by each other party to the action in such order as the court directs." (Evid. Code, § 773, subd. (a).) "'Recross-examination' is an examination of a witness by a cross-examiner subsequent to a redirect examination of the witness." (Evid. Code, § 763.) "The examination of a witness shall proceed in the following phases: direct examination, crossexamination, redirect examination, examination, and continuing thereafter by redirect and recross-examination." (Evid. Code, § 772, subd. (a).)

Defendants contend that Evidence Code sections 772 and 763 create a right to recross. Neither statute creates any rights. Evidence Code section 763 merely defines recross, and Evidence Code section 772 simply identifies the order in which the various phases of witness examination, including recross, may occur. If defendants' contention were accurate, Evidence Code section 772's mention of re-redirect and re-recross would create a right to those uncommon phases of witness examination. Defendants cite no authority for the proposition that Evidence Code section 772 has ever been construed to create a right to every possible phase of witness examination.

Defendants cite an appellate court decision from Illinois for the proposition that a blanket prohibition on recross is never permissible.⁶⁸ In *Grundy County*

 $^{^{68}}$ Defendants' reliance on a federal Confrontation Clause case is misplaced as the Confrontation Clause does not apply in civil

Nat. Bank v. Myre (1975) 34 Ill.App.3d 287 (Grundy), a bank brought an action to collect from a farmer on an accounts receivable that had been assigned to the bank by a farm supply company. (Ibid.) The farmer claimed that the account was overstated by \$18,500, which was attributable to a note that the farm supply company had assigned to one of its suppliers and the farmer had paid off. The trial court rejected the farmer's claim that the account was overstated and awarded the bank over \$30,000. On appeal, the farmer contended that the trial court had prejudicially erred in refusing to allow him recross of one of the bank's witnesses. (Grundy, at pp. 287–288.) On direct exam, the witness acknowledged that \$18,500 for a carload of a particular type of fertilizer was supposed to be billed to the farmer by the supplier and was the subject of the note. On cross, the witness admitted that he could not tell if that fertilizer had instead been charged to the farmer's account by the supply company and said that the fertilizer was just part of the goods covered by the \$18,500 note. On redirect, the witness testified that one of the ledger cards for the farmer's account showed no fertilizer purchases that could have amounted to a carload or to \$18,500. The farmer was denied the opportunity for recross. In fact, another ledger card in evidence at the trial showed that more than \$20,000 had been charged to the farmer's account

cases. (*United States v. Baker* (9th Cir. 1993) 10 F.3d 1374, 1404 [Confrontation Clause permits recross to be barred except where "new matter" was introduced on redirect], overruled on a different point in *United States v Nordby* (9th Cir. 2000) 225 F.3d 1053, 1059.) The remainder of the cases defendants cite are irrelevant because they concerned the right to cross-examination, not the right to recross.

for a carload of that particular type of fertilizer. (*Grundy*, at pp. 288–289.) Under these circumstances, the Illinois appellate court held that, "[s]ince new matter had been brought out on redirect, and since the refusal to permit recross was clearly prejudicial to defendant's case, the ruling amounted to reversible error." (*Grundy*, at p. 290.)

Grundy is readily distinguishable. Here, unlike in Grundy, the trial court announced at the beginning of the trial that there would be no recross permitted throughout the trial. By making this ruling at the outset, the trial court let trial counsel know that it was their job to avoid the need for recross by objecting to any redirect that exceeded the scope of cross. The scope of direct operates as a limit on cross, and the scope of cross in tum limits redirect. Even without an opportunity for recross, the cross examiner has a full opportunity to address everything that the direct examiner has addressed on direct, and any redirect cannot properly delve into new subject matter. In fact, trial counsel for the defense actively interposed objections to the scope of redirect. Some of those objections were sustained, and others were overruled, but defendants do not contend on appeal that the trial court prejudicially erred in overruling their specific beyond-the-scope objections.

We can see no abuse of discretion in a trial court's decision that a particular court trial should be conducted without recross. In a court trial, the trial court, as the factfinder, can discern whether the material to be presented is of a type that does not merit repetitive examination of witnesses. In this case, with half a dozen litigants, more than a dozen trial attorneys, and predominantly expert witnesses

who had been heavily deposed in advance of trial, the trial court could have reasonably concluded that repetitive witness examination would be unduly burdensome and unproductive. Requiring trial counsel to police the scope of redirect so as to avoid the need for recross was a reasonable choice for the trial court to make in this case to avoid an undue consumption of the court's time and resources. The court did not abuse its discretion in prohibiting recross at this trial.

3. Time Limits

Defendants challenge the trial court's imposition of time limits and rejection of their posttrial deposition designations and offers of proof.

a. Background

The parties initially estimated that the trial would last two months. Two months before trial, the court told the parties that it would allow each side 30 hours to present its case. Defendants objected to this time limit. The court clarified that this limit applied only to "witness time" and that a party could seek more time if it could provide a "specific justification." ⁶⁹ The court told the parties that it anticipated that the case would be tried over a one-month period. The parties were ordered "to exchange exhibit lists and the content and expected testimony time of each witness" and to provide to the court "a list of proposed exhibits that are actually intended to be used and witnesses (including

⁶⁹ The court said: "[T]he time allocation refers to witness time and does not include opening statements (if any), pretrial and other motions, closing argument, and other procedural matters requiring Court time."

a brief summary of testimony and realistic time estimates)...."

On June 24, 2013, three weeks before trial, the court went over the lists of witnesses and time estimates that the parties had provided. Plaintiff's time estimate was within the court's 30-hour allotment. The defense estimated that it would need 64.25 hours to present its case. The court was not satisfied. "The Defendants have to get the number down from the amount of time that they have stated. I am not going to pick a precise number. But to get me above the 30 hours is going to take a lot, a lot, to get over that. And just a list of names is not going to do it."

On July 8, 2013, a week before trial, the court informed the parties that, "within reason," deposition testimony would not be counted against the 30-hour limit because the court could read deposition testimony "a lot quicker, obviously, than having somebody on the witness stand testifying." However, the court would count deposition testimony against the limit "if it gets to be excessive " The court had reviewed the parties' revised witness lists and exhibit lists, and, in the court's view, these lists confirmed that "the 30-hour limit is correct." 70 On the first day of trial, the court clarified that the time limit applied only to live testimony. The court explained that, based on pretrial litigation, "it [is] obvious to me that without specific limits for trial presentation this trial could easily divulge [sic] into a morass of side issues and side

⁷⁰ The court also informed the parties that the defense would have 30 minutes for each defendant for opening statement, but plaintiff would be limited to a single 30-minute opening statement for all 10 jurisdictions.

arguments." The court increased the time limit to 40 hours per side. It then overruled the defense objections to the time limits.

After plaintiff's expert epidemiologist Lanphear testified, SWC's trial counsel asked to submit an offer of proof of what additional questions he would have asked if he had not been subject to the time limits. The court acceded to his request to "file something" later. During the defense case, while the defense still had eight hours of time remaining, SWC requested additional time. The court rejected that request. Near the end of the defense case, the defense asked the court to allow it an additional hour to present a witness on abatement. The court agreed to "be flexible about that, within limits." The court did not interrupt the lengthy testimony by the defense abatement expert. After his testimony, the defense rested without requesting additional time.

When plaintiff presented its first rebuttal witness, the defense asked for 15 minutes to cross-examine him. The court granted this request. The defense completed its cross without being interrupted. After plaintiff's second rebuttal witness testified, the court offered the defense the opportunity to cross-examine the witness, but the defense declined. The defense freely cross-examined plaintiff's third rebuttal witness without interruption.

The trial actually consumed 24 court days. After trial, defendants delivered to the court 47 binders of proposed deposition designations for 46 witnesses to supplement the trial record. The court rejected 25 of the 47 binders, but it permitted 22 of the binders (for 21 witnesses) to be admitted into evidence. The court

subsequently rejected defendants' request for reconsideration of this ruling.

b. Analysis

Defendants complain that the trial court prejudicially erred in imposing "unreasonable time limits" on their examination of witnesses at trial and rejecting their efforts to use deposition designations and offers of proof to present evidence outside of those time limits.

Defendants appear to believe that Evidence Code section 351 precluded the trial court from limiting the amount of time they could use for their evidentiary presentation. This statute provides: "Except as otherwise provided by statute, all relevant evidence is admissible." The fact that relevant evidence is admissible does not mean that a trial court may not restrict a party from making an unduly time-consuming presentation of its evidence.

We review the trial court's imposition of time limits for abuse of discretion. (California Crane School, Inc. v. National Com. for Certification of Crane Operators (2014) 226 Cal.App.4th 12, 23 (Crane).) In Crane, the Fifth District Court of Appeal considered the merits of court-imposed time limits for a civil trial. We set forth the Fifth District's analysis at some length because it cogently refutes defendants' contention that time limits are forbidden.⁷¹

⁷¹ Defendants do not acknowledge the existence of *Crane* despite the fact that the *Crane* opinion was published in May 2014, well before any of the briefs were filed in this case (beginning in September 2014), and plaintiff cited *Crane* in its appellate brief.

"Some litigants are of the mistaken opinion that when they are assigned to a court for trial they have camping rights. This view presumes that the trial judge must defer to the lawyers' time estimates for the conduct of the trial such that, for example, when examining witnesses, unless a valid objection is made by one's opponent, a party is entitled to take whatever time it believes necessary to question each witness. This view is not only contrary to law but undermines a trial judge's obligation to be protective of the court's time and resources as well as the time and interests of trial witnesses, jurors and other litigants waiting in line to have their cases assigned to a courtroom. [Fn. The Evidence Code expressly empowers omitted.] trial judges to limit the presentation of evidence, even evidence that is relevant and probative. Evidence Code section 352 authorizes the court to exclude evidence if its probative value is substantially outweighed by the probability that its admission will necessitate undue consumption of time. Code section 765, subdivision (a) provides that the court shall exercise control over the mode of interrogation of witnesses 'so as to make interrogation as rapid, as distinct, and as effective for the ascertainment of truth.' Both statutes describe powers that the court may exercise on its own [¶] It is incumbent upon trial judges to manage trials efficiently. Efficiency is not necessarily measured by comparing the actual length of a trial with the parties' original time estimate because parties often overestimate or underestimate a trial's length. Judges need to be proactive from the start in both assessing what a reasonable trial time estimate is and in monitoring the trial's progress so that the case proceeds smoothly without delay. . . . Trial time management is an ongoing responsibility of the trial judge, regardless of the case's complexity, the number of witnesses called or whether specific time limits have been imposed. [¶]. . . [¶]

"For those cases in which the trial judge believes time limits should be set, the court should first elicit estimates from the parties and invite each side to comment on the other's estimate. Once the parties have presented their views, the court should independently evaluate the estimates based on the arguments of the parties, the state of the pleadings, the legal and factual issues presented, the number of witnesses likely to testify, the court's trial schedule and hours, and the court's experience in trying similar cases. [¶]...[¶]

"There are advantages to specifying time limits in court hours rather than court days. An hour time limit imposed on one side would include all time that party spends in examining its own witnesses (direct and redirect) as well as time spent in examining the adverse party's witnesses (cross and recross). It would include the time spent in delivering an opening statement and final argument. As contrasted with a time limit expressed in court days, an hour limit, as described, is not diminished by matters beyond the party's control, such as the amount of time an opponent to cross-examine said party's uses witnesses. . . . The parties are entitled to be kept advised on a regular basis and upon request of how much time each side has used and has remaining. [Fn. omitted.]

"... [A]ny time limit order should be reasonable, mindful that each party is entitled to a full and fair opportunity to present its case. Trials are a dynamic process without the benefit of a dress rehearsal, which makes forecasting the length of a trial less than precise. But for those parties and attorneys who are fully prepared for trial and do not waste time with repetitive questioning, cumulative evidence, not having witnesses available. not documentary evidence organized and easily accessible, a trial's length is not an issue. Thus, despite the vagaries of trial, when all parties try a case diligently, there is no reason for time limits. In all other cases, time limits will provide incentive to be diligent. [¶] Any limits imposed should be subject to revision (upward or downward) for good cause shown either on a party's or the court's own motion . . . [¶] Not all cases are suitable for the imposition of time limits. More often it is sufficient if the trial judge manages the trial in such a way that the trial proceeds efficiently without delays, repetition or dead time. However, in those cases in which the trial court imposes time limits, it is also important that those limits be enforced." (Crane, supra, 226 Cal.App.4th at pp. 19–22.)

The Fifth District's opinion in *Crane* provides an excellent explanation of how and why a civil trial court may use time limits to ensure an efficient trial. In this case, the trial court did precisely as the Fifth District later recommended. First, the trial court "elicit[ed] [time] estimates from the parties." Second, it "independently evaluate[d] the estimates based on the arguments of the parties, the state of the pleadings, the legal and factual issues presented, the number of

witnesses likely to testify, the court's trial schedule and hours, and the court's experience in trying [complex] cases." (Crane, supra, 226 Cal.App.4th at p. 20.) Third, the court specified the time limits in court hours, which "provide[d] [the parties] incentive to be diligent," and "kept [the parties] advised on a regular basis . . . of how much time each side ha[d] used and ha[d] remaining."⁷² (Crane, at p. 21.) Fourth, the court was responsive to the need to revise its original time limit and to allow additional time at the end of the trial when a showing was made that more time was necessary. Indeed, the trial court went to great lengths to ensure that its "reasonable" time limits did not prevent any of the parties from having "a full and fair opportunity to present its case." (*Ibid.*)

Nor was there any abuse of discretion in the court's ruling on defendants' "mass of binders" presented at the end of the trial. As the trial court observed, this avalanche of "unreasonable and excessive" material was in direct violation of the court's prior "directives," consisted primarily of "individuals who were not listed on the trial witness lists," and was consistent with defendants' pattern of attempts "to skirt the time limits imposed by the Court." And even then the court exercised considerable patience with defendants, sorting through this mass of material and admitting about half of these deposition designations into evidence.

⁷² This is not a case like *In re Marriage of Carlsson* (2008) 163 Cal.App.4th 281, in which the trial judge abused its discretion by abruptly terminating the trial in the midst of a party's examination of a witness. (*Id.* at p. 289.)

Under the circumstances, we can find no abuse of discretion in the trial court's imposition of time limits, enforcement of those time limits, and rejection of defendants' attempt to undermine those limits by sneaking in additional evidence in the form of a massive amount of deposition designations and offers of proof.

4. Lead Paint Rather than Lead Pigments

Defendants contend that the trial court deprived them of "fair notice" and a "fair trial" and "violated due process by changing the product at issue after trial" from lead "pigments" to lead "paint."

Defendants' contention is frivolous. Since the outset of this case, it has been unmistakably clear that the focus of plaintiff's public nuisance cause of action was lead paint. In Santa Clara I, in 2006, this court expressly identified plaintiffs allegations as asserting that defendants "promot[ed] *lead paint* for interior use even though defendants had known for nearly a century that such a use of lead paint was hazardous to human beings." (Santa Clara I, supra, Cal.App.4th at p. 306, italics added.) The California Supreme Court recognized in Santa Clara II in 2010 that this was an action concerning "lead paint " (Santa Clara II, supra, 50 Cal.4th at p. 43.) Plaintiff's opening statement at the 2013 trial of this action again targeted "lead paint." Even SWC's fellow defendant NL acknowledged in its opening statement that this action was about "Lead-based paint "

Notwithstanding the fact that it was well recognized years before trial that this case was about lead paint, after plaintiff's case-in-chief, SWC moved for judgment and argued to the trial court that it was

entitled to judgment because "this is a pigment case" rather than a lead paint case. SWC claimed that this distinction was important because it could not be liable for promotion of lead pigments since it made white lead carbonate pigment only for use in its own paints and did not promote lead pigment to other paint manufacturers. SWC's view was that plaintiff had chosen not to base its case on promotion of lead paint to consumers. Plaintiff responded: "To argue that promoting lead pigment on its own can form the basis of liability, but that putting that lead pigment in paint and telling consumers to use it specifically in a residence somehow insulates you from public nuisance liability is just counterintuitive to the legal principles and to the evidence that's here in this case." The court denied SWC's motion.

SWC's argument below and on appeal has no merit. SWC and its fellow defendants have always known that this case was about lead paint. Neither plaintiff nor the court "chang[ed] the product" in this case. This case was always about lead paint.

5. RASSCLE Database

Defendants contend that the trial court erroneously "denied defendants a reasonable opportunity to obtain and analyze the full RA[S]SCLE database before trial." They claim that, if they had had full access to the "RASSCLE data" further in advance of trial, that data "would have refuted plaintiffs' outdated, inapposite national studies" on the sources of elevated BLLs that the trial court relied upon.

a. Background

"RASSCLE is an acronym for Response and Surveillance System for Childhood Lead Exposure." The RASSCLE databases were created by the CLPPB. RASSCLE II is "a web-based system that is available in a number of the counties in the state" and contains data from 2006 and thereafter. RASSCLE I was its predecessor. RASSCLE I was closed in approximately 2009.

The "RASSCLE database . . . is a collection of the laboratory results of blood lead level testing results from all of the commercial laboratories in California." It is not random; it simply collects all of the data from children who happen to be tested for lead in California. California regulations require that all children receiving government assistance be tested for lead at age one and age two. State regulations also require that children living in pre-1978 housing with deteriorated paint or that has been recently renovated be tested for lead. These regulations produce about 700,000 tests each year. However, many of the highrisk children targeted by RASSCLE for testing do not get tested because testing occurs only if a health Kaiser provider orders a test. members overrepresented in RASSCLE because Kaiser makes lead screening a priority. Only about 75 percent of the children required to be tested are actually tested. The RASSCLE databases contain all cases where a child tested at 10 mcg/dL or higher. Only about 30 percent of the children in the 10 jurisdictions are included in the two RASSCLE databases.

The defense conceded that RASSCLE I had been produced by all entities except Monterey County. Monterey County was unable to access its RASSCLE I database because it did not know the password. When the court set the trial for July 15, 2013, the RASSCLE II database was expected to be produced by the state

by June 21, 24 days before the beginning of trial. Defendants claimed that they needed the RASSCLE II data in order to support their argument that the lead problem had been taken care of because BLLs had fallen dramatically. They also claimed that the RASSCLE II data would show that the current blood levels were due to other sources besides lead paint. Plaintiffs were willing to stipulate that there had been a dramatic drop in BLLs.

Defendants received the complete RASSCLE II database on June 21, 2013, three weeks before trial. They immediately provided it to their experts. Defendants told the trial court that their experts estimated that they needed "eight to ten weeks to fully analyze" this information. They sought a continuance of the trial, but the court denied their request. The court expressed its belief that the data could be analyzed in a few days and queried: "What are they using yellow pads and number 2 pencils? Come on. An abacus."

During its opening statement on July 15, 2013, NL's trial counsel told the court that the defense was due to receive a report from its experts on the RASSCLE II database on July 22, 2013. Defense witnesses did not begin testifying until August 15, 2013. A defense expert witness testified on August 15 about his review of the RASSCLE data from 2007 through part of 2012. He testified that he had "go[ne] through the RASSCLE data in detail"

b. Analysis

While defendants are less than clear about the precise nature of their contention, we understand them to be arguing that the trial court abused its discretion by denying their motion for a continuance of the trial to permit them more time to analyze the RASSCLE II data that was provided to them three weeks before trial. A trial court has great discretion in the disposition of an application for a continuance. Absent a clear abuse of discretion, the court's determination will not be disturbed. (Estate of Smith (1973) 9 Cal.3d 74, 81.) Here, the trial court reasonably concluded that defendants did not need two entire months to have their experts analyze the RASSCLE II data. The trial had not yet begun when the experts received the RASSCLE II data, and the defense claim that analysis of this data would take a minimum of eight weeks was subject to considerable doubt, particularly as the defense had repeatedly

⁷³ Our endeavor is made more difficult by defendants' failure to cite any authority in support of this contention other an irrelevant passage in the United States Supreme Court's opinion in Shelby County v. Holder (2013) _U.S._ [133 S.Ct. 2612] (Shelby). Shelby declared unconstitutional a section of the federal voting rights act that, in the court's view, selected jurisdictions for "preclearance" "based on 40-year-old facts having no logical relation to the present day." (Shelby, at p. 2629.) The court concluded that "[i]t would have been irrational for Congress [in 2006] to distinguish between States in such a fundamental way based on 40-year-old data, when today's statistics tell an entirely different story." (Shelby, at pp. 2630-2631.) The point that defendants may be trying to make is that the RASSCLE data would have updated prior studies. Of course this is not true. Because RASSCLE data was not compiled in a random fashion and did not even include all of the targeted population, it was not comparable to the data in the studies relied on by plaintiff. In any case, since defendants actually had full access to all of the RASSCLE data in time for their experts to fully analyze it before testifying at trial, defendants could not have been prejudiced by the court's refusal to further delay the trial.

sought to delay the trial. In fact, the defense experts were able to analyze the data in less than one month after receiving it, and the defense did not put on any witnesses until nearly two months after its experts received the RASSCLE II data. Under these circumstances, we can find no abuse of discretion in the trial court's denial of defendants' continuance motion.

6. Inspection of Properties

Defendants contend that the trial court's "pre-trial rulings prohibiting discovery" violated due process by "prevent[ing] defendants from mounting a defense to the condition of the supposed nuisance properties or to their culpability at each." They assert that the court "refused to allow defendants to inspect and exonerate themselves at the claimed nuisance properties" and "quashed defendants' attempt to inspect the alleged nuisance properties and to take discovery of property owners and the Jurisdiction's decision-makers."

Less than a month before trial, defendants filed an ex parte motion seeking "to serve inspection notices and notice depositions of landlords using the information disclosed in the RASSCLE databases, case files, and other documents recently produced or to be produced by plaintiffs and the State." Defendants claimed that their motion should be granted "because inspection of those addresses and depositions of landlords is necessary to gain evidence on several important topics including (a) whether a paint containing white lead pigment is even present, as plaintiffs assume to be the case but will not have proved; (b) the condition of any such paint and the reasons therefor including the landlord's violation of

California Health & Safety Code §§ 17920.10 and 17980 et seq., which require property-owners to abate 'lead hazards;' (c) the cause of any EBLLs [(elevated BLLs)] including alternative sources of lead in or around the residence; and (d) the effect of any remediation on BLLs and the efficacy of remediation." "This evidence will support defendants' position that, if there is any continuing problem at all, it is the result of poor maintenance, not mere presence." "Defendants recognize the practical limitations on the number of residences that can be inspected and landlords who can be deposed, especially with the short time between production of the case files and RASSCLE databases and the current trial date. Although the precise properties that defendants seek to inspect will depend on completing review of the recently, and to-be, produced documents, defendants have identified residences in San Mateo with lead hazards that it appears were not remediated despite numerous orders from the CLPPP to do so." One of defendants' attorneys declared that he had reviewed "case files produced by plaintiffs," some of which "identify residences in which it appears that lead hazards were not remediated, despite numerous orders from the CLPPP to do so." The court denied this ex parte motion.

Defendants claim that the court's "prohibition on discovery" amounted to a denial of due process, but the sole authority that they cite in support of their contention regarding inspection of properties is page 958 of the California Supreme Court's opinion in Rutherford v. Owens-Illinois, Inc. (1997) 16 Cal.4th 953. Since defendants submit no argument connecting this citation to their contention, we are given no

guidance as to what this page of this case might have to do with defendants' appellate contention. The seeking damages for harm caused by asbestos. The issue before the California Supreme Court was whether it was prejudicial error for the trial court to give a causation instruction that shifted the burden on causation to the defendants. The court held that the instruction was erroneous but not prejudicial. The page cited by defendants is a portion of the introduction to the opinion. Our best guess is that defendants are contending that they should have been permitted to attempt to disprove causation by establishing that the lead paint at particular properties did not come from their products.

Yet their actual contention is that the court erred in denying their ex parte motion to serve inspection notices on third parties. "The standard of review for discovery orders is abuse of discretion." (Avant! Corp. v. Superior Court (2000) 79 Cal.App.4th 876, 881.) Defendants cite no statutory or other authority for the court to grant an application to serve inspection notices on third parties. "[A] party's right to inspect documents or other physical evidence in the possession or custody of the opposing party depends upon compliance with the procedures set out in [Code of

⁷⁴ Like so many of defendants' appellate contentions, this one is difficult to understand. An appellate court should not be required to decipher the meaning of a contention that is not separately headed in any opening brief and for which no relevant authority is identified.

⁷⁵ We can find no indication in defendants' appellate briefing that they are challenging the court's denial of their request to depose "landlords."

Civil Procedure] section 2031. On the other hand, there are situations where documents can be obtained without the other party's cooperation (for example, under the Public Records Act or from a friendly third party or by hiring a trained investigator or on the internet). . . . [P]roperty open to the public can be examined without recourse to section 203 1 . . . provided that the examination can be conducted in a lawful fashion." (Pullin v. Superior Court (2000) 81 Cal.App.4th 1161, 1164–1165, italics added.) Since defendants have identified no authority upon which the trial court could have based a decision to grant their application to serve inspection notices on third parties, the trial court did not abuse its discretion in denying the application.

7. Spoliation

Defendants claim that they were denied a fair trial because plaintiff's "spoliation of evidence" deprived them of evidence that was "important" to their defense.

Defendants identify in their opening brief only two items of "important" evidence that they claim were destroyed by plaintiff. First, they assert that Monterey County destroyed evidence when it changed a statement that had previously appeared on its Web site acknowledging that most cases of elevated BLLs in that county were attributable not to lead paint but to other sources. This statement was not destroyed evidence; evidence of the removed statement came in at trial. Second, they assert that San Francisco destroyed evidence because it did not retain lead test reports that did not detect a BLL of 5 mcg/dL or higher. Although the lead test reports themselves

were "shredded," the evidence presented at trial reflected that the results in those reports were reported to the state and were contained in the state's records. Hence, no "important" evidence was destroyed.

SWC's reply brief suggests that two other types of evidence were destroyed. Monterey County did not retain any prior e-mails that were not in existence in January 2009, and it was unable to provide access to its RASSCLE I database because the only person who knew the password had died. The defense did not claim that there had been any "intentional destruction " Monterey County's failure to retain pre-2009 e-mails, while unfortunate, does not suggest that any important evidence was destroyed. While the RASSCLE I database was inaccessible, Monterey County provided its case files, and defendants had the more recent RASSCLE II database available to them. We see no indication that defendants were deprived of important evidence as the result of any "spoliation" and thus no basis for their claim that they were thereby deprived of a fair trial.

K. Appointment of Receiver

Defendants contend that their due process rights were violated because the trial court appointed the CLPPB to serve as the receiver of the abatement funds without holding an evidentiary hearing and in the absence of evidence that the CLPPB could qualify to serve as a receiver.

"A receiver may be appointed by the court in which an action or proceeding is pending, or by a judge thereof, ... [a]fter judgment, to carry the judgment into effect." (Code Civ. Proc., § 564, subd. (b)(3).) "Code

of Civil Procedure section 564, subdivision (b)(3), gives trial courts the discretion to appoint receivers to carry judgments in abatement proceedings into effect." (*City and County of San Francisco v. Daley* (1993) 16 Cal.App.4th 734, 744.) We review a trial court's order appointing a receiver for abuse of discretion. (*Ibid.*)

The appointment of a receiver to oversee the disbursement of the abatement funds in this case was necessary. Defendants were required to deposit funds into "a specifically designated, dedicated, and restricted abatement fund." The funds in this account would be "disbursed" by the receiver only in response to grant applications from the 10 jurisdictions. To perform this function, the trial court ordered that the abatement fund would be "administered by" the CLPPB "on behalf of the people" To While the trial court's decision to appoint a receiver in this case was a necessity, not an abuse of discretion, we agree with defendants that the record does not support the court's selection of the CLPPB to serve as the receiver in this case.

Defendants claim that the CLPPB cannot qualify to serve as a receiver because it is a nonparty over which the court lacks jurisdiction, has not consented to act as a receiver, and is not impartial due to its being a partyaffiliated entity.

⁷⁶ The court provided that the receiver's costs would be paid out of the abatement fund.

⁷⁷ The trial court's order referred to the CLPPB sometimes as the "administrator" of the fund and other times as the "receiver" of the fund. Since the parties assume that the CLPPB was appointed to serve as a receiver, we assume the same.

"No party, or attorney of a party, or person interested in an action . . . can be appointed receiver therein without the written consent of the parties, filed with the clerk." (Code Civ. Proc., § 566.) "A receiver is an agent and officer of the court, and is under the control and supervision of the court. [Citations.] The receiver is also a fiduciary who must act for the benefit of all parties interested in the property." (City of Chula Vista v. Gutierrez (2012) 207 Cal. App. 4th 681, 685.) The receiver must be "neutral." (Cal. Rules of Court, rule 3.1179(a).)

Since the trial court held no evidentiary hearing regarding the CLPPB's ability to serve as receiver, the record contains no evidence that the CLPPB has consented to serve as a receiver in this case or that it is sufficiently impartial to be deemed not "interested" in this action so that it can serve as a receiver. On remand, we will direct the court to hold an evidentiary hearing on the receiver issue.

L. SWC's Cross-Claim

SWC maintains that the trial court erred in failing to issue a declaratory judgment in response to its cross-claim. SWC sought a declaration that "Intact Lead Paint" that is not a "lead hazard" under Health and Safety Code sections 17920.10 and 105251 "or in violation of a valid existing ordinance is not a public

⁷⁸ The court's abatement order provided that if the CLPPB was "unwilling or unable" to administer the fund, the 10 jurisdictions "shall serve in this capacity." That cannot be. The 10 jurisdictions are not impartial nonparties and therefore cannot serve as receivers. (Code of Civ. Proc., § 566.)

 $^{^{79}}$ SWC's arguments on this issue simply incorporate its other contentions, which we have already rejected.

nuisance." It also sought a declaration that owners of properties with "lead hazard[s]" are "solely responsible" for the creation and maintenance of "any public nuisance" and the abatement of any "lead hazard." In sum, SWC sought a declaration that intact lead paint could not be declared a public nuisance and that defendants were not responsible for the creation or abatement of lead hazards. The trial court rejected SWC's cross-claim.

The declaratory judgment that SWC sought was diametrically opposed to the trial court's judgment in favor of plaintiff. The trial court's statement of decision found that even intact interior residential lead paint was a public nuisance if it was on friction surfaces. The court also found that defendants were responsible for the creation and abatement of lead-paint-based public nuisances in residential housing in the 10 jurisdictions. As we have already determined, these findings are supported by substantial evidence. Because these findings precluded SWC from obtaining its requested declaratory relief, the trial court did not err in rejecting SWC's cross-claim.

M. ConAgra's Liability As Fuller's Successor

ConAgra challenges the trial court's determination that it was liable as the successor to Fuller. It claims that substantial evidence does not support the trial court's finding.

The trial court found that "ConAgra succeeded to Fuller's liabilities as a result of a series of corporate mergers and/or the express assumption of liabilities." It ruled that "it is fair and appropriate in this case to so hold and necessary to prevent an injustice."

Our substantial evidence standard of review requires us to uphold the trial court's finding if "'there is any substantial evidence contradicted or uncontradicted which will support the finding of fact.'" (Foreman & Clark Corp. v. Fallon, supra, 3 Cal.3d at p. 881.)

The ordinary rule for determining "whether a corporation purchasing the principal assets of another corporation assumes the other's liabilities" is "that the purchaser does not assume the seller's liabilities unless (1) there is an express or implied agreement of assumption, (2) the transaction amounts to a consolidation or merger of the two corporations, (3) the purchasing corporation is a mere continuation of the seller, or (4) the transfer of assets to the purchaser is for the fraudulent purpose of escaping liability for the seller's debts." (Ray v. Alad Corp. (1977) 19 Cal.3d 22, 28, italics added (Ray).)

Plaintiff produced evidence at trial that ConAgra had succeeded to Fuller's liabilities as a result of a series of mergers and consolidations. This evidence showed that W.P. Fuller & Co. (Fuller), a California corporation, merged into Hunt Foods and Industries, Inc. (Hunt), a Delaware corporation, in 1962. After Fuller merged into Hunt, "it [(Fuller)] was still the . . . [¶] ... same operation." In 1968, three Delaware corporations, including Hunt, consolidated to become Norton Simon, Inc. (Norton Simon). In 1993, Norton Simon merged with another company to become Beatrice Company, which then merged with and into Hunt-Wesson, Inc. (Hunt-Wesson). In 1999, Hunt-Wesson changed its name to ConAgra. Since all of these transactions were mergers or consolidations, plaintiff's evidence was sufficient to support the court's finding that ConAgra succeeded to Fuller's liabilities.

ConAgra, relying on evidence it presented at trial, claims that the trial court could not have credited plaintiff's evidence that it succeeded to Fuller's liabilities. ConAgra's argument disregards the fundamental rule that a trial court may reject even uncontradicted evidence so long as it does not do so arbitrarily. (*Hicks v. Reis* (1943) 21 Cal.2d 654, 659.) The trial court could have reasonably concluded that the evidence upon which ConAgra relies was not credible.

ConAgra relies on evidence it produced that, in 1964, a corporation called "W.P. Fuller Paint Company" was incorporated. ConAgra asserts in its opening brief that "Hunt established WPFPC as a wholly-owned subsidiary" and cites nine pages of the appendix. Those nine pages consist of a "Certificate of Incorporation" for "W.P. Fuller Paint Company." The certificate contains no apparent reference to Hunt or to "W.P. Fuller Paint Company" being a subsidiary of Hunt. Hence, this evidence did not establish that "W.P. Fuller Paint Company" was a "wholly-owned subsidiary" of Hunt.⁸⁰

ConAgra claims that "undisputed evidence" establishes that all of Fuller's liabilities were transferred to "W.P. Fuller Paint Company" in 1967. It relies on a document that purports to be minutes of a December 1964 "first meeting" of the board of directors of "W.P. Fuller Paint Company." ConAgra asserts in its opening brief that these minutes "state

⁸⁰ We note however that plaintiff does not dispute that Hunt created "W.P. Fuller Paint Company."

WPFPC accepted Fuller's paint business, including its liabilities." These purported minutes, which were of uncertain origin, state that, at this meeting, the chairman of the board "stated Hunt Foods and Industries, Inc. had offered to transfer certain assets of W. P. Fuller & Co., a Division of Hunt, subject to certain liabilities, to this Corporation in exchange for Four Hundred Thousand (400,000) shares of common stock having a par value of \$5 each plus certain long and short-term notes." The purported minutes also state that the board passed a resolution "that this Corporation accept the proposal that Hunt Foods and Industries, Inc., ('Hunt') transfer to this Corporation the inventories, rights, credits, good will and other assets, other than certain fixed assets, consisting principally of certain lands, buildings, machinery and equipment which have been mutually agreed upon, of the business carried on by W. P. Fuller & Co., a Division of Hunt, subject to all of its liabilities."

ConAgra's reliance on these purported 1964 minutes is misplaced.⁸¹ The purported minutes, even if credited, would not establish that Hunt transferred "all of" Fuller's liabilities to "W.P. Fuller Paint Company." At most, these purported minutes might

B1 ConAgra also quotes extensively from an unpublished Delaware trial court opinion, *The O'Brien Corp. v. Hunt-Wesson, Inc.* (Del. Ch., Feb. 25, 1999, No. CIV. A. 16562) 1999 WL 126996, which dismissed on ripeness grounds a complaint for declaratory relief that had been filed by O'Brien against ConAgra's predecessor. That action sought a declaration that ConAgra's predecessor, not O'Brien, was Fuller's successor. O'Brien's *allegations* in its complaint in that action relied on the purported 1964 minutes. The Delaware trial court's dismissal of that action, which resolved no factual issues, is of no relevance here.

demonstrate that Hunt had "offered to transfer certain assets" of Fuller "subject to certain liabilities." The of the "certain liabilities" nature purportedly part of Hunt's offer was not specified. While the purported minutes might show that "W.P. Fuller Paint Company" resolved to accept this offer, the purported minutes do not enumerate all of the terms of the Hunt offer, do not demonstrate that any acceptance was communicated to Hunt, and do not establish that the two corporations ever actually consummated any contemplated transfer of any of Fuller's assets or liabilities on any terms. 82 The trial court could have reasonably rejected the inferences that ConAgra attempts to draw from the purported minutes.

ConAgra also claims in its appellate brief that, "[i]n 1967, Hunt sold Fuller's paint business to O'Brien." ConAgra cites two pages from the appendix. One page is an excerpt from deposition testimony of a former Fuller employee to the effect that he left Fuller in 1967 after "Norton Simon announced that he was putting the company up for sale." Since Norton-Simon was not created until 1968, the trial court could have reasonably rejected this testimony. The other page is a 1967 newspaper article reporting that Hunt had announced that it had sold "the business and assets" of "Fuller, a wholly owned subsidiary" to O'Brien. The article states: "Specific details of the transaction weren't disclosed." Even if the article were to be

⁸² ConAgra also produced evidence that, in 1967, "W.P. Fuller Paint Company" changed its name to "WPF, Inc.," and in 1968, "WPF, Inc." dissolved. We need not address this evidence, as its relevance depends on the validity of the propositions that ConAgra states in its brief but the trial court rejected.

deemed credible, it would not establish that Hunt's purported transaction with O'Brien transferred Fuller's liabilities to O'Brien.

Under Ray, the purchaser, here O'Brien, did not assume Fuller's liabilities "unless (1) there is an express or implied agreement of assumption, (2) the transaction amounts to a consolidation or merger of the two corporations, (3) the purchasing corporation is a mere continuation of the seller, or (4) the transfer of assets to the purchaser is for the fraudulent purpose of escaping liability for the seller's debts." (Ray, supra, 19 Cal.3d at p. 28.) ConAgra produced no evidence of any of the four predicates that could have shown that Hunt transferred Fuller's liabilities to O'Brien. ConAgra suggests that the "product line exception" to the Ray test applied, but it also failed to provide any evidentiary support for the application of that exception, even if it were the case that this exception could be applied outside the strict products liability context in this public nuisance abatement action.83 (See Franklin v. USXCorp. (2001) 87 Cal.App.4th 615, 628 [describing the requirements for product line exception and refusing to extend it beyond the strict liability context]; Monarch Bay II v. Professional Service Industries, Inc. (1999) 75 Cal.App.4th 1213, 1217 [limiting product line exception to strict liability actions].)

The trial court was not obligated to credit the truth of the assertions in the purported 1964 minutes or in the 1967 newspaper article. Since plaintiff's evidence

⁸³ ConAgra's reliance on *SCM Corp. v. Berkel, Inc.* (1977) 73 Cal.App.3d 49 is misplaced. That declaratory relief action was tried on stipulated facts and joint exhibits. (*Id.* at p. 52.)

supports the court's finding that Fuller's liabilities flowed from Hunt to Norton-Simon and through it to ConAgra, we must uphold the court's finding that ConAgra was Fuller's successor.

V. Lead Paint Cases From Other Jurisdictions

Defendants repeatedly cite four cases from other jurisdictions in which courts rejected public nuisance actions against lead paint and lead pigment manufacturers.

City of Chicago v. American Cyanamid Co., supra, 355 Ill.App.3d 209 (Chicago) was a public nuisance action seeking abatement⁸⁴ by Chicago against the manufacturers and distributors of lead pigments and lead paint. (Id. at pp. 210–211.) Chicago appealed after the action was dismissed for failing to state a claim. (Id. at pp. 211–212.) The Appellate Court of Illinois upheld the dismissal on the ground that Chicago had failed to adequately allege "proximate cause" because Chicago could not identify any specific defendant as the source of the lead pigment or lead paint at any particular location. (Id. at p. 216.) The court rejected Chicago's contention that the defendants were liable under a "market share" or "collective liability" theory. It held that Illinois did not recognize either theory. (*Id.*) at pp. 217–218.) In addition, the court held that Chicago could not succeed because it had failed to allege that the defendants controlled the property where the alleged nuisance was located. (*Id.* at p. 221.)

⁸⁴ Chicago's action originally sought damages, but on appeal Chicago contended only that it should have been able to seek abatement and punitive damages. (*Chicago, supra, 355* Ill.App.3d at pp. 211–212.)

City of St. Louis v. Benjamin Moore & Co. (Mo. 2007) 226 S.W.3d 110 (St. Louis) was a public nuisance action brought by a city against lead paint distributors seeking to recover "damages for assessing, abating, and remediating the nuisance." (Id. at pp. 113, 116 ["private tort action" seeking "damages"].) The trial court granted summary judgment to the defendants on the ground that the city could not prove causation without identification of the lead manufacturer whose paint had been remediated. (Id. at p. 113.) The Supreme Court of Missouri, relying on a case in which it had held that "market-share liability" was contrary to Missouri law, held that "actual causation can be established only by identifying the defendant who made or sold that product." (Id. at p. 115.)

In re Lead Paint Litigation, supra, 191 N.J. 405 [924] A.2d 484] (New Jersey) was a Supreme Court of New Jersey decision in a case where the trial court had dismissed for failure to state a cause of action a "common law" public nuisance action brought by municipalities against lead paint manufacturers. (Id. at p. 409.) The Supreme Court of New Jersey noted that the New Jersey Legislature had declared interior residential lead paint to be a public nuisance and assigned responsibility for it to the owners of the residences, not paint manufacturers. (Id. at pp. 429, 432–433.) Relying on the Restatement, the court found that only a tortfeasor "in control of the nuisance" could be held liable for public nuisance, and the paint manufacturers lacked such control. (New Jersey, at pp. 425, 429, 433.) The court also held that the action was barred because the municipalities sought damages, rather than abatement, and damages were not available in a public nuisance action to a public entity plaintiff that had suffered no special injury. (*Id.* at pp. 435–436.) Finally, the court held that, because the complaint sought to premise liability on a failure to warn, it "sound[ed] in products liability" and could not be the basis for a public nuisance action. (*Id.* at pp. 437–439.)

State v. Lead Industries Ass'n, Inc., supra, 951 A.2d 428 (Rhode Island) was a Supreme Court of Rhode Island decision in a public nuisance action brought by the state in which a trial court had ordered three former lead pigment manufacturers to abate lead paint. The court held that the trial court should have dismissed the action for failing to state a cause of action. (Id. at p. 452.) It found lacking any allegation that the defendants had interfered with a public right and any allegation that the defendants controlled the lead pigment. (Id. at p. 453.) "The interference must deprive all members of the community of a right to some resource to which they otherwise are entitled. [Citation] The Restatement (Second) provides much guidance in ascertaining the fine distinction between a public right and an aggregation of private rights. 'Conduct does not become a public nuisance merely because it interferes with the use and enjoyment of land by a large number of persons." (Id at p. 453.) "[A] public right is a right of the public to shared resources such as air, water, or public rights of way." (Id. at p. 455.) The court also held, in reliance on New Jersey, that the complaint was inadequate because it had failed to "allege any facts that would support a conclusion that defendants were in control of the lead pigment at the time it harmed Rhode Island's children." (*Rhode Island*, at p. 455.)

These cases are readily distinguishable from the case before us. None of the courts in these other jurisdictions assessed the merits of a public nuisance action in light of the voluminous evidence that was presented at the trial in this case. Only the Rhode Island case had been tried, and the Supreme Court of Rhode Island considered only the pleadings. The Chicago and New Jersey cases were dismissed at the pleading stage, and the St. Louis case was dismissed on summary judgment. The evidence presented at the trial in this case proved the elements of a representative public nuisance action, which might not have been apparent from the pleadings in the actions in these other jurisdictions. Only the Rhode Island and Chicago cases were actions for abatement rather than damages. As we have pointed out repeatedly, a representative public nuisance action seeking only remedial abatement is legally distinct from an action for damages.

None of the reasons that the courts in these other jurisdictions provided for their rejection of public nuisance liability applies to the case before us. The *Chicago* court relied on "lack of control" and a restrictive Illinois causation definition. As this court pointed out in *Santa Clara I*, a defendant's control of the nuisance is not necessary to establish liability in a representative public nuisance action in California. (*Santa Clara I, supra*, 137 Cal.App.4th at p. 306.) The Illinois causation test is not analogous to California's substantial factor test. *St. Louis* is similarly distinguishable because the court based its analysis on a Missouri causation test that is not analogous to California's substantial factor test.

The New Jersey court's analysis was based on lack of control, specific New Jersey laws assigning responsibility solely to property owners, and its conclusion that the action, which was for damages, "sound[ed]" in products liability rather than nuisance. Control is not required in California for a public nuisance action (Santa ClaraI, supra, Cal.App.4th at p. 306), and California's laws do not assign exclusive responsibility for lead paint remediation to property owners. This court held in Santa Clara I that a representative public nuisance action is not a disguised products liability action. "A public nuisance cause of action is not premised on a defect in a product or a failure to warn but on affirmative conduct that assisted in the creation of a hazardous condition. Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards. [¶] In contrast, a products liability action may be brought only by one who has already suffered a physical injury to his or her person or property, and the plaintiff in a products liability action is limited to recovering damages for such physical injuries." (Santa Clara I, at pp. 309–310.)

The *Rhode Island* court's decision was based on lack of control (which does not apply in California) and lack of interference with a public right. We disagree with the *Rhode Island* court's conclusion that lead paint does not interfere with "shared resources" (see section IV(B) of this opinion), and the *Rhode Island* court's Restatement-based analysis of the "public right" is not consistent with California's broader statutory

definition of a public nuisance. (*Rhode Island, supra*, 951 A.2d at pp. 453, 455.)

We therefore reject defendants' reliance on these cases from other jurisdictions.

VI. Amici Arguments

Seven amicus briefs have been filed in this case. Amici Civil Justice Association (CJA), Pacific Legal Foundation (PLF), and NFIB Small Business Center et al. (NFIB) have filed amicus briefs in support of defendants. Amici American Academy of Pediatrics, California (AAPCA), the Environmental Health Coalition and the Healthy Homes Collaborative (EHC), California Conference of Local Health Officers (CCLHO), and a group of organizations including Changelab, Consumer Attorneys of California and others⁸⁵ (Changelab) have filed amicus briefs in support of plaintiff.

A. CJA

CJA contends that we should reject the trial court's judgment holding lead paint manufacturers liable for creating a public nuisance because courts in other states have rejected such actions and certain journal articles have criticized the extension of public nuisance liability to such cases. California law is not based on the rulings of courts in other states, which are based on their laws and the facts of their cases, nor would be it appropriate for us to reverse a judgment based on opinions expressed in journal articles. The trial court properly applied California law, and, with

⁸⁵ The others are Equal Justice Society, National Center for Healthy Housing, Prevention Institute, and Public Health Institute.

one exception, substantial evidence supports its abatement order.

CJA contends that this case should have been dismissed because it sought resolution of a "non-justiciable political question," but none of the cases it cites is remotely similar to the one before us. CJA's argument largely repeats the separation of powers arguments made by defendants, which we have already rejected in section IV(C) of this opinion.

CJA challenges the trial court's conclusion that a "public right" was at issue here. We have already addressed that issue in section IV(B) of this opinion. CJA also challenges the sufficiency of the evidence to support the trial court's causation finding and claims that the substantial factor test for causation does not properly encompass the cause-in-fact requirement. The substantial factor test is the law in California. We have already fully addressed the causation issue in section IV(A)(4) of this opinion.

B. PLF

PLF's brief argues that application of public nuisance law in this case violates due process and is against public policy. The premise for PLF's due process contention is its claim that defendants' conduct "was lawful and non-tortious at the time the Defendants engaged in it...." This misunderstanding of the basis for the trial court's judgment permeates PLF's brief, which makes a frontal assault on the constitutionality of California's public nuisance law. We reject PLF's unfounded assertions. Defendants were found liable because they promoted lead paint for interior residential use knowing that such use would pose a serious risk of harm to children. This conduct

was just as unlawful and tortious when they engaged in it as it is now because the creation of a public nuisance has been unlawful in California since the 1800s. Consequently, the due process problem that PLF perceives does not exist in this case.⁸⁶

PLF fails to support its claim that the federal constitutional prohibition against vagueness in criminal statutes applies to civil liability for creating a public nuisance. PLF asserts: "Although most cases involving the 'constitutional requirement definiteness,' [citation to criminal case], have dealt with criminal statutes, the requirement also applies to nuisance law." PLF goes on to cite as an "example" a criminal case in which a protester was convicted of violating a noise ordinance. PLF then states that "[t]hese principles also apply to civil laws." It proceeds to cite cases involving challenges to statutes that prohibited speech. PLF identifies no civil case not involving the suppression of speech in which a court found that a public nuisance abatement action could not be brought because the statute barring public nuisances was unconstitutionally vague. We reject PLF's due process argument as unfounded.

PLF claims that the trial court could not have found "unreasonableness" because it "declar[ed] a lawfully sold product to be a public nuisance." PLF continues to misconstrue the basis for the trial court's decision. The trial court found that defendants were liable for creating a public nuisance as a result of their conduct in promoting lead paint for interior residential use

⁸⁶ PLF also contends that the trial court's judgment violates separation of powers, a contention that we have already analyzed in section IV(C) of this opinion.

while knowing of the hazard that such use would create. The court did not find that lead paint itself was a public nuisance. As this court ruled in *Santa Clara I*, such conduct is unreasonable under the statutory definition of a public nuisance.

PLF argues that the trial court's judgment "impermissibly broadens the definition of 'public right' " by applying it to injuries caused by "products . . . bought and used by individuals" Once again, PLF misconstrues the trial court's judgment. No individual injuries are being redressed. The trial court's judgment requires only that defendants remediate the dangerous conditions they created in the housing stock in these 10 jurisdictions. PLF also attacks the trial court's finding of causation, but its argument ignores the evidence that we have already concluded, with one exception, supports the trial court's causation finding.

PLF contends that the judgment improperly affects the rights of individual property owners without notice. It does not. The abatement plan ordered by the trial court is premised on voluntary participation by property owners. No property owners will be forced to participate, and therefore their rights will not be involuntarily impacted. While it is true that the abatement plan contemplates that the 10 jurisdictions will make publicly available a list of properties that have not been enrolled in the abatement plan, this provision alone does not substantially impact the rights of individual property owners. Already, any property built before 1978 is presumed to contain lead paint. (Cal. Code Regs., tit. 17, § 35043.) That presumption eliminates any impact on a property owner from a publicly available list of only those presumptively lead-paint-containing properties that have not been enrolled in the abatement plan. Property owners can only gain from enrollment in the plan; they have nothing to lose. PLF insists that the court's abatement order has "declared a nuisance" on individual properties without notice to the property owners. Not so. The trial court ordered defendants to abate the public nuisance they had created, but it did not identify any specific properties. The abatement plan itself is designed to identify and remediate the individual properties upon which defendants' public nuisance exists.

PLF maintains that public policy and a "national trend" favor rejection of the application of public nuisance in this case. It relies in part on out-of-state cases that have rejected public nuisance liability in lead paint cases. Those cases did not apply California public nuisance law, so they are inapposite. PLF's reliance on Firearm Cases is no more helpful to its cause. In that case, the First District Court of Appeal found causation lacking.87 "Merely engaging in what plaintiffs deem to be a risky practice, without a connecting causative link to a threatened harm, is not (Firearm Cases, supra, 126 a public nuisance." Cal.App.4th at p. 988.) "In this case, there is no causal connection between any conduct of the defendants and any incident of illegal acquisition of firearms or criminal acts or accidental injury by a firearm." (Id. at p. 989.) Here, unlike in the First District's case, defendants did not merely sell a product that posed a risk of harm. Defendants promoted lead paint for

⁸⁷ PLF repeatedly identifies that case as being from "this Court." It is not from this court, but from the First District.

interior residential use knowing that such use would create a serious risk of harm to children. As we have already determined, substantial evidence supports the trial court's decision that, with one exception, plaintiff established causation.

PLF argues that public policy weighs against recognizing a public nuisance cause of action in this case. "[I]f the lawful sale of a legal product can later serve as the basis of public nuisance liability of unlimited severity, businesses will be less willing to participate in the California market, or to provide citizens with products that might later prove hazardous or simply unpopular." This argument is divorced from the facts of this case. When a manufacturer promotes a product for a specific use that it knows will create a hazardous condition, public policy supports the use of California public nuisance law to require the manufacturer to remediate the hazards created by its conduct.

C. NFIB

NFIB argues that the trial court failed to require plaintiff to establish that defendants acted with the requisite knowledge and that defendants' conduct caused the public nuisance. We have already addressed these issues in response to defendants' contentions. NFIB also repeats some of the same arguments that PLF makes, which we have already rejected. NFIB argues that courts have previously rejected large-scale public nuisance actions, but it offers no detailed analysis of the reasons why those cases failed. It also notes that prior public nuisance actions in other states against lead paint manufacturers have failed. NFIB's main argument seems to be that courts should not allow public nuisance causes of action to be based on products, and it explicitly urges this court to "reconsider" *Santa Clara I*. We decline to do so for the reasons expressed in *Santa Clara I*.

D. Amici Supporting Plaintiff

Changelab argues that public nuisance abatement orders like the trial court's decision are urgently needed due to the lack of resources to combat the "epidemic" of lead poisoning arising from lead paint in residential housing. AAPCA emphasizes the need for "primary prevention" to ensure safe housing for children to avoid the "potentially devastating effects" of childhood lead poisoning, including irreversible cognitive impairment and developmental problems. It notes that remediation of housing containing lead paint is "the most critical step" in primary prevention. CCLHO echoes these concerns and points out the burden on governmental resources created by childhood lead poisoning, which disproportionately impacts economically disadvantaged children. EHC observes that a large portion of the housing stock continues to contain deteriorating lead paint that poses a serious health risk to children. EHC expresses substantial concern about the fact that the children most at risk, the poor, who live in the oldest, most deteriorated housing, are those with the least access to healthcare and are therefore those who are the least likely to be tested for lead and treated for lead poisoning.

All of the concerns expressed by the amici in support of plaintiff support the trial court's decision to order remedial abatement as an equitable remedy for defendants' knowing creation of a public nuisance.

VII. Disposition

The judgment is reversed, and the matter is remanded to the trial court with directions to (1) recalculate the amount of the abatement fund to limit it to the amount necessary to cover the cost of remediating pre-1951 homes, and (2) hold an evidentiary hearing regarding the appointment of a suitable receiver. Plaintiff shall recover its costs on appeal.

APPENDIX B

SUPERIOR COURT OF CALIFORNIA COUNTY OF SANTA CLARA

THE PEOPLE OF THE STATE OF CALIFORNIA,

Plaintiff,

vs.

ATLANTIC RICHFIELD COMPANY, CONAGRA GROCERY PRODUCTS COMPANY, E.I. DU PONT DE NEMOURS AND COMPANY, NL INDUSTRIES, INC., and THE SHERWIN-WILLIAMS COMPANY,

Defendants.

AND RELATED CROSS-ACTION.

Case No.: 1-00-CV-788657

AMENDED STATEMENT OF DECISION [March 26, 2014]

The People seek an order to abate the alleged public nuisance created by lead paint manufactured or sold by five Defendants in ten jurisdictions in California. Filed thirteen years ago, the matter came on for a bench trial on July 15–18, 22–25, 29–30, August 1, August 5–8, August 12–15, August 19–22, 2013 in

Department 1 (Complex Civil Litigation), the Honorable James P. Kleinberg presiding.¹ The appearances of counsel for each trial day are as noted Pursuant to the Court's Order of in the record. August 16, 2013 each party simultaneously submitted its detailed version of a proposed statement of decision ("PSOD") for the Court to consider in rendering this opinion. And, on September 23, 2013 the greater part of the day was devoted to closing arguments. Following argument the matter was submitted for decision. On November 4, 2013 the Court issued an Order directing the parties to address issues pertaining to the proposed plan of abatement with which the parties complied; the case then stood resubmitted for decision as of November 26, 2013.

On December 16, 2013 the Court issued its Proposed Statement of Decision. On December 31, 2013, consistent with the Rules of Court, all parties submitted objections to the Court's proposed decision, which have been reviewed and considered.² To the extent the Court has not revised its decision as stated herein, all objections by the parties are **OVERRULED**.

The Court, having read and considered the oral and written evidence, having observed the witnesses testifying in court, and having considered testimony

¹ The People withdrew their requested jury demand and on February 3, 2012 the Court struck the jury demand asserted by Defendants, Defendants' petition for a writ regarding that order was rejected by the Court of Appeal and the Supreme Court.

² The objections were of varying lengths: The People (4 pages), ARCO (7 pages), ConAgra (24 pages), DuPont (9 pages), NL (18 pages), and Sherwin-Williams (111 pages).

introduced through depositions, having considered the supporting and opposing memoranda of all parties, having heard and considered the arguments of counsel, and good cause appearing therefore, makes the following findings and conclusions:

I. THE PARTIES

A. Plaintiff and Cross-defendants

Plaintiff is the People of the State of California (People), acting by and through the County Counsels of Santa Clara, Alameda, Los Angeles, Monterey, San Mateo, Solano, and Ventura Counties and the City Attorneys of Oakland, San Diego, and San Francisco. The People, for purposes of this action, are residents of the counties of Santa Clara, Alameda, Los Angeles, Monterey, San Mateo, Solano, and Ventura Counties and the cities of Oakland, San Diego, and San Francisco (collectively and referred to herein as "Jurisdictions"). Cross-Defendant Counties of Santa Clara, Alameda, Los Angeles, Monterey, San Mateo, Solano, and Ventura are charter or general law counties organized and existing under Constitution and laws of the State of California. Cross-Defendant City and County of San Francisco is a charter city and county organized and existing under the Constitution and laws of the State of California. Cross-Defendant Cities of San Diego and Oakland are charter cities organized and existing under the Constitution and laws of the State of California. In this decision the Plaintiff is referred to as the People, the public entities, and the Jurisdictions.

Throughout this litigation, the public entities have been represented both by their respective government counsel and by private counsel.³

B. Defendants

Defendants and Cross-Complainant Sherwin-Williams Company were among the largest manufacturers and sellers of lead pigment and paint containing lead pigment in the United States in the 20th century. (Fed. Trade Com. v. Nat. Lead Co. (1957) 352 U.S. 419, 424; P517 at 1–3, 9.)⁴ The predominant use of white lead pigment was for paint applications. (Tr. 543:21–26.)⁵

Defendant Atlantic Richfield Company ("ARCO") is a Delaware corporation with its principal place of business in Illinois. Defendant ConAgra Grocery Products ("ConAgra") is a Delaware corporation with its principal place of business in Nevada. Defendant E.I. Du Pont de Nemours and Company ("DuPont") is

³ In *County of Santa Clara v. Superior Court* (2010) 50 Cal. 4th 35 the Supreme Court addressed the issue of whether private counsel retained by the People were entitled to receive in the form of a public nuisance fees and costs through contingent fee arrangements. The Supreme Court held those arrangements were permitted.

⁴ Defendant E.I. Du Pont de Nemours and Company was not a party to the FTC proceeding.

⁵ As used in this decision, "Tr." refers to the trial transcript by page and line, "Dkt." Refers to the Court's Complex Civil case-specific website, "P" refers to Plaintiffs' trial exhibits; Defendants' trial exhibits are similarly noted. "¶" refers to paragraphs in the operative complaint. The Court permitted the parties to introduce testimony by way of depositions subject to objections which the Court ruled upon. The net testimony was admitted along with attendant exhibits.

a Delaware corporation with its principal place of business in Delaware. Defendant NL Industries ("NL"), formerly known as the National Lead Company, is a New Jersey corporation with its principal place of business in Texas. Defendant Sherwin-Williams Company ("SW") is an Ohio corporation with its principal place of business in Ohio. SW is also a cross-complainant, seeking declaratory relief.

As described more fully below, the corporate histories of ARCO and ConAgra are of some moment in this litigation.

C. ARCO, ConAgra, and successor liability

Both ARCO and ConAgra make the threshold argument that since they were the result of prior mergers and acquisitions, and the alleged bad acts occurred years before the present iteration of these companies, they cannot be liable for any wrongs of their predecessors.

The People sue ARCO as alleged successor to The Anaconda Company and certain of its former subsidiaries. (\P 9.) The evidence shows promotion by two of the subsidiaries: Anaconda Lead Products Company ("ALPC"), and International Smelting & Refining Company ("IS&R"). ALPC operated a lead pigment manufacturing plant in East Chicago, Indiana from 1920 until 1936, when ALPC was IS&R was the sole dissolved. (Ex. 291 004.) shareholder of ALPC at the time of its dissolution. ALPC's assets and properties were distributed to IS&R upon ALPC's dissolution. IS&R became the owner of the East Chicago plant at that time, and operated the plant from 1936 until 1946, when it sold the plant to an unrelated entity and exited the lead pigment business. (Exs. 285, 291_004.)

When ALPC, and later IS&R, operated the East Chicago plant, the plant produced dry white lead carbonate pigment for sale under the "Anaconda" brand name to manufacturers of paint and to manufacturers of non-paint products such as ceramics. (Ex. 285.) Beginning in 1931, the plant also produced white lead-in-oil, which also was sold under the "Anaconda" brand name. (*Id.*) Plaintiffs' evidence of promotions published by any alleged ARCO predecessor before 1936 consists of promotions published by ALPC.

ARCO maintains it has not succeeded to the liability, if any, that ALPC would have for those promotions if it still existed. ARCO contends the shareholders of a dissolved corporation do not succeed to its liabilities as a result of the dissolution. Thus, ARCO argues, IS&R did not succeed to the liabilities, if any, of ALPC. Although IS&R later merged with the Anaconda Company, which in turn merged with ARCO, it is submitted those mergers do not provide any basis for holding ARCO to be the successor to the liabilities of ALPC.

As for ConAgra, in 1962 W.P. Fuller & Co. merged with Hunt Foods and Industries ("Hunt") (Ex. 1 to People's Request for Judicial Notice ("PRJNMA")); in 1968 Hunt, Canada Dry and McCall consolidated to form Norton-Simon (Ex. 2 to PRJNMA); in 1993 Norton-Simon merged with Beatrice U.S. Food Corp, to form the Beatrice Company (Ex. 3 to PRJNMA); and later in 1993 Beatrice Company merged into Hunt-Wesson, Inc. (Ex. 4 to PRJNMA); in 1999

Hunt-Wesson, Inc. changed its name to ConAgra Grocery Products Company (Ex. 5 to PRJNMA).

ConAgra purportedly introduced evidence that in 1964, before Hunt merged with Canada Dry and McCall to form Norton-Simon, Hunt transferred all assets and liabilities relating to the paint business of W.P. Fuller & Co. to a separate and distinct subsidiary named W.P. Fuller Paint Co. (Ex. 1447.001-009.) W.P. Fuller Paint Co. remained in business for several years after its creation (Id. at 11–23.); in 1967, W.P. Fuller Paint Co. sold the assets and liabilities of the business to Fuller-O'Brien Corporation ("O'Brien"); and unlike Hunt, O'Brien was a paint company and remained in the paint business years after its acquisition of W.P. Fuller Paint Co.'s assets and liabilities. (Ex. 12 to Anderson Depo at pages 227, 592.) W.P. Fuller Paint Co. changed its name to WPF, Inc. and dissolved in 1968. (Ex. 1447.011-023.) ConAgra maintains that because any paint liabilities of Fuller were never passed to Norton-Simon, the chain of potential successor liability was broken. And, ConAgra argues, because this is an equitable action, the facts and law must be evaluated through the lens of equity and the question is whether imposition of liability would not only be legally appropriate, but would be fair and just under the circumstances.⁶

The People have addressed these arguments as follows:

"If one corporation has merged into another, the surviving corporation is subject to all liabilities of the

⁶ ConAgra is occasionally referred to in this decision as Fuller for historical context.

merged or now-defunct corporation." (Cal. Prac. Guide Pers. Inj. Ch. 2(II)-F, § 2:1681, citing Corp. Code, § 1107.) "Generally, the purchaser of a corporation's business or assets does not become liable for the transferor's obligations simply by reason of the purchase. But the rule is otherwise if the purchaser assumes the corporation's liabilities as part of the purchase price." (Cal. Prac. Guide Pers. Inj. Ch. 2(II)-F, § 2:1682, citations omitted.) Absent a true merger or express assumption following an asset sale, successor liability may be imposed in the event of a de facto merger, whereby a corporate acquisition in the form of an asset purchase achieves the same results as a merger. (Marks v. Minnesota Mining & Mfg. Co. (1986) 187 Cal.App.3d 1429, 1435.) Successor liability may also be imposed pursuant to the mere continuation doctrine, where the purchaser acquires the seller's assets for inadequate consideration or one persons were officers, directors stockholders of both corporations. (Ray v. Alad (1977) 19 Cal.3d 22, 29.) "Notwithstanding the absence of a true merger, a 'de facto' merger or an express assumption, an assumption of liability may be *implied* in law where it is both 'fair' to do so and necessary to prevent injustice." (Cal. Prac. Guide Pers. Inj. Ch. 2(II)-F, § 2:1682, citing *Alad*, *supra*, 19 Cal.3d 22, and other cases.)7

⁷ In response ARCO and ConAgra argue *Ray* offers limited guidance because *Ray* was a products liability case, not an equitable action relating to an alleged public nuisance. In products liability cases, successor liability is imposed for several policy reasons such as the ability of successor entities to spread the risk of liability among current purchasers of the product line and the fact that the goodwill of the predecessor is typically

D. Decision on successor liability of ARCO and ConAgra

The Court finds ARCO succeeded to the liabilities of Anaconda and IS&R pursuant to corporate mergers and/or express assumption of liabilities and that IS&R's liabilities included that of its agent, ASC. IS&R's liabilities included those of ALPC and ASC, which IS&R succeeded to under the de facto merger and/or mere continuation doctrines. succeeding to the liabilities of ALPC, IS&R also succeeded to the liabilities of ALPC's agent, ASC, pursuant to agency principles. All of these entities are referred to jointly herein as "ARCO." Similarly, the Court finds ConAgra succeeded to Fuller's liabilities as a result of a series of corporate mergers and/or the express assumption of liabilities. ($\P 8-12$.) evidence does not support ConAgra's claim to the contrary.

The Court finds it is fair and appropriate in this ease to so hold and necessary to prevent an injustice. Therefore, ARCO and ConAgra do not avoid liability on this ground.

II. PRE-TRIAL PROCEDURAL HISTORY AND RELEVANT AUTHORITIES

The public entities' claims against defendants originally included causes of action for fraud, strict liability, negligence, unfair business practices, and public nuisance. *County of Santa Clara v. Atlantic Richfield Co.* (2006) 137 Cal.App.4th 292, 300 (hereinafter cited as "Appeals Decision") The Superior

enjoyed by the successor. *Id.* at 25. The Court holds the latter policy reason to be persuasive.

Court (Judge Jack Komar) granted defendants' motion for summary judgment on all causes of action. The Court of Appeal reversed the Superior Court's judgment of dismissal and ordered the lower court to reinstate the public-nuisance, negligence, strict liability, and fraud causes of action. (*Id. at p. 333.*)

Thereafter, the public entities filed a fourth amended complaint ("FAC") that alleged a single cause of action for public nuisance, and sought only abatement; that is the claim at issue in this decision.

The relevant statutory law provides:

"Anything which is injurious to health ... or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property ... is a nuisance." Civ. Code, § 3479

"A public nuisance is one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal." Civ. Code, § 3480

Abatement, pursuant to Civ. Code, § 3491 is the result sought in this case.

A civil action may be brought in the name of the people of the State of California to abate a public nuisance. Code Civ. Proc., § 731; Gov. Code, § 26528

"[P]ublic nuisances are offenses against, or interferences with, the exercise of rights common to the public." (People ex rel. Gallo v. Acuna (1997) 14 Cal.4th 1090, 1103) "Of course, not every interference with collective social interests constitutes a public

nuisance. To qualify, and thus be enjoinable [or abatable], the interference must be both substantial and unreasonable." *Acuna* at 1105. It is substantial if it causes significant harm and unreasonable if its social utility is outweighed by the gravity of the harm inflicted. *Id*.

When hearing this case on pleading issues the Appeals Decision held Santa Clara, San Francisco, and Oakland brought a civil action in the name of the People seeking to abate a public nuisance. The public entities alleged that lead causes grave harm, is injurious to health, and interferes with the comfortable enjoyment of life and property. The Court of Appeal found the complaint was adequate to allege the existence of a public nuisance for which these entities, acting as the People, could seek abatement. Subsequently, the Supreme Court declined to review the Appeals Decision.⁸ Thus, the following language of the Appeals Decision is controlling:

Here, the representative cause of action is a public nuisance action brought on behalf of the People seeking abatement. Santa Clara, SF, and Oakland are not seeking damages for injury to their property or the cost of remediating their property. Liability is not based merely on production of a product or failure to warn. Instead, liability is premised on defendants'

⁸ Rehearing denied by County of Santa Clara v. Atlantic Richfield Company, 2006 Cal.App. LEXIS 438 (Cal.App. 6th Dist., Mar. 24, 2006) Time for Granting or Denying Review Extended County of Santa Clara v. Atlantic Richfield Company, 2006 Cal, LEXIS 7476 (Cal., May 22, 2006) Review denied by County of Santa Clara v. Atlantic Richfield Company, 2006 Cal. LEXIS 7622 (Cal., June 21, 2006)

promotion of lead paint for interior use with knowledge of the hazard that such use would create. This conduct is distinct from and far more egregious than simply producing a defective product or failing to warn of a defective product; indeed, it is quite similar to instructing the purchaser to use the product in a hazardous manner, which *Modesto* [City of Modesto Redevelopment Agency v. Superior Court (2004) 119 Cal.App.4th 28] found could create nuisance liability. (emphasis in original) *Id.* at 309

* * *

Because this type of nuisance action does not seek damages but rather abatement, a plaintiff may obtain relief before the hazard causes any physical injury or physical damage to property. A public nuisance cause of action is not premised on a defect in a product or a failure to warn but on affirmative conduct that assisted in the creation of a hazardous condition. Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards. Id. at 309–310

* * *

[Liability for nuisance does not hinge on whether the defendant owns, possesses or controls the property, nor on whether he is in a position to abate the nuisance; the critical question is whether the defendant *created* or assisted in the creation of the nuisance. (emphasis supplied) *Id.* at 306, quoting *Modesto* at 38

The People sought to prove that defendants assisted in the creation of this nuisance by concealing the dangers of lead, mounting a campaign against its regulation, and promoting lead paint for interior use. The People further claimed defendants did so despite their knowledge for nearly a century that such a use of lead paint was hazardous. Had defendants not done so, it is asserted, lead paint would not have been incorporated into the interiors of such a large number of structures and would not have created the public health hazard that the People contend now exists.

As noted by the Court of Appeal:

A public nuisance cause of action is not premised on a defect in a product or a failure to warn but on affirmative conduct that assisted in the creation of a hazardous condition. Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion⁹ of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards. *Appeals Decision* at 309–310

While this Court may take judicial notice of decisions from other jurisdictions that pertain to lead paint litigation (e.g., Rhode Island, Wisconsin), those

⁹ The Court adopts the standard definition of "promotion": "the act of furthering the growth or development of something; *especially*: the furtherance of the acceptance and sale of merchandise through advertising, publicity, or discounting" Merriam-Webster Dictionary, 2013

cases are not controlling and are of marginal value because of the varied legal standards involved.

III. TRIAL

Trial to the Court of the sole remaining cause of action – public nuisance – began on July 15, 2013 after years of intense discovery and motion practice. ¹⁰ Over the course of 23 trial days the parties introduced over 450 exhibits into evidence. At the close of live testimony, the parties – as permitted by the Court — submitted 25 depositions with attendant exhibits, portions of which were admitted into evidence after the Court ruled on objections. During the trial the Court ruled on over 30 written evidentiary objections and motions. ¹¹

¹⁰ Retired United States District Judge Eugene M. Lynch served as appointed discovery referee and held over 60 hearings and conferences. SW objects the Court did not allow sufficient time for discovery; that objection is OVERRULED.

¹¹ The Court initially allocated 30 hours to each side (Plaintiff on the one hand, Defendants the other) for the presentation of live, testimony (opening statements, motions, closing arguments, and procedural sessions were not included). On its own motion the Court expanded the time to 40 hours per side after reviewing the parties' more thoughtful witness time estimates. Defendants objected to this allocation and asserted that the imposition of time limits for testimony violated due process. The Court disagrees. Both California and federal courts have regularly upheld time limitations on testimony. (Hernandez v. Kieferle (2011) 200 Cal.App.4th 419, 438; see also General Signal Corp. v. MCI Telecommunications Corp. (9th Cir. 1995) 66 F.3d 1500, 1508, citing Monotype Corp. v. Intl. Typeface Corp. (9th Cir.1994) 43 F.3d 443, 451 [finding the court's time limit reasonable, even though it provided significantly less time than the parties estimated would be required]. Imposing time limits is well within this Court's discretion (see, e.g., K.C. Multimedia, Inc. v. Bank of Am. Tech. and Operations, Inc. (2009) 171 Cal. App. 4th 939, 951),

The trial concerned the following issues:

- Is white lead carbonate and the paint in which it is a key ingredient harmful, particularly to children?
- If so, what harms does it cause?
- Is there a present danger that needs to be addressed by the Court?
- Did the Defendants promote and sell this product in the Jurisdictions?
- If so, during what period and to what extent?
- Did the defendants sell the product with actual or constructive knowledge (if constructive knowledge was deemed sufficient) that it was harmful?

and permitted by §352 of the Evidence Code. Each Defendant had time to present its case and, in addition, the Court provided Defendants with extra time after they had exceeded their allotment. (Tr. 3146:20-3147:2; 3239:24-3240:2.) Defendants were able to conduct examinations of their own expert witnesses as well as lengthy cross examinations of the People's witnesses (often in excess of the direct examination times), to present additional testimony through depositions, and to enter hundreds of documents into evidence. Each Defendant had ample opportunity to present the evidence in support of its case through able counsel who brought extensive experience in "lead paint" litigation to this case. Finally, after reviewing Defendants' offers of proof regarding testimony that *might* have been presented with additional time [Dkt Nos. 3459, 3460, 3461, 3462, 3463, 3464, 3465, 3466, 3467, 3468 & 3473], it is noteworthy and convincing that the Defendants did not claim surprise as to any of the People's testimony at trial. The Court does not find that Defendants' proffered testimony would have changed its findings or conclusions. None of the parties sought appellate relief as to these limits.

- To what extent are higher blood lead levels due to non-paint sources, such as deposits from gasoline? Or candies? Or water? And does the existence of these other sources supplant any liability of these defendants?
- Does intact lead paint pose a hazard? And if so, to what extent?
- Does the undisputed reduction in tested blood lead levels over time mean the issues in this case are resolved?
- To what extent do existing programs at all government levels deal with the problem?
- Is the issue with local governments a lack of resources, or a lack of will by those entities?
- Is the proposed abatement solution unrealistic as to cost, time, or manageability?
- Is the proposed abatement solution itself unlikely to be successful in the long run?
- Do other defenses, such as those raising constitutional issues, preclude liability?

IV. THRESHOLD FINDINGS

Two threshold issues are disposed of as follows:

First, the question of "pigment" versus "paint." SW in particular strenuously argued that lead pigment must be differentiated from lead paint. It is undisputed that certain companies made pigment and sold it as a component for paint. Therefore, and in contrast, the argument is since paint was produced by many companies, it is wrong to hold these five defendants liable for paint manufactured and installed by others. The Court adopts a different

position: that lead pigment is, by itself, not applied to walls and woodwork but is the dangerous component of paint. The Appeals Decision speaks of "lead paint" and, as it must, the Court is bound by that definition of the product at issue.

Second, the Court has considered the issue of exterior versus interior paint. Again, the Appeals Decision provides direction: "Here, the alleged basis for defendants' liability for the public nuisance created by lead paint is their affirmative promotion of lead paint for interior use, not their mere manufacture and distribution of lead paint or their failure to warn of its hazards." (emphasis supplied) Id. at 310 Of equal significance, and beyond the cited language, the Court is convinced the People have not sustained their burden of proof regarding exterior paint and the element of causation. This is so because there are multiple causes of lead found on the outside of houses, including the residue from leaded gasoline and that tracked from other locations, that make it improper for the court to connect these defendants to outside hazards.

Therefore, based on both the language of the Appeals Decision and, independently, the lack of persuasive evidence, this decision is based solely on the issue of lead paint as produced, promoted, sold, and used for interior use.

V. PLAINTIFF'S LEGAL AND EVIDENTIARY POSITIONS

Plaintiff contends as follows:12

A. Legal standards

In a public nuisance case seeking only abatement, "the burden of the People [is] to prove the case only by a preponderance of the evidence." (*People v. Frangadakis* (1960) 184 Cal.App.2d 540, 549–50; see also Evid. Code, § 115 ["Except as otherwise provided by law, the burden of proof requires proof by a preponderance of the evidence"].)

Among the rights common to the public is the right to public health. This includes the right to be free from the harmful effects of lead in paint. Lead in homes in the Jurisdictions is injurious to health and interferes with the comfortable enjoyment of life and property. $\P\P$ 31–36, 82–95, 100–103.), is a nuisance that affects entire communities and a considerable number of persons residing in those Jurisdictions (FAC $\P\P$ 37–41, 46–72.), and causes and is likely to cause significant harm to children, families, and the community at large. (FAC $\P\P$ 31–72, 82–95, 100–103, 218–221, 228–231.)

B. Defendants' Knowledge

The Defendants, as delineated and limited further in this Decision, are liable for public nuisance if it promoted "lead paint for . . . use with knowledge of the hazard that such use would create." Appeals Decision at 317. Each Defendant's knowledge of that hazard may be actual or *constructive*. (See Selma Pressure

¹² In this decision the Court draws heavily upon the detailed PSODs supplied by the parties.

Treating Co. v. Osmose Wood Preserving Co. of America, Inc. (1990) 221 Cal.App.3d 1601, 1620 [holding that defendant may be liable for public nuisance if it "knew or should have known" that its disposal practices might threaten the water supply]; Ileto v. Glock Inc. (9th Cir.) 349 F.3d 1191, 1214–15 [holding, under California nuisance law, that defendants may be liable if they knew or should have known of hazard caused by their promotion, distribution, and sale of firearms].)

This is consistent with general tort law principles – which require only proof of constructive knowledge – as well as nuisance law. (See John B. v. Superior Court (2006) 38 Cal.4th 1177, 1190 [reviewing constructive knowledge requirement within general negligence principles]; Leslie Salt Co. v. San Francisco Bay Conservation & Development Com. (1984) 153 Cal.App.3d 605 [discussing property owners' liability for nuisance where the owners knew or should have known of the condition that constitutes the nuisance].) Each Defendant's actual or constructive knowledge may be proven by both direct and circumstantial evidence. "Both direct and circumstantial evidence are admissible in proof of a disputed fact," and "[n]either is entitled to any greater weight than the other." (3 Witkin, Cal. Evid. (4th ed.) § 846.) "A verdict or finding may be founded on circumstantial evidence alone, even on circumstantial evidence that is opposed by direct and positive testimony." (Id. at § 856.)

Courts have held in a variety of tort cases that actual knowledge may be proven by circumstantial evidence. (See, e.g., *Axis Surplus Ins. Co. v. Reinoso* (2012) 208 Cal.App.4th 181, 190, [circumstantial

evidence used to prove knowledge of dangerous property conditions]; Santillan v. Roman Catholic Bishop of Fresno (2012) 202 Cal.App.4th 708, 723 [circumstantial evidence used to prove knowledge for purposes of notice requirement for sexual abuse case]; Yuzon v. Collins (2004) 116 Cal.App.4th 149, 163–64 [circumstantial evidence used to prove landlord's knowledge of animal's dangerous propensities].)

As recited in Civil Jury Instruction 202:

Evidence can come in many forms. It can be testimony about what someone saw or heard or smelled. It can be an exhibit admitted into evidence. It can be someone's opinion. Direct evidence can prove a fact by itself. For example, if a witness testifies she saw a jet plane flying across the sky, that testimony is direct evidence that a plane flew across the sky. Some evidence proves a fact indirectly. For example, a witness testifies that he saw only the white trail that jet planes often leave. This indirect evidence is sometimes referred to as "circumstantial evidence." In either instance, the witness's testimony is evidence that a jet plane flew across the sky. As far as the law is concerned, it makes no difference whether evidence is direct or indirect. You may choose to believe or disbelieve either kind. Whether it is direct or indirect, you should give every piece of evidence whatever weight you think it deserves.

Even if the People have not proven that each Defendant had *actual* knowledge of the hazard that was created by the use of lead paint on homes in the Jurisdictions, the People contend they have proven

that the Defendants had *constructive* knowledge of that hazard. (FAC ¶¶73–136.) The Court agrees with the People on this point.

The Court finds this constructive knowledge took a variety of forms, including:

Defendants' Internal publications (SW and NL)

Litigation (the *Pigeon* case described below) (ConAgra)

Internal manuals (SW)

Marketing contrasting newer, safe products to lead paint (DuPont)

Information and industry positions via trade associations (LIA and NVLP) of which defendants were members

Specific testimonial references include:

Bartlett Article (1878) at p. 34 Tr. 1168

Sinkler Article (1894) at p. 42 Tr. 1174

Newmark (1895) Tr. 1174

Gibson (1904) Ex. P28 Tr. 1184–85 (found in Index MediProperties)

Osher (1907) Tr. 1186

Blackfan (1917) Ex. P22 Tr. 1190

McKhann (1933) Ex. P23 Tr. 1194

Medical Journal of Australia (1933) Ex. P30 Tr. 1197–98

Aub (1926) Ex. P31 Tr. 1203

Porritt (1931) Ex. P29 Tr. 1206

New York Journal of Medicine (1935) Ex. P 55 Tr. 1208

Minot (1938) Ex. P24

UK Ministry of Health (1938) Ex. P69 Tr. 1213

Journal of Diseases of Children (1943) Ex. P21 Tr. 1215

Despite this actual and constructive knowledge, Defendants promoted lead pigment and/or lead paint for home use. (FAC ¶¶ 73–217.) (See Jones v. Vilsack (8th Cir. 2001) 272 F.3d 1030, 1035 ["promotional" activities take many forms" including retail displays, coupons, and samples].) Defendants' assertion that they were not aware of the effects of low-level lead exposure until long after they stopped producing and promoting lead paint is of no moment. The Defendants knew or should reasonably have known that exposure to lead at high levels, including exposure to lead paint, was fatal or at least detrimental to children's health. That knowledge alone should have caused the Defendants to cease their promotion and sale of lead pigment and/or lead paint for home use. Instead, after becoming aware of the hazards associated with lead paint, they continued to sell it. (FAC ¶¶ 73–221.) Defendants' argument that they should not be held liable because they did not understand the full panoply of harms caused by lead poisoning is simply not persuasive and contrary to law. (Crowe v. McBride (1944) 25 Cal.2d 318, 322 ["As said in the Restatement, Torts, section 435: 'If the actor's conduct is a substantial factor in bringing about harm to another, the fact that the actor neither foresaw nor should have foreseen the extent of the harm or the manner in which it occurred does not prevent him from being liable."], (emphasis added.)

And, as the Court of Appeals held: "The fact that the pre-1978 manufacture and distribution of lead paint was 'in accordance with all existing statutes does not immunize it from subsequent abatement as a public nuisance." Appeals Decision at 310.

C. Harm from Lead is Well-Documented

According to the Centers for Disease Control and Prevention ("CDC"),

Lead is a poison that affects virtually every system in the body. It is particularly harmful to the developing brain and nervous system of fetuses and young children. . . . The risks of lead exposure are not based on theoretical calculations. They are well known from studies of children themselves and are not extrapolated from data on laboratory animals or high-dose occupational exposures.

(CDC, Preventing Lead Poisoning in Young Children (1991) Ex. 7. Children are particularly susceptible to lead poisoning because they absorb lead much more readily than adults, and because their brains and nervous systems are still developing.

In 1978, the U.S. Consumer Product Safety Commission banned the use of lead-based paint in order to reduce the risk of lead poisoning in children. Eight years later the California Legislature declared childhood lead exposure the most significant childhood environmental health problem in the state, and enacted statutes and regulations aimed at reducing human exposure to lead. (See, e.g., Cal. Health & Saf. Code § 124125.) Despite this federal and statewide effort, California children continue to be harmed by lead-based paint each year, and lead-based paint

remains the leading cause of lead poisoning in children who live in older housing.

On May 16, 2012, the CDC eliminated the blood lead level of concern that had been used to define lead poisoning in recognition of the fact that "no safe blood lead level in children has been identified." (See CDC Response to Advisory Committee on Childhood Lead Poisoning Prevention Recommendations in "Low Level Lead Exposure Harms Children: A Renewed Call of Primary Prevention," U.S. CDC (May 16, 2012) ("CDC Response").)¹³

Since antiquity, it has been well known that lead is highly toxic and causes severe health consequences when ingested. (Tr. 2723:14–2725:1.) Infants and toddlers are most vulnerable to lead poisoning because they absorb far more lead than adults and older children. Because their brains and other organs are still rapidly developing, infants and toddlers also sustain far greater damage when exposed to lead. (Tr. 109:20–110:20; 134:23–136:8.) When ingested in large quantities, lead is fatal. High-level lead exposure can cause seizures and coma, necessitating hospitalization, invasive medical procedures, and administration of drugs with significant side effects. It can also cause brain swelling, kidney damage, anemia, disintegration of blood cells, and severe abdominal complaints. Intermediate lead exposure is

¹³ Defendants asserted that Dr. Mary Jean Brown, Chief of the Healthy Homes/Lead Poisoning Prevention Branch of the CDC said on November 14, 2011 that the lead problem had been solved. This is incorrect, as pointed out in Ex. 1583.406 where Dr. Brown states "one of the things we're fighting, one of the myths we're fighting is that lead has been solved."

associated with damage to hemoglobin, calcium and vitamin D metabolism, and nerve conduction. (Tr. 350:11–351:10 [discussing P278_002], 354:10–355:24 [relying on P40], 1090:4–18, 1094:1–1095:15.)

Even relatively low levels of lead exposure have severe health consequences. Blood lead levels (BLLs) between 5 and 10 μg/dL are associated with adverse effects on development, delayed puberty, decreased growth and hearing, as well as increased anti-social, delinquent, and criminal behavior. (Tr. 350:11–351:10 [discussing P278_2], 356:3–23 [relying on P35], 361:8–362:23 [discussing P48], 363:19–364:15 [relying on P278 at 6–7], 398:19–401:15 [discussing P18], 954:25–956:3, 2796:225 [discussing P18 at 47]; P18 at 20, 21, 30, 45 & 47, P19 at 11 & 25, P20 at 2, P40 at 1, P45 at 18–19 & P48.)

Any level of lead exposure significantly lowers a child's Intelligence Quotient (IQ). The decline in IQ is steepest at lower BLLs. Thus, even BLLs below 5 μg/dL are associated with decreased IQ and academic abilities, difficulty with problem solving, memory impairment, attention-related behaviors such as ADHD, and anti-social behavior. (Tr. 350:11–351:10 [discussing P 278 at 2]; 358:13–360:27 [relying on P38]; 388:26–389:14 [discussing P278 at 11], 954:25–955:10, 966:1–8, 2316:18–2317:1; P18 at 20, 21, 30, 45 & 47, P19 at 11 & 25, P20_2, P45 at 18–19, P48, P54.)

Consequently, the drop in IQ of a lead-poisoned child substantially reduces his or her likelihood of leading a happy, productive life. (Tr. 385:2–389:14; 397:22–398:18 [discussing P54], 420:11–16 [same], 2320:22–2321:18; P54, P278A.) Such a drop in IQ

lowers the community's average IQ, increases the number of people considered mentally retarded, and reduces the number of people considered gifted. Lead exposure has been associated with the loss of 23 million IQ points among a cohort of American children. This IQ drop diminishes the productivity and well-being of each affected community and society as a whole. (Tr. 385:2–389:14; 397:22–398:18 [discussing P54], 420:11–16 [same], 2320:22–2321:18; P54, P278A.)

From 2007 to 2010, at least 50,000 children under six in the Jurisdictions had BLLs above 4.5 μ g/dL. In 2010 alone, more than 10,000 children living in the Jurisdictions had BLLs above 4.5 μ g/dL. (P223; P239; D1411.5.) These numbers, drawn from the RASSCLE database, represent the minimum number of children in the Jurisdictions who were lead poisoned. (Tr. 3261:18–25.)

The Court finds that children with elevated BLLS identified in RASSCLE represent "the tip of the iceberg" and understates the prevalence of childhood lead exposure in the Jurisdictions. This is because RASSCLE does not include children who are at greatest risk for lead exposure, such as children who do not have insurance or regular access to health care. Even so, the number of children with elevated BLLS in the Jurisdictions in 2010 identified by RASSCLE is That number is far greater than the substantial. number of persons who contract whopping cough (pertussis), tuberculosis, hanta virus, and other communicable diseases each year. If the same number of children contracted one of those diseases in a year, public health officials would call it an epidemic. (Tr.

1373:5–12, 3247:27–3248:5, 3259:23–3261:17, 3261:26–3262:7.)

Moreover, lead paint "disproportionally impacts low income and minority children. (Tr. 905:20–906:9, 986:21–987:6, 999:12–1000:23, 1365:19–23, 1370:18–1371:10, 2309:21–2310:8., 905:20–906:9, 986:21–987:18, 999:12–1000:23, 1365:19–23,1370:18–1371:10, 2309:21–2310:8; P45.) African American children and, to a lesser extent, Latino children have much higher average BLLs than white children. (Tr. 986:21–987:18; 2583:5–9, P45.)

These consequences are not recent discoveries. Over 100 years ago, in 1900, SW's internal publication stated, "It is also familiarly known that white lead is a deadly cumulative poison, while zinc white is innocuous. It is true, therefore, that any paint is poisonous in proportion to the percentage of lead contained in it." Ex. 155

D. The Inevitable Deterioration of Lead Paint is Not Disputed

Lead paint inevitably deteriorates, leaving behind lead-contaminated chips, flakes, and dust. Dust from deteriorating lead paint deposits floors. windowsills, and other interior surfaces. (Tr. 190:28– 191:27, 1262:16–28; 3092:21–3093:8, 3130:22-28; 3131:13–3133:4; P10, table 5.7.) Deterioration is dramatically accelerated when lead paint is on high friction surfaces, such as windowsills and doors. (Tr. 175:16–22, 160:13-24, 992:21-993:1, 3129:7-14.) Deterioration of lead paint on the exterior of homes contaminates surrounding soil. Lead contaminated soil is often tracked into homes. (Tr. 176:14–27, 982:23–983:10 [relying on P16, P28 16], 986:5–13, 2053:2–7.) Lead contamination in soil and dust in older homes is almost always due to lead in paint rather than other environmental contaminates. (Tr. 192:23–194:22 [relying on P10 at 4–5, Table 6.3, P11 at 1–6], P277_18, 985:4–27 [relying on P16, P280_17], 1500:16–24, 1501:6–1502:18; P45_40.)

E. Young Children are at Greatest Risk

As part of normal development, young children engage in hand-to-mouth behavior, and often ingest dust, soil, and other particles. Young children also regularly chew on accessible surfaces and objects, including windowsills and other interior woodwork. (Tr. 134:23–136:8, 161:1–16, 1374:22–28, 1461:3–14, 1462:16-28.) Through these normal developmental behaviors, children in homes containing lead paint ingest that paint in the form of dust, paint chips or flakes. (Tr. 159:10-160:12.) A chip of lead paint that is approximately the size of a period at the end of a sentence is sufficient to cause a BLL of 20 micrograms per deciliter if ingested by a young child. (Tr. 156:6-One gram of lead, the amount of material contained in a standard packet of sugar, if spread over 100 rooms, each measuring 10 feet by 10 feet, would be sufficient to create a lead dust hazard at two times the level recommended by the EPA. (Tr. 2201:21– Lead paint on high friction surfaces 2203:28.) presents an immediate hazard, even if it is presently intact, because normal use causes the paint to degrade, exposing young children to lead dust. (Tr. 160:13–161:16, 175:1–22, 178:20–25, When intact lead paint is on surfaces such as windowsills and railings that can be mouthed or chewed by a child, the paint is a hazard regardless of whether it is intact. (Tr. 160:13–161:16, 1090:23– 1092:21.) Furthermore, lead paint that is currently intact poses a substantial risk of future harm because it will inevitably degrade and be disturbed by normal residential activities, such as renovations. (Tr. 1417:7–27, 3133:9–28.)

F. Experts, Federal Agencies, Physician Associations, and the Public Entities Agree That Lead Paint Is the Primary Source of Lead Exposure for Young Children Living In Pre-1978 Housing

Leading experts in the field of lead poisoning are virtually unanimous in concluding that lead paint is the primary cause of lead poisoning in young children. (Tr. 140:13–141:19, 344:17–22, 2120:15–23.) federal agencies tasked with identifying the causes of lead poisoning agree that lead paint is the primary source of childhood lead exposure. For example, in 2012, the CDC's Advisory Committee on Childhood Lead Poisoning Prevention reported that "lead-based paint hazards, including deteriorated paint, and lead contaminated dust and soil still remain by far the largest contributors to childhood lead exposure on a population basis." (Tr. 110:21–111:4, 130:18–132:18, 137:11–20; P9_14; P11 at 1–6; P45_40.) The American Academy of Pediatrics recognizes that "[t]he source of most lead poisoning in children now is dust and chips from deteriorating lead paint on interior surfaces." (Tr. 132:6–17; P66_1037.) Lead paint accounts for at least 70 percent of childhood lead poisoning and is the dominant cause of lead poisoning in children living in older homes. (Tr. 983:12–988:17, 1502:6–25.) Nationally, children living in pre-1978 homes are 13 times more likely to have an elevated BLL than those living in post-1978 homes. (Tr. 961:6–17.) In California, 80 to 90 percent of cases of childhood lead poisoning involve children living in pre-1980 homes. (Tr. 1364:18–1365:5.) And, consistent with national and statewide data, lead paint is the primary source of lead poisoning for children in the Jurisdictions. (Tr. 183:7–15, 905:15–906:9, 1097:19–1098:5, 1404:29–1405:4, 1413:6–28, 2043:10–25, 2057:19–2058:7, 2229:5–10, 2239:7–2240:9, 2288:4–17, 2320:22–2321:18, 3263:9–3264:7.)

G. Lead Paint is Prevalent in the Jurisdictions

In 1978, the U.S. Consumer Product Safety Commission prohibited the use of lead-based paint in homes. (16 Code Fed, Regs § 1303.4.) The 2010 census data shows that over 4.7 million homes in the Jurisdictions were built before the 1978 ban. (P261; see also P283_014.) The chart below depicts the estimated number of pre-1950 and pre-1978 homes in each of the Jurisdictions according to the census:

Public Entity	Pre- 1950	1950– 1979	Total Housing Units (2010 Estimate)
Alameda	173,981	255,444	429,425
Los Angeles	912,852	1,737,349	2,650,201
Monterey	18,772	71,014	89,786
San Mateo	56,556	159,769	216,325
Santa Clara	61,411	364,823	426,234
Solano	18,559	60,519	79,078
Ventura	19,854	154,134	173,988
San Diego	62,330	255,456	317,786

San	226,333	91,472	317,805
Francisco			
Totals	1,550,648	3,149,981	4,700,628

According to the 2011 U.S. Department of Housing and Urban Development (HUD) Healthy Homes Survey, 52 percent of pre-1978 homes contain leadbased paint hazards. And a large percentage of these homes have children under six years of age living there. Because of the prevalence of lead-based paint in California, all homes built before 1978 are presumed to contain lead-based paint. 143:5-15 [referring to P277_10], 982:23–983:10, 7 Cal. Code. Regs. § 35043.) The prevalence of lead paint in California homes is not surprising given the large amount of lead pigment used in paint before the 1978 ban. From 1929 to 1974, 77 percent (1,978,547 tons) of white lead sold in the U.S. was used in paint. An NL advertisement in 1924 noted that 350,000,000 pounds of white lead were used in paint every year in the United States — "enough paint to cover with one coat about 3,000,000 houses of average size." (Tr. 149:20-28 [relying on P4_7]; P230.) Inspections confirm that their pre-1978 homes in the Jurisdictions often contain lead paint. (See, e.g., Tr. 183:7-15; 1413:6–28.)

Due to limited resources, government programs in the Jurisdictions have not significantly reduced the number of homes containing lead paint. (Tr. 577:24–581:20, 601:10–22, 641:19–25, 644:11–21, 2295:13–27.)

H. The Continuing Effect of Lead Paint

From 2007 to 2010, at least 50,000 children under six in the Jurisdictions had BLLs above 4.5 µg/dL. In 2010-alone, more than 10,000 children living in the Jurisdictions had BLLs above 4.5 µg/dL. (P223; P239; D1411.5.) These numbers, drawn from the Response and Surveillance System for Childhood Lead Exposure ("RASSCLE") database, 14 represent the minimum number of children in the Jurisdictions who were lead poisoned. (Tr. 3261:18–25.) Children with elevated BLLS identified in RASSCLE understates prevalence of childhood lead exposure in Jurisdictions. This is so because RASSCLE does not include children who are at greatest risk for lead exposure, such as children who do not have insurance or regular access to health care. The number of children with elevated BLLS in the Jurisdictions in 2010 identified by RASSCLE is substantial. number is far greater than the number of persons who contract pertussis, tuberculosis, hanta virus, and other communicable diseases each year. (Tr. 1373:5– 3259:23-3261:17, 3247:27-3248:5, 3261:26-3262:7.) Moreover, lead paint "disproportionally impacts low income and minority kids. And these are kids who can least afford to take the hit." (Tr. 905:20– 906:9, 986:21–987:6, 999:12–1000:23, 1365:19–23, 1370:18-1371:10,2309:21-2310:8.

¹⁴ RASSCLE is used by the Childhood Lead Poisoning Prevention Branch ("CLPPB") to collect information on children found to have elevated blood lead levels. RASSCLE was reengineered as a state-wide, web-based information system known as RASSCLE II. This program only addresses children who have been tested. Tr.980

I. Defendants' Manufacturing of Lead Pigments for Use in House Paints and as Members of Trade Associations

Defendants promoted and sold their lead pigments: (1) as dry white lead carbonate; (2) as white lead-in-oil; and (3) in paints containing white lead pigments. As described by Dr. David Rosner, lead pigments are "the basic ingredient that goes into paint, whether it is in a box, or whether it is in a can, or whether it is mixed or not mixed, it is the cake mix that makes the cake." (Tr. 66:5–11; see also Tr. 664:16–666:17; P517.)

ARCO manufactured lead pigments for use in house paints from 1920 until 1946. ARCO was a member of the Lead Industries Association ("LIA") from 1928 until 1971 and a Class B member of the National Paint Varnish and Lacquer Association ("NPVLA") from 1933 through 1944. (Tr. 1675:9–25.)¹⁵

ConAgra manufactured lead pigments for use in house paints from 1894 until 1958. ConAgra was a member of the LIA from 1928 through 1958 and a Class A member of the NPVLA from 1933 through 1962. (Tr. 1663:27–1664:19.)

DuPont manufactured lead pigments for use in house paints from 1917 through 1924 and then continued to manufacture lead pigments through its contract with NL through the 1960s. DuPont was a member of the LIA from 1948 through 1958 and a Class A member of the NPVLA from 1933 through 1972. (Tr. 1656:24–1657:7.)

NL manufactured lead pigments for use in house paints from 1891 until 1978. NL was a member of the

¹⁵ The role of the NIA and NPVLA is described below.

LIA from 1928 until 1978 and a member of the NPVLA from 1933 through 1977. (Tr. 1647:4–16.)

SW manufactured lead pigments for use in house paints from 1910 to 1947. It manufactured paints with lead pigments from 1880 through the 1970s. SW was a member of the LIA from 1928 through May 1947 and was a Class A member of the NPVLA from 1933 through 1981. (Tr. 1626:15–23.)

J. Role of the Trade Associations

generally known that childhood lead poisoning disproportionately affected minority children. (Tr. 1727:16–20.) In 1935, the LIA's Director of Health and Safety wrote a letter describing the problem of childhood lead poisoning as "a major 'headache,' this being in part due . . . to the fact that the only real remedy lies in educating a relatively ineducable category of parents." 1723:17–1725:24 [relying on P78].) He went on to say that "[i]t is mainly a slum problem with us." (Id.) In 1956, he reiterated this to the Assistant Secretary of the U.S. Department of the Interior. (Tr. 1725:5-1726:7 [relying on P1451]; see also 1725:5-1726:7 [relying-on P1452_001 ("The basic solution is to get rid of our slums, but even Uncle Sam can't seem to swing that one. Next in importance is to educate the parents, but most of the cases are in Negro and Puerto Rican families, and how does one tackle that job?")]) and reiterated this at a LIA meeting in 1958 (Tr. 1726:10 - 1727:15 [relying on P86_25 ("One can readily understand why, to the operator of a smelter in California or a lead products plant in Texas, the doings of slum children in our eastern cities may seem of little consequence.")].)

Each Defendant, except DuPont, also learned about the harms of lead exposure through associationsponsored conferences. For example, the LIA held a confidential conference of its members in 1937 which included physicians to discuss lead poisoning. Ex. 154 Representatives from NL, SW, and ARCO attended. Transcripts of the conference - "an invaluable summary of present day medical knowledge about lead" – were sent to LIA members, including ConAgra. Although the conference focused on industrial lead poisoning, it discussed childhood lead poisoning. Specifically, conference participants discussed a child who had died from lead poisoning, childhood lead poisoning cases involving lead paint in homes, and the difficulty of removing lead from a child's body. (Tr. 1687:1–1689:27, 1690:18–1691:5 [relying on P98 & P154].)

Each Defendant learned about childhood lead poisoning through LIA and/or **NPVLA** communications. For example, the NPVLA's executive committee—which included NL—sent a confidential memo in 1939 to its Class A members which included SW, ConAgra and DuPont. memo explained that the dangers of lead paint to children were not limited to their toys, equipment, and furniture. (Tr. 1691:12–1693:23 [relying on P81].)

NL, ARCO, and DuPont learned about childhood lead poisoning through trade association meetings. For example, during a 1930 meeting of the LIA's Board of Directors, which included NL, the Board discussed negative publicity regarding lead products, including a report that: (1) lead poisoning of children who chewed on toys, cradles, and woodwork painted with lead paint occurred more frequently than formerly

thought; (2) small amounts of lead could kill a child; and (3) physicians were not recognizing lead poisoning. (Tr. 1694:15–1695:21 [relying on P75 & P166].)

The LIA only disseminated the information it gathered about the hazards of lead paint and childhood lead poisoning to its members. It did not disseminate this information to government agencies or the public. In fact, the LIA often marked its documents as confidential to try to ensure that they would not receive this information. (Tr. 1689:8–18, 1690:16–1691:2 [relying on P98 & P154].)

K. Knowledge of the Defendants - Generally

At the same time they were promoting lead paint for home use, each Defendant knew that high level exposure to lead—and, in particular, lead paint—was fatal. Each Defendant also knew that lower level lead exposure harmed children. (Tr, 1624:21–1625:17, 1687:1–1688:27, 1690:18–1691:5, 1694:15–1695:21, 1696:19–1697:9, 1697:23–1698:26, 1699:17–1701:3, 1702:20–1703:14, 1705:21–1706:5, 1706:19–1707:2, 1707:14-21, 1707:22-27, 1708:14-1709:4, 1709:5-20, 1709:21–27, 1710:5–1711:3, 1713:16–1714:3, 1715:1– 26, 1716:6–23, 1716:20–1717:8, 1718:10–24, 1719:11– 1720:7, 2848:16-26, 2854:4-9, 2855:21-2856:7 [relying on P76, P81, P142, P154, P155_16, P157, P159, P166, P168 at 4-11, P177, P183, P184, P197 at 117, P506])

Medical and scientific literature published as early as 1917 identified both extreme and subtle effects of lead poisoning, and recognized the dangers of low-level lead exposure. (Tr. 1165:2–24, 1166:06–28, 1191:15–1192:13, 1197:7–18, 1199:14–3, 1202:7–1203:14,

1204:26–1205:28, 1207:2–22, 1209:18–1210:19, 1211:22–1213:7, 1214–1215:1, 1217:1–23 [relying on P22, P23, P24, P29, P30, P31, P55, P69, P226].) Accounts of children poisoned by lead paint appeared in medical literature published as early as 1878. (Tr. 1165:2–9, 1168:14–21, 1171:10–26, 1175:28–1177:13, 1178:8–1179:9, 1186:1–1187:7, 1195:21–1191:15 [relying on P21, P22, P24, P23, P29, P30, P31, P34, P42, P43, P55].)

Additional reports in the medical and scientific literature dating back to the early 1900s identified lead dust generated by deteriorating interior and exterior lead paint in homes as a source of lead poisoning for children. (Tr. 1165:10–21, 1171:10–1174:16, 1181:5–1183:12, 1186:1–1187:6, 1188:17–1189:07, 1192:9–25, 1218:13–1219:1, 1219:27–1220:10, 1245:15–1246:15 [relying on P28, P8, P34]; see also 2848:16–26; P197.)

In 1920s, scientists from the the Paint Manufacturers Association reported that lead paint used on the interiors of homes would deteriorate, and that lead dust resulting from this deterioration would poison children and cause serious injury. (See Tr. 1189:8–26.) Medical and scientific literature published before the 1950s often observed that reported cases of lead poisoning represented only a small fraction of the adults and children poisoned by lead paint. (See Tr. 1165:22-1166:5, 1196:20-1197:6, It was accepted by the medical and 1208:7–13) scientific community before the 1950s, as reflected in literature from as early as 1894, that lead paint was a significant cause of childhood lead poisoning. (Tr. 1197:7-18, 1217:24-1218:12, 1274:1-23 [relying on P226 [compendium of articles].) Even before the

the medical and scientific community 1950s, recognized that children were particularly vulnerable to lead poisoning, and that the harmful effects of lead (See Tr. 1167:12-23; poisoning were permanent. 1215:28–1216:26 [relying on P21].) (See Tr. 1167:1– 11; 1195:21–1196:15 [relying on P23].) As early as 1933, the medical and scientific community called for the elimination of lead paint in areas frequented by children – including their homes. (See Tr. 1167:24– 1168:08, 1198:17-13, 1200:4-14, 1200:24-1201:28 [relying on P30].) Other countries began banning the use of lead paint, particularly for home use, in the 1920s and 1930s. (Tr. 354:24–355:24 [relying on P40], 1702:20–1703:14 [replying on P142 at 9].)

L. Knowledge of the Individual Defendants1. ARCO

ARCO knew of the hazards of lead paint – including childhood lead poisoning – at the time it promoted, manufactured, and sold lead pigments for home use. (Tr. 1709:21-27.) ARCO learned of the hazards of lead paint — including childhood lead poisoning – through physician(s) it employed and information it received from trade associations. (Tr. 1685:15–1686:3, 1687:1– 1689:27, 1690:18–1691:5 [relying on P98 & P154], 1710:5–1711:3 [relying on P168].) ARCO's own internal documents establish that ARCO knew about the hazards of lead paint. In a letter dated 1918, ARCO personnel suggested that one way to eliminate the "poisonous effects" of lead for its workers was "[e]limination of the dust," minimizing the time that workers were exposed to the dust, and transferring workers once they showed symptoms of poisoning. (P168_13.) Personnel were also aware that poisoning was caused by particles both ingested and inhaled. In another letter dated December 16, 1921, plant personnel from ARCO discussed their interest in learning more about the prevention and detection of lead poisoning in the workplace and asked for more medical information on the subject. attached a medical article dated March, 1921 discussing industrial lead poisoning and the role of lead dust. (Tr. 1709:21-27 [relying on P168]). The letter and article further demonstrate that ARCO personnel followed the medical and literature regarding the hazards of lead and had actual knowledge of those harms. (Ibid.) ARCO had actual knowledge of the hazards of lead paint including childhood lead poisoning – for the duration of its manufacturing, promotion, and sale of lead pigments for home use. (Tr. 1624:21–1625:17.)

2. ConAgra

ConAgra knew of the hazards of lead paint including childhood lead poisoning - when it promoted, manufactured, and sold lead pigments for home use. (Tr. 1624:21–1625:17.) ConAgra knew about the hazards of lead paint when the California Supreme Court upheld a jury verdict finding that ConAgra knew about the dangers of white lead production for its workers. (Pigeon v. W.P. Fuller (1909) 156 Cal. 691, 702: "There was abundant testimony tending to show that the process of the manufacture of white lead, as conducted by [ConAgra], was dangerous to those assisting in the work; the danger arising from the inhalation of fumes and vapor . . . and of particles of dust coming from the metal after it had been corroded in the process of converting it into white lead"; see also Tr. 1718:10-24.) Neal Barnard, a former ConAgra employee who developed paint formulas for the company from 1948 until 1967, worked with lead pigments during the time that ConAgra produced lead paint. During that time, Mr. Barnard knew that white lead pigment was toxic. He also knew that lead paint chalked and that the resulting lead dust could be ingested by touching the paint. (Barnard Depo. 55:25–56:5, 62:11–62:17.)

ConAgra learned of the hazards of lead paint – including childhood lead poisoning – through information it received from trade associations. (Tr. 1687:1–1689:27, 1690:18–1691:5 [relying on Exs. P81, P154], 1691:12–1692:14, 1692:18–1693:23.) And ConAgra had actual knowledge of the hazards of lead paint – including childhood lead poisoning – for the duration of its production, marketing, and sale of lead pigments and paint for home use. (Tr. 1624:21–1625:17.)

3. DuPont

DuPont acquired Cawley Clark & Company and Harrison Brothers in 1917 as its first foray into the paint business. DuPont acquired Harrison Brothers, in part, to acquire its knowledge about paint and paint pigments, including lead paint and pigment. (Tr. 1711:12–1712:19 [relying on P172_20], 2852:21–2854:9 [relying on P275 at 10].)

By 1913, Harrison Brothers was promoting interior residential paints <u>without</u> lead by touting that those paints did <u>not</u> contain "poisonous" white lead pigments and discussed the absence of poisonous pigments making painted rooms safe for occupants. (Tr. 2848:2–26 [discussing Pl97].) Since this was an advertising gambit by a leading paint manufacturer and necessary

competitor of the other defendants, this document undermines the "no knowledge" argument of the other defendants in this case.

The paints that DuPont acquired from Harrison Brothers were described in a brochure that stated that wallpapers containing lead continually resulted in the circulation of dust and were especially unsuitable for children's bedrooms and nurseries. (Tr. 2855:18–2856:12 [discussing P506].) The brochure also stated that Harrison's paint contained "no lead, arsenic, or poisonous material of any description" (Tr. 2847:23–2848:26 [discussing P197].) DuPont's 1918 advertisements for its Sanitary Flat Wall Finish stated that "good taste decrees and health demands the elimination of poisonous pigments" – including lead pigments. (Tr. 1713:16–1714:3 [discussing P2 at 14], 1715:1–26; [relying on P177].)

In 1937, the Baltimore Public Health Department informed DuPont's Medical Director that nearly two dozen children had died of lead poisoning. The letter explained to DuPont that each of these children died after chewing on a painted surface, and that the Department was recommending use of paint without lead. (Tr. 1716:6–23 [relying on P159].)

DuPont learned of the hazards of lead paint – including childhood lead poisoning – through physician(s) it employed and information it received from trade associations. (Tr. 1687:1–1689:27, 1690:18–1691:5 [relying on P98 & P154].)

DuPont had actual knowledge of the hazards of lead paint – including childhood lead poisoning – for the duration of its production, marketing, and sale of lead pigments and paint for home use. (Tr. 1624:21–1625:17.)

4. NL

NL had actual knowledge of the hazards of lead paint, including childhood lead poisoning. NL obtained this knowledge through its own review of the scientific and medical literature, LIA communications, LIA and NPVLA meetings, and its own experiences. NL employed medical doctors who were well aware of the hazards of lead paint and tracked the medical literature on this subject. [Tr. 1687:1–1690:27, 1690:18–1691:5 [relying on P81, P988 and P154].)

NL was aware of the hazards of lead dust. For example, in 1912, NL acknowledged that "[i]n the manufacture of the various products of Lead, there are two sources of danger to the health of workmen therein employed; viz., the fumes arising from the smelting or melting of metallic lead, and the dust arising in the processes of making white lead and lead oxides." (P76 at 4.) NL's corporate representative confirmed that, by the mid to late 1920s, NL knew that children who chewed on toys, cribs, and other objects with lead paint could die from lead poisoning. That representative acknowledged that NL was probably aware that children could have convulsions after being exposed to lead in paint. (Tr. 1988:1–1994:3.)

During a 1930 meeting of the LIA Board of Directors, it was reinforced to NL that childhood lead poisoning caused by chewing on toys, cradles and woodwork (such as windowsills) containing lead paint occurred more frequently than formerly thought. (Tr. 1694:23–1696:3 [describing P166]; see also Tr. 1693:24–1694:22 [relying on P75].)

5. SW

SW had actual knowledge of the hazards associated with lead paint by 1900. In 1900, SW, in its internal publication, *Chameleon*, told its employees that:

It is also familiarly known that white lead is a deadly cumulative poison, while zinc white is innocuous. It is true, therefore, that any paint is poisonous in proportion to the percentage of lead contained in it. This noxious quality becomes serious in a paint which disintegrates and is blown about by the wind: but if a paint containing lead (such as the better class of combinations) is not subject to chalking, the danger is minimized. (P155.)

When asked whether SW knew, before 1910, that lead paint could cause lead poisoning, SW's own expert, Dr. Colleen Dunlavy, acknowledged that "[t]he hazards of . . . lead paints were widely understood for a long time" and that the "hazards [of lead paint] to workers, in particular, were well-known and reflected in Sherwin-Williams' documents." (Tr. 3036:18–19.)

This is also clear from articles published by SW's employees. For example, in June 1928, the Journal of Chemical Education published an article by a SW employee who noted that "[v]olumes ha[d] been written on this pigment [lead]," as well as "the facts that it is rather poisonous and has been legislated out of use in some countries." (P142.)

In an internal letter in 1969, an SW executive admitted that "[a]s to a solution to the problem, a very simple statement, but very difficult to carry out, would be to remove the source of lead or put it behind barriers so that the children could not get to it." (Tr. 1473:24–1474:23 [relying on P161].)

SW learned of the hazards of lead paint – including childhood lead poisoning – through physicians it employed and information it received from trade associations. (Tr. 1687:1–1689:27, 1690:18–1691:5 [relying on P98 & P154].)

SW had actual knowledge of the hazards of lead paint – including childhood lead poisoning – for the duration of its production, marketing, and sale of lead pigments and lead paint for home use. (Tr. 1705:21–1706:5.)

Based on the facts cited above, the Court finds each Defendant was on notice of the harms associated with lead paint no later than the 1920s and 1930s. Thus, each Defendant had — at the very least — *constructive* knowledge of the hazards created by its promotion of lead pigment for home use.

M. Causation

California has adopted the substantial factor test of the Restatement Second of Torts. (Viner v. Sweet (2003) 30 Cal.4th 1232, 1239.) This test "subsumes the traditional 'but for' test of causation." (Rutherford v. Owens-Illinois, Inc. (1997) 16 Cal.4th 953, 969.) Under this test, independent tortfeasors are liable so long as their conduct was a "substantial factor in bringing about the injury." (Ibid.) A plaintiff need only "exclud[e] the probability that other forces alone produced the injury;" it need not show that a defendant is the sole cause of the injury. (Arreola v. County of Monterey (2002) 99 Cal.App.4th 722, 748–49.) Where a defendant's conduct plays more than an "infinitesimal" or 'theoretical' part in bringing about

injury, damage, or loss," that conduct is a substantial factor in causing the injury. (*Rutherford*, at 969.)

Thus, multiple defendants are liable for public nuisance if they "created or assisted in the creation of the nuisance." (Appeals Decision at 309.) This is true even if the acts of each defendant are independent concurrent causes of the injury. (*Ibid.*) It is also irrelevant "whether the defendant owns, possesses or controls the property [which is the site of the nuisance]." (*Ibid.*)

The People contend that each Defendant promoted lead paint and/or lead pigment in the Jurisdictions. Whether Defendants' promotions explicitly mentioned lead is irrelevant. The question is whether Defendants promoted house paints containing lead. *Ibid*.

N. Defendants Promoted and Sold Lead Pigment and/Or Lead Paint in the Jurisdictions

The Defendants manufactured lead pigments for use in paints in the 20th century. And each Defendant, except ARCO, used these pigments in its own paints. (Tr. 509:13–17; 549:25–550:24.) Each Defendant promoted lead pigment and/or lead paint for use on homes within each of the Jurisdictions, despite knowledge of the hazards of lead.

Defendants' promotions included, among other things, ads (1) explicitly telling consumers to use lead paint on their homes; (2) telling consumers to use specific paints or lines of paint that contained lead without mentioning that those paints contained lead; (3) directing consumers to stores where brochures featuring lead paint were provided to customers; and

(4) promoting "full line" dealers of the Defendant's paint, including the Defendant's lead paint. (Tr. 1634:18–1635:15.)

These promotions targeted ordinary consumers as well as painters, trades people, and paint manufacturers. (Tr. 1961:16–1963:9.)

Drs. David Rosner and Gerald Markowitz, the People's historical experts, identified newspaper advertisements promoting lead paint manufactured by DuPont, ConAgra (Fuller), NL, and SW that ran in newspapers in each of the Jurisdictions between 1900 and 1972. (See P233_1.)

The following chart identifies the number of ads the People's experts identified (P233):

Entity	DuPont	Fuller	NL	SW
Alameda County	269	233	240	401
Los Angeles County	28	131	81	350
Monterey County	167	328	162	704
Oakland	162	143	168	221
City of San Diego	63	269	98	685
San Francisco	127	272	126	229
San Mateo County	111	183	219	149
Santa Clara County	207	347	444	305
Solano County	137	152	260	301
Ventura County	14	28	127	229

1. Campaigns

In addition to their individual promotion efforts, Defendants also jointly promoted lead paint in the Jurisdictions through campaigns organized by the LIA and/or NPVLA. (Tr. 552:19–553:22.) The purpose of these joint campaigns, which are identified in the chart below, was to sustain, increase, and prolong the use of lead paint. (Tr. 559:21–27.)

Trade Association	Campaign Name	Campaign Years	Involved Defendants
LIA	Forest Products – Better Paint	1934–1939	Fuller, NL, and SW
LIA	White Lead Promotion	1939–1942; resumed for a brief time after World War II in 1950	Fuller and NL
NPVLA	Save the Surface	First half of the 20th century	DuPont, Fuller, NL and SW
NPVLA	Clean Up – Paint Up	First half of the 20th century	DuPont, Fuller, NL and SW

The Forest Products Better Paint Campaign ("FPBP Campaign") primarily promoted the use of lead pigments on lumber. The Campaign was active in California because lumber was a popular building material for California homes. (Tr. 567:6–24; P185.) The LIA targeted lumber associations on the West Coast, including the California Redwood Association in San Francisco, persuading these associations to enclose two million folders containing "painting instructions" with all bundles of siding for homes. The

instructions directed consumers to use lead paint on the interior and exterior of their homes. (Tr.571:23–573:2.) LIA documents confirm that the FPBP Campaign was successful and identify tangible benefits it provided to the lead pigment industry. For example, the LIA reported that because of the Campaign, lumber producers were recommending use of lead paint, over 20,000 lumberyards were selling only lead paint, and that lead paint was now carried by several thousand lumberyards that had never carried it before. (Tr. 575; 6–28; 578:8; P91 8 and 9.)

The LIA also reported that the FPBP Campaign increased the lead content in some paints, and that one of the largest paint manufacturers in the U.S., the Paraffin Companies in San Francisco, went from producing leadless paint to paint with 60 percent white lead. (Tr. 578:23–579:9.) The LIA further reported that 20,000,000 labels were to be affixed to sashes and doors sold in the United States. These labels advertised white lead on the sashes and doors. (Tr.580:10–21.)

The White Lead Promotion Campaign ("White Lead Campaign") was a joint advertising campaign "aimed specifically at white lead promotion in general." According to Dr. Rosner, the purpose of the campaign was "to promote the sale of high grade paint, which, of course means white lead," prevent loss of market position, increase sales, refute allegations that lead paint was hazardous, and improve the "reputation" of the product. The overarching goal was to "show [] the importance of white lead to industry [and] help offset the constant threat of anti-lead legislation and propaganda." (Tr. 561:25–563:2 [relying on P80].)

Campaign targeted ordinary consumers, convincing them to apply lead paint to their homes, as well as the painters, and the paint industry more generally. (Tr.869:3-8.) The Campaign generated at least hundreds of advertisements in paint trade journals and national consumer magazines between 1939 and 1942. Dr. Rosner testified that between 1939 and 1941, approximately 13,881,000 White Lead Campaign ads appeared in national magazines such as the Saturday Evening Post, Colliers, Better Homes & Gardens, and American Home. In 1942, an additional 8,000,000 advertisements were placed in similar national magazines. (Tr. 586:15-19, 866:22-868:10 [discussing P120], Tr. 869:9, 872:12; Dc503; see also P294, P295, P296, P297, P 298.)

These national magazines circulated widely in California, including the Jurisdictions. (Tr. 648:7–653:13 [relying on P190].) In 1942, for example, they reached at least 585,792 California consumers. (Tr. 648:19–649:21, 650:13–26, 653:5–13, P120, P190.)

The LIA touted the White Lead Campaign as so successful that the demand for white lead outstripped supply. In the first eight months of 1941, the total sales of all lead pigments increased 37.6 percent – "a very substantial increase." (Tr. 599:11–23; 602:4–17; 604:19–605:7.)

The <u>Save the Surface Campaign</u> ("Surface Campaign") conducted by the NPVLA promoted paint sales, including sales of lead paint, by encouraging consumers to use paint to protect household surfaces. The campaign included advertisements by individual companies and collective advertisements with a common logo and slogan. (Tr. 559:2–16.) The Surface

Campaign was very active in California and was considered quite successful. For example, DuPont's magazine stated in 1920 that its paint sales increased as a result of the Campaign. (Tr. 620: 23–16, 621:24–27, 622:4–11; P189 12.)

The NPVLA's <u>Clean Up – Paint Up Campaign</u> ("Paint Up Campaign") was a joint effort by different companies to promote paint generally, including lead paint, and to promote their own brands of paint when possible. The Paint Up Campaign ran advertisements in each of the Jurisdictions. (Tr. 616:20–617:18, 618:27–619:11.) The NPVLA described the Paint Up Campaign as "undoubtedly" one of the most effective promotions of paint ever. (Tr. 623: 23–624:15.)

2. ARCO's role

ARCO began producing dry white lead in 1919 and made its first sale in 1920. (P285–002.) ARCO began promoting lead pigment for house paints in the January 1920 edition of the paint trade journal, *Drugs, Oils & Paints*. That national trade journal was circulated in California. (P01; Tr. 647:9–27, 647:28–648:6, 653:5–13; P120.) ARCO advertised its dry white lead for use as a house paint pigment in the journal throughout 1920 on a monthly basis. Its advertisements in *Drugs, Oils & Paints* from October 1920 through January 1921 promoted dry white lead as a pigment for paint as opposed to other industrial uses. (647:9–648:6, relying on P001.)

From February 1921 through November 1921, ARCO's monthly advertisements for dry white lead in *Drugs, Oils & Paints* stated that ARCO had warehouses in Los Angeles and San Francisco. These ads ran through at least December 1921. And

beginning in January 1922, the ads stated that ARCO maintained "warehouse stocks [of dry white lead] in principal cities." In 1923, ARCO had a listing in the San Francisco City Directory under the category of "paint manufacturers." (Tr. 1679:14–22, relying on P001; P218.)

In 1931, ARCO began to manufacture white lead-inoil. ARCO continued to advertise its lead products for
house paint in national paint trade journals through
October 1936. Those advertisements appeared
monthly in national paint trade publications like
American Painter and Decorator; American Paint
Journal; Paint and Varnish Production Manager;
National Painters Magazine; Paint, Oil and Chemical
Review; and Painter and Decorator. ARCO directed
these ads – which circulated in California – to the
paint trade. A number of those ads referred, either in
words or pictures, to using ARCO white lead to paint
houses. (P285_002 – 285_003; P01; P120; Tr. 653:5–
13.)

Between 1931 and 1935, paint companies in California purchased white lead from ARCO. DeGregory Paint Stores of Los Angeles, advertised in the Los Angeles Times on September 23, 1934, and January 7, 1940, that it had lead paste for sale. ARCO's sales records show that DeGregory Paint Stores purchased white lead from ARCO in 1934, and continued to purchase white lead through at least 1937. Similarly, Kunst Brothers of San Francisco made seven different purchases of white lead from ARCO between 1931 and 1935, and advertised white lead for sale in the Oakland Tribune on six occasions between March 1934 and October 1935. (Tr 1680:2—

26, 2024:3–21; P01; Tr. 1682:1–1683:4, 1683:6–22; P258; P259; P260.)

Ledgers show that ARCO supplied lead pigments to paint manufacturers that sold paint nationally, including DuPont and Glidden. (Tr. 2024:23–2025:2.) ARCO continued to produce, promote, and sell dry white lead and white lead-in-oil until the July 1946. From November 1936 through at least the end of 1938, ARCO continued its paint trade advertising campaign. (P285_002 - P285_003; P01.)

In 1940, ARCO published a brochure entitled "The Story of Anaconda Electrolytic White Lead." The brochure promoted ARCO's white lead-in-oil to homeowners, noting that it produces "an all-round paint of highest quality" and that "[i]nside or out, Anaconda White Lead surpasses as a decorative medium, yet costs no more." (P01; Tr. 699:24–27; 873:19–876:1) (emphasis added).

In a memorandum filed with the Federal Trade Commission on October 2, 1946, ARCO stated that it manufactured and sold white lead pigments from 1919 to 1946. (P258 at 1–3.)

ARCO admitted that it solicited business on the west coast and had warehouses in Los Angeles, San Francisco, and Oakland that shipped lead pigments to customers in the immediate vicinity, including San Jose, Berkeley, Hayward, Long Beach, Pasadena, Glendale, Burbank, Hollywood, and San Diego. (P258 at 4, 7.)

ARCO had a business location (not a retail establishment) in San Francisco, listed in the San Francisco City Directory in 1923. (Tr. 1679:14–19.)

3. ConAgra manufactured, promoted and sold lead pigment and paint for home use in the Jurisdictions

ConAgra acquired Phoenix White Lead and Color Works in 1894 and the RN Mason Company in 1928. ConAgra manufactured lead pigments for use in house paints from 1894 until 1958 and manufactured, promoted and sold lead paint in California from 1894 until 1948. (Tr. 653:22–661:3; 1667:25–1668:19, 1663:27–1664:19.) ConAgra's plant in San Francisco was moved in 1898 to South San Francisco and was the biggest paint factory west of the Mississippi River. By 1919, ConAgra shipped an average of 200 tons of lead paint daily from its South San Francisco plant to retailers throughout California for use in homes. (Tr. 1666:25–1667:4; Ex. 183) ConAgra also produced lead pigment for use in house paints and sold some of those paints at its Los Angeles factory. (Barnard at 30:15– 30:25; Tr. at 1666:25–1667:4.)

Neal Barnard, a former ConAgra employee who developed paint formulas for the company from 1948 until 1967, testified that ConAgra used white lead from NL in its paints. (Barnard at 7:15–21.) ConAgra sold 280 tons of white lead to SW for use in lead paint in 1956 and 1957. 658:24–659:9; P204.)

ConAgra had a significant presence (under the Fuller name) in the residential lead paint market in each of the jurisdictions during the 20th century. (Tr. 1667:9–12, 1675:4–8.) ConAgra had locations in each of the Jurisdictions where its lead house paints were sold. (Tr. 1667:9–12.) The following chart summarizes ConAgra's history of advertisements, stores, and dealers in the Jurisdictions during the time that it

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manufactured, promoted and sold lead paint for home use.

Jurisdiction	Earliest Store, Branch or Dealer	No. of Stores, Branches, & Dealers
Alameda (with Oakland)	1894	Over 164
Oakland	1894	Over 100
Los Angeles	1894	23
Monterey	1922	Over 20
San Diego	1894	Over 25
San Francisco	1894	Over 200
San Mateo	1921	Over 50
Santa Clara	1902	Over 75
Solano	1920	Over 10
Ventura Co.	1923	Over 10

ConAgra extensively advertised lead paint for home use in the Jurisdictions. (P233.) ConAgra's promotional materials included booklets and other materials promoting lead paint, as well as commercial jingles that aired on local radio. (Tr. 646:3–25.) ConAgra newspaper advertisements instructed consumers to use lead paint on their homes, including the exteriors, and some ads featured the full line of ConAgra paints at a time when ConAgra sold lead paints. (Tr. 1674:24–1675:2.)

4. DuPont manufactured, promoted, and sold lead pigment and lead paint for home use in the Jurisdictions

DuPont acquired Harrison Brothers and Cawley Clark & Company in 1917 and sold lead paint from 1917 until the 1960s. (Tr. 1651:22–1652:2; 1656:24–1657:7.) DuPont manufactured its own lead pigment from 1917 to 1924. One of its lead pigment manufacturing facilities was located in South San Francisco. (1651:22–1652:9.) After 1924, DuPont contracted with NL for lead pigment for use in its paints. DuPont provided NL with the raw materials, instructions, and packaging needed to manufacture lead pigment that met DuPont's needs. (Tr. 1656:24–1657:7.)

DuPont had a presence in the residential lead paint market in each of the Jurisdictions in the 20th century. (Tr. 1663:18–22.) DuPont's lead pigment was sold in California as early as the late 1910s. By 1919, DuPont's national trade journal advertisements for lead pigment listed sales agents for Los Angeles and San Francisco. (Tr. 885:19–39; 886:13–27; 888:17–24; 2970:7–2971:3; P177; P2 34.)

DuPont had dealers and stores selling its lead paint for home use in each of the Jurisdictions. (1662: 14– 17.) The following chart summarizes DuPont's history of advertisements, stores, and dealers in the Jurisdictions during the time that it manufactured, promoted and sold lead paint for home use.

Jurisdiction	Earliest Ad	Earliest Store or Dealer	No. of Stores & Dealers
Alameda Co. (with Oakland)	1927	1942	Over 130
Oakland	1927	1942	Over 30
Los Angeles Co.	[No info]	1929	5
Monterey Co.	1926	[No info]	Over 25
San Diego City	1926	[No info]	Over 20
San Francisco	1927	1929	Over 100*
San Mateo Co.	1927	[No info]	Over 80
Santa Clara Co.	1927	[No info]	Over 100
Solano Co.	1927	[No info]	Over 20
Ventura Co.	1946	1946	5

DuPont advertised lead paint for home use to paint dealers, consumers, and master painters in the Jurisdictions. (Tr. 644:11–21) The number of DuPont advertisements for lead paint increased from the 1920s through the 1960s. Approximately 1,271 DuPont ads instructed consumers and painters to use lead paint in homes for interior or exterior use or promoted full-line dealers. Full-line dealers sold lead paint as well as lead-free paint in the Jurisdictions. (Tr. 1663:3–1663:17, 2012:27–2013:4) DuPont advertised lead paint for home use without

telling purchasers that the paint contained lead. For example, DuPont manufactured and promoted lead paints, including No. 39 Primer, in California through the 1960s. DuPont's expert paint chemist, Dr. Lamb, testified that the No. 39 Primer that DuPont promoted in the *Oakland Tribune* on March 30, 1961 had approximately 140,000 parts per million of lead. (Tr. 2012:22–26; 2014:8–2015:14; 2967:5 to 2868:8.)

5. NL manufactured, promoted and sold lead pigments and lead paint for home use in the Jurisdictions

NL manufactured lead pigment from 1891 to 1978 and was the largest American manufacturer, promoter and seller of lead pigments for use in house paint. (See Federal Trade Com. v. Natl. Lead Co. (1957) 352 U.S. 419, 424.) NL regularly sold lead pigments to paint manufacturers in California from 1900 to 1972 and had a substantial presence in the residential lead paint market in the Jurisdictions during the 20th century. (Tr. 1647: 21–1648:5; 1648:9–1649:2; 1651:13-21.) NLoperated lead pigment manufacturing plants in San Francisco and Los Angeles and a warehouse in Oakland. (Markowitz, 1647:21–1648:5; Stipulation Exhibit 2.)

NL's dry white lead was available for sale in the Jurisdictions from 1900 to 1972. (Stipulation 46.) In 1941 alone, NL sold 528,000 pounds of dry white lead to customers in Los Angeles and 60,000 pounds of dry white lead to customers in the City of Palo Alto. (Stipulations 35–36.) And between 1920 and 1941, NL's San Francisco branch sold 82,674 tons of white lead-in-oil. (Stipulations 12–33).

From 1900 to 1972, NL promoted its lead paints in the Jurisdictions. During that time, NL regularly advertised its lead paints for home use in local newspapers in the Jurisdictions and in national magazines that reached consumers in the Jurisdictions. (Stipulation 39–40; P233; Tr. 1649:3–20; 1651:13–21.) NL also advertised its lead paints for home use in trade journals directed to the paint manufacturing industry. (Stipulation 41.) Finally, NL regularly marketed and promoted its white leadin-oil (paste) for home use in the Jurisdictions from 1900 to 1972. (Stipulations 47–48.)

Because NL had been formed by the acquisition of over 50 competitors between 1891 and 1935, NL used the Dutch Boy image as a unifying symbol for the company and its white lead-in-oil and dry white lead products. (Tr. 639:7–19; 640:27–641:25; P82.) Various Dutch Boy house paints manufactured by NL that contained white lead carbonate were marketed, promoted, and sold in the Jurisdictions from 1940 to 1972. (Tr. 1648:16–26.) In its handbook on painting, NL promoted lead pigments for use on the interiors of homes and instructed consumers on how to apply it. (Tr. 1650:22–1651:12; P140.)

6. SW manufactured, promoted, and sold lead pigment and paint for home use in the Jurisdictions

SW manufactured lead pigments for use in house paints from 1910 to 1947. It manufactured paints with lead pigments from 1880 through the 1970s. SW was a member of the LIA from 1928 through May 1947 and was a Class A member of NPVLA from 1933 through

1981. (Tr. 1626:15–23.) The following facts regarding SW are relevant:

- SW sold lead paint as early as 1880, and despite knowing the hazards of lead paint at least as early as 1900, SW sold lead paint until 1972. (Tr:1626:15–23; 1644:22–24.)
- Between 1886 and 1943, SW used over 160,000 tons of white lead. (Stip. 187.)
- From 1910 to at least 1947, SW also manufactured lead pigment. (Tr. 1626:15–23.)
- SW had a substantial presence in the residential paint market in the Jurisdictions throughout the 20th century. Between 1930 and 1933 alone, SW distributed approximately 3,091,484 pounds of lead pigment to its warehouses and factories in San Francisco, Oakland, and Los Angeles. (Tr. 1627:25–1628:5; 1646:20–1647:2; Stips. 166, 190–202.)
- SW also had two manufacturing plants in California: one in Emeryville (Alameda County) and one in Los Angeles. Both produced lead house paints for sale in California. (Tr. 1627:14–24.)
- SW had stores and dealers in each of the Jurisdictions selling its lead house paints. (Tr, 1627:25–1628:5, P234.)

The following chart summarizes SW's history of advertisements, stores, and dealers in the Jurisdictions during the time that SW manufactured, promoted and sold lead paint for home use.

Jurisdiction	Earliest Ad	Earliest Store or Dealer	No. of Stores & Dealers
Alameda (with Oakland)	1907	1924	Over 55
Oakland	1907	1924	Over 30
Los Angeles	[No info]	1892	75 by 1915 alone
Monterey	1925	1947	Over 25
San Diego	1922	1892	20
San Francisco	1906	1901	Over 50
San Mateo	1903	1947	2
Santa Clara	1913	1945	Over 45
Solano	1921	1958	Over 12
Ventura	1929	1946	10

(Tr. 1629:4–16, 1630:4–10, 1636:14–19, 1638:25–1639:1, 1639:7–16, 1639:20–28, 1640:3–11, 1640:15–25, 1640:28–1641:8, 1641:17–22, 1641:9–16, P234.)

SW was one of the first companies to engage in national advertising and to establish an advertising department to promote its paints. According to SW, its national advertising campaigns reached four out of five families in the United States and virtually all of their dealers' localities. (Tr. 638:6–639:1; 638:6–639:1; Stip. 155–156.) SW ads appeared in the Jurisdictions in each decade from the 1900s to the 1970s. (Tr. 1645:19–1646:6; P234.) SW extensively advertised lead paint in the Jurisdictions and instructed consumers in those Jurisdictions to use lead paint on

interior and exterior surfaces of their homes. (Tr. 1630:22–1631:8.)

SW also advertised a full line of paints, some of SWP paint was the most which contained lead. prominent SW product that contained lead and was available in the Jurisdictions. More homes were painted with SW house paint than any other competitor's. (Tr. 1642:19-26.) SW advertised price quotes for lead-in-oil that it manufactured and sold. These quotes appeared in California newspapers, including the San Francisco Examiner, Los Angeles Examiner, and Oakland Tribune. (Tr. 3058:28– 3061:17; P522; P523.) SW's national and Californiaspecific advertising campaign sponsored local ads to help local dealers in California promote its paints. (Tr. 637:8-14; 637:26-638:5.) Because SW's ads did not always clearly identify whether its paints contained lead, consumers would not know whether a particular paint contained lead. (Tr. 2032:14–2033:3.)

SW also acquired a number of companies that sold and promoted paints containing lead pigments in the Jurisdictions. It acquired Martin-Senour Company in 1917, Detroit White Lead Works in 1917, Acme White Lead & Color Works in 1920, The Lowe Brothers Company in 1929, W.W. Lawrence & Co. in 1929, and a partial interest in John Lucas & Co. in 1930, followed by the full acquisition in 1934. These companies sold house paints containing lead pigments in addition to SW's own house paints containing lead pigment. (Tr 1626:24–1627:10, 1638:13–23; 1643:6–1644:21; Stips. 158–165, P282 4.)

O. Defendants promoted lead paint even though alternatives were available

Durable, marketable alternatives to lead paint existed by the early 1900s. (Tr. 578:23–579:6 [discussing P91 at 9], 1624:21–1625:6, 1949:23– 1950:5, 1972:26–1973:9, 2039:6–12 3104:23–3105:13; Stip. 183 with SW.) When various countries banned lead paint during the 1920s and 1930s, these non-leadbased alternatives were used in place of lead paint. (Tr. 1702:20–1703:14; P142 at 9.) By the 1910s, SW itself made what it considered to be durable, quality exterior house paint that did not contain lead. DuPont likewise made a safe, durable paint that did not contain lead by the 1910s. (Tr. 858:16–24, 2010:14– 2011:3, 2037:23–2039:12, 3103:25–3104:5, 3105:4–25.) Each Defendant was aware that these alternatives existed, but nonetheless persisted in promoting lead pigment and paint. (Tr. 860:17-26; 889:24-890:11; 891:26–892:12 [discussing P5 at 3]; 1624:21–1625:6; 1705:2-20; 1715:11-26 [relying on P177]; 1951:9-1952:6 [discussing P150 at P27]; 1972:26–1973:9; 2012:27–2013:15 [relying on P233 & P269]; 3104:23– 3105:13.)

VI. SUMMARY OF THE DEFENDANTS' ARGUMENTS

Although each defendant asserts specific defenses, the following are common to all, some of which are dealt with earlier in this decision:

• Liability requires actual, not constructive knowledge

The court finds otherwise; constructive knowledge is sufficient. See Section V.B. above.

• If defendants are liable for constructive knowledge there was no such knowledge at the time (1st half of the 20th century) lead was put into paint

The Court finds otherwise; there is persuasive evidence that such knowledge was available. For example:

Markowitz: NL knew in 1912 - Ex. P76

Markowitz: Barn painted with lead paint and sick cattle (1949) Ex. P 157

Markowitz: SW's Chameleon (1900) Ex. P155 at pp. 16 and 22

Markowitz: SW's Chemist (1928) Ex. P142

ConAngra (as Fuller) Pigeon case

LIA bulletin commenting on health commentators in 1939 - @561–562

Kosnett: @ 1168-1215

• Even if there was some knowledgee lead was dangerous, but in the context of workplaces, not home paint

The Court finds this is not a credible defense; the link between workplace exposure and harm and residences is obvious.

• Defendants could not have been expected to have such knowledge when the leading authorities in medicine and government didn't say there was such a hazard (e.g., higher BLLs were the norm by government standards)

As the Court of Appeals stated: "The fact that the pre-1978 manufacture and distribution of lead paint was 'in accordance with all existing statutes does not immunize it from subsequent abatement as a public nuisance." Appeals Decision at 310.

Other defenses asserted:

- The "promotion" element as stated in the Appeals Decision has not been satisfied
- Assuming older housing is the problem, why has there been such a decline in blood lead levels?
 Because bad paint is being covered, and intact lead paint is not hazardous
- No market share analysis done, so how can these five defendants be held liable for all purveyors of paint?
- Incidence of lead poisoning is so low that this is a *de minimus* problem not worthy of abatement
- To the extent it is a problem, the California Legislature has proscribed solution
- The solution (CLPPS) has worked, and is a great "success story"
- Local governments have the resources to address the problem but lack the will to do so
- Proposed remedy too expensive
- It is the property owner's responsibility to fix the problem

VII. INDIVIDUAL DEFENDANTS' RESPONSES

A. ARCO

ARCO's position:

1. Knowledge

There is no evidence that establishes knowledge by ARCO prior to April 1937 of any health effects to children from exposure to residential lead paint. Exhibit 154 transcript of an April 6, 1937 conference that chiefly addressed occupational lead poisoning among adult factory workers but also included limited references to childhood lead poisoning. (TR. 1750:11– 17, 1764:9–1766:3.) The transcript references two previously published case reports of symptomatic lead poisoning in children with very high blood lead levels; but it says nothing about whether those children ingested lead from paint. (Ex. 154_006-008.) Plaintiffs expert acknowledged, one of the published case reports that Dr. Aub described showed that the child had ingested lead from water; the other did not say what the source of the child's lead exposure was. (TR. 1750:11–17, 1752:1–17, 1752:25–28, 1764:9– 1766:3.)

2. Promotion

ARCO's alleged predecessors ceased all promotion of lead pigment, and left the lead pigment business, decades before research on the risk of low-level exposures in asymptomatic children began to be published in the late 1970s and over a half century before the CDC reduced its "level of concern" to 10 µg/dL and the "reference level" to 5 µg/dL.

The evidence fails to show that promotion by ARCO caused application of lead paint on homes within the Jurisdictions. Plaintiffs' experts supervised an extensive search of newspapers published within the plaintiff Jurisdictions for advertisements promoting any lead paint or pigment products manufactured by any of the defendants. (TR. 1631:22–1632:7, 1632:27–1633:6, 1634:1–20, 1976:1–15; Ex. 233.) Significantly, the search yielded no newspaper advertisements

promoting Anaconda brand products or purporting to have been published on behalf of ARCO at any time. (TR. 1865:21–1866:7, 1866:13–17, 1869:16–22. 1870:15-19, 1871:1-6, 1871:17-24.) Thus, no alleged ARCO predecessor promoted lead paint or pigment in plaintiff Jurisdictions through advertisements. Nor is there any evidence that ARCO promoted lead paint or pigment at any time through media. broadcast billboards. or point-of-sale advertisements in stores.

The sole evidence of promotion by any alleged ARCO predecessor consists of magazine advertisements contained within Exhibit 1, a compendium of documents. Those advertisements break down into two categories: advertisements published before and after the April 1937 conference.

Exhibit 1 also includes 51 advertisements promoting Anaconda brand white lead carbonate that appeared before April 6, 1937, in the same journals directed to paint manufacturers and professional painters as the post-April 6, 1937 advertisements, at various times during two brief periods: 1920–22 and 1935–37. (Ex. 1 at 3,17,21–25,27–33, 38–39,44–89 and 90–115.) These advertisements all pre-date Plaintiffs' proffered evidence of knowledge by ARCO of any lead risk, These advertisements therefore do not constitute promotion with knowledge.

There is no evidence that the trade journals that carried them circulated or were read by anyone within California. Plaintiffs offered no evidence, and *stipulated* that they know of no evidence, identifying anyone who bought or used lead paint on homes in the Jurisdictions or elsewhere in California after reading,

seeing or hearing them. (Court Ex. 12 [Stip.,], at 2.)¹⁶ There is no evidence that these advertisements were effective by any other measure, and no witness testified that they were.

The People have suggested that three pieces of evidence show that Anaconda white lead pigment was sold for use in paint for residential applications in California, but the evidence they cite would not support such a finding, They cite (i) advertisements in Drugs, Oils & Paints between February 1921 and November 1921 that list Los Angeles and San Francisco, among 14 other cities outside California, as places where Anaconda Lead Products Company had warehouses (Ex. P001 070–089) (similar advertisements in the same journal in later months omit California locations from the list of places where warehouses were maintained), (ii) statements in a memorandum submitted to the FTC (Ex. 285) to the effect that the alleged predecessors' nationwide system for pricing sales of white lead carbonate included a methodology for determining prices of any sales that might occur in California, and (iii) trial balances from the accounting records of Anaconda Sales Company for fiscal years ending in 1931, 1934, and 1935 (Exs, 258–260), which show accounts receivable balances due from various including some in California, but do not make it possible to determine whether the balances arose from sales of white lead or sales of zinc oxide, a non-lead pigment. (TR. 1884:23–26, 1885:9–14, 1887:5–14.)

 $^{^{16}}$ As noted herein stipulations between the parties resolved certain key issues.

Exhibit 1 includes two newspaper advertisements by the DeGregory Paint Company, one from 1940 and another from 1934, advertising unbranded "lead and zinc paste." (Ex, 1 001–002.) These documents do not constitute promotion by ARCO, because there is no evidence that any alleged predecessor placed the advertisements and the advertisements do not mention the Anaconda brand. (TR. 1891:6–11, 1895:15–26.) Plaintiffs have asserted that DeGregory purchased Anaconda white lead, suggesting that the lead pigment contained in the unbranded "Lead and Zinc Paste" advertised by DeGregory somehow must have been supplied by ARCO.

However, the DeGregory advertisements do not identify white lead carbonate as the type of lead pigment contained in DeGregory's "lead and zinc paste." Undisputed testimony from an expert witness, Dr. Bierwagen, establishes that there were multiple different types of lead pigments in use in addition to white lead carbonate. (TR. 3077:11-19.) There is no evidence that DeGregory's "lead and zinc paste" contained white lead carbonate rather than some form of lead pigment that the alleged ARCO predecessors did not sell. Second, Plaintiffs have cited in support of their argument Exhibits 259 and 260, which are trial balances from the accounting records of Anaconda Sales Company. These documents show accounts receivable balances due from DeGregory, but they do not establish any sales of white lead carbonate pigment to DeGregory (or to any other paint manufacturer in California) because they show only dollar amounts and do not make it possible to determine whether the balances arise from sales of white lead or sales of zinc oxide, a non-lead pigment. (TR. 1884:23–26, 1885:9–14, 1887:5–14.)

Exhibit 1 includes six newspaper advertisements for unbranded "pure white lead" by Kunst Bros., a paint retailer in Oakland, dated in 1934 and 1935. These documents do not constitute or establish promotion by ARCO, because there is no evidence that they placed the advertisements and the advertisements do not mention the Anaconda brand. (TR. 1891:6–11, 1895:15–17.) There is no evidence that Kunst Bros, purchased white lead from ARCO. See Exhibits 258 and 259. Exhibit 259 is an Anaconda Sales Company trial balance that shows account receivable balances from various companies, including Kunst Bros., but does not say whether the balances arose from sales of zinc oxide or white lead. Plaintiffs' assertion that it must be one rather the other is speculation. Exhibit 258, a similar document dating from the 1931 fiscal year, is irrelevant for the same reason.

3. Causation

The law governing causation requires Plaintiffs to prove that ARCO's conduct was a "substantial factor" in causing the alleged harm of widespread presence of paint containing white lead carbonate pigment within pre-1978 private residences throughout the plaintiff Jurisdictions. ARCO cannot be held liable for the alleged public nuisance because Plaintiffs presented no evidence that any conduct by ARCO caused any portion of the alleged public nuisance.

There also is no evidence that ARCO actually sold white lead carbonate pigment for use in residential paint in California. Plaintiffs conducted an extensive investigation to identify defendants' stores and dealers in California and found none for any of ARCO's alleged predecessors. (Ex. 234; see also TR. 1637:3–1638:3 (description of investigation process).)

The only manufacturing facility for Anaconda White Lead was in Indiana (Ex. 285 002-003), putting Anaconda White Lead at a competitive disadvantage for any California sales compared to white lead brands manufactured by companies with California plants. Anaconda White Lead also was a late entrant into the market, attempting to sell its product at a time when demand overall was decreasing. The summary of the history of U.S. white lead production since 1884 proffered by Dr. Mushak shows that most white lead carbonate was produced in the decades before 1920 and that the peak year was 1922, just two years after Anaconda White Lead began to be produced. (See Ex. 230.) Dr. Mushak's chart shows, and Dr. Rosner agreed, that white lead production declined thereafter so rapidly that by the late 1930s total white lead production was only half of what it had been in the early 1920s. (Ex. 230; TR. 711:11-20, 742:15-18, 760:10-13.)

Each of the above-listed items of evidence is at most consistent with, but not probative of, the possibility that ARCO sold some white lead carbonate pigment in California for some purpose. That is not enough to permit the inference that such sales occurred. A permissible inference is "more than a surmise or a conjecture," and "cannot be based on mere possibilities; it must be based on probabilities." *Aguimatang v. Calif. State Lottery*, 234 Cal. App. 3d 769, 800 (1991) (citations omitted).

Even if the Court were to infer that some sales of Anaconda white lead carbonate pigment occurred in California, that would not establish a factual link between ARCO and the alleged public nuisance, which consists of paint containing white lead carbonate pigment that is now present in homes,

Plaintiffs stipulated that they had no such evidence that: (i) such pigment was used to make paint rather than a non-paint product (such as ceramics); (ii) the paint was applied to one or more residences within the plaintiff Jurisdictions rather than to some other structure that is not part of this case; and (iii) the residence(s) to which it was applied are still standing.

B. ConAgra

ConAgra's position:

1. Knowledge

With regard to ConAgra the People rely on *Pigeon v.* W. P. Fuller & Co., 156 Cal. 691 (1909), (Ex. 184), a 1919 newspaper article describing a tour of Fuller's South San Francisco plant which references precautions taken to protect workers from "poisonous" dust created during the process of converting pig lead into white lead carbonate (Ex. 183), and Fuller's membership in LIA and NPVLA.

ConAgra argues *Pigeon* is distinguishable. As described in Ex. 183 and Ex. 184, work in a white lead factory was a dangerous occupation which exposed workers to enormous quantities of lead through a "melting," "grinding," and "pulverizing" process which generated lead dust, fumes and vapors. Workers inhaled fumes and dust with quantities of lead sufficient to cause "loss of teeth, paralysis and derangement of the digestive organs." (Ex. 184.006.)

ConAgra asserts it was not proven at trial that anyone connected the workplace hazard to residences.

As to membership in the LIA or the NPVLA, there is no evidence that any Fuller representative attended meetings of either trade association where such information was purportedly disclosed. (TR, 785:6–14 [Rosner].) The trade association meeting minutes introduced by the People demonstrate that Fuller was not in attendance. (Ex. 104, Ex. 107, Ex. 108, Ex. 112, Ex. 114.) Nor did the People establish that Fuller acquired any knowledge from the meeting minutes or other writings issued by the LIA or NPVLA, as there is no evidence that any representative of Fuller actually received and reviewed any such documents, much less a representative with sufficient authority to impute knowledge to Fuller.

The People did not prove that Fuller had any direct knowledge of the substance of relevant medical/scientitle literature. They were not widely circulated. If at all, the literature was available for review only in medical libraries and locatable only through the use of an "index medicus." (TR. 1185:14–23 [Kosnett].)

The pre-1950 medical/scientific literature did not describe childhood lead poisoning from deteriorated lead paint and/or dust. Rather, the literature primarily involved lead poisoning from high doses of lead as a result of chewing on objects such as cribs, toys and children's furniture and were viewed by the public health professionals of the times as related to a behavioral abnormality called "pica." (Ex. 1004; Ex. 1382; TR. 2664:23–2666:18; 2671:26–2674:22 [English].)

2. Promotion

For example, Ex. 233 purports to be a summary of the number of "Newspaper Advertisements by Defendants" in each Jurisdiction during the time period 1900–1972. For Fuller, the summary reported a total of 2,086 advertisements. However, the schedule supporting Ex, 233 identified 715 Fuller-related advertisements. The People subsequently offered Ex. 268, which was a collection of 515 Fuller-related advertisements. (TR. 1980:25¬1982:19 [Markowitz].)

Dr. Markowitz acknowledged that many of the advertisements did not promote lead paint,-but werefor-the purpose of getting people to come into the stored (TR—180H3-4- [Markowitz].) Still other advertisements simply promoted the Fuller brand, and not any particular lead-based paint product. (TR. 1794:22—1795:10 [Markowitz].) Dr. Markowitz also included advertisements by retail stores, with no evidence linking Fuller's involvement in the content or placement of those advertisements, (TR. 1800:21—1801:25 [Markowitz].) He included an advertisement run by a lumberyard in 1965 (after Fuller stopped producing lead paint) based on speculation that the stores may have had "leftover stock." (*Id.*)

Over the 72-year period embraced by the historical research of Dr. Markowitz, there were 300 advertisements which appear to have been placed by Fuller (as opposed to a third party) and which reference a product that may have contained lead. A schedule summarizing the number of advertisements by decade is as follows:

	Fuller Ads in Ex. 268
Decade	Purporting to Relate to a
	Lead-based Paint
1900s	3
1910s	11
1920s	258
1930s	20
1940s	7 (exterior paint)
1950s	1 (export)
1960s	0
1970s	0
Total	300

Based on the record, there was minimal advertising activity by Fuller after the 1930s, and none related to interior lead paint. While Dr. Markowitz testified that the advertisements contained in Exhibit 233 were only a representative sample, the People presented no other evidence relating to Fuller's advertisements.

3. Causation

The People offered no evidence to establish that Fuller's advertising activity was a substantial factor in causing-the alleged-public nuisance. There is no basis in the record to conclude that Fuller's advertisements were a "but-for" cause of the presence today of lead in the more than 4.7 million homes located throughout the geographical limits of the Jurisdictions that are presumed to have lead paint.

4. Laches

The doctrine of laches is applicable to claims brought by public entities. See, e.g., City and County of San Francisco v. Pacello, 85 Cal.App.3d 637 (1978);

People v. Department of Housing & Community Dev., 45 Cal.App.3d 185 (1975). As the Department of Housing court explained, "(w]hen the government is a party, invocation of...laches...rests upon the belief that government should he held to a standard of 'rectangular rectitude' in dealing with its citizens." Department of Housing, 45 Cal.App.3d at 196.

Laches is also available in public nuisance cases brought by public entities. City and County of San Francisco v. Pacello, 85 Cal.App.3d 637 (1978). California Civil Code Section 3490 does not alter this result. By its express language, this section applies only to those public nuisances that amount to "actual obstruction[s] of a public right." Cal. Civ. Code § 3490. Here, by the People's own admission, the requested abatement relates solely to private residential properties. (May 3, 2012 Joint Stipulation Regarding Buildings at Issue.) Accordingly, Section 3490 does not apply to this case.

Courts have not barred application of the laches defense in cases concerning the enforcement of a defined governmental policy. Rather, the cases have balanced the governmental interest against the impact on the private litigant. Pacello, 85 Cal. App. 3d at 646. In People v. Department of Housing & Community Dev., 45 Cal. App. 3d 185 (1975), the People brought a mandamus action against the department for failure to fulfill the requirements of the California Environmental Quality Act before issuing a permit. Id. The People sought to have the permit rescinded. Id. Even though the 180-day statute of limitations on the suit had not yet run, the trial court found that the action was barred by laches. Id. The finding was upheld on appeal. Id. The appellate

court noted the strong public policy for environmental protection, but found that the presence of public interest was not a bar to equitable defenses. *Id.* Instead, a weighing process would ascertain whether the injustice to be avoided was sufficient to counterbalance the effect of the defense upon a public interest. *Id.*

Similarly, the California Supreme Court in *City of Long Beach v. Mansell*, 3 Cal. 3d 462, 496–497 (1970), emphasized that private litigants are not categorically precluded from asserting equitable defenses, including laches, against a governmental entity, even when the governmental action purportedly promotes a policy adopted for public protection. *Id.* The *Mansell* court adopted the following balancing principle:

The government may be bound by an equitable estoppel in the same manner as a private party when the elements requisite to such an estoppel against a private party are present and, in the considered view of a court of equity, the injustice which would result from a failure to uphold an estoppel is of sufficient dimension to justify any effect upon public interest or policy which would result from the raising of an estoppel.

Id. at 496–497

C. DUPONT

DuPont's position:

1. History relevant to DuPont

Only DuPont paint products that were available for sale in California are relevant in this case. (Ex. 2012, ¶ 3.) DuPont's white lead-in-oil was never identified or listed as available for sale in any California newspaper

or California hardware catalog identified by the parties. (Ex. 2012, ¶ 11.) The parties have stipulated that DuPont's interior residential paint products never contained white lead pigments. (Ex. 2012, ¶¶ 26–39; see also TR. 2609:11–19 [Lamb].)

As noted above, DuPont entered the paint business in 1917 when it acquired Harrisons, Inc. ("Harrisons"). (Ex. 2012, ¶ 1.) In 1917 DuPont also acquired Cawley Clark & Company ("Cawley Clark"), a manufacturer of high-grade colorants for paint. (TR. 2909:21–2910:3 [Bugos].) Together Harrisons and Cawley Clark owned Beckton White, a manufacturer of lithopone, a leadfree white pigment used for interior residential paints. (TR. 2909:13-2910:3 [Bugos].) Due these to acquisitions, by 1918 DuPont was the country's largest manufacturer of lithopone. (TR. 2918:1–21 [Bugos].) DuPont later became the country's and then the world's largest manufacturer of titanium dioxide, another lead-free white pigment used for interior and, later, exterior residential paints. (*Ibid.*)

DuPont manufactured white lead carbonate from March 1917 until December 1924 at only one plant, in Philadelphia, Pennsylvania. (Ex. 2012, If 4.) DuPont acquired the Philadelphia plant when it purchased Harrisons; Cawley Clark never manufactured white lead pigment. (TR. 2909:13–2910:3 [Bugos].)

After acquiring Harrisons, Cawley Clark, and other companies starting in about 1917, DuPont attempted to establish its paint and pigment businesses. (TR. 2913:17–2915:19 [Bugos].) Neither business was initially profitable (TR. 2915:10–19 [Bugos]) and the company was nearly out of the white lead pigment business four years after it acquired Harrisons

(Ex. 1297; TR. 2922:10–19 [Bugos]). DuPont ceased manufacturing any white lead carbonate pigment by the end of 1924. (Ex. 2012, ¶ 4.)

Because it was focused on pigments other than white lead, DuPont did not join LIA until 1948, 20 years after that trade association was formed. (Ex. 2012, ¶ 18; TR. 2929:12–27 [Bugos].) DuPont joined the LIA due to products unrelated to white lead pigment or lead paint. (TR, 2929:12-24 [Bugos].) DuPont was not a member of any of the LIA's White Lead Committees and did not participate in any way in the LIA's White Lead Promotion Campaigns or Programs or the LIA's Forest Products - Better Paint Campaign. (Ex. 2012, ¶¶ 20–24; TR. 2929:12–27 [Bugos].) DuPont was a member of NPVLA from 1933 through 1972 (Ex. 2012, ¶ 16), but NPVLA promoted only the use of paint generally and did not affirmatively promote white lead pigment or lead paint (TR, 834:22-835:3 [Rosner]; 2928:23-2929:5 [Bugos]).

2. Knowledge

Dr. Markowitz testified that DuPont did not possess any secret or otherwise non-public knowledge concerning risks posed by residential lead paint. (TR, 1773:14–20.) To the contrary, the first evidence offered by the People of DuPont being informed that children were being harmed by lead paint in their homes was a 1937 letter from the Baltimore, Maryland health department. (Ex. 159; TR. 1716:13–19 [Markowitz],) That letter referred solely to children being harmed by eating paint off cribs, and did not mention interior or exterior residential surfaces (*Ibid.*) The City requested DuPont's help in obtaining information about

alternative, lead-free paints for repainting children's furniture, including cribs (*ibid.*), and DuPont offered to look into developing such paints. (TR. 1861:28–1862:3, 1862:24–1863:26 [Markowitz].) In fact, DuPont already offered a lead-free paint for those purposes at that time, as part of its Duco line. (TR. 1863:27–l 865:8 [Markowitz]; Ex. 2012, ¶ 34.)

3. Promotion

Dr. Markowitz offered a general opinion that DuPont promoted lead paint in California (TR. 1624:21–1625:11), based upon a collection of 1,271 advertisements pertaining to DuPont.

(TR. 1663:9–11.) In that collection, Dr. Markowitz included advertisements that (i) referred to lead paint explicitly (such as through use of the word "lead"); (ii) referred to a paint product containing white lead pigment; (iii) referred to a paint line that included a paint product containing white lead pigment; or (iv) referred to any other residential paint product (i.e., those that did not contain any white lead pigment). (TR. 1794:22–1795:10.)

(a) Advertisements

First, advertisements that did not refer to a paint product that contained white lead pigment or a line with such a product are irrelevant to this case. Dr. Markowitz speculated that such advertisements for non-lead paint products *might* induce a consumer to visit a store, where he or she *might* see promotional materials for a lead paint. (TR. 1839:22–27.) But Dr. Markowitz admitted he has seen no such in-store promotional materials for DuPont. (TR. 1840:21–1841:4.)

Second, Dr. Markowitz lacked the knowledge to separate advertisements that referred to lead paints, or lines with lead paints, from advertisements for non-lead paint products. (TR. 1831:3–1839:21, 1842:26–1843:1.) Dr. Markowitz could not state how many advertisements in his collection actually referred to a DuPont paint product that contained white lead pigment. (TR. 1839:17–21, 1843:2–7.) Because Dr. Markowitz was unable to separate potentially relevant from irrelevant advertisements, there is no support for his opinion that DuPont promoted residential lead paint."

Third, Dr. Markowitz did not exclude advertisements placed by third parties, such as painters or dealers. (TR. 1841:10-17, 1842:1-4, 1843:8–11.) Dr. Markowitz did not identify any California newspaper advertisement as placed by DuPont, rather than a third party. DuPont's expert paint chemist, Dr. Lamb, reviewed Dr. Markowitz's collection of 1,271 advertisements between 1900 and determined that only 130 of the advertisements referred to a DuPont paint product that contained white lead pigment or a paint line including such a product. (TR. 2834:7-13.) This testimony was uncontroverted.

Of the 130 advertisements identified by Dr. Lamb, only two advertisements used the word "lead," (TR. 2834:17–2835:3.) The remainder referred to an exterior residential paint (or paint line) that contained some amount of white lead pigment, but did not discuss lead or tout its virtues. Dr. Lamb organized these advertisements into a chart displaying the number in each Jurisdiction, by decade. (Ex. 1408.1; TR. 2833:18–2834:13.) Dr. Markowitz's collection

included no such advertisements in Ventura County and only one advertisement (during a period of 66 years) in Monterey and Solano Counties. (Ex. 1408,1.) There were just seven advertisements found in Santa Clara County and eight in San Mateo County and the City of San Diego. (Id.) Los Angeles County, the largest Jurisdiction, had just 13 such advertisements, and only three after 1930, (Id.) The only Jurisdictions where more than 20 advertisements were found that referred to a DuPont paint product or line containing white lead pigment were Alameda County and the City of Oakland, which shared the Oakland Tribune. (Id.) And only nine such advertisements were found after 1950. (Id.)

(b) White Lead Pigment and Sales

The People contend that DuPont sold white lead pigment to paint manufacturers in California. The People referred to DuPont as part of the "white lead pigment industry" (TR. 26:4-6.), referring to a 1940s Federal Trade Commission enforcement action that ultimately reached the United States Supreme Court. (*Ibid.*) But DuPont was *not* a party to that enforcement action and the People's statement that DuPont was part of the white lead pigment industry" finds no evidentiary support in the record. (See Ex. 517.) The People tacitly acknowledged the point in crossexamination of Defendants' medical historian, Dr. English, when their counsel referred to 1930s meetings of the "lead paint industry" that did not include DuPont. (TR. 2711:13-2712:23, 2716:7-25.) It was stipulated that DuPont did not join the LIA until 1948, 20 years after it was founded, and did not participate in any of the LIA's white lead pigment promotional campaigns, (Ex. 2012, 18. 20-24. And Dr. Markowitz conceded on cross-examination that there is only a "theoretical possibility" that DuPont sold white lead pigment for use in residential paints in the Jurisdictions. (TR. 1850:28–1851:13.)

DuPont had no dealers in any of the Jurisdictions until 1924, (TR. 1659:9–1661:21 [Markowitz].) DuPont had a branch office in the Old Chronicle Building in San Francisco that was able to handle inquiries for a wide variety of products, but it was stipulated there is no evidence that DuPont's office in the Old Chronicle Building in San Francisco was a retail establishment for any product, including pigment or paint. (*Id.*, ¶ 13.)

The People's historian, Dr., Markowitz, testified that DuPont advertised white lead carbonate pigment as available for purchase in San Francisco, through L.H. Butcher, from 1918 through 1920, (TR. 1657:8-1658:8.) The People's sole evidence is trade journal advertisements; the People presented no documentary evidence of any such sale by DuPont and identified no alleged DuPont customer. The People also presented no evidence that the trade journal in which the advertisements appeared was circulated in California. The People reviewed newspaper advertisements in the Jurisdictions during this time period, but found no advertisement for any DuPont paint product before (TR. 1659:9-1661:21, 1827:2471828:91924. [Markowitz].) On cross-examination, Dr, Markowitz testified that he had identified only a "theoretical possibility" that DuPont ever sold white lead carbonate in California and had no proof of any actual sale. (TR. 1850:28–1851:13.)

DuPont's historian, Dr. Bugos, testified concerning the same trade journal advertisements. Dr. Bugos explained that his review of the historical record revealed that Cawley Clark had a business relationship with L.H. Butcher prior to DuPont's acquisition of Cawley Clark in 1917 and that the relationship continued through 1920. (TR. 2931:21¬2932:3.) Dr. Bugos testified that the scope of L.H. Butcher's representation was limited to colored pigments and lithopone, (TR. 2931:17–2932:3). As Dr. Bugos explained, "the relationship with Cawley Clark was always with Butcher and Butcher with Cawley Clark." (*Ibid.*)

When DuPont advertised white lead carbonate alone, as the only product mentioned in advertisement, L.H. Butcher was not listed in the advertisement as a Pacific Coast Representative. (TR. 2934:20–2935:5, 2936:20–26 [Bugos]; Ex. 1434.) Instead, L.H. Butcher was listed only in "coalition advertisements" that included the colored pigments and lithopone. (TR. 2932:16–2933:12 [Bugos].) L.H. Butcher's own advertisements at this time did not state that it had white lead pigment available for sale (whether manufactured by DuPont or someone else). 2934:28–2935:5 [Bugos].) In addition, the historical record shows that L.H. Butcher sold red lead manufactured by Eagle Picher, one of DuPont's competitors. (TR. 2935:6–15, 2936:9–18 [Bugos]; Ex. 1429.) Dr. Bugos gave uncontroverted testimony that a representative such as L.H. Butcher would not have sold more than one company's red lead. (TR. 2935:6-15.) As red lead also is listed in DuPont trade journal advertisements that mention L.H. Butcher, it is thus clear that L.H. Butcher did not sell all of the DuPont products listed in those coalition advertisements. As Dr, Bugos testified, there is no reliable historical evidence that L.H. Butcher ever represented in California, much less sold, any white lead carbonate pigment made by DuPont. (TR, 2931:8–2932:3.)

(c) Interior Residential Lead Paint

The parties stipulated that DuPont interior residential paints did not contain white lead pigment. (Ex. 2012, ¶¶ 26–39; see also TR. 1862:6–17 [Markowitz]; 2609:11–19 [Lamb].)The evidence shows that DuPont never sold or affirmatively promoted an interior residential paint containing white lead pigment in any of the Jurisdictions. The only evidence offered by the People that an interior DuPont residential paint containing white lead pigment was ever allegedly available for sale in any of the Jurisdictions was a June 1919 *DuPont Magazine*. (Ex. 276.) The magazine at issue referred to a paint line called "Harrisons Town & Country." (TR. 2008:27–2009:2 [Markowitz].)

As an initial matter, the People stipulated that from 1917 through 1920 the "Harrisons Town & Country" line included a separate exterior paint. (Ex. 2012, ¶ 2 [referring to Harrisons Town & Country Outside White Paint]; see also id. ¶¶ 26–27 [other paints that also were pail of Harrisons Town & Country line did not contain white lead pigment].) The name "Harrisons Town & Country" thus referred to a line of paints (i.e., a brand), rather than a single paint intended for both exterior and interior use. Uncontroverted testimony by Dr. Bugos also supports this finding. (TR. 2937:8–2939:21.) DuPont's expert paint chemist, Dr. Lamb, provided uncontroverted testimony that the interior paint sold under the "Harrisons Town & Country" brand contained

lithopone, rather than white lead pigment. (TR. 2608:26–2609:5, see also TR. 2939:25–2940:2 [Bugos].)

In addition, the People offered no evidence that "Harrisons Town & Country" paints were ever available for sale from DuPont in California. DuPont ceased use of the brand name "Harrisons Town & Country" in its paint line in 1920. (Ex. 2012, ¶ 2; TR. 2938:7–14 [Bugos].) The People identified no DuPont dealer or advertisement for any DuPont paint product in any of the Jurisdictions before 1924. (TR, 1659:9–1661:21, 1827:24–1828:9 [Markowitz].) Accordingly, the "Harrisons Town & Country" line of paints was rebranded four years before DuPont paint products first became available in the Jurisdictions. (TR. 2939:16–21 [Bugos].) For this additional reason, the product is irrelevant to this case. (Ex. 201243.)

4. Causation

Dr, Rosner offered testimony concerning national advertising, both individually and through trade association activities. Dr. Rosner testified that in reviewing DuPont's national activities, he sought to identify DuPont's efforts to promote paint generally and did not consider whether the products advertised actually contained white lead pigment. (TR. 805:14–23, 807:15–22.) Dr. Markowitz offered testimony concerning advertising specific to California. Neither witness showed that DuPont intentionally or affirmatively promoted the use of lead paint in or on residences in the Jurisdictions.

Dr. Rosner testified concerning national advertising mostly undertaken by DuPont from 1918 through 1920. (TR. 644:11–21; Ex. 2 at pp. 12–22.) But the referenced advertisements listed many of the diverse

products that DuPont offered at that time, including dozens of products unrelated to paint. (See, e.g., Ex. 2 at pp. 18, 22.) Dr. Rosner could provide no evidence that the "national" magazines in which he had identified DuPont advertisements were actually circulated in California. (TR. 811:23–812:7, 813:10–13.) In addition, as discussed previously, the People have not proven that DuPont had a retail presence in California before 1924 (TR. 1659:9–1661:21, 1827:24–1828:9 [Markowitz]), so earlier advertisements cannot provide a basis for liability.

Dr. Rosner also testified about national promotional campaigns undertaken by the LIA and the NPVLA. However, DuPont did not join the LIA until 1948, was never a member of any of the LIA's White Lead Committees, and did not participate in any way in the LIA's White Lead Promotion Campaigns or Programs or the LIA's Forest Products - Better Paint Campaign. (Ex. 2012, ¶¶ 18–24; TR. 2929:12–27 [Bugos].) The NPVLA national promotional campaigns do not establish that DuPont intentionally or affirmatively promoted the use of lead paint on residential exteriors.

The People offered no testimony that any particular advertisement referring to a DuPont paint product was false or misleading. The People's historian, Dr. Markowitz, testified on redirect that some defendants may have misled consumers because advertisements for lead paint did not state that the paint contained white lead pigment. (TR. 1965:8–17.) But DuPont's historian, Dr. Bugos, offered uncontroverted testimony that DuPont always listed the ingredients of its paints on the can labels. (TR. 2941:22–2942:23; see also Ex. 1428.) Similarly, Dr. Bugos gave uncontroverted testimony that DuPont labeled its residential paint products clearly as being for interior or exterior use. (TR. 2940:3–2941:19.) So, consumers were informed whether a DuPont paint product contained lead and whether it should be used for interior or exterior purposes.

The remaining advertisements cannot serve as a basis for liability. Two of the advertisements concern DuPont's No. 39 House Primer. The evidence shows that product contained just 13.7 percent white lead pigment and was used as a first coat, under a lead-free exterior paint. (TR. 2824:17-23 [Lamb].) Further, the product's label truthfully and accurately disclosed its ingredients, by percentage, and stated that it was for exterior use. (TR. 2940:3–2941:19, 2941:22–2942:23 [Bugos]; see also Ex. 1428.) There is no evidentiary basis to support a conclusion DuPont had knowledge upon which to consider an exterior primer containing a small percentage of white lead pigment to present a risk of hazardous lead exposure in the 1960s, when the No. 39 House Primer was last manufactured. To the contrary, the People's historian, Dr. Markowitz, testified that DuPont had no special knowledge concerning potential risks presented by exterior lead paint. (TR. 1773:14–20.)

D. NL INDUSTRIES

NL's position:

1. Knowledge

While adopting arguments by its co-defendants, NL presented a detailed defense that asserts this is "litigation by hindsight." Essentially, the argument is that since NL could not have known more than then-existing medical knowledge offered, liability cannot attach.

The earliest reports of children poisoned from house paint came from Dr. Lockhart Gibson in Queensland Australia in the 1890s and early 1900s Gibson described the total disintegration of lead paint in the semi-tropical sun, heat, and moisture. As a result, children acquired copious amounts of pure lead "dust" on their hands. (TR 2669 [English]) U.S. medical writers such as Dr. David Edsall (1907) read of Gibson's cases but took away no lesson to change the use of lead paint in this country. (TR 1235–36 [Kosnett])

Dr. Julian Chisolm wrote in 1989 that Gibson's concerns went largely unheeded by the medical profession in Australia, (Ex. 1057.02; TR 2669:26–2670:10 [English]) The first U.S. cases of children exposed to lead from paint used on houses came in the 1910s. Dr. Kenneth Blackfan at Baltimore's Johns Hopkins Hospital reported two children lead-poisoned from chewing on painted furniture. The children had eaten large quantities of paint over long periods of time. (Ex. 22.05 [p. 885, top] Dr. Blackfan urged that "energetic prophylactic measures be taken with children who habitually eat painted articles." (Ex. 22.06 [p. 887]) Blackfan cited Gibson's Queensland cases but he did not suggest a limitation on the use of lead paint (TR 1253:6–14 [Kosnett])

Dr. Harvey Wiley, a respected U.S. public health official, in his 1915 *Good Housekeeping* article, reminded readers of the poisonous qualities of lead but reassured them "there need be little fear of poisoning from ... lead in the paint." (Ex. 1000.02, col. 2; see TR 1250 [Kosnett]) In the 1920s, Dr. John Ruddock (1924) in Los Angeles and Dr. Charles McKhann (1926) at Boston Children's Hospital established the "pica"

diagnosis for children lead-poisoned by chewing extensive quantities of paint from cribs, furniture, and window sills. (Ex. 1004; Ex. 1382) These physicians saw the problem as a behavioral abnormality which could be solved by parental intervention with children who ate non-food substances. (TR 2675–77 [English]) Both Ruddock and McKhann mentioned Gibson's Queensland cases. However, knowing these cases as well as their own, neither Ruddock nor McKhann recommended a limitation on the use of lead paint in homes. (*Id.*; TR 1253:10–1255:10 [Kosnett])

NL appears to have gained some knowledge of the published cases involving children's toys, cribs, and furniture around this time. NL's historian, Dr. Sicilia, testified by deposition that the company followed medical literature focused upon industrial lead poisoning. Sicilia believed NL probably learned of "children chewing on objects wdth which they had intimate contact such as cribs, toys, and furniture" by the mid- to late 1920s. (Ex. 1420, Sicilia depo at 27– 28; see id. at 12–15) There is no evidence NL knew more than this from the literature. (TR 1747:8–18 [Markowitz]) After the LIA was created in 1928, NL was present to hear information that the LIA Secretary, Felix Wormser, provided at meetings. (Ex. 1420 at 27) The People's historian agreed there was no evidence NL possessed actual knowledge of lead poisoning of children in the home environment before the LIA's December 1930 meeting, discussed infra. (TR 1743:26–1744:3 [Markowitz])

In November 1930, the U.S. Public Health Service summarized the reports of childhood lead-paint poisoning in a release to the government's interagency newspaper, *U.S. Daily*. Historical records show

that the Public Health Service knew of the Gibson, Blackfan, Ruddock, and McKhann eases. 2674:27–2676:4 [English]) The Public Health Service and Surgeon General became actively involved in the issue. (TR 2675–2681 [English]) The next month, at a December 1930 meeting, the LIA's Wormser informed members that the U.S. Daily had reported cases of "babies and children allegedly being lead-poisoned by chewing paint on cribs." (Ex. 75.02) Wormser sometimes reported in later meetings about publicly reported cases of lead poisoning in adults and children. The LIA minutes show that Wormser provided little hard information to the members about childhood poisoning after his 1930 report on "cribs." His comments largely were complaints about innacurate publicity and his reassurances to members that the LIA was investigating cases through experts such as Dr. Joseph Aub of the Harvard Medical School. (E.g., Ex. 77.04) Wormser assured members that the LIA was not afraid of the truth and was learning from experts that much of the publicity was mistaken. (E.g., Ex. 108.08–09)

The People's case rests on information known or available to Defendants concerning the toxicity of lead in large accumulations, arriving by high exposure pathways such as unventilated factories (in the 1900s-10s) or children's prolonged chewing of lead-painted toys, cribs, and furniture (in the 1920s-30s). However, the People's case for a present-day "public nuisance" rests on more recent scientific concerns about low-dose lead hazards having no toxic threshold (see CDC 2012, Ex. 20), reaching children by the route of house dust (see CDC 1991, Ex. 7; Sayre 1974, Ex. 1050).

The People's witnesses testified that there is no safe level of lead. (See, e.g., TR 358:24–359:5 [Lanphear]; 962:28-963:5 [Gottesfeld]; TR 2316:20-25 [Matyas]) Many of them cited the CDC's 2012 "reference level" of 5 µg/dL of blood lead to measure the number of children affected by lead. Dr. Fenstersheib testified that 344 children in Santa Clara County "were lead poisoned" at levels above 5 pg/dL in 2010. (TR 904:15–22) Mr. Walseth said there were 959 children in San Francisco above 5 µg/dL. (TR 2054:5–8) Dr. Matyas cited "an enormously large number" being lead-poisoned in the state at the new reference level of 5 µg/dL. (TR 2350:12–17)

The People linked the latest studies of low-threshold toxicity with the house-dust pathway first identified by Dr. Sayre in 1974. According to the People's abatement expert, Dr. Jacobs, the "main pathway of [children's] exposure" is "from lead paint to lead in house dust, to hand-to-mouth contact." (TR 1461:8–10) The house-dust pathway ran through his testimony about, e.g., the HUD studies and the up/down movement of windows. (TR 1461:25–28, 1513–14, 2194–95 [Jacobs]) In redirect examination, Jacobs used this metaphor:

- Q. For example, imagine the amount of sugar in a one-gram packet. ... This amount of lead dust spread evenly over 100 rooms would contaminate those rooms at twice the level recommended by the EPA; is that right?
- A. Yes... [T]he fact is it is very easy to create lead dust, (TR 2202:12–2203:6, quoting Ex. 1078.01)

In contrast, the People's witnesses mentioned just one case of a child being poisoned in recent years at blood lead levels high enough to be considered toxic in the decades before 1970. Dr. Rangan discussed a child brought to the hospital with blood lead of 78 µg/dL whose x-rays showed lead chips. (TR 1094) It is not clear that any other cases described by the People's witnesses reached such a level. (See TR 1091–92 [Rangan]; TR 1373–74 [Navarro]) In fact, the CDC web page summarizing California blood leads reported two children in the state above 70 µg/dL in 2009, zero in 2010, and zero in 2011, regardless of source. (Ex. 1402)

The People argue Defendants should not have promoted lead paint after 1900, perhaps even 1884 (cf. TR 144:23–27 [Mushak]), and yet their own historian does not criticize companies for selling lead paint before the mid-1920s, if then. Markowitz' reason for choosing that date is it coincides with the earliest U.S. reports by Ruddock (1924) and McKhann (1926) of children poisoned from chewing house paint on sills. Markowitz' position is manufacturers should have abandoned their product at the first indication of a potential hazard in the medical journals, even when the physicians did not recommend such a response.

NL admits it is possible to find a "thread" of opinion in U.S. medical literature suggesting that the interior use of lead paint should be limited. At a 1933 medical conference, Dr. Robert Kehoe commented from the audience that there should be "strenuous efforts" to eliminate lead from the "environment" of children. Dr. Kosnett quoted Kehoe but omitted the recommendation by the main speaker, Dr. McKhann, appearing one paragraph earlier on the page. (TR

1201:7–11, 1254:2–25) McKhann urged that "dissemination to mothers of information on the subject should result in prevention of the disease." (Ex. 23.05 [p. 1135, col. 1, "Summary" ¶ 2] (emphasis added)) (Kosnett also cited a 1940 consumer article but did not claim any Defendant ever saw it. (TR 1201:19–28))

NL relies on what it terms the "mainstream of medical opinion." Thus, in 1931, the Surgeon General advised the public in *Child Welfare* magazine that lead paint had "wide fields of usefulness," but "the painting of babies' toys and cribs is not one of them." (Ex. 1010.02) The U.S. Children's Bureau issued similar advice to parents, urging caution not to repaint babies' toys, cribs, and furniture with lead paint. (Ex. 1013.02, col. 4; Ex. 1019.05 [p. 17]; TR 2677:26–2681:25 [English])

The Baltimore Health Department gave advice by radio and print similar to that of the Surgeon General and Children's Bureau, focusing on using non-lead paint for toys and cribs. (Ex. 1015.04; TR 2681:27–2685:5 [English])

Dr. Kosnett omitted mainstream science for a second time when he argued that low- level toxicity of lead was already known in the 1930s. Kosnett focused on the Myers (1935) article for the author's concern that 24 µg/dL might be harmful. (TR 1210:9–22 [Kosnett]; Ex. 55) But in cross, Kosnett conceded that the Myers article was the "exception for his time" as he was "the only one at that time saying a level below 25 [µg/dL] was harmful." (TR 1262:18–1263:8 [Kosnett]) The scientific mainstream was represented by lead researchers Harold Blumberg (1937) at Johns

Hopkins and Emanuel Kaplan (1942) at the Baltimore Health Department, whose blood lead studies placed the toxic threshold at 80 μg/dL and the onset of true lead poisoning in the range 100–200 μg/dL. (Ex. 1377; Ex. 1026; TR 2686–88 [English]; TR 1263–65 [Kosnett])

Retrospective articles written by public health authorities like Dr. Julian Chisolm (Johns Hopkins) and Dr. Jane Lin-Fu (HEW) have recognized that the concept of lead toxicity changed radically after 1970, (See Ex, 1047; Ex. 1056) Dr. Lin-Fu stated in 1985:

[I]t should be obvious that what constitutes the health effects of lead is an evolving concept that has changed dramatically since lead toxicity was first recognized in ancient times. In the last 10-15 years [since 1970–1975], as scientific advances and modem technologies have provided more sensitive measures of biochemical, psychological and electrophysiological changes associated with relatively 'low' levels of lead exposure, the concept has undergone further scrutiny and changes that were fraught with controversies. Such controversies perhaps stem from the fact that what should be accepted as 'normal' lead exposures in today's world is a heatedly debated question.

(Ex. 1056.17 [p. 58])

2. Decline of Lead Paint

The use of white lead declined after 1922. Factorymade paint with new pigments like titanium dioxide permitted the elimination of lead from interior paint for most uses not requiring high durability or water resistance, and they allowed a reduced amount of lead in exterior paints while keeping some lead pigment for its superior performance against weather and ultraviolet exposure. (TR 3081:10–3082:4 [Bierwagen])

Small amounts of white lead may have been used for interior paint in the 1940s, and some publications continued to advise that lead could be used on interiors. (TR 1650 [Markowitz]) But mainstream medicine began to turn against interior lead paint at that time. In late 1943, Dr. Randolph Byers and Elizabeth Lord wrote in the American Journal of Diseases of Children about long-term intellectual deficits in children previously having acute lead poisoning, and in the middle of their article, the authors advised against lead paint for interiors. (TR 1770 [Markowitz]) Unlike Dr. Kosnett, Dr. Markowitz recognized Byers and Lord (1943) as the first recommendation from any U.S. doctor or public health authority to restrict the use of lead paint on home surfaces for children's safety. (TR 1770–71)

The "Baetjer and Watt" report of 1949 found that many of the cases were children in poorly maintained inner-city housing who ate peeling paint. (Ex. 1033; TR 2700–01 [English]) This was recognized as a new source for childhood lead poisoning not previously noted to any large extent. (TR 2700–01 [English])

The Baetjer and Watt report led directly to Baltimore's first-in-the-nation city ordinance against the use of lead paint for home interiors, issued in 1951 by Dr. Huntington Williams, the Health Commissioner. (TR 2699–701 [English]) The LIA embraced Baltimore's approach and distributed the Baetjer and Watt report to other cities and public

health officials. The LIA then worked with the American Standards Association to develop a warning label for paint containing more than 1% lead, saying it was not to be used for interiors, This ASA labeling standard issued in 1955 was supported by major U.S. medical organizations, federal agencies, city health departments, and manufacturers. (Ex. 1041; TR 2701–02 [English])

The 1955 ASA labeling standard marked the formal end of interior lead paint in America. In historical overview, prior to Baltimore in 1951, no U.S. public health authority had ever made a recommendation that lead paint was inappropriate to use in the vicinity of children. (See TR 1270 [Kosnett]; TR 2677–85 [English]

3. State of Medical Knowledge

The medical idea of lead poisoning changed dramatically in the 1970s. Chisolm's 1971 article in *Scientific American* described the disease of lead poisoning as it was previously known — a disease of recognizable symptoms first occurring mildly at 60 µg/dL and acutely above 80 µg/dL. (Ex, 1047.08 [p. 22, col. 2]; TR 2637 [English]) As late as 1972, U.S. health experts incrementally reset the "safe" level of blood lead in children, the "permissible" daily consumption of lead by children, and the allowable quantity of lead in house paint, so that even the "pica" children who ate paint would not exceed a daily maximum of lead. (Ex. 1387; Ex. 1048; Ex. 1049; TR 2639–47 [English])

The concept of non-symptomatic lead poisoning at lower levels emerged only as the 1970s ended. (Ex. 48.01; TR 379 [Lanphear]; TR 2655–57 [English]) Computer-based studies of children's IQ found

differences that were correlated with lead, and continuing research pushed down the level of concern through the 1980s and 1990s. (Ex. 1427; Ex. 1058; TR 2655-61 [English]) Dr. John Sayre's 1974 article based on his Rochester studies launched research in a new direction concerning the possibility of microscopic lead in ordinary house dust as a pathway for children's exposure. (Ex. 1050.04 [p. 269] ("The thought that dust may be a source in childhood lead poisoning is not a new one," citing, however, recent articles dated 1970 and 1973.)) Sayre recognized that, while a large lead source like peeling paint was needed for children to get blood lead above 60-80 µg/dL, house dust might provide enough lead for children to reach lower but "undue" levels like 25–40 µg/dL. Researchers began looking at dust as a pathway to the observed levels of blood lead in some older homes. (TR 2652 [English])

These new ideas of childhood lead poisoning coalesced in the CDC's 1991 "Preventing Lead Poisoning in Young Children." (Ex. 1058) There the CDC reduced its "intervention level" to 10 µg/dL because of new science suggesting adverse effects in children "at blood lead levels previously believed to be safe." (Id. at ,08 [p. 1, ¶1]) It observed that no threshold was being identified for the harmful effects of lead. (Id. at .09 [p. 2, ¶ 2]) And it added "lead-contaminated dusts and soils" to its list of the primary pathways for children's lead exposure along with lead paint, (Id. at .11 [p. 4, ¶ 1]) This recognition and acceptance of house dust as a pathway came 40 years after the use of lead paint in interiors had ended.

4. Promotion

The Court of Appeal framed the case as one alleging "international promotion of the use of lead paint on the interiors of buildings with knowledge of the public health hazard that this use would create." Appeals Decision at 310.

(a) The Campaigns

The People's evidence showed no misrepresentation in Defendants' ads or in the LIA's promotional campaigns. Indeed, much of the evidence from Drs. Markowitz and Rosner showed nothing except that Defendants or their local retailers listed the paint for sale.

(b) Government standards

The federal agencies said almost exactly what NL and the LIA said about white lead. The Forest Products Laboratory of the U.S. Department of Agriculture tested paint for decades and published its recommendations to the public. In 1939, Chief Chemist F.L. Browne gave advice to homeowners for exterior and interior painting, and he strongly praised the performance qualities of both pure white lead-inoil and the mixed paints with lead pigment. (Ex. 1020; TR 2692–95 [English!) Dr. Browne wrote to the LIA the same year urging more white lead so as to maintain the quality of house paints. (Ex. 118.26; TR 749–54 [Rosner]) In 1953, the Forest Products Laboratory continued to endorse white lead paint for exterior use because of its superior performance under adverse conditions. (Ex. 1037; TR 2697–98 [English])

Chemists at the National Bureau of Standards, U.S. Department of Commerce, endorsed white lead in a 1924 government manual. (Ex. 1005; TR 2688–90) In

the late 1930s, they advised the Minneapolis and New York City school boards to use more white lead in schools, including their interior painting. (Exs. 1007, 1008, 1009; TR 2690–92 [English]) The Bureau of Standards specified lead paint for government buildings, inside and out, in the 1950s and 1960s. (TR 2689–90 [English]) A group exhibit contains many other federal and state recommendations and specifications for lead paint over many years. (Exs. 1643,1645,1646)

NL's last promotional statement for interior use of lead paint was in a manual dated 1950 (Ex. 140), and its ads for *exterior* use ended by 1972. (See Ex. 233). The People presented no evidence that Defendants knew more than the federal agencies about health risks to children from lead-painted homes. To the contrary, in 1930 the U.S. Public Health Service publicized the reports of childhood lead poisoning in U.S. Daily, which was a publication specifically written for other agencies of the government. Thereafter, representatives of federal agencies often attended the meetings of the LIA along with members. (See, e.g., Ex. 85.03; Ex. 114.03; Ex. 112.03)

(c) Lobbying

The People allege that "Defendants tried to stop the government from regulating lead and to prevent the government from requiring warnings about lead's hazards." *Appeals Decision at* 300. Dr, Markowitz identified two efforts by the LIA to influence laws that may have regulated the use of lead paint: Massachusetts in 1933 and Maryland in 1949. (TR 1748–49, 1777–79) However, Markowitz did not know what restrictions were proposed in Massachusetts or

what change occurred in its discussions with the LIA. (TR 1748–49) As for Maryland, he noted the LIA's involvement with state officials, but he admitted that the 1949 Toxic finishes Act, which did not concern house paint, was repealed when public health officials like Huntington Williams deemed it unworkable. (TR 1779–80) As for labeling laws, the NPVLA contributed its views to California's occupational health regulators in 1947 for writing a painters' safety warning. The NPVLA was one of many commentators, and Markowitz speculates that the final regulation might have been delayed by a few months to consider the NPVLA's input. (TR 1781–82)

The preference of most public health authorities was for the ASA's approach in the 1955 labeling standard, telling people where not to use lead paint. (Ex. 1039) The LIA opposed some other proposals because it wanted to avoid a balkanized system of different labeling standards, and it opposed labels calling lead paint "Poison." (See, e.g., Exs. 112.11, 114.12, 85.06, 86.23) The objection to "Poison" labels was not the secrecy of lead toxicity, which was no secret, but the proper categorization of consumer chemicals by the acuteness of the danger from physical contact. Prominent public health authorities of the time such as Dr. Robert Mellins of the U.S. Public Health Service (also working with the Chicago Department of Health) agreed with LIA that there was more appropriate labeling for lead paint than "Poison." (Ex. 1039.02; see TR 1783 [Markowitz])

E. SHERWIN-WILLIAMS

SW's position:

1. Knowledge

SW's position is it cannot be liable when its knowledge was no greater than that of the public.

Drs. Kosnett and Markowitz had no evidence that SW knew of the medical literature discussed by Dr. Kosnett. TR. 1168:14–1170:23 [Kosnett]; TR. 1944:5– 12 [Markowitz]; TR. 1944:5–12 [Markowitz] (testifying that he had not seen "a single document that informed SW that a child had been poisoned from exposure to one of SW's paints or pigments"); see also TR. 1744:28-1745:12 [Markowitz] (no evidence that the U.S. Daily was distributed to LIA members or SW specifically). Drs. Markowitz and Dunlavy agreed that the first SW document mentioning a risk to children horn ingesting flaked-off lead paint was written in 1937 and limited to interior paint. TR. 1950:17–1952:15 [Markowitz]; TR. 3026:12-3027:13 [Dunlavy]. At that time, SW's interior ready-mixed paints did not contain white lead carbonate ("WLC"). Stip. 48; TR. 3007:11-3008:8 [Dunlavy], That SW was aware of occupational risks to factory workers or painters as early as 1900 does not establish that SW knew that WLC used in paints in homes posed the low-level exposure risk to children now alleged by Plaintiffs. TR, 2734:18–27 [English], See, e.g., Campbell v. Ford Motor Co., 206 Cal. App. 4th 15, 31 (2012)

2. Promotion

The parties stipulated that SW made WLC pigment from 1910 to 1947 at a plant in Chicago, that SW did not make white lead sulfate, and that SW's WLC was used primarily in its own products. SW Stipulation Re.

Admissibility of Certain Docs., Facts, July 1, 2013, ECF No. 3240 ("Stip[s].") 10–15.

In contrast to lead production and use, SW emphasized the use of lithopone and other zinc pigments as opposed to white lead in oil. TR. 2998:20–2999:6, 2999:10–19 [Dunlavy]. Its business plan was to oppose white lead in oil and to promote its readymixed paints, pitting itself against the master painters and at times the LIA. TR. 2998:3–8 [Dunlavy]; TR. 3149:12–3150:9 [Teece]. SW did not financially support the LIA's White Lead Promotion Campaign. Stips. 213–14. Plaintiffs conceded that SW did not attempt to prevent government regulation of white lead pigment or lead-based paint. TR. 861:12–862:23 [Rosner]; TR. 1940:7–10 [Markowitz],

Plaintiffs identified a single ad for Old Dutch Process ("ODP") in 1919 in the Los Angeles Times. Stip. 144. That ad, however, was run not by SW, but by an independent dealer. *Id.* SW's ad campaigns promoted against the use of white lead in oil. See, *e.g.*, Ex. 1706.14; Ex. 1706.16. Plaintiffs have produced no evidence showing the amounts of ODP sold in California, where or how it was used, or its presence today. Dr. Rosner conceded that SW's ads were "generic" ads for its brand and prepared paints, not for white lead. TR. 859:22–860:4; see also TR. 837:20–838:2.

Dr. Rosner testified about the "Save the Surface" and "Clean Up Paint Up" campaigns of NPVLA of which SW was a member. TR. 553:11–22; 557:10–559:27. First, those campaigns encouraged the public to paint. TR. 801:10–13, 836:6–11 [Rosner]. They were not promotions of white lead. Second, trade

association actions cannot be imputed to any single member, and the associations were not SW's agents.

SW's advertisements for interior residential paints did not promote WLC, in part because its interior paints, including enamels for woodwork, never contained WLC, except for trivial exceptions. Stip. 28–29,48, 53–54, 57–58, 72–73, 84–85; TR. 3007:11–3008:8, 3009:19–3011:27 [Dunlavy]; TR. 1951:4–8 [Markowitz]; see also Ex. 1889.

Dr. Markowitz could not name another American paint manufacturer that had done more to develop and market non-lead pigments and paints for residential use than SW. TR. 1958:16–1959:6. Dr, Teece concluded the federal government could not have banned the residential use of lead paint in 1978 were it not for SW's technological innovation. TR. 3153:6–15,3162:6–15.

In addition to admitting that SW's ads were generic and not for white lead, Plaintiffs offered no evidence that SW's ads were false or misleading. They did not prove their allegations of deceit and misinformation. Corporations have a constitutional right to truthfully advertise legal products, even products, such as alcohol and tobacco, that may harm public health. U.S. Const, amend. 1; Cal. Const., art. I, § 2, subd. (a); Lorillard Tobacco Co. v. Reilly, 533 U.S. 525, 553–54, 571 (2001); 44 Liquormart, Inc. v. Rhode Island, 517 U.S. 484 (1996) Similar to the advertisements in Lorillard and 44 Liquormart, SW's advertisements contain only prices or descriptions for its products and do not encourage an illegal use or hazardous misuse (unlike instructions to dump solvents into sewers in violation of the Polanco Act, as in City of Modesto Redevelopment Agency v. Superior Court, 119 Cal. App. 4th 28 (2004)).

3. Causation

Plaintiffs have no evidence that SW's WLC is actually present in their jurisdictions, let alone where it is, how much, and in what condition. Dr. Markowitz had no evidence of sales of SW's lead-based paint with WLC, volume or dates of those sales, whether those sales were caused by SW's alleged wrongful promotions, and whether any SW's WLC products remain today in the Plaintiff jurisdictions. See, e,g, TR. 1937:16–26, 1938:27–1939:2.

Dr. Rosner conceded that "we can't really tell" whether SW had any effect on the presence of white lead in California. See TR. 832:10-17; see also TR. 831:19–832:17 ("Q. You tried to — during the course of your work in this case — assess how big a player SW was in the white lead carbonate pigment market [and, to that end, testified in your deposition that, slince we have no numbers for California, we can't really tell. ... A. Right; for exact numbers we could not tell."). Plaintiffs have no evidence showing any increase in the sale of SW's white lead for residential use because of any promotion. TR. 745:3-12[Rosner] (whether promotional campaigns "caused increase or decrease or whether it changed trajectory minimally, [Rosner] can't tell. Quantitative data is not there to say that.").

No data attribute a specific share of environmental lead to white lead, and of that unknown white lead share, SW's contribution is virtually nonexistent. Ex. 1883. Dr. Van Liere estimated that SW's white lead for all uses in California contributed a mere 0.1% of the

total lead consumed in the state from 1894 to 2009. TR. 2877:11–20. That low number cannot support a finding that SW's WLC, if present, is a substantial factor in causing a community-wide public nuisance.

4. Other sources

Although some of Plaintiffs' witnesses declared that paint is the major source of lead in soil, they did not test the sources of lead in soil and dust. Dr. Courtney actually did a "Source Analysis" in California and concluded that gasoline is the most "dominant" source. TR. 1357:14–18. The State has found that six times more lead was put into California's environment via lead from gasoline than by paint and coatings. See Equilon, 189 Cal. App. 4th at 870; Charlton Dep. 40:13-25. Evidence shows that lead in dust and soil comes from a mix of sources, with gasoline as the major contributor. Moreover, Plaintiffs' evidence does not allow the Court to decide how much of the alleged lead hazard to children comes from exterior paint exposures as compared to interior paint or myriad other sources.

5. Owner's fault

To the extent that deteriorated white lead-based paint contributes to children's BLLs, that exposure is solely attributable to owners' neglect and violation of their legal duties to prevent and abate lead hazards in their properties. Health & Safety Code §§ 17920, 17980, 17980.2, 105251; Cal. Code Regs. Tit 17, §§ 35001 et seq. Their failure to comply with lead hazard prevention laws has solely created and caused any nuisance, if one exists today, (Restatement (Second) of Torts § 433; see People v. Acosta, 284 Cal. Rptr. 117, 122 (1991)), and they are the superseding cause of any

harm, *Melton v. Boustred*, 183 Cal, App. 4th 521 (2010); *Martinez v. Pac. Bell*, 225 Cal. App. 3d 1557 (1990)

6. Not significant problem

In Monterey County, 98–99% of all lead cases "deal with children who have been exposed to a lead source outside of the United States, usually Mexico," including traditional food preparations and folk medicines, Ex. 1829.69, According to Monterey Childhood Lead Poisoning Prevention Program ("CLPPP") officials, lead cases due to exposure to leadbased paint (not specified to be white lead) are "very rare," Goldstein Dep. Ex. 8. So rare, in fact, that Monterey admitted in its progress report that "[w]e finally had one housing-related case in Jan. This is the first in several years, and was not in our usual case group." Ex. 1135.66. For San Diego, the largest source of children's elevated BLLs is Mexican candy. Hicks Dep. 135:2–6. In San Mateo County, the "key" source of elevated BLLs in children—constituting 75% of cases—is exposure to "foreign products like ceramics or food or having taken home remedies while in Mexico." Goldstein Dep. Ex. 7. Santa Clara's "premise is that our cases do not generally stem from a child's exposure to leaded paint or soil, (with a few exceptions) but more from their cultural and daily living practices." Ex. 1184; see also Exs, 1180.2, 1215.408, 1215.378. Likewise, in Solano County, cultural practices serve as the source of lead exposure for most children. Ex, 1238; see also TR. 2371:23-28 [Matyas]. In Ventura County, one of "the most common causes of lead poisoning in children is candy." Chan Dep. Ex. 15 (Offer of Proof). So, too, in Alameda County, Los Angeles County, and San Francisco, nonpaint sources are major contributors to elevated BLLs. See, e.g., Goldstein Dep. Ex. 34; TR. 1104:13-25 2069:3-24 [Walseth], [Rangan]; TR. Notably. members of the Get the Lead Out Coalition, a coalition of the Bay Area CLPPP program officials concluded: "The [State] Branch focuses on paint sources, as often do the Counties, because it justifies the funding, however the coalition can address issues re: toys, ceramics, candies, cosmetics, sources that may be considered secondary. In reality in many communities these are the main culprits." Goldstein Dep. 237:16-24, 238:9-14, 239:5-240:12, 241:5-12 & Ex. 33.

Plaintiffs' case hinges on alleged asymptomatic cognitive harms in children arising from very low BLLs. TR. 357:10-11 [Lanphear] ("[W]e focused on blood lead levels under 10 because that's where the vast majority of children fell"). According to Dr. Valerie Charlton, Director of the State's CLPPB, there was no suggestion before 2003 of any potential harm to children from those very low BLLs. Charlton Dep. 374:20–376:1. The question was unsettled then and TR. 2740:26-2741:8, 2763:28-2764:12 [Garabrant]; see also TR, 468:5–22 [Lanphear]; Ex. 38. As Plaintiffs' expert Mr. Gottesfeld agreed, "the science has shifted" over the last few years. TR. 1051:14–16; see also TR. 1110:21 [Rangan] ("Times have changed."). In setting a new reference BLL of 5 µg/dL for children just last year, Mr. Gottesfeld explained, the CDC "move[d] the goalposts." TR. 1039:15-1040:4.

7. The "safe" level has changed

Over the years, various public health agencies and the medical community, including the CDC, established what they believed to be "safe" levels of lead for children. As medical knowledge evolved, the "safe" level was reduced starting in the 1970s from 60 μ g/dL to 40 μ g/dL to 25 μ g/dL. Ex. 1058.14–15. In 1991, the CDC said that 10 μ g/dL was a "level[] of concern," but not lead poisoning. Ex, 1058.8, .14; TR. 2659:24–2660:7 [English], In 2012, CDC set 5 μ g/dL as a "reference value," which it defined as the BLL of the highest 2.5% of children. Ex. 20.6. However, the new reference level is not health–based and will change over time to identify those children with unusual exposure. TR. 1010:5–15,1011:8–22 [Gottesfeld].

VIII. SHERWIN-WILLIAMS' CROSS-CLAIM

SW asserts that under California law intact leadcontaining paint is not a "lead hazard," and California property owners who have failed to maintain their properties to prevent a lead hazard are solely responsible for abatement.

If the Court were to declare the presence of intact lead paint to be a public nuisance, SW argues it would in essence adopt a position rejected by the Legislature and also trigger § 17920.3, contrary to legislative intent. Further, Civil Code § 1941.1 renders "untenantable" any building that contains either a "lead hazard," under Health & Safety Code § 17920.10 or any "nuisance" under § 17920.3. Designation as an "untenantable" building has adverse consequences for the owner. See Civ. Code §§ 1942(a) (permitting a tenant to repair and deduct the cost from rent or vacate the premises), 1942.3 (shifting burden to the landlord in an unlawful detainer action to prove habitability), 1942.4(a) (establishing liability for owner that fails to address a violation of Health &

Safety Code § 17920.10 within 35 days of notification), 1942.5 (imposing penalties for retaliation against a tenant reporting an untenantable condition). If the Court were to find a nuisance here, SW argues, it would likely trigger consequences that the Legislature sought to avoid.

The Housing division of the Health & Safety Code creates provisions authorizing enforcement to correct violations and abate hazards:

- Section 17980(c)(1) authorizes enforcement authorities to seek injunctions requiring abatement of § 17920.10 violations, but provides that *the owner* "shall have the choice of repairing or demolishing."
- Section 17980(e) requires the agency to notify "the owner" that tax deductions related to the property may be disallowed under Rev. & Tax. Code §§ 17274 and 24463.5 if the owner fails timely to repair the violation.
- Sections 17985 & 17992 authorize the agency to record a notice of pending action and holds any subsequent purchaser responsible to repair the violation.
- Sections 17995–17995.2 provide criminal penalties for violations of the Housing law.

These provisions require remediation only of "leadbased paint hazards." No Plaintiff requires remediation of intact lead paint, and all permit interim abatement of "lead-based paint hazards." All hold property owners solely responsible for repair of "lead-based paint hazards." See, e.g., TR. 1431:6–1432:7, 1433:28–1434:3 [Peterson]; TR. 2372:13–2373:6 [Matyas]; Forshey Dep. 85:16–86:6; Allen Dep. 424:2–426:7, 429:7–14, 430:14–19; Charlton Dep.

117:6¬23, 118:17–119:1, 177:25–179:15. The ordinances of the Jurisdictions follow the Housing law model by prohibiting "hazards," but not intact lead-based paint, and by holding property owners solely responsible for repairing the "hazards." San Diego Mun. Code § 54.1003; S.F. Health Code § 1603(cc); L.A. Cnty. Code § 11.28.010 E–F; see also TR. 185:16–23,187:20–24 [Johanns]; TR. 2068:21–27,2074:3–19 [Walseth].

IX. THE PEOPLE'S RESPONSE TO SW'S CROSS-COMPLAINT

Lead on homes is a public nuisance regardless of whether intact lead paint is a "lead hazard" within the meaning of Health & Safety Code §§ 17920.10 and 105251 or a valid existing ordinance. A condition need not be unlawful to constitute a public nuisance. Appeals Decision at 310. Civil Code § 3483 does not make property owners who have created maintained a "lead hazard" within the meaning of Health & Safety Code §§ 17920.10 and 105251 and their predecessors solely responsible for the creation or maintenance or any nuisance or public nuisance resulting from the "lead hazard" or for abatement of the "lead hazard." Defendants are liable for creating or assisting in the creation of the public nuisance caused by the presence of lead paint in homes, regardless of whether the paint constitutes a "lead hazard" as defined by statute. SW's claims for declaratory relief therefore fail on the merits.

Further, there is no need for the Court to address the issues raised by SW through declaratory relief, as they are subsumed in the Court's ruling in the main action. (*California Ins. Guar. Assn. v. Sup. Ct. (Jakes*) (1991) 231 Cal.App.3d 1617, 1623.) This case therefore does not present circumstances where it is "necessary or proper at the time under all the circumstances" to grant declaratory relief. (Code Civ. Proc., § 1061.)

There is no "actual, present controversy over a proper subject" for declaratory relief between SW and the Cross-Defendant Counties and Cities. (City of Cotati v. Cashman (2002) 29 Cal.4th 69, 79.) This is especially true where, as here, the parties to the main action (the People and Defendants) have stipulated that no relief is being sought for any public building. (Ex. P15; Ex. P13.) Thus, SW seeks a declaration concerning a purely academic point of law related to the possible future application of California statutes to non-parties (that is, private homeowners). "Courts do not decide abstract questions of law." (Connerly v. Schwarzenegger (2007) 146 Cal.App.4th 739,746.)

For each of these reasons, which are in addition to and independent of this Court's ruling on the merits in the main action, this Court DENIES SW's claims for declaratory relief.

X. DEFENDANTS' AFFIRMATIVE DEFENSES

Defendants have asserted multiple affirmative defenses for which they bear the burden of proof. (Evid. Code § 500.) Defendants have abandoned all affirmative defenses that were raised in their answer but not identified in the Joint Statement of Controverted Facts. Further, they forfeited all affirmative defenses not pled in their answer. (California Acad, of Sciences v. County of Fresno (1987) 192 Cal.App.3d 1436, 1442.) For the reasons set forth below, the Court finds that Defendants have

failed to prove their affirmative defenses they did not abandon or forfeit by a preponderance of the evidence.

1. <u>Civil Code section 3482 does not bar this action</u>

"[Statutes like California Health & Safety Code section 17920.10 that merely define lead hazards cannot be read so broadly as to immunize the conduct at issue in this lawsuit, particularly the promotion of lead paint with knowledge of its hazards (which the Court of Appeal has already found to state a sufficient claim for public nuisance)." (Dkt No. 3191 [Order Denying Defendants' SW and NL Industries' Motions for Summary Judgment filed June 12, 2013 at 10:19–22].)

2. The People do not have to identify the specific location of a nuisance or a specific product sold by Defendants

Under Gallo, supra, 14 Cal.4th at 1118 and In re Firearms Cases (2005) 126 Cal.App.4th 959, 987, fn. 21, the People – who have proven that the liable Defendants' promotion of lead paint resulted in harm to the community at large – need not identify the specific location of the nuisance or a specific product sold by each such Defendant. (Dkt No. 3191 at 6:7–11:2].) The People have demonstrated that lead paint exists in homes in the Jurisdictions. (¶¶ 62–72.)

3. The People do not need to prove reliance

Reliance is not an element of a public nuisance cause of action. (Dkt. No. 1037 [Order after Hearing of February 3, 2012 filed February 6, 2012 at 3–9]; see also *Firearm Cases*, *supra*, 126 Cal.App.4th at 988–89 [holding that plaintiff need only show that "a

defendant's acts are likely to cause a significant invasion of a public right"]; City of Modesto v. Superior Court (2004) 119 Cal.App.4th 28, 40–41 [failing to require actual reliance to establish public nuisance claim].)

4. There is no intervening or superseding cause

Blaming the well-worn stereotypes of "slum landlords," "bad parents," "the poor," and "the government" does not relieve Defendants of liability. (Perez v. VAS S.P.A. (2010) 188 Cal.App.4th 658, 680–81.) And the existence of alternative sources of lead poisoning are irrelevant to whether lead paint in the Jurisdictions is a nuisance. (See Vowinckel v. N. Clark & Sons (1932) 216 Cal. 156, 164; Wade v. Campbell (1963) 200 Cal.App.2d 54.)

5. The People have not failed to join indispensable parties or misjoined parties

As held by this Court, owners of buildings allegedly containing lead paint are not indispensable parties. (Dkt. No. 211 [Order after Hearing filed June 14, 2011 Ex. A at 2–5].) Defendants failed to provide evidence demonstrating that the People failed to join any other indispensable parties. There also has been no evidence that the People misjoined parties. As previously held by the Court on several occasions, the doctrines of primary jurisdiction and equitable abstention do not bar this public nuisance action on behalf of the People. (Dkt. No. 1037 [Order after Hearing of Feb. 3, 2012 filed Feb. 6, 2012 at 16–20].)

6. The distinction between lead pigment and paint is immaterial

While certain Defendants have distinguished between paint containing lead pigments and the lead pigments themselves (notably SW), this distinction is not material. Lead pigments were applied to homes when: (1) mixed on site by master painters or other tradesmen; (2) mixed into lead-in-oil sold to consumers and/or tradesmen; or (3) mixed into readymade paints sold to consumers. The end result was the same: application of lead pigments on homes in the Jurisdictions. It is the liable Defendants' knowing promotion and sale of lead pigments – in whatever form – for home use that renders them liable.

7. The Noerr Pennington doctrine does not apply

The Noerr-Pennington doctrine "shields defendants from liability for their actions in petitioning government officials[; i]t does not provide a basis for exclusion of evidence of lobbying activities that might be relevant to show a defendant's knowledge of the dangerous nature of its product. . . ." (Hernandez v. Amcord, Inc. (2013) 215 Cal.App.4th 659, 680, see also In re Brand Name Prescription Drugs Antitrust Litigation (7th Cir. 1999) 186 F.3d 781, 789.) The People have not sued Defendants for their lobbying they have introduced activities: evidence Defendants' lobbying activities (e.g., through the LIA) to show Defendants' knowledge of the hazards of lead in paint at the time of their lobbying activities. Hence, the *Noerr-Pennington* doctrine does not apply.

8. The doctrine of laches does not act as a bar

"No lapse of time can legalize a public nuisance, amounting to an actual obstruction of public right." (Civ. Code, § 3490.) Thus, California courts have consistently held that laches is <u>not</u> a defense to a public nuisance claim seeking abatement. (Strong v. Sullivan (1919) 180 Cal. 331, 334; see also Wade, supra, 200 Cal.App.2d at 61; City of Turlock v. Bristow (1930) 103 Cal.App. 750, 756; Williams v. Blue Bird Laundry Co. (1927) 85 Cal.App. 388, 395.)

Even if laches maybe applied, it is "not available as a defense" in this case because the People's claim concerns "a public policy" – the health and safety of young children. (See City and County of San Francisco v. Ballard (2006) 136 Cal.App.4th 381, 395.)

Because the nuisance is ongoing, the People did not unreasonably delay in bringing this action. Defendants have also shown no prejudice. Any loss of evidence due to the passage of time has resulted in greater prejudice to the People than Defendants.

9. <u>Liability for the public nuisance does</u> not infringe upon Defendants' freedom of speech, freedom of association or freedom to petition the government

Defendants contend the case "impermissibly premises liability" on the exercise of the "rights to freedom of speech, freedom of association, and freedom to petition the government." [Joint Statement of Controverted Issues at ¶ 11]. But the People may use speech as evidence. Defendants contend the speech due constitutional protection is their advertising. (Tr. 99:20–100:14.) Their advertisements are evidence

that Defendants were promoting their products in the Jurisdictions. Section V.N. above. Such evidence was expressly contemplated by the Appeals Decision, supra, at 310. Further, advertisements may themselves constitute a basis for liability. (See, e.g., Kwikset Corp. v. Superior Court (2011) 51 Cal.4th 310, 328.)

Nor are Defendants' rights to freedom of association impermissibly curtailed by the imposition of public nuisance liability. The First Amendment protects associations "for the purpose of engaging in those activities protected by the First Amendment—speech, assembly, petition for the redress of grievances, and the exercise of religion." (City of Dallas v. Stanglin (1989) 490 U.S. 19, 24.) However, an "[a]ssociation that is merely commercial does not implicate any (American Acad. of Pain fundamental right." Management v. Joseph (9th Cir. 2004) 353 F.3d 1099, 1112.) Liability in this case is not premised on any Defendant's membership in the LIA; the trial testimony related to the LIA is merely evidence of promotional activity and each Defendants' knowledge of the hazards created by lead paint. (¶¶ 72–78, 96– 104.)

The Court finds Defendants' affirmative defenses do not preclude liability in this case.

XI. JOINT AND SEVERAL LIABILITY

When multiple tortfeasors are each a substantial factor in creating a public nuisance, they are jointly and severally liable for that nuisance. (See American Motorcycle Assn. v. Superior Court (1978) 20 Cal.3d 578, 586; Dauenhauer v. Sullivan (1963) 215 Cal.App.2d 231, 236.)

"[W]hen the damages cannot be apportioned between two tortfeasors or between tortious and nontortious causes, a tortfeasor whose acts have been a substantial factor in causing the damages is legally responsible for the whole." (State v. Allstate Ins. Co. (2009) 45 Cal.4th 1008, 1036 (Allstate); see also In re Methyl Tertiary Butyl Ether MTBE Products Liability Litigation (S.D.N.Y. 2011) 824 F.Supp.2d 524, 543.) This is true where multiple sources of contamination result in a single nuisance. (Allstate, supra, 45 Cal.4th at 1032–33, 1036.)

Furthermore, where the damages and remedy are indivisible, each defendant is jointly and severally liable. (*Id.* at 1036) The defendants have the burden of showing that it is possible to apportion the damages. (*Id.* at 1033–34.) To the extent each Defendant's conduct was a substantial factor in creating the public nuisance and because Defendants offered no evidence that an abatement remedy can be apportioned, each Defendant is potentially jointly and severally liable for the public nuisance.

XII. REMEDY¹⁷

A. Plaintiffs Position: Removing Lead on Homes Built Before 1978 Is The Only Way To Ensure That Children Living In Those Homes Are Not Poisoned By Lead.

The People contend:

"Abatement of a nuisance is accomplished by a court of equity by means of an injunction proper and

¹⁷ See Court Order of November 4, 2013 pursuant to which further memoranda by all parties specifically pertaining to abatement were submitted.

suitable to the facts of each case." Appeals Decision *supra*, at 310. Injunctive relief generally requires a showing of substantial and irreparable injury. (47 Cal.Jur.3d Nuisances §§ 64–65; see also *Thompson v. Kraft Cheese Co. of California* (1930) 210 Cal. 171 [applying substantial and irreparable injury standard in nuisance case].) Lead poisoning from lead paint causes substantial and irreparable harm in the Jurisdictions. (FAC ¶¶ 31–72, 82–95, 100–103, 218–221, 228–231.)

A public nuisance under Civil Code sections 3479 and 3480, by definition, substantially and unreasonably interferes with rights common to the public. And in *every* case where a California court has found a public nuisance under those sections, the court has ordered some form of abatement. (See, *e.g.*, *Apropertyna*, *supra*, 14 Cal.4th at 1126; *City of Claremont v. Kruse* (2009) 177 Cal.App.4th 1153, 1165; *People v. Mason* (1981) 124 Cal.App.3d 348, 353-54.; *People v. Oliver* (1948) 86 Cal.App.2d 885, 886.)

The balancing of interests and conveniences in this case weigh in favor of abatement. (See *Hulbert v. California Portland Cement Co.* (1911) 161 Cal. 239.) Lead paint causes significant harm to children, families, and the community at large. And the removal of lead paint in affected homes will significantly reduce the number of children poisoned by lead. These benefits outweigh the costs of abatement. 31–72, 82–95, 100–103, 228–243.)

Whether a nuisance can be abated "at a reasonable cost by reasonable means" is relevant only in *private* nuisance cases. Indeed, the answer to that question only determines whether a *private* nuisance is

permanent or continuing. (See Mangini v. Aerojet-General Corp. (1996) 12 Cal.4th 1087, 1090.) The distinction between permanent and continuing private nuisances affects the remedy and statute of limitations. (See Spaulding v. Cameron (1952) 38 Cal.2d 265, 267; Capogeannis v. Superior Court (1993) 12 Cal.App.4th 668, 677–79 [discussing continuing and permanent private nuisances].) Private nuisances that cannot be abated at a reasonable cost and by reasonable means are deemed permanent and can only be remedied by damages—and not injunctive relief—and are subject to a statute of limitations. (Id. at 675–76.)

By contrast, the only remedy for a public nuisance claim on behalf of the People is abatement—i.e., injunctive relief. (Appeals Decision at 310–11.) Civil Code section 3490 further provides that there is no statute of limitations for a public nuisance claim. (See also *City of Turlock v. Bristow* (1930) 103 Cal. App. 750, 756 ["Neither prescriptive right, laches, nor the statute of limitations is a defense to an action to abate a public nuisance"].) Thus, a public nuisance, unlike a permanent private nuisance, is, by definition, "abatable."

The People's abatement plan, it is argued, can abate the public nuisance in this case at a reasonable cost and by reasonable means. As the California Supreme Court previously recognized in the second appeal in this case:

Although the remedy for the successful prosecution of the present case is unclear, we can confidently deduce what the remedy will *not be*. This case will not result in an injunction that

prevents defendants from continuing their current business operations. The challenged conduct (the production and distribution of lead paint) has been illegal since 1978. Accordingly, whatever the outcome of the litigation, no ongoing business activity will be enjoined. Nor will the case prevent defendants from exercising any First Amendment right or any other liberty interest. Although liability may be based in part on prior commercial speech, the remedy will not involve enjoining current or future speech. Finally, because the challenged conduct has long since ceased, the statute of limitations on any criminal prosecution has run and there is neither a threat nor a possibility of criminal liability being imposed upon defendants.

The adjudication of this action will involve at least some balancing of interests, such as the social utility of defendants' product against the harm it has caused, and may implicate the freespeech rights exercised by defendants when they marketed their products and petitioned the government to oppose regulations. Nevertheless, that balancing process and those constitutional rights involve only past acts—not ongoing marketing, petitioning, or property/business interests. Instead, the trial court will be asked to determine whether defendants should be held liable for creating a nuisance and, if so, how the nuisance should be abated. This case will result, at most, in defendants' having to expend resources to abate the lead-paint nuisance they allegedly created, either by paying into a fund dedicated to that abatement purpose or by undertaking the abatement themselves. The expenditure of resources to abate a hazardous substance affecting the environment is the type of remedy one might find in an ordinary civil case and does not threaten the continued operation of an existing business. 50 Cal. 4th at 54–56

Childhood Lead Poisoning Prevention Programs operated by the Public Entities have largely reached their limits. The Public Entities lack the resources to remove lead paint from homes in their jurisdictions. Thus, the number of lead poisoned children may not increase. But that number is unlikely to decrease much more, if at all. (Tr. 179:28–190:4, 999:12– 1000:23, 1385:27–1386:2, 1407:26–1408:3, 1440:11– 1441:6, 1525:16–1526:6, 1525:16–1526:6, 2215:2–9, 2236:1-4, 2569:24-2570:26, 2355:28-2356:17.) The Public Entities lack the resources to force homeowners to remove all lead paint from homes in their jurisdictions. Moreover, enforcement of lead paint abatement requirements against homeowners is often not feasible. (Tr. 1376:3–16,2382:19–25, 3263:9– 3264:7; 3267:5–18; 3270:5–3271:20.)

As long as lead paint remains on homes in the Jurisdictions, children living in those homes will be at significant risk of lead poisoning. (Tr. 248:22–249:20, 958:23-959:5,1093:17-23, 1094:1-1095:15, 1305:1-6, 1405:5–12, 1414:1–1415:22, 1417:7-271438:19-1439:17, 2295:13-27.) Prevention of childhood lead poisoning due to lead paint requires, at minimum, identification of lead paint on pre-1978 homes and removal of the most immediate lead paint hazards in (Tr. 172:28-5, 179:4-15, 1467:24those homes. 1470:22, 1492:15–25, 1495:17–1496:16; P45_10; P54.) Experts have demonstrated that abatement of lead paint substantially reduces the likelihood that a child will be lead poisoned. (Tr. 411:21–414:3, 997:7–998:24, 1467:24–1470:22, 1522:7–14, 1550:20–27; P45_10, P54.)

Both the People's and Defendants' abatement experts agreed that abatement of lead paint hazards in homes is necessary to protect the children living in those homes. (Tr. 1457:19–1458:7; 3203:9–3204:27.)

The benefits of abating lead paint arguably exceed the costs of maintaining the status quo. Medical treatment, special education costs, lost lifetime earnings, lost tax revenue, and other costs associated with lead poisoning amount to hundreds of billions of dollars. (Tr. 1542:25–1543:27; 1544:12–13; Ex. P44.) Every dollar spent on reducing lead paint exposure results in societal savings between \$12 and \$155. (Tr. "This cost-1542:25–1543:27, 1544:12–1545:13.) benefit ratio is even better than for vaccines, which have long been described as the single most cost beneficial medical or public health intervention." (Tr. 1545:27–1546:2.) Defendants' abatement expert acknowledged that lead paint hazards in homes should be remediated despite the expense and time required. (Tr. 3202:20-3203:4.)

The People's proposed abatement plan (Plan), as revised by the Court, is consistent with the 2012 recommendations of the CDC's Advisory Committee on Childhood Lead Poisoning Prevention. (Tr. 1467:24–1470:22; Ex. P45_10; P54.) The Plan targets pre-1978 homes in the Jurisdictions that pose the greatest risk of lead poisoning to children, requires outreach and education to homeowners, requires trained individuals to inspect homes for lead paint, it

utilizes abatement techniques that have been used for decades and have been proven to be safe, and it takes appropriate measures to protect the safety of residents and community members. The People contend an abatement plan containing these elements will effectively and efficiently abate the nuisance. (Tr. 1472:12–1473:8; P262.) And Defendants' abatement expert agreed that lead paint inspections and prioritization of abatement based on those inspections, as set forth in the Plan, are a sensible way to direct limited resources. (Tr. 3204:28–3209:4.) The Plan can be implemented in a reasonable amount of time and at a reasonable cost. (Tr. 1547:25–1550:19, 2159:3–7.)

The total cost of the Plan as proposed at trial by the People's abatement expert, Dr. David Jacobs, is \$1,618 billion if implemented by the Public Entities. (Tr. 1547–1550; P263.) For the cost of inspection, Dr. Jacobs estimated \$200 per unit if done by the Public Entities, or \$500 per unit if done by a private contractor. The number of pre-1978 homes within the Jurisdictions needing inspection is approximately 3,555,000. Because not all units in multi-family housing must be inspected in light of common painting history, he reduced the 3,555,000 number by 20%. Thus, pursuant to the Jacobs plan the total cost of inspections would be \$569 million if done by the Public Entities, or \$1.42 billion if done by the Defendants through private contractors. (Tr. 1547–1549.) Dr. Jacobs estimated the average cost of abatement to be \$2,007 per unit. He further estimated that approximately 498,000 units in the Jurisdictions would require abatement. For education and outreach, Dr. Jacobs estimated the total cost to be \$50 million. (Tr. 1550.) When abatement is performed by trained and certified individuals, it significantly reduces rather than increases the risk of harm from lead paint. (Tr. 1550:25–27176:28–179:3,1472:12–28.)

By limiting the Plan to interior surfaces and conditions, the cost is reduced substantially, as described below.

B. Defendants' Response to the Proposed Plan

Dr. Jacobs' method for lead paint remediation performs no better than so-called interim controls focusing on repair and repainting. The Jacobs plan calls for universal inspection of pre-1978 homes to hunt for lead paint in every room of every house. (TR 1463,1492 [Jacobs]) As Dr. Jacobs stated, "what we are doing is trying to find a dangerous needle in a haystack." (TR 1465:23-24) The authoritative HUD study undercuts Jacobs. The goal of HUD's 2004 "fourteen city" study was to compare the effectiveness of different remediation methods upon children's blood lead and dust lead from actual experience. wanted to learn whether any one method was significantly superior to others to help the agency plan cost-effective work in the future. The remediation methods being compared ranged from "cleaning and spot repainting" (Strategy 02) or "paint stabilization" (Strategy 03) up to "window replacement" (Strategy (Ex. 70.13 [p. ES-3]) (The "full abatement" strategy (06) was used too rarely to be analyzed. (TR 1575-76 [Jacobs])) Jacobs' plan for this case is essentially Strategy 05. (TR 2095)

HUD's first report two years after property remediation found no significant differences among Strategies 02 through 05 in terms of children's blood lead levels or floor dust lead, (Ex. 70.18 [p. ES-8]) The researchers wrote that floor dust, not window dust, was the "primary exposure" pathway into children's blood lead, which could explain why lower window dust lead in Strategy 05 did not yield lower blood (*Id.*) The three-year follow-up reported by Clark, et al. again found no significant differences among Strategies 02–05 in children's blood lead or floor dust lead. (Ex. 1071.09, col. 1, ¶ 6) Blood testing The six-year follow-up reported in then stopped. Wilson, et al. still found no significant differences between remediation strategies and floor dust lead. (Ex. 1064.11 [p. 247, col. 1, \P 2 & col. 2, \P 2]) twelve-year follow-up reported in Dixon, et al. found a steady downward decline in floor dust lead by all remediation methods, but a slightly lower floor dust lead after window replacement. (Ex. 1074,06, fig. 1)

Jacobs claimed to have found a gain from window replacement at twelve years (which he later admitted was "not that big" (TR 2196:3-4)). But Jacobs described tire twelve-year results of Dixon, et al. very differently from the article. Jacobs claimed that floor dust lead began to "creep up" after twelve years in with homes maintenance but not window replacement. (TR 1514) This was a crucial point for him in order to show that measures short of window replacement do not last, but it was a misstatement. In cross, Jacobs admitted there was a continuing decline of dust lead that occurred with all methods. 1590:26-1591:8)

On redirect examination, Jacobs gave a new explanation why window replacement was better than maintenance, claiming that "we show [in Dixon, *et al.*] that if we didn't replace the windows, . . . 24 percent of

the units actually failed clearance standards if the windows were not replaced. So that's what I was trying to get at", but "[w]ith the window replacement, you didn't see that result." (TR 2196:1–6, 13–15) However, the Dixon article contradicts Jacobs again. The only mention of a 24% failure rate was for all units together with all methods of remediation – window replacement as well as spot repainting – when tested at a 10 μ g/ft² standard for floors. (Ex. 1074.06, col. 2, ¶ 3) The clearance failure rates at the federal standard (40 μ g/ft²) were actually 8% for all units, 7% for non-window replacement units, 19% for partial-window replacement units, and 5% for all-window replacement units. (Ex. 1074.04, Table 1, 2nd line)

HUD accepted the study's outcome in its 2013 Policy Guidance, not allowing funded window replacement based on presence of lead paint without demonstrated need. (TR 1571–72 [Jacobs]) contrast, Jacobs has never accepted HUD's findings. Jacobs expected HUD's study to support his belief in the superiority of window replacement, and although it failed to support him, he claims it supports him anyway. The People's Abatement Plan (Ex. 262) was prepared by Dr. Jacobs alone. (TR. 1569:23–24 [Jacobs].) It has not been peer reviewed or reviewed by any scientific body, federal agency, or the California Childhood Lead Poisoning Prevention Branch.

Since the defendants do not have the ability to remediate lead paint on private property, the People rely on voluntary participation by property owners. (TR. 1487:8–13 [Jacobs].) Although the People's expert, Dr. Jacobs, has expressed his opinion that a significant number of owners would volunteer and, further, that implementation of the Abatement Plan

would "significantly" reduce blood lead levels (TR. 1487:22–1488:9 [Jacobs]), he does not quantify those conclusions nor does he provide a basis for those speculative opinions.

The People propose massive inspection and risk assessment for all residential units built before 1980, which their expert estimates to be 3.5 million covered units, at a cost of \$1.4 billion and roughly 15 million hours to complete. (TR. 1486:3–14; TR. 2136:22–24 [Jacobs]; TR. 3219:5–18 [Heckman].) Such inspection is overbroad and unnecessary. Persons who bought or rented pre-1978 houses since 1996 have received an EPA disclosure about lead paint and the precautions that should be taken, so they should be aware of the possible presence of lead paint. (TR. 3219:5–18 [Heckman].) Moreover, for homes built from 1940 to 2010, the date of construction does not predict blood lead levels. And, for houses built before 1940, there is only a .51 µg /dL differential between homes built before 1940 and 1978-89 using NHANES data. (Ex. 3021.) There is no evidence whether paint was the source for that difference or that .5 µg/dL matters for children's health. Data from RASSCLE showed essentially the same results, (Ex. 3025.)

Fewer than 5% of children living in pre-1940 homes have blood lead levels over the "reference level" of 5 ug/dL recently set by CDC. Only 2% of children living in homes built between 1940 and 1978 have blood lead levels over 5 μ g/dL. (TR. 2518:12–2519:16 [Washburn]; Ex. 3023; Ex. 1404.) Thus, the houses where children with blood lead levels over 5 μ g/dL reside comprise a very small percentage (2%–5%) of pre-1978 housing. There is no evidence that the owners of those 2%–5% of the houses will voluntarily

participate in the inspection and assessment program. As Dr. Jacobs admitted, the People do not know how many units have lead paint. (TR. 1486:3–10 [Jacobs].) It is overbroad and unnecessary to inspect and assess 3.5 million homes when looking for the 2%–5% of houses that may potentially pose a risk that a child may have a blood lead level over 5 µg/dL, particularly when there is no evidence that the Abatement Plan will lower blood lead levels.

Additionally, it is argued it is unnecessary to inspect 3.5 million homes for the "needle in the haystack" when the jurisdictions already have information to identify properties and areas that may present a risk for elevated blood lead levels. The Abatement Plan Priority Group designates as 1 houses neighborhoods known to local authorities as having multiple housing code violations and multiple reported elevated blood lead levels (Ex. 262.008). A relatively small number of properties may account for large numbers of children with elevated blood lead levels, and the addresses are often linked to repeated cases. (TR. 1024:8–15 [Gottesfeld].)

There is a significant risk that an invasive intervention plan requiring the removal and replacement of building components can increase blood lead levels in children with already low blood lead levels. (TR. 3200:2–3201:19 [Heckman]; Ex. 1436.) The HUD 3,000 Homes Study found 9% of children living in abated properties had their blood lead levels increased by more than 5 µg/dL after abatement, thus highlighting the dangers of disturbing lead paint even under well-supervised projects. (Ex. 70.015.)

SW contends the People have not met their burden of proving that the cost of the Abatement Plan or the time that it will take are reasonable. Dr. Jacobs estimated an average cost of \$2,007 per unit but that estimate was not peer reviewed or taken from any study of comparable California data. A study conducted by Dr. Jacobs estimated the cost for window replacement to be between \$7,000 and \$16,600 for units varying between 800 to 1,800 square feet. (Ex. Mr. Heckman, who has participated in 72.019.) several hundred abatement projects, has never been involved abatement project in an involving replacement of windows that cost under \$2,007 (TR. TR. 3193:26-3194:1 3193:8–18; [Heckman].) Mr. Heckman has compiled figures from various remediation programs showing a large range of cost depending upon the scope of the work, (Ex. 1438.) SW submits the Court should not rely upon Dr. Jacobs. In conclusion, SW argues that when the Court has "no idea how much [the remedy] would cost but only knows that it would cost unascertainable millions of dollars, . . . there is not substantial evidence that the nuisance is abatable." Mangini, supra, 12 Cal. 4th at 1103.

XIII. FINDINGS OF FACT AND CONCLUSIONS OF LAW

A. Findings of Fact Summarized

The Court incorporates by reference and adopts as its Findings of Fact the evidence, including tables and charts, set forth in detail in Sections V. B. through V. O. above. In summary the Court finds:

- White lead carbonate and the paint in which it is a key ingredient are harmful particularly to children
- While the government standards concerning blood lead levels has changed over time, there is no safe level of lead in blood
- Lead paint causes significant physical harm to individuals which has lasting effects, including diminished intellectual capacity of the afflicted
- There is a clear and present danger in the form of a public nuisance that needs to be addressed
- Defendants, to varying degrees, promoted and sold lead paint in the Jurisdictions for years, and in some cases for decades
- Defendants, to varying degrees, sold lead paint with actual and constructive knowledge that it was harmful
- Defendants, to varying degrees, promoted lead paint even when non-leaded paints were available
- Higher blood lead levels are also due to nonpaint sources, such as deposits from gasoline, candies, and water, but these other causes do not eclipse the more significant harm caused by lead paint
- Truly intact lead paint does not pose a hazard, but since all paint deteriorates over time the hazard literally remains just below the surface
- Lead paint remains the primary source of lead exposure for young children

- Lead paint is prevalent in the jurisdictions and is of continuing adverse effect
- While there have been significant reductions in tested blood lead levels over time, the issues presented in this case are not resolved
- Existing programs at all government levels lack the resources to effectively deal with the problem

B. Conclusions of Law

The Court finds the evidence is overwhelming that lead ingested by anyone is hazardous. In sufficient doses the ingestion of lead will almost certainly cause ailments ranging from muscular and skeletal abnormalities to mental defects, all of which are irreversible. There is compelling evidence that children who have ingested lead will likely suffer from diminished intellectual capacity. In turn, these children may develop behavior problems including antisocial behavior. Ultimately society will pay for these problems over time.

Various commissions have studied the issue for decades. The most recent official report in January 2012 was from the Advisory Committee on Childhood Lead Poisoning Prevention of the Center for Disease Control ("CDC"). That Committee released a report recommending a comprehensive overhaul in how the CDC treats blood lead levels (BLL) in children. Most importantly, the report's core scientific claim is that there is no safe level of exposure to lead for children, since strong evidence shows that even BLL's less than 10 micrograms may cause irreversible developmental problems in children, including brain, lung, and heart damage. It recommended that the CDC eliminate the

10 microgram "level of concern" standard altogether and switch to a prevention-based approach. The goal of this approach is to pre-emptively avoid lead exposure rather than handle cases of exposure exceeding a certain limit after they occur. To implement this strategy, the CDC was asked to set a BLL reference value at the 97.5th percentile of BLL's in children and use that value to identify regions and populations at greatest risk for lead exposure. The CDC was advised to reduce those risks and update the reference value every four years. In May 2012 the CDC adopted the Committee's recommendations and set the first reference value at 5 micrograms. In the words of Dr. Mary Jean Brown, it is time to put to rest the "myth that the lead problem is solved." 18

Of course, by any measure, the remedy sought by the People is of substantial, even massive proportions. Seeking the abatement of lead by inspections and rehabilitation of tens of thousands of homes — at a minimum — is a daunting decision. But the Court is convinced that although great strides in reducing lead exposure have been made, and the incidence of exposure with correlative blood lead levels has declined to a low level, thousands of children in the jurisdictions are still presently and potentially victimized by this chemical.

Should the defendants — or some of them — bear responsibility for the creation of this nuisance? To answer that question the Court has to decide whether

¹⁸ During the trial Defendants made the cynical suggestion that this lower level was only set to allow the Committee to keep its funding; the Court Ends this unsupported by the evidence and disregards the allegation.

the standards for liability proscribed by the Court of Appeal have been satisfied. Those standards are as follows:

Defendants' knowledge: The Court is convinced that the knowledge need not be actual, although proof of actual knowledge has been put in evidence, but that constructive knowledge will suffice. See Section V.B. above. The Defendants have described in great detail the extent of medical and governmental knowledge over the course of decades. Their argument is they cannot be held responsible for the lead issue because that is "liability by hindsight." The evidence is to the contrary. Before the turn of the 20th century lead was known to be toxic. Not only were there reports of this from Australia, but in 1909 the California Supreme Court in *Pigeon* detailed the reasons for holding ConAgra (Fuller) liable for the severe injuries suffered by its workers in a lead manufacturing plant. There were discussions on the subject of lead-related problems held by the trade association whose mission it was to promote this chemical at least as early as 1900. SW's own publication of Chameleon identified lead as a serious problem. In 1918 DuPont made an issue in its advertisements that some of its products were "lead-free." It is not reasonable to believe these discussions were spontaneous; some persons in the LIA or among the manufacturers — for whatever reason — thought it important enough to raise the issue. It is telling that the head of the LIA was defensive enough about the situation to state "the LIA" was not afraid of the truth?" Why would he say this if there were not serious concerns industry-wide about lead? In short, once constructive knowledge is accepted as the standard there is ample authority to hold the Defendants liable. *See* Section V.L above.

"No proof of specific injury"

SW in particular has continued to reiterate there can be no liability without proof of lead in specific properties. This position is not consistent with the Appeals Decision or California law. See *People ex. rel. Gallo v. Acuna* (1997) 14 Ca1.4th 1090, 1118

"Hindsight"

The related issue is whether the Defendants can be held retroactively liable when the state of knowledge was admittedly in its nascent stage. The Court takes judicial notice of the fact that drugs, facilities, foods, and products of all kinds that were at one time viewed as harmless are later shown to be anything but. Yes, the governmental agencies charged with public safety may have been late to their conclusions that lead was poisonous. But that is not a valid reason to turn a blind eye to the existing problem. All this says is medicine has advanced; shouldn't we take advantage of this more contemporary knowledge to protect thousands of lives?

"Other causes and problem solved"

The Court is not persuaded that since the various lead control programs have been successes no further efforts are appropriate. NL and SW have been particularly intense in making this argument. But that argument proves the People's point. It is not surprising that there are fewer incidents of high BLLs in recent years. As Defendants argue, the CLPP programs have been successful in reducing these cases. And it may well be that the incidence of high blood lead levels have decreased; but this does not

mean the efforts against lead in paint should cease, All this argument shows is that the numbers have gone down; no one can dispute that. What is at issue is whether we should close the door on this issue and do no more than what we are doing now.

Defendants argued that paint was, and is not the whole problem. However, the Court finds alternate sources of lead such as water and air contain only trace amounts of lead, and neither appreciably contributes to lead poisoning in the Jurisdictions. (Tr. 141:20-143:15, 150:14–151:1, 152:21–159:9, 157:24–158:5, 198:21-200:14; 161:1–16, 192:23–194:6, Imported food items, pottery, home remedies, and other sources of lead cause lead poisoning in a small number of children in the Jurisdictions each year. Furthermore, unlike lead paint, these sources of lead are easily removed from a child's environment once identified. (Tr. 150:14-151:21, 152:21-159:9. 2051:7-14, 1362:11–18, 2322:20-2324:19; P231.) But the existence of other sources of lead exposure has no bearing on whether lead paint constitutes a public nuisance. It does not change the fact that lead paint is the primary source of lead poisoning for children in the Jurisdictions who live in pre-1978 housing.

What is to be done?

Regarding the issue of remedy the Court concludes the following:

Consistent with their arguments throughout the trial the Defendants rely on statistics and percentages. When translated into the lives of children that is not a persuasive position. The Court is convinced there are thousands of California children

in the Jurisdictions whose lives can be improved, if not saved through a lead abatement plan.

The Court further finds that the proposed plan, as amended by the Court, is an appropriate remedy justified by the facts and the law. In so doing, the Court is persuaded by Dr. Jacobs' experience and expertise which greatly eclipse that of the Defendants' expert in these matters. The cost and time will be reduced significantly by limiting the Plan to interior surfaces. The Plan at trial calls for abatement to be carried out through the establishment of an administrative process to carry out inspections, abatement, and education. (Tr. 1526:271527:2.) That administrative process would replicate much of the infrastructure and expertise that currently exists in the Public Entities. (Tr. 1527:3–15.) Creation of a fund, administered by the Public Entities, dedicated to abatement of lead paint in pre-1978 homes, would eliminate this replication, and would do so at a lower cost. The Court concludes there is no need to establish a new bureaucracy since experienced personnel are already in place at the state and local levels. Similarly, it makes no sense to charge the liable defendants with undertaking this task. Monitoring the fund encompassed by the Plan will accomplished by experienced government employees with control by the Jurisdictions' respective Boards of Supervisors.

With these general thoughts in mind, the Court turns to the individual defendants:

ARCO

The evidence summaries in Sections I.B, I.C., V.L.l, and VILA above are incorporated by reference.

The Court finds that the evidence as to ARCO does not meet the required elements. There is a lack of evidence of knowledge by ARCO or its predecessors of adverse health effects from exposure to residential lead paint during the relevant time period. described above, the People have failed to prove by a preponderance of evidence that there is a sufficient nexus between ARCO and the jurisdictions to impose liability against that defendant. The People's own experts were unable to make the case that ARCO promoted lead paint in tire jurisdictions. At most ARCO promoted paints containing lead for only two years and that was to the trade, not the general public. The Court finds the People have not met the burden of proof with regard to ARCO. Therefore, a judgment of dismissal shall be issued on behalf of ARCO.

CONAGRA

The evidence summaries in Sections I.B, I.C., V.L.2, and VII.B above are incorporated by reference.

ConAgra was a large producer and supplier of lead within the jurisdictions. ConAgra had knowledge of the hazard at a minimum through the facts at issue in *Pigeon*. In spite of that litigation ConAgra continued to sell lead-based paint into the 1940s. ConAgra was operating to a major degree in the jurisdictions starting in 1900. Exs. 179, 233, ConAgra continued to sell lead paint until 1958. Tr. 657,1673 Its laches defense is discussed earlier in this decision and is not

dispositive. Judgment shall be entered against ConAgra.

DUPONT

The evidence summaries in Sections I.B, V.L.3, and VII.C above are incorporated by reference.

The case against DuPont is largely vitiated by the stipulation that DuPont's interior residential paint products never contained white lead pigments. DuPont did not produce WLC in the Jurisdictions, and was a leader in the development of paints without lead content. DuPont made no sales in California until 1924 and never manufactured WLC in this state. DuPont did not participate in the lead paint marketing campaigns and did not join the LIA until 1948 and did so as a vehicle to promote other products and not paint. It is telling that DuPont distanced itself from other paint companies by its products that were lead-free and used that quality as a key advertising theme.

Findings Supportive of DuPont:

DuPont joined LIA AFTER campaigns in 1948 Tr. 795

Markowitz: DuPont ad touting its paint as "non-poisonous" Ex. P172 Tr. 1711

Markowitz: per stip 24 Duco never contained WLC Tr. 1825

Markowitz: SSF plant did not produce lead Tr. 1851

Markowitz: DuPont's catalogue: flat wall finish made of "non-poisonous pigments" Tr. 1713

Markowitz: DuPont advertised fact that it was possible to make paint that was lead-free Tr. 2010–11

Lamb: No DuPont paints used in interiors contained lead Tr. 2607

Lamb: few ads for paint with lead Tr. 2834-2840

Bugos: DuPont not in paint business until 1917

Tr. 2908

Bugos: DuPont never sold WLC in CA Tr. 2921

Bugos: DuPont not involved in campaigns Tr. 2929

Stip: re Chronicle Bldg Paragraph 12

Bugos: DuPont no warehouse or listing of lead

paint in Calif. Tr. 2984, 2986

Coupled with the Court's decision to limit this case to interior paint, a judgment of dismissal shall be entered for DuPont.

NL

The evidence summaries in Sections I.B, V.L.4, and VII.D above are incorporated by reference.

NL had actual knowledge of the hazards of lead paint as described above. NL was the largest manufacturer, promoter, and seller of lead pigments for use in house paint as determined in the FTC proceedings in the 1950s, NL operated large plants in the jurisdictions and was an active participant in the campaigns organized by LIA. E.g., Forest products campaign Tr. 709, Ex 82 Tr. 639

Judgment shall be entered against NL. SW

The evidence summaries in Sections I.B, V.L.5, and VILE above are incorporated by reference.

SW had two plants in the jurisdictions, as well as stores and dealers (Ex. 233, 234, Tr. 1039) selling lead

SW transported millions of pounds of lead pigment to its warehouses and factories during the first four decades of the 20th century. 19 SW knew at an early date of the occupational risks to factory workers from lead dust exposure and it is a reasonable conclusion that it knew or should have known of the hazards in the home. SW was active in the FPBP Campaign. Tr. 709 SW's defenses — insufficient proof of causation, changing levels of BLLs deemed harmful, blaming negligent property owners, other causes, and that there is no longer a significant health issue — are not persuasive. SW's pride in being the first paint company with chemists on staff is an unintentional admission: with chemists on staff, how can SW say it didn't fully appreciate the hazards posed by lead paint? Similarly, SW's evidence of its being the champion of innovation and the do-it-yourselfer with ready-mixed paints is at odds with it continuing to sell lead-based paint well into the 20th century through a large network of dealers. Ex. 58 Tr. 638

Judgment shall be entered against SW.

The Court concludes:

ConAgra's conduct was a cause-in-fact of the public nuisance.

ConAgra, as the successor-in-interest to Fuller, created or assisted in the creation of the public

¹⁹ SW: "Merely doing business in the jurisdictions does not prove liability for causing a nuisance by wrongfully promoting white lead. Likewise, evidence of white lead shipments to California warehouses, which served many areas outside of California, does not show the use, place of use, or the promotion of white lead." The Court asks: *But why ship heavy lead across the country to warehouses if not to sell it?*

nuisance. ¶¶76, 137–158, 183–193.) As a result, ConAgra's conduct was a substantial factor in bringing about the public nuisance.

NL's conduct was a cause-in-fact of the public nuisance.

NL created or assisted in the creation of the public nuisance. 74, 137–158, 174–182.)

As a result, NL's conduct was a substantial factor in bringing about the public nuisance.

SW's conduct was a cause-in-fact of the public nuisance.

SW created or assisted in the creation of the public nuisance. (¶¶ 73, 137–173.) As a result, SW's conduct was a substantial factor in bringing about the public nuisance.

ORDER

The Court orders as follows.

- 1. The Court finds in favor of the People and against ConAgra, NL, and SW on the claim of public nuisance.
- 2. The proper remedy in this case is abatement through the establishment of a fund, in the name of the People, dedicated to abating the public nuisance. This fund shall be administered by the State of California in a manner consistent with the following abatement plan (the "Plan").²⁰

²⁰ (County of Santa Clara II, supra, 50 Cal.4th at pp. 55–56 [describing the potential remedy in this case]; Rickley v. Goodfriend (2013) 212 Cal.App.4th 1136,1142–43 [defendant ordered to establish abatement fund]; Safeco Ins. Co. of America

3. If the State is unwilling or unable to serve as the receiver, then (a) the Jurisdictions shall serve in this capacity; (b) all further references to the State or the Childhood Lead Poisoning Prevention Branch shall be to the Jurisdictions; and (c) the second, third, and fourth bullet points of Section C ("Administration") of the Plan shall not apply.

A. Exclusions: The Plan *excludes* the following:

- Institutional group quarters, including correctional facilities. nursing homes, dormitories, non-family military housing (e.g. psychiatric barracks). mental health rehabilitation residences, alcohol/detox living facilities, supervised apartment living quarters for youths over 16, schools, and non-home based day care centers not otherwise included;
- Housing designated exclusively for the elderly or occupied by the elderly, unless children are regularly present;
- Houses not occupied by young children for which clear evidence exists that demolition will occur within two years;
- Houses constructed after 1980; and
- Properties documented by an inspection to not contain any lead-based paint.

v. Fireman's Fund Ins. Co. (2002) 148 Cal.App.4th 620, 627 [same]; People ex rel. City of Willits v. Certain Underwriters at Lloyd's of London (2002) 97 Cal.App.4th 1125 [pursuant to consent decree, defendants ordered to establish trust fund].)

- B. The Plan does not require full-fledged removal of all lead paint from all surfaces in all homes covered; the Plan requires:
- Testing of interior surfaces in homes to identify both the presence of lead-based paint and the presence of lead-based paint hazards;
- Remediation of lead-based paint on friction surfaces (including windows, doors, and floors) by either replacement of the building component or by encapsulation or enclosure of the lead-paint;
- Remediation of lead-based paint hazards in excess of actionable levels²¹ on all other surfaces through paint stabilization (as opposed to paint removal, enclosure or encapsulation);
- Dust removal, covering of bare contaminated soil, proper disposal of waste, post-hazard control cleanup and dust testing, and occupant and worker protection;
- Repair of building deficiencies that might cause the corrective measures to fail (*e.g.* water leaks) to ensure durability of the lead hazard control measures; and
- Education of families and homeowners on lead poisoning prevention and paint-stabilization techniques to remediate lead based paint hazards on non-friction surfaces.

 $^{^{21}}$ Actionable lead for this plan is defined as >1 mg/cm2 or >5,000 ppm for lead in deteriorated paint, >10 $\mu g/ft2$ for lead in settled dust on floors, and >100 $\mu g/ft2$ for lead on interior window sills.

C. Administration

- Payments into the fund shall be deposited into an account established in the name of the People and disbursed by the State of California's Childhood Lead Poisoning Prevention Branch ("CLPPB") on behalf of the People.
- The Jurisdictions shall apply for grant funds from the State on a specific needs basis.
- The CLPPB will be responsible for reviewing grant applications prepared by the applying jurisdictions, and thereafter make specific grants to the Jurisdictions.
- The CLPPB shall be responsible for the administration of the financing of the Plan at the statewide level.
- The Jurisdictions, through their existing lead control programs, will administer the Plan consistent with all applicable State, Federal and local government regulations. The Jurisdictions shall:
 - o Establish the Priority of Inspection and Lead Hazard Control Work
 - o Conduct workforce development, if necessary
 - o Conduct a public education campaign
 - o Conduct bidding for and payment of hazard control contractors
 - o Contract with independent contractors to conduct all actionable lead hazard control, inspections and risk assessments

- o Perform lead hazard control plans for each property
- o Conduct all clearance tests
- o Design of all hazard control plans for each property that will undergo hazard control
- o Design of any needed repairs to ensure the viability of hazard control
- o Review of payments to hazard control contractors to ensure clearance is achieved and all work has been completed in compliance with hazard control specifications and to the satisfaction of the owners and occupants before certified contractors are paid
- o Review workforce development and training operations to ensure the needed workforce is being obtained and is in place
- o Review of public education and outreach materials and methods

D. Enrollment

Property owners who enroll in the Plan would be screened to see if they own a property that qualifies for inspection and services. If so, the individual jurisdiction shall coordinate with that property owner to schedule an inspection for lead based paint hazards in the home, as described below. The Jurisdiction will keep a complete public database of all properties that have been enrolled in the Plan, the dates of inspection, and the manner and method of hazard control services performed at the address, if any.

If the property owner does not enroll in the Plan after appropriate educational outreach and counseling, the property should be deferred for actionable lead hazard control until the property owner vacates or sells the property, unless there is a child who is at risk. A listing of properties that have failed to enroll in the Plan or subsequently failed to undergo actionable lead hazard control will be made available and accessible to the public.

E. Priorities

In order to balance efficiency, simplicity and practical considerations, the "worst-first" prioritization option should be used. This means that housing units meeting *one or more* of the following criteria should be treated first and should be assigned to Priority Group 1.

PRIORITY GROUP 1

- Housing property currently containing children with elevated blood lead levels and known actionable lead hazards
- Housing with a history of repeated, multiple poisonings occupied by a young child who has not (yet) developed an elevated blood lead level and which has never undergone any form of actionable lead treatment or hazard control
- Housing with repeated notices of noncompliance with existing lead poisoning prevention laws
- Housing with substantial deferred maintenance defined by, ten or more code violations in the past 4 years
- Housing identified as "high risk" by local authorities

- Housing located in high-risk census tracts or neighborhoods
- Vacant units located in high-risk census tracts or neighborhoods whose owners commit to renting to low-income families following hazard control for a specified time period
- Properties meeting the criteria shown below should be assigned to the lower risk Priority Group 2 and should be treated for actionable lead only after most of the higher risk Priority Group 1 buildings have been completed

PRIORITY GROUP 2

- Properties with lower lead paint concentrations or with lead paint on fewer and/or smaller surfaces (this would include buildings where the maximum paint lead loading is greater than or equal to 1 mg/cm² but less than 5 mg/cm² and where the interior lead painted surface area is less than 100 square feet)
- Properties with no history of lead poisoning
- Residential buildings built after 1950 or not in high risk neighborhoods or census tracts
- Properties that have undergone "gut" rehabilitation, which means that all painted interior surfaces were removed and replaced with post-1980 building materials, finishes and coatings
- Vacant housing units that could one day be occupied by children
- Properties not located in one of the high risk census tracts

 The Jurisdictions shall prioritize Properties into Priority Group 1 or 2, as needed to promote Plan efficiency and public health

F. Completion of a Comprehensive Lead Hazard Inspection

For most properties that are enrolled in the Plan, a new inspection for the presence or absence of actionable lead (as defined below) shall be conducted. Tests will be conducted using a portable X-Ray Fluorescence ("XRF") instrument, a handheld device that measures the presence and quantity of lead based paint on surfaces. For those properties that have been inspected within the past 5 years, the earlier results can be used if desired by the owner or occupant, so long as they comply with EPA and HUD requirements related to the number of XRF readings within a given property and the number of housing units tested within a given multifamily housing development, quality control procedures, and performance of the inspection by a California certified lead-based paint inspector, and the other criteria specified below.

For all properties that have not been inspected or were inspected more than 5 years ago, a new actionable lead-based paint inspection should be completed, unless there is adequate documentation that the property is free of and/or has been made free of actionable lead hazards. The inspection should be done at a time convenient to the occupant and should be adequately staffed so that it can be completed in no more than two hours for a typical California housing unit to reduce the burden on the occupant. Allowance for a longer time for a larger property should be granted on a case by case basis. All data from the

inspection shall be retained by the Jurisdiction for the life of the building, by the owner of the building until it is sold or demolished (all data should be transferred to the new owner) and by the inspector for at least 5 years. The Jurisdiction should construct and populate a publicly available inspection and hazard control database.

Under this Plan, the Jurisdiction will be required to establish programs throughout the jurisdictions that provide homeowners with access to comprehensive residential lead paint testing in conformity with the prioritization set forth above. That testing will be available to all homeowners and residents of Properties not meeting the exclusion criteria set forth above. The comprehensive lead inspection will properly identify those surfaces with actionable lead and will identify those Properties that have no lead-based paint. Presumption of actionable lead hazards will not be permitted. Previous lead inspection data should be used only if it is of sufficient quality and only if it is augmented as needed.

Lead paint inspections under this plan must be done in accordance with an XRF Performance Characteristics Sheet (PCS) issued by HUD and EPA and have all the required measurement and supporting quality control data. It must include lead paint measurements on all surfaces with a similar painting history in all rooms, room equivalents, exteriors and site, including measurements on floors, walls and ceilings with intact and non-intact paint and coatings using the standard HUD lead-based paint inspection protocol.

G. Identification and Reporting of Actionable Lead Paint

The results of the comprehensive lead inspections performed on included housing units will be used: (1) to maintain a database that is available to the public documenting the location of lead based paint and lead based paint hazards in inspected properties; and (2) as the basis for recommending lead hazard control activities in properties.

To be considered actionable and therefore eligible for lead hazard control programs as set forth in the recommendations that follow, the lead levels on surfaces and in dust must meet certain actionable levels.

The level of lead in paint to be considered actionable under this plan should be ≥ 1 mg/cm² (or $\geq 5,000$ ppm if loading cannot be measured for technical reasons). The lead paint should be measured using field-based XRF lead paint analyzers with a Performance Characteristics Sheet; sodium rhodizonate, sodium sulfide or other spot test kits should not be used to determine the presence of actionable lead for the purposes of this plan.

The level of lead in settled dust to be considered actionable under this plan should be $\geq \! 10~\mu g/ft^2$ on floors and $\geq \! 100~\mu g/ft^2$ on interior window sills. Dust lead should be measured using the standard wipe sampling method.

H. Hazard Control Criteria and Options

Once actionable lead has been found on surfaces or in dust in a property, the property owner and the Jurisdiction will develop a plan for lead hazard control. Under the Plan, all replaced building components should be at least equal in quality to the lead painted components they replace. The judgment on what constitutes "equal to" should be made by the Jurisdiction, that will design the hazard control in collaboration with owners and occupants. If an owner decides to replace a building component with a higher cost equivalent item, the incremental cost should be borne by the owner.

The plan contemplates that the first prioritization of any lead hazard control plan is replacement of lead painted windows and doors, which will yield the largest health benefit in the shortest time period.

If the existing substrate is incapable of supporting an enclosure system, it should be either repaired to support an enclosure, or the component should be replaced.

Walls: For lead painted interior walls and ceilings, (new plaster is an acceptable enclosure method, as long as the new lathe is physically attached to the substrate)

Floors & Stairs: Enclosure with new subflooring and finish goods (paint stabilization should not be permitted on lead-painted floors and lead-painted stairs because of the likelihood of deterioration due to traffic and on-going impact).

Ceilings: Paint Stabilization or Enclosure with drywall or equivalent

Window trim: Replacement (or off-site stripping and repainting for ornate, unique items)

Window troughs: Replacement or Enclosure

Other window parts: Replacement (or off-site stripping and repainting for ornate, unique items)

Window or Door Lintels: Replacement (or, if load-bearing, enclosure)

Doors Replacement: (or off-site stripping and repainting for ornate, unique items) Door Frames: Replacement (or enclosure if load-bearing)

Interior Trim: Replacement (or off-site stripping and repainting for ornate, unique items) or Paint Stabilization

Cabinets/Shelving: Paint Stabilization or Replacement (or off-site stripping and repainting for ornate, unique items)

Radiators/Pipes: Paint Stabilization or Replacement (or off-site stripping and repainting)

Stairs: Enclosure or Replacement

Dust Actionable Lead Dust: Removal to Clearance Standards

I. Performance of Hazard Control Work

The results of the actionable lead inspection will be used to devise actionable lead hazard control work specifications. The specific products and methods, together with the inspection report and expected timelines, will be presented to the owner and occupants and a plan will be agreed to between the homeowner and the Jurisdiction.

J. Public Education and Outreach Plan

The Jurisdiction shall conduct a public education and social marketing campaign to engage the citizens, building owners, construction, and lead mitigation and inspection

K. Costs and Timeline

The Jurisdictions shall utilize their existing expertise in the following areas: Inspection, Risk Assessment, Hazard Control. Construction, Specification Writing and Bidding; Contracting and Procurement: Accounting and Payment Processing: Public Education and Outreach; Toxicology; Environmental, Housing and Public Health Regulation and Practice; Evaluation; Oversight; Legal; Insurance; Information Technology; Public and Media Relations; and Clerical and Other Support Staff.

L. Funding

Since the Court orders abatement of interior surfaces only, with the Jurisdictions conducting the inspections using their respective staffs, the estimate for inspection costs is reduced from \$569,000,000 to \$400,000,000. This is calculated by using the per-unit cost of inspection testified to at trial, The total cost of inspection of pre-1978 homes in the Jurisdictions would be 3,555,630 units²² x 0.8 (reduction for multiunit residences).²³ Applying that number to a reasonable cost of inspection yields the \$400,000,000 figure.

M. Cost of Remediation

Remediation limited to interior surfaces results in an estimated cost of remediation of \$759,284,467, or approximately \$750,000,000.²⁴

²² P283 315.

²³ Tr. 1548:12-21.

²⁴ To determine the cost of interior-only remediation, the Court has considered reducing the Jurisdictions' estimate total

Education expenses are included in these figures.

Conclusion:

Therefore, the Court orders:

The Defendants against whom judgment is entered, jointly and severally, shall pay to the People of the State of California, in a manner consistent with California law, \$1,150,000,000 (One Billion One Hundred Fifty Million Dollars) into a specifically

remediation costs based on the percentage of total remediation costs attributable to interior remediation, as set forth in the Evaluation of the HUD Lead Hazard Control Grant Program (National Center for Healthy Housing and University of Cincinnati, 2004) ("HUD Evaluation") - which was relied on at trial by both the People's abatement expert, Dr. David Jacobs, and Defendants' abatement expert, Mr. Benjamin Heckman. (P70_119 ¶ 6.2.2 [HUD Evaluation]; Tr. 1506:24–1508:18, 1510:12-22, 3195:1-3196:4; D1438.4.) According to the HUD Evaluation, the median cost of interior remediation strategies is approximately \$5,960/unit, while the median cost of exterior remediation strategies is approximately \$1,870/unit. Using these median values to determine the ratio of interior remediation costs to total remediation (interior and exterior) costs suggests that approximately 76% of total remediation costs are attributable to interior remediation (\$5,960/(\$5,960 + \$1,870)). (P70 119 ¶ 6.2.2.)

At trial, Dr. Jacobs testified that remediation of homes in the Jurisdictions, performed in accordance with the procedures set forth in the People's Abatement Plan, would average \$2,000 per housing unit. (1532:18–1533:1 see also P262 at 23–24.) Since approximately 76% of lead remediation costs are attributable to interior remediation the average per-unit cost of remediation can be reduced from \$2,000/unit to approximately \$1,500/unit (\$1,500 is approximately 76% of \$2,000). This reduces the People's total estimated remediation cost from approximately \$1,000,000,000 to approximately \$750,000,000.

designated, dedicated, and restricted abatement fund (the "Fund").

The payments into the Fund shall be within 60 days of entry of judgment.

The Fund is to be administered by the Director of the California CLPPB program for the benefit of people within the 10 Jurisdictions and the costs incurred by the State of California to administer the Fund shall be paid from the Fund.

Monies from the Fund shall be disbursed to each jurisdiction to be supervised by that County's Board of Supervisors (including the Board of Supervisors of the City and County of San Francisco) and the city councils of the cities of Oakland and San Diego, consistent with past practices regarding lead detection, removal, and prevention. Each jurisdiction shall be entitled to receive *up to* the following maximum percentage and distribution from the fund:²⁵

Alameda*	9%	\$103,500,000			
(*including the residents of the City of Oakland.)					
Los Angeles	55%	\$632,500,000			
Monterey	2%	\$23,000,000			
San Mateo	5%	\$57,500,000			
Santa Clara	9%	\$103,500,000			
San Diego	7%	\$80,500,000			
San Francisco	7%	\$80,500,000			
Solano	2%	\$23,000,000			
Ventura	4%	\$46,000,000			

 $^{^{25}}$ Percentages derived from number of houses pursuant to chart at Section V.H supra.

The jurisdictions shall apply for grants from the Fund with a three-step program as described, Exterior abatement and remediation is excluded from this order.

Dr. David Jacobs, or his designee, shall serve as a consultant to the Plan. He shall be compensated at a rate of \$300 per hour, with payments to be made out of the Fund. His compensation for any 12 month period shall not exceed \$50,000. Any ordinary expenses incurred by Dr. Jacobs, such as travel, meals, and incidentals shall be in addition to his hourly charges and shall be consistent with the State of California reimbursement guidelines for government employees.

The program shall last for four years from the date of total payment by defendants into the Fund. If, at the end of four years, any funds remain, those monies shall be returned to the paying defendants in the ratio by which the program was initially funded. The Superior Court of California, County of Santa Clara, shall have continuing jurisdiction over the Plan and its implementation.

SUMMARY OF DECISION

- 1. The Court rules against ARCO and ConAgra's defense of no successor liability.
- 2. The Court rules that constructive notice on the part of the Defendants is sufficient.
- 3. The Court rules against SW's argument that differentiates "pigment" versus "paint."
- 4. The Court bases the decision solely on the issue of lead paint produced, promoted, sold, and used for interior home use.

- 5. The Court rules that Defendants ConAgra, NL, and SW were substantial factors in causing the injury alleged.
- 6. The Court rules that LIA and NPVLA were not agents of Defendants, but were conduits of information and vehicles by and for the hazards and promotion of lead paint.
- 7. The Court rules that as to Defendants ConAgra, NL, and SW the People have sustained the burden of proof on all issues delineated by the Appeals Decision.
- 8. The Court rules that ARCO and DuPont are found not liable.
- 9. The Court finds in favor of the Public Entities and against SW on SW's cross-claim for declaratory relief.
- 10. Defendants' Affirmative Defenses do not bar this action.
- 11. The Court orders the institution of the abatement plan and establishment of the Fund as described above.

SO ORDERED.

Dated: March 26, 2014 s/ James P. Kleinberg

Honorable James P. Kleinberg, Judge Superior Court of California

APPENDIX C

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA SIXTH APPELLATE DISTRICT

THE PEOPLE,

Plaintiff, Cross-defendant and Respondent,

v.

CONAGRA GROCERY PRODUCTS COMPANY et al.,

Defendants and Appellants;

THE SHERWIN-WILLIAMS COMPANY,

Defendant, Cross-complainant and Appellant.

H040880

Santa Clara County No. CV788657

BY THE COURT*:

The petitions for rehearing from NL Industries, Inc., ConAgra Grocery Products Company and The Sherwin-Williams Company are denied.

Date: Dec 6, 2017 s/Premo Acting P.J.

^{*}Before Premo, Acting P.J., Elia, J., and Mihara, J.

APPENDIX D

FILED FEB 14 2018

Court Appeal, Sixth Appellate District - No. H040880

S246102

IN THE SUPREME COURT OF CALIFORNIA En Banc

THE PEOPLE, Plaintiff, Cross-defendant and Respondent,

v.

CONAGRA GROCERY PRODUCTS COMPANY et al., Defendants and Appellants;

THE SHERWIN-WILLIAMS COMPANY, Defendant, Cross-complainant and Appellant.

The requests to appear pro hac vice, filed by Leon F. DeJulius, Jr., Charles H. Moellenberg, Jr., Paul M. Pohl, Jameson R. Jones, and Andre M. Pauka, are granted.

The petitions for review are denied.

Liu and Kruger, J.J. are of the opinion the petition should BE granted.

CANTIL-SAKAUYE

Chief Justice

APPENDIX E

TO THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

IN AND FOR THE SIXTH APPELLATE DISTRICT

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THE PEOPLE OF THE ) No. H040880

STATE OF CALIFORNIA, )
acting by and through )
Santa Clara County )
Counsel, Et Al., ) Santa Clara Co.
Plaintiffs, ) No. 1-00-CV-788657

-vs- )
ATLANTIC RICHFIELD )
COMPANY, Et al., )
Defendants. )

And Related Cross-Actions.)
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

> Volume 25 July 16, 2013

Pages 3716 through 3819

OFFICIAL COURT REPORTER:

JOANNE M. MARTIN, CSR 7655

* * *

Page 3789

successful in eliminating lead hazards before a child is poisoned and much of that success is due to your enforcement of the law?

- A. Again, I think we have limited enforcement opportunities. So in the instances where we have an enforcement case, we hope that we've eliminated a lead hazard before it has occurred. In that sense, yes, we are successful.
- Q. When you know there is a problem that needs to be addressed through enforcement?
- A. Correct. We are successful in eliminating that lead hazard at some point in time after we begin an enforcement case.
- Q. Now, you mentioned earlier that you consider the City of San Diego's lead ordinance to be the most comprehensive lead ordinance in the state. Do you agree that the ordinance in San Diego, the one enacted in 2008, under that law it is the property owner's duty to correct lead hazards?
- A. That would be correct. Because there is no other source to get the lead hazard corrected.
- Q. Do you agree that under the law enacted by your city in 2008, it is the property owners's duty to correct the lead hazard?
- A. That is correct, unless it was created by a contractor. In that sense, the contractor would be responsible.

Q. Fair enough. Fair enough.

Is it true, Mr. Johanns, that in your judgment and experience, enforcement of the city's lead ordinance is the most cost effective way to prevent lead poisoning?

* * *

TO THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

IN AND FOR THE SIXTH APPELLATE DISTRICT

---000---

THE PEOPLE OF THE)	No. H040880
STATE OF CALIFORNIA,)		
acting by and through)	
Santa Clara County)	
Counsel, Et Al.,)	Santa Clara Co.
Plaintiffs,)	No. 1-00-CV-788657
-VS-)	
ATLANTIC RICHFIELD)	
COMPANY, Et al.,)	
Defendants.)	
)	
And Related Cross-Actions	.)	
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 29
July 23, 2013
Pages 4291 through 4451

OFFICIAL COURT JOANNE M. MARTIN, REPORTER: CSR 7655

* * *

Page 4351

right?

A. Yes.

- Q. And you certainly do not have the quantitative data to determine whether the campaigns that you have talked about were effective or not; correct?
- A. Well, quantatively is different from understanding historically. Certainly the campaign probably probably prolonged the use of this material past the time when it would have been naturally dead. These campaigns were important prolonging the use of it. Whether it caused increase or decrease or whether it changed the trajectory minimally, I can't tell. Quantitative data is not there to say that.
- Q. You have no quantitative data to support the opinion you just voiced?
- A. Quantitative data, no. There are many ways to measure the success of a campaign, some of which they claim were met, such as improving the image of lead.

THE COURT: We will take our morning break at this time and resume at 10:15.

MR. STERN: If I may, your Honor, I am almost done.

THE COURT: Good.

(Whereupon, a break was taken.)

THE COURT: All right. Proceed.

MR. STERN: Thank you, your Honor.

One small housekeeping matter, if I may, before I proceed with what I think is my final line. I referred on the record, your Honor, to three documents by tab number. But I did not refer to their exhibit numbers. With the Court's

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TO THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

IN AND FOR THE SIXTH APPELLATE DISTRICT

---000---

THE PEOPLE OF THE)	No. H040880
STATE OF CALIFORNIA,)		
acting by and through)	
Santa Clara County)	
Counsel, Et Al.,)	Santa Clara Co.
Plaintiffs,)	No. 1-00-CV-788657
-VS-)	
ATLANTIC RICHFIELD)	
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Defendants.)	
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And Related Cross-Actions	.)	
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

> Volume 30 July 24, 2013 Pages 4452 through 4575

OFFICIAL COURT JOANNE M. MARTIN, REPORTER: CSR 7655

- Q. And you also said they are general paint ads, they are all generic, that's what's weird about it. That was your deposition testimony; right?
- A. That was one of the points in my deposition testimony.
- Q. And at that point, after all of the work you had done, you had concluded that with respect to Sherwin-Williams, it had a general intent to sell paint, they don't really care about the pigment, they don't care about trying to promote one pigment over another. That was the conclusion you voiced; right?
 - A. That's right.
- Q. And you also said in December 2012, that Sherwin-Williams didn't really have an interest in promoting leaded paint. They had an interest in selling paint; correct?
 - A. That's right.
- Q. And, at that time, you couldn't point and didn't point to any Sherwin-Williams specific Sherwin-Williams documents that said Sherwin-Williams wanted to slow down the decline and use of white lead carbonate in interior residential paints; correct?
- A. They were selling paints. And if they had pigment in it, they sold pigment paint. They had no stake in actually selling leaded paint. They could have gotten lead out and used other pigments. They didn't. That's the problem I have with them.
- Q. At the conclusion you said that's exactly the point. I don't think they had a horse in this race. That was your

word; right?

- A. Right. They could have gone without putting lead in paint, but they didn't. They put lead in paint and they didn't have a horse in the race of who would win in the competition between leaded and unleaded paint —
- Q. When you said horse in this case, you meant the promotion of white lead carbonate; right?
- A. In the selling and the marketing to consumers of a particular pigment. They had a stake in selling paint.
- Q. It will be seen when they took when they used lead, took it out, and didn't use it. That's for another day. You know of no attempt by Sherwin-Williams to communicate with a government official who was considering a paint specification; do you?
- A. No. They were just interested in selling their paint.
- Q. Dr. Rosner, you have no evidence that Sherwin-Williams ever tried to prevent regulation of lead ingredients in residential paints; do you? They never tried to prevent it?
- A. I am sorry. Maybe I was daydreaming. I must have missed something.
- Q. You don't have any evidence that Sherwin-Williams ever tried to prevent regulation of leaded ingredients in residential paints. You said they never tried to prevent it; correct?
- A. Well, only insofar the LIA tried to do it a number of times.

Q. Sir — with due respect, I am not asking about LIA.

* * *

TO THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

IN AND FOR THE SIXTH APPELLATE DISTRICT

---000---

THE PEOPLE OF THE)	No. H040880
STATE OF CALIFORNIA,)		
acting by and through)	
Santa Clara County)	
Counsel, Et Al.,)	Santa Clara Co.
Plaintiffs,)	No. 1-00-CV-788657
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 33 July 30, 2013

Pages 4888 through 5053

OFFICIAL COURT JOANNE M. MARTIN, REPORTER: CSR 7655

- A. I am not so sure of that. For one thing the labs that report less than 2 may not be representative of the other labs.
- Q. We will get back to that in a minute. Just keep an eye on the big picture here.
 - A. Uh hum.
- Q. You would agree the reduction in blood lead levels in the United States, during the period 1970 to 1999, was one of the most significant public health successes of the last half of the 20th century. You agree with that; don't you?
 - A. I do.
- Q. You also agree, don't you, that from 1961 to 2010, incidents, prevalence, mortality, and clinical severity declined dramatically?
- A. I am not familiar with data going that far back but to 1961. But certainly since the 1970s, I am familiar with.
- Q. You would agree in those categories the data has declined dramatically?
 - A. I think that's a fair way to put it.
- Q. Now, in the past when you have discussed this, did you attribute that primarily to removing lead from gasoline and taking lead solder out of food and soft drink cans; correct?
 - A. Well, I also mentioned paint.
- Q. Can I have I don't mean to quibble. I am just trying to compare with your deposition.

The Courtney deposition transcript from October 29, 2012. Page 40, line 22 —

MS. FINEMAN: Sorry, 49.

MR. POHL: Four, zero, down to 41, line 12. If I could

* * *

Page 4925

aggressive efforts to get lead out of paint, water and soil." Do you remember seeing that announcement or things like it in 2009?

- A. Yes. I don't remember this specific text. But, yes.
 - Q. Do you know who Mary Jean Brown is?
 - A. Yes.
- Q. If we look at the fourth paragraph there, it says, "It has been a remarkable decline, said study coauthor Mary Jean Brown for Centers of Disease Control and Prevention, it is a public health success story." Do you see that quote attributed to her?
 - A. Yes.
 - Q. You would agree with that characterization?
 - A. Yes.
- Q. And then it says the 84 percent drop extends a trend that began –

THE COURT: Much too fast.

MR. POHL: I am sorry.

BY MR. POHL:

Q. The fifth paragraph.

"The 84 percent drop extends a trend that began in the '70s when efforts began to remove lead from gasoline. The researchers credited continuing steps to reduce children's exposure to lead in old house paint, soil, water, and other sources." That also would be your view; wouldn't it?

- A. Very much so.
- Q. If we look one, two, three, four, about six paragraphs down in that report, it says by 2004 racial disparities among

* * *

Page 4958

- A. Yes.
- Q. And you participated with Dr. Charlton in preparing this document; didn't you?
 - A. Yes.

MR. POHL: I will move Exhibit 1870 into evidence, your Honor.

MS. FINEMAN: No objection, your Honor.

THE COURT: Exhibit 1870 is admitted.

(Whereupon, Defense Exhibit 1870, previously marked for identification, was received in evidence.)
BY MR. POHL:

- Q. And, Doctor, to try to give this context, the CLPPB, the Branch, had a grant from CDC to put in place a strategic plan and then you had to report periodically on the progress you were making against your goals; correct?
 - A. Yes.

- Q. And this is the report that you submitted in September of 2011; correct?
 - A. Yes.
- Q. All right. And you believe what you submitted to CDC as the principal co-investigator was accurate; don't you?
 - A. Yes.
- Q. If we can look at the number of page 1 on the report where it says second paragraph under Program Overview. You said in the first sentence, "The main desired outcomes for the five-year period, which were decreasing the numbers and prevalence of children with elevated blood lead level (EBLLs) were achieved." That's correct, isn't it?

Page 4959

- A. Yes.
- Q. They were achieved. Now, Progress by Program Element, farther down in that page.

Should be under number 2. On page 1. Objective 1. Go above to the title, please. Objective one.

"The first objective in that program was to continue to implement the strategic elimination plan and monitor on ongoing basis, modify as indicated, monitored by prevalence of EBLLs and cases."

That was your objective; correct?

- A. Yes.
- Q. And with respect to that objective, you said the objective was met; correct?
 - A. Yes.

- Q. And with respect to the second bullet point under that number 2, the Branch said, "The long-range goal for lead poisoning elimination in California is to reduce blood lead levels of all children to as low as possible. The approximate goal has been for no child under age six to have an EBLL. Over YFs" that means fiscal years; right?
 - A. Yes.
- Q. "2006 through 7, through 2010 through 11, we made major progress towards these goals." That's what you reported; correct?
 - A. Yes.
 - Q. And then two more bullet points done. CBPH?
 - A. Okay.
- Q. "CBPH in the department's strategic plan for 2008 to 10

Page 4960

included a goal on decreasing the percentage of children with EBLLs by a relative five percent annually." That was one of your goals; right?

- A. Yes.
- Q. And you reported this goal was met and exceeded; correct?
 - A. Yes.
- Q. You exceeded the goal before the end of the fiveyear program; correct?
 - A. Yes.
- Q. And going down to the next bullet point. "The prevalence of EBLLs in children in California decreased from approximately 0.8 percent in calendar

year 2004, to 0.6 percent in calendar year 2007 to 0.3 percent in calendar year 2010." That's what you reported; correct?

- A. Yes.
- Q. You were proud of those results; weren't you?
- A. Yes.
- Q. If we can look at page 2 on the next page under element B. Screening and case management. One of your objectives objective 2. I will, with the Court's permission and everybody can slow me down, I will try to summarize this in the interest of time.

You wanted to maximize blood lead screening and quality of blood lead reporting under current targeted screening plan and so on. That was one of your goals; correct?

- A. Yes.
- Q. Objective 3. Determine if the current targeted screen

Page 4961

model is the best approach for identifying groups at highest risk lead exposure and EBLLs or achieving earlier intervention. That was a goal; correct?

- A. Yes.
- Q. Objective 3A. Define point at which prevalence of lead exposure has decreased such that widespread targeted screening may no longer be warranted. That was under discussion at that time; wasn't it?
 - A. Yes.
- Q. Was that a recognition that your screening and testing had gotten to a point where you were examining whether because you understood targeting

better and you could analyze your results, you were discussing whether you could scale back the actual screening; is that what that means?

- A. Yes. That's we were discussing that we needed to discuss, I suppose. We didn't come down to any exacts on making any changes.
- Q. Objective 5B, it says through collaborations with other enemies, evaluate long-term effects of lead?
 - A. Yes.
- Q. Objective 6. Assure that appropriate remediation occurs when housing is identified as source of lead exposure, and institute follow-up procedures and policies to assure correction of other environmental and diverse sources of lead exposure. That with respect to remediation was also one of your objectives; right?
 - A. Yes.
- Q. And then you reported after the list of objections:

* * *

Page 5042

there that it is important to continue to monitor their property and we can only hope that they will continue to monitor the property.

- Q. And your understanding is that it is the responsibility of the property owner to maintain their buildings and to fix any lead hazards in the paint, dust, or soil; right?
 - A. That is correct.
- Q. There is a large number of rental buildings in your County; correct?

- A. Yes.
- Q. More than 50 percent?
- A. I do not know.
- Q. Around there?
- A. I have no idea to ascertain that information.
- Q. Now, to help property owners comply with their duty to maintain their premises, your County inspects rental buildings with four units or more every four years; correct?
 - A. That is correct.
- Q. And they are looking for violations of the Health and Safety Code, including deteriorating lead paint; correct?
 - A. Correct.
- Q. You are not waiting in those circumstances for a child to have an elevated blood lead level; are you?
 - A. We are not.
 - Q. You are doing primary prevention; correct?
- A. Not necessarily. Our focus on those inspections is not going to be lead containing surfaces. If it is obvious, if there is peeling paint, if it appears to be an issue, then,

* * *

TO THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

IN AND FOR THE SIXTH APPELLATE DISTRICT

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THE PEOPLE OF THE)	No . H040880
STATE OF CALIFORNIA,)	
acting by and through)	
Santa Clara County)	
Counsel, Et Al.,)	Santa Clara Co.
Plaintiffs,)	No . 1-00-CV-788657
-VS-)	
ATLANTIC RICHFIELD)	
COMPANY, Et al.,)	
Defendants.)	
)	
And Related Cross-Actions	.)	
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 34 August 1, 2013 Pages 5054 through 5207

OFFICIAL COURT JOANNE M. MARTIN, REPORTER: CSR 7655

Guidance; is that right?

- A. That's correct.
- Q. What does that mean?
- A. These are documents that the office often releases to try and clarify what activities under its grant program are eligible and need to be documented. So this is the first one that came out in 2013. But it is used to supplement the notice of funding availability that governs the grants.
 - Q. Have you seen Exhibit 2102 before?
 - A. Yes, I have.
- Q. All right. Now, over on the second page, page 3, second or third page, item D says that windows replaced with grant funds must contain lead-based paint hazards not merely lead-based paint.

Was that the policy of HUD when you were there as director?

- A. No.
- Q. As you understand it, is that the policy now at HUD?
 - A. It is in this policy document, so yes.
- Q. All right. And it continues, "You may not expend grant funds to address intact lead-based paint. This distinction is critical and must be clearly outlined in the LI/RA." What does the LI/RA refer to?
- A. The Lead Inspection Risk Assessment. HUD is clearly trying to extend the ability of its shrinking dollars to treat as many units as possible.

Q. In its effort to extend its dollars, the replacement of windows with lead-based paint that are not a current hazard,

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 35 August 5, 2013 Pages 5208 through 5370

- Q. And going back to this page from the conference in 1937, the case of this child Dr. Aub was talking about is one that he had already described in his 1926 book; right? Yes?
 - A. I think that's true. Yes.
 - Q. This was no secret?
 - A. This wasn't a secret. No.
- Q. And if we go to the next page concerning the X-rays that Dr. Vogt, V-O-G-T, had shown. Are you with me there?
 - A. Iam.
- Q. And do you agree that this discussion, this case, these X-rays, were also no secret from the medical world?
 - A. That is correct.
- Q. They had been published in Dr. Vogt's article in the early 1930s; true?
 - A. That is true.
 - Q. Including the same X-ray photograph?
 - A. That is true.
- Q. In fact, do you find anything concerning children in lead poisoning in this 1937 transcript that was a secret from the outside medical community?
- A. No. I don't think that there was any secret. But what the LIA was concerned about was publicity about lead poisoning, not you know, not with getting it out into the broader community so that parents could be aware about the danger.

- Q. Do you agree all of the information discussed in this transcript concerning children and lead poisoning was already in the published medical literature?
 - A. It was in the published medical literature. Yes.

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 36 August 6, 2013 Pages 5371 through 5527

- A. I am there.
- Q. All right. This was a question I asked you a few moments ago.

QUESTION: You have no knowledge of any medical or scientific information that was known by the Lead Industries Association that was hidden either from the public or from the public health community; do you?

ANSWER: I have no such knowledge. No.

Was that your answer on that occasion?

- A. Yes. I think at another point there I gave basically the same answer I just gave now.
- Q. Let's ask the next question here. Actually, I will just ask it.

You would agree you have no knowledge of any medical or scientific information that was known by National Lead Company that was hidden from the public or public health community; do you?

- A. Correct.
- Q. Nor any of the other Defendants in this action?
- A. Correct.
- Q. Talking about the public health community, you know for a fact that public health officials in America were following medical literature on childhood lead poisoning from the 1930s on; you know that?
- A. Of course they were following it. But the public health community was mostly in localities. And as localities, they actually it was really only Baltimore

that was following it in any systematic way. Other city public health

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 37 August 7, 2013 Pages 5528 through 5696

that were advertising lead by Sherwin-Williams in —

- Q. Thank you.
- A. in the United States, and in California specifically.
- Q. Has somebody made a decision not to bring those to court and show them to us and put them in evidence?
- A. I I have them. I can present them to the Court if you would like.
- Q. Okay. But my question related to CA numbers. You can't give me a number of any Sherwin-Williams' ads for the last 103 years that you found and listed in that exhibit that has the word lead in it? Can you? Your answer was, no?
- A. The answer is no. But, of course, they were advertising Sherwin-Williams' products like SWP that did have lead in it, and by not saying lead was deceiving the public about what was in their products.
- Q. So you are saying generic ads that didn't contain something is what you are focusing on?
- A. Generic no. Generic ads that included something. They included advertisements for SWP paints that had lead and that consumers were not told they had lead.
- Q. Let's do a question and answer format since I am on the clock.
 - A. I am trying to answer.

Q. Let's look at some of the ads you did think were significant in your review. These are ones with CA numbers from Plaintiffs' Exhibit 233.

Can I have DG 16.3, please?

* * *

Page 5572

interior residential paints.

- Q. Can you answer that question as I posed it, sir?
- A. I need more clarity.
- Q. Okay. Can I ask that the deposition transcript of October 22nd, 2012, be displayed, page 686, lines 3 to 9?

Dr. Markowitz, do you remember being deposed that day; right?

- A. I do.
- Q. And the question is, As you sit here today—that was in October of 2012 As you sit here today, Dr. Markowitz, do you know the last date that Sherwin-Williams used any white lead pigments in its interior residential paints? And your answer at that date was, I don't recall.

Was that your answer that day?

- A. It was.
- Q. Now, Doctor, you are not aware, are you, of any American paint company that spent more money and effort from 1880 to try to develop and promote non-lead pigments and non-lead residential paints than Sherwin-Williams?
- A. I don't know enough about the other companies to know if there were other companies that did so.

- Q. You don't know if anybody else you can't name anybody else that tried as hard; that's correct, isn't it?
 - A. I don't know how hard Sherwin-Williams tried.
- Q. Let me call your attention to page 727 out of your deposition, Doctor. December 12th, lines 13 to 22.

Do you remember being asked, Dr. Markowitz, Are you aware of any American paint company that spent more money and

Page 5573

effort from 1880, to try to develop and promote non-lead pigments and non-lead residential paints than Sherwin-Williams? Your answer, I just don't know if there were others that tried as hard as Sherwin-Williams did or not.

That was your answer that date, sir?

A. That was my answer. Yes.

MR. POHL: I have no further questions, your Honor.

THE COURT: Thank you, Mr. Pohl.

Is there any further cross-examination at the point? I don't think so.

MR. SCOTT: No, your Honor.

THE COURT: Okay. Any redirect.

MS. FITZPATRICK: I do, your Honor.

REDIRECT EXAMINATION

BY MS. FITZPATRICK:

- Q. Good morning again, Dr. Markowitz.
- A. Good morning.

- Q. Now you have been asked a lot of questions in the last few days, and we have seen certain advertisements that have been put up and certain advertisements that have been discussed; is that right?
 - A. Yes. That's true.
- Q. And it seemed to me that many points during your testimony you felt like you had something to add to the questions to put it into context, historical context; is that right?
 - A. That is true.
- Q. Let me first start by asking you, Dr. Rosner (sic).

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 40 August 13, 2013 Pages 5955 through 6026

* * *

Page 5989

THE COURT: Wait for the question.

THE WITNESS: Sorry.

BY MR. FROST:

- Q. Doctor, you if I can find it here you testified in your direct exam, I believe it is Exhibit 255, the resolution of the Board of Solano County?
 - A. Yes. That is correct.
- Q. Can we pull that up? Let's look at the third "whereas" paragraph.

This is addressing sources of exposure in the County; isn't it?

- A. Yes, it is.
- Q. And it addresses in addition to chipping, peeling, or deteriorated paint, it addresses ceramics, dishware, jewelry, home remedies, chili powders, candies, religious and cultural powders, black licorice, and other products made outside the United States?
 - A. Yes. That is correct.
- Q. Now, the first sentence addresses chipping, peeling, or deteriorated paint. Do you see that?
 - A. Yes.
- Q. Those are conditions that are regarded as lead hazards under California law; correct?
- A. Yes. They represent the legal standard for hazard.
- Q. And the law requires property owners to repair and bring those conditions into good condition; does it not?

- A. Yes, it does.
- $\mathbf{Q}.\ \ \, \mathbf{Solano}$ County has tools available to it to ensure the

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

> Volume 42 August 15, 2013 Pages 6079 through 6233

individual jurisdictions above 5 rates in a particular order?

- A. I think we were running through them generally in terms of the size of the jurisdiction, the number of test results we have for each jurisdiction.
 - Q. So Los Angeles is the biggest set?
 - A. That's correct.
 - Q. And Solano was one of the smaller sets?
 - A. That's correct.
- Q. Did you investigate whether the absolute numbers of children with elevated blood lead levels in California and the jurisdictions are, what the trend is with that?
- A. We did, looking at information published by the State.
- Q. Okay. Let's turn to Exhibit 1870, please. What is 1870?
- A. It is a report on the California Childhood Lead Poisoning Prevention Program issued by the State in 2011. It is a progress report.
- Q. And it was issued by the Department of California's Department of Public Health?
 - A. That's right. Those would be the office.
 - Q. And to whom do they send this report?
 - A. It would be going to the CDC.
- Q. Okay. Please turn to page 3. I want you to take a look at the I believe it is the fourth bullet point.

Can you read the first sentence in that bullet point?

A. Despite the increased number of BLLs, blood lead levels, being done and an increasing number of children being

IN AND FOR THE SIXTH APPELLATE DISTRICT

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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 45
August 21, 2013
Pages 6558 through 6722

Page 6606

that they used was white lead in oil, and that had existed for years?

- A. Yes.
- Q. All right. Now, I think the Court has heard some of this. We won't spend too much time. What are prepared paints, as that term was used at the time?
- A. Prepared paints, or patent paints, or ready-mix paints were paints that unlike what the master painter used were mixed in advance by the manufacturer. So they were prepared in the sense that they were pretty much ready to be applied to a surface.
- Q. All right. And that's in contrast to the pigment and oil kind of components the master painters used?
 - A. That's right.
- Q. Now as we look, based on the research you have done, can you describe for the Court, please, what was Sherwin-Williams' vision and business strategy as it evolved by 1900 and how it differed from what the master painters were doing?
- A. Its basic strategy was to produce a high quality paint, prepared paints, in large volume in order to keep the costs low. And also to in direct competition with the master painters to produce a specific paint for each kind of surface.
- Q. So they were focusing on the prepared paint market, wanted to do a quality prepared paint, and also it wasn't a one-paint one-size fits all?

A. That's right.

IN AND FOR THE SIXTH APPELLATE DISTRICT

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THE PEOPLE OF THE)	No . H040880
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REPORTER'S TRANSCRIPT ON APPEAL FROM THE JUDGMENT OF THE SUPERIOR COURT OF THE STATE OF CALIFORNIA, IN AND FOR THE COUNTY OF SANTA CLARA HONORABLE JAMES P. KLEINBERG, JUDGE

Volume 46
August 22, 2013
Pages 6723 through 6890

- Q. Now, based on your review of all of the materials that you have looked at in this matter, would you just summarize the conclusions you have drawn about Sherwin-Williams' business strategy?
- A. Sure. Sherwin-Williams entered an industry where there would be no innovation, namely, the paint industry for 300 years.

THE COURT: You have to speak a little more slowly, please.

THE WITNESS: Okay.
THE COURT: Thank you.

THE WITNESS: There had been almost no innovation in the paint industry for 300 years. Sherwin-Williams developed and commercialized prepared paints, prepared paints and subsequently water-based paints which had the wonderful feature that it had very limited amounts of lead and ultimately no lead in them. So through their strategy of developing prepared paints, a paint for every surface, they managed to actually wean the market off the gold standard, which was white lead in oil. That is where the industry was when Sherwin-Williams ended it. So Sherwin-Williams developed the paints along with others that, in fact, enabled the United States to move away from leaded paints.

Q. If you would turn to Exhibit 1684, which is a survey by the American Paint Journal Company in 1938, and if you would turn to page 6, using the numbers at the bottom, you will see these are results

of a survey of master painters on the type of material they used for outside painting. And the first line

APPENDIX F

Written Summary of Voluminous Writings:

Specifications Containing White Lead

Federal

<u>Circular No. 89</u> (1920, 1922, 1927): White Paint and Tinted Paints Made on a White Base

<u>Circular No. 84 & TT-W-251</u> (1919, 1922, 1934, 1945, 1954, 1960, 1961, 1962, 1966, 1967, 1975, 1977, 1978):

Basic Carbonate White Lead, Dry and Paste

<u>Circular No. 85 & TT-W-261</u> (1920, 1922, 1937, 1959, 1960, 1977): Basic Sulphate White Lead, Dry and Paste

TT-P-25 (1951, 1964, 1965): Primer, Paint, Exterior (Undercoat for Wood, Ready-Mixed, White and Tints) TT-P-40 (1943, 1951): Paint; Oil, Exterior, Ready-Mixed, Light Tints, and White

TT-P-56 (1935, 1945, 1954, 1966): Paint; (For) Priming Plaster Surfaces (Plaster Primer and Sealer)

TT-P-81 (1942, 1943, 1945, 1953, 1962, 1963): Paints; Ready-Mixed and Semipaste, Olive-Drab

TT-P-102 (1951, 1962, 1967): Paint (Titanium-Lead-Zinc and Oil, Exterior, Ready-Mixed, White and Light Tints)

<u>TT-P-104</u> (1951, 1952, 1964, 1965, 1972): Paint (White Lead and Oil, Exterior, Ready-Mixed, White and Light Tints)

TT-P-156 (1939): Paint, White-Lead-Base; Basic-Carbonate, Ready-Mixed, Light-Tints and White

TT-P-791 (1938, 1942, 1943, 1963, 1964, 1969): Putty; Pure-Linseed-Oil, (For) Wood-Sash-Glazing

<u>Paint Manual</u> (1945): Painting interior plaster, wallboard, and wood (3 coats) using white-lead paste

<u>Letter Circular LC 837</u> (1946): Painting Interior Walls and Trim

California - State and Local

Materials (1930, 1935, 1940): White Lead

No. 4 Third Coat (Gray) (1930, 1935): Standard Paint for Steel Work

No. 1 Primer (1935, 1940, 1949 [cross-references ASTM D81-43]): Standard Paint for Timber

No. 2 Primer (1935, 1940): Standard Paint for Timber Second Coat (1935, 1940): Standard Paint for Timber

No. 1 Third Coat (1935): Standard Paint for Timber

No. 2 Third Coat for Spray Machines (1935): Standard Paint for Timber

No. 4 Finishing Coat (1940, 1949): Standard Paint for Steel Work

No. 1, No. 2 Finishing Coats (1940): Standard Paint for Timber

No. 2 Finishing Coat (Green) (1949): Standard Paint for Steel Work

No. 2 Finishing Coat (1949): Standard Paint for Timber

<u>52-G-01</u> (1954, 1960, 1964): Wood Primer [cross-references TT-W-251]

<u>681-80-01</u> (1969): Wood Primer [cross-references TT-W-251]

<u>Prime Coat</u> (1958): Guard Rails, Wood; Sight and Guide Posts, Wood; Structures, Wood; Warning Rails, Wood [cross-references TT-W-251]

<u>First Coat</u> (1957): Primary Surfaces; Floors, Decks, and Steps; Wood Walls and Ceilings; Interior Painting and Finishes; Fencing, Rough or Unsurfaced Wood, Bumpers, Rails, Etc. [cross-references 52-G-01] <u>Wood Primer</u> (1967): Wood Structures, Warning Rails, Guard Rails, Sight and Guide Posts [cross-references 52-G-01]

American Society for Testing Materials

 \underline{D} 81 (1921, 1924, 1931, 1933, 1934, 1938, 1941, 1943, 1974, 1980, 1986, 2003, 2008): Basic Carbonate White Lead

California - Federal, State and Local Buildings

State of California, <u>State Capitol Building</u>, Sacramento (1951)

State of California, <u>San Francisco State Building Civic</u> <u>Center</u>, San Francisco (1919)

State of California, <u>State Blind Shop</u>, San Diego (1944) State of California, <u>Garfield Elementary School</u>, San Mateo County (1953)

State of California, Cottages 1 - 2 - 4 and 6 and Dormitories #5 and #7, Los Angeles (1940)

State of California, <u>Home Economics Building, San</u> <u>Jose State Teachers' College</u>, Santa Clara (1923)

State of California, <u>Receiving and Treatment Bldg.</u>, <u>Norwalk State Hospital</u>, Los Angeles (1925)

State of California, <u>Laboratories</u>, <u>State Department of Public Health</u>, Alameda (1944)

State of California, <u>Laundry and Alterations to</u> <u>Hospital Building</u>, Ventura (1943)

State of California, <u>Library Building</u>, San Francisco (1950)

State of California, <u>Bleachers and Exhibit Building</u>, Solano (1938)

Housing Authority of the City and County of San Francisco, <u>Valencia Gardens Low Rent Housing</u> <u>Project</u>, San Francisco (1941)

National Housing Agency, <u>War Housing Project</u>, California (1943)

National Housing Agency, <u>Tenant Activities Building</u>, <u>Hillside Dormitories</u>, Solano (1943)

National Housing Agency, <u>Community Building No.</u> 113, <u>Housing Project</u>, San Luis Obispo (1944)

John T. Branner, Architect, General Specifications of Residence, Santa Clara County (1914)

William E. Milwain, Architect, Specifications of Materials of Two Story Frame Building, Stanford (1921)

> [Appellate Appendix: Volume 155A, Pages 46086–46087]

APPENDIX G

SUPERIOR COURT OF THE STATE OF CALIFORNIA COUNTY OF SANTA CLARA

E-FILED JUL 1, 2013

THE PEOPLE OF THE STATE OF CALIFORNIA. acting by and through Acting Santa Clara County Counsel Lori E. Pegg; San Francisco City Attorney Dennis Herrera; Alameda County Counsel Donna R. Ziegler; Los Angeles County Counsel John F. Krattli; Monterey County Counsel Charles McKee; Oakland City Attorney Barbara Parker; San Diego City Attorney Jan Goldsmith; San Mateo County Counsel John C. Beiers; Solano County Counsel Dennis Bunting; and Ventura County Counsel Leroy Smith,

Plaintiff,

v.
ATLANTIC RICHFIELD
COMPANY, et al.,
Defendants.

AND RELATED CROSS-ACTION.

CASE NO. 1-00-CV-788657

STIPULATION
REGARDING
THE
ADMISSIBILITY
OF THE
CONTENTS OF
CERTAIN
DOCUMENTS IN
LIEU OF
EXHIBITS AND
TO CERTAIN
FACTS

- 48. Of 25 existing formulations of Inside Floor Paint, six (Gray, Orange, Yellow (one of three formulations), Slate, and Dust) contained some white lead carbonate, and only between 1910 and 1913.
- 49. There is no evidence that Sherwin-Williams' Inside Floor paint contained white lead carbonate pigments after 1916.
- 50. There is no evidence that Sherwin-Williams' Inside Floor paint ever contained white (basic) lead sulfate pigment.
- 51. Sherwin-Williams' Inside Floor Paint was meant for interior architectural use.
- 52. Sherwin-Williams manufactured Enameloid paint from 1903 until after 1947.
- 53. There is no evidence that Sherwin-Williams' Enameloid paint ever contained white lead carbonate pigment, except for a single formulation in 1936 the pigment portion of which constituted 40% and 2% of that pigment portion was listed as white lead carbonate.
- 54. There is no evidence that Sherwin-Williams' Enameloid paint ever contained white (basic) lead sulfate pigment.
- 55. Enameloid was meant for interior and some exterior architectural uses, among other uses.
- 56. Sherwin-Williams manufactured Family Paint from 1878 until 1947.
- 57. There is no evidence that Sherwin-Williams' Family Paint ever contained white lead carbonate pigment prior to 1941.

- 58. There is no evidence that Sherwin-Williams' Family Paint ever contained white (basic) lead sulfate pigment.
- 59. Family Paint was meant for interior architectural use until 1916.
- 60. Family Paint was meant for interior and exterior architectural use from 1916 until 1947.
- 61. Between 1941 and 1947, for varying lengths of time, formulas for seven colors of Family Paint listed white lead carbonate pigment: Cream, Light Ivory, Straw, Light Gray, Silver Gray, Pea Green, Outside White, and Green.
- 62. The formulae for Cream and Silver Gray were suspended or voided in 1942. (THOM 20001628–29, 676–677 and 614–615)
- 63. The single Family Paint Outside White formula listing white lead carbonate pigment for was designated as export only. (THOM 20001642–43)
- 64. The formulae for Light Ivory, Straw, and Light Gray were suspended or voided in 1943. (THOM 20001630–631, 680–681, 656–657, 632–633, 636–637)
- 65. Family Paint Pea Green and Light Gray formulations were for export only from 1944 until they were voided on January 1, 1951. (THOM 20001682–685, 640–641).
- 66. No advertisement for Family Paint appears in the ads collected by plaintiffs or Sherwin-Williams after 1936.
- 67. Sherwin-Williams manufactured Floor Enamel from before 1933 until after 1947.

- 68. There is no evidence that Sherwin-Williams' Floor Enamel paint ever contained white lead carbonate pigment.
- 69. There is no evidence that Sherwin-Williams' Floor Enamel paint ever contained white (basic) lead sulfate pigment.
- 70. Sherwin-Williams' Floor Enamel was meant for interior architectural use.
- 71. Sherwin-Williams manufactured Porch and Floor Enamel paint from at least 1945 until after 1947.
- 72. There is no evidence that Sherwin-Williams' Porch and Floor Enamel paint ever contained white lead carbonate pigment.
- 73. There is no evidence that Sherwin-Williams' Porch and Floor enamel paint ever contained white (basic) lead sulfate pigment.
- 74. Sherwin-Williams' Porch and Floor Enamel paint was meant for exterior architectural use.
- 75. Sherwin-Williams manufactured SWP Inside Varnish White from 1902–1930.
- 76. There is no evidence that SWP Inside Varnish White paint ever contained white lead carbonate pigment.
- 77. There is no evidence that SWP Inside Varnish White paint ever contained white (basic) lead sulfate pigment.
- 78. Sherwin-Williams' SWP Inside Varnish White paint was meant for interior architectural use.
- 79. Sherwin-Williams manufactured SWP China Gloss White from 1894–1938.

- 80. There is no evidence that SWP China Gloss White paint ever contained white lead carbonate pigment.
- 81. There is no evidence that SWP China Gloss White paint ever contained white (basic) lead sulfate pigment.
- 82. Sherwin-Williams' SWP China Gloss White paint was meant for interior architectural use.
- 83. Sherwin-Williams manufactured SWP Flat White from 1880 until 1941.
- 84. There is no evidence that SWP Flat White paint ever contained white lead carbonate pigment.
- 85. There is no evidence that SWP Flat White paint ever contained white (basic) lead sulfate pigment.
- 86. Sherwin-Williams' SWP Flat White was meant for interior architectural use from 1880–1924.
- 87. Sherwin-Williams' SWP Flat White was meant for interior and exterior architectural use from 1925–1932.
- 88. Sherwin-Williams' SWP Flat White was meant for exterior architectural use from 1933 onward.
- 89. Sherwin-Williams manufactured Screen Enamel from 1909 until after 1947.
- 90. There is no evidence that Sherwin-Williams' Screen Enamel paint ever contained white lead carbonate pigment, except for two formulations dated May 1938 and December 1941.
- 91. There is no evidence that Sherwin-Williams' Screen Enamel paint ever contained white (basic) lead sulfate pigment.

- 92. Sherwin-Williams manufactured Porch and Deck paint from 1898 until 1945.
- 93. Of 215 formula cards located for Porch and Deck paint, 26 formula cards dated between 9/1941 and 7/1944 contained white lead carbonate pigment.
- 94. There is no evidence that Sherwin-Williams' Porch and Deck paint ever contained white (basic) lead sulfate pigment.
- 95. Sherwin-Williams' Porch and Deck paint was meant for exterior architectural use.
- 96. Sherwin-Williams manufactured SWP Outside Gloss White and Colors from 1880 until after 1947.
- 97. There is no evidence that Sherwin-Williams' SWP Outside Gloss White or Colors contained white (basic) lead sulfate pigment.
- 98. Sherwin-Williams removed white lead carbonate pigment from SWP Outside Gloss White by November 1948.
- 99. Sherwin-Williams removed white lead carbonate pigment from SWP Mildew Resisting White by 1954.
- 100. Sherwin-Williams' SWP Outside Gloss White was meant for exterior architectural use.
- 101. Sherwin-Williams' SWP Mildew Resisting White was meant for exterior architectural use.
- 102. Some formulations of SWP Colors contained white lead carbonate pigments while others, particularly dark colors, did not.

103. Sherwin-Williams removed white lead carbonate pigments from all SWP Colors by 1950.

- 142. The raw material code numbers used by Sherwin-Williams for while (basic) lead carbonate pigments prior to 1947 were 1, 2, 18, 393, 535, 676, 735, 1031, 1140, 1812, BW 102, BW 103, and BW 104.
- 143. Sherwin-Williams collected 484 advertisements in California newspapers for Sherwin-Williams' brand or its products.
- 144. Of the 484 California newspaper advertisements pertaining to Sherwin-Williams' brand or products collected by Sherwin-Williams, there was a single ad for Sherwin-Williams' ODP white lead in oil, placed in the Los Angeles Times on April 15, 1919 placed by The S.R. Frazee Company, which was an independent dealer not owned by Sherwin-Williams.
- 145. Plaintiffs collected 2,566 advertisements in California newspapers for Sherwin-Williams' brand or its products.
- 146. Ofthe 2.566 California newspaper advertisements pertaining to Sherwin-Williams' brand or products collected by plaintiffs, there was a single ad for Sherwin-Williams' ODP white lead in oil, placed in the Los Angeles Times on April 15, 1919 placed by The S.R. Frazee Company, which was an independent dealer not owned by Sherwin-Williams.

- 147. Of the 3,050 California newspaper advertisements pertaining to Sherwin-Williams' brand or products collected by Sherwin-Williams and plaintiffs, 23 mention lead in relation to the ingredients of Sherwin-Williams' SWP product.
- 148. Of the 23 advertisements that mention lead in relation to the ingredients of Sherwin-Williams' SWP product, 18 are dated March 1914 or earlier, one is dated May 1922, one is dated 1932, one is dated May 1935, and two are dated May 1943.
- 149. Of the 3,050 California newspaper advertisements pertaining to Sherwin-Williams' brand or products collected by Sherwin-Williams and plaintiffs, not one was for dry white lead pigments manufactured by Sherwin-Williams.
- 150. Based on the advertisements collected by Sherwin-Williams and plaintiffs, more than 60 companies (including both pigment manufacturers and paint manufacturers) advertised white lead or white lead in oil before 1910 in California newspapers.
- 151. Based on the advertisements collected by Sherwin-Williams and plaintiffs, more than 60 companies (including both pigment manufacturers and paint manufacturers) advertised white leads or paints containing white leads during the 1910–1947 time period that Sherwin-Williams made white lead carbonate pigments.

- 152. Based on the advertisements collected by Sherwin-Williams and plaintiffs, more than 20 companies (including both pigment manufacturers and paint manufacturers) advertised white leads or paints containing white lead after Sherwin-Williams stopped making white lead carbonate pigments.
- 153. Sherwin-Williams' 1939–40 Cooperative Advertising Plan for Authorized Dealers stated that "[t]he established, authorized dealer...will be eligible at the close of each fiscal year for a maximum advertising allowance of 2% of his year's purchases of Sherwin-Williams

- 205. Between March 1, 1924 and August 31, 1924, a trading statement of the Martin Senour facilities in Los Angeles indicated an inventory of unspecified Sherwin-William paint products and had approximately \$1,922 in sales of Sherwin-Williams ODP to unspecified customers. (Dunlavy PMK 148:16 to 149:17)
- 206. Sherwin-Williams was a Class A member of the National Paint, Varnish & Lacquer Association from 1933 until 1981.
- 207. Sherwin-Williams served on the Executive Committee of the National Paint Varnish & Lacquer Association from 1939 to 1964 and 1966 to 1978.
- 208. Sherwin-Williams served on the Board of Directors of the National Paint Varnish & Lacquer Association from 1958 to 1960, 1964, 1968–1970, and 1973 to 1978.

- 209. Sherwin-Williams was a member of the Lead Industries Association ("LIA") from 1928 until May 1947 only.
- 210. There is no evidence that Sherwin-Williams attended any LIA annual meeting except for the first three in 1928, 1929, and 1930.
- 211. There is no evidence that Sherwin-Williams was ever a member of the Board of Directors of the LIA.
- 212. There is no evidence that Sherwin-Williams was ever a member of the Executive Committee of the LIA.
- 213. LIA conducted two white lead promotion campaigns, the first in 1939 to 1944, the second in 1950–1952.
- 214. Sherwin-Williams did not contribute funds to either of LIA's white lead promotion campaigns.
- 215. A Sherwin-Williams representative attended meetings of the LIA's White Lead Advertising and White Lead Technical committees as an invited guest in May 1950 and attended 3 additional meetings of the White Lead Technical Committee on September 28, 1950, December 15, 1950 and June 6, 1951.
- 216. The second white lead promotion program was discontinued in December 1952, and historical records indicate that the second campaign was considered to be unsuccessful.
- 217. LIA conducted the Forest Products-Better Paint campaign from 1934 to 1941. This campaign was also known as the Lumber Products-Better Paint campaign.

- 218. Sherwin-Williams did not contribute funds to the Forest Products-Better Paint Campaign until February 1937, after the campaign shifted focus from white lead in oil to high quality ready-mixed paints as well as white lead-in-oil, as indicated on page 10 of the minutes of the Executive Committee meeting of the NPVLA on January 9, 1935.
- 219. Sherwin-Williams contributed a total of \$5,000 to the Forest Products-Better Paint Campaign from 2/13/1937 through 10/7/1941.

- 252. On March 9, 2010, Sherwin-Williams paid \$1,831.02 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000095776-77, 79)
- 253. In 2010, Sherwin-Williams paid \$529,875.96 to the California State Board of Equalization for the 2009 Childhood Lead Poisoning Prevention fee. (0007-SWP-000096044).
- 254. On March 7, 2011, Sherwin-Williams paid \$7,106.70 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000095783-84, 88)
- 255. On March 7, 2011, Sherwin-Williams paid \$1,786.79 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000095785–87)
- 256. On March 18, 2011, Sherwin-Williams paid \$508,183.53.61 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000095780-82)

- 257. In March 2012, Sherwin-Williams paid \$7,317.79 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096042, 96044)
- 258. In March 2012, Sherwin-Williams paid \$1,839.86 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096043-44)
- 259. On March 28, 2012, Sherwin-Williams paid \$523,278.11 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096040-41)
- 260. On March 6, 2013, Sherwin-Williams paid \$7,458.52 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096049–50)
- 261. On March 6, 2013, Sherwin-Williams paid \$1,875.24 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096047-48)
- 262. On March 22, 2013, Sherwin-Williams paid \$533,341.15 to the California State Board of Equalization for the Childhood Lead Poisoning Prevention fee. (0007-SWP-000096045-46)
- 263. Sherwin-Williams included ingredient information on its product labels from at least 1908.
- 264. Sherwin-Williams' paints meant for interior residential use only never contained white lead pigments, except for several Inside Floor Paints dated up to 1913. See ¶ 44.

- 265. Sherwin-Williams' paints for dual use (interior and exterior) did not contain white lead pigments after March 1937, with the exception of some Family Paint formulations during WWII. See ¶¶ 57–60.
- 266. Sherwin-Williams was an alternate member of the American Standards Association Z66.1 Subcommittee that created a voluntary standard limiting the content of lead in paint for interior residential use to 1% or less "of the total weight of the contained solids (including pigments and drier)."

* * *

- 282. The data contained within the Census of Manufactures published by the United States Census Bureau dated 1860 through 1977 pertaining to the paint and pigment industry are reasonably accurate.
- 283. All Sherwin-Williams' company records produced by Sherwin-Williams to plaintiffs are authentic.

IT IS SO STIPULATED.

Respectfully Submitted,

Dated: June 29, 2013 JONES DAY

By: <u>/s/ Jennifer B.</u> Flannery

Jennifer B. Flannery (Pro Hac Vice)

402a

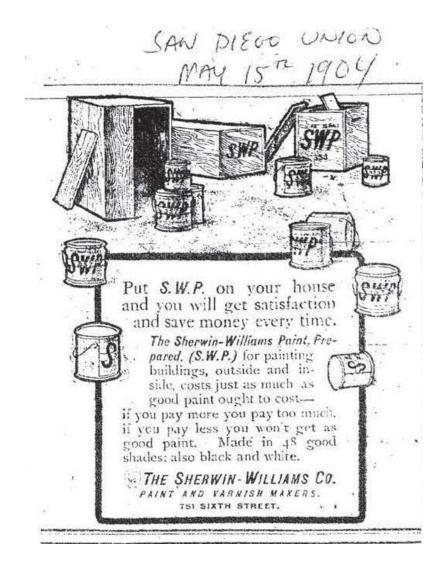
Dated: June 29, 2013 LAW OFFICE OF PETER EARLE, LLC

By: <u>/s/Peter Earle</u>

Peter Earle (Pro Hac Vice)

APPENDIX H





CA00029073 P271_829

Appellate Appendix: Volume 188, Page 55954



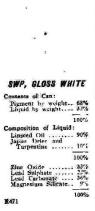
0007-SWP-0053416 1501-00001

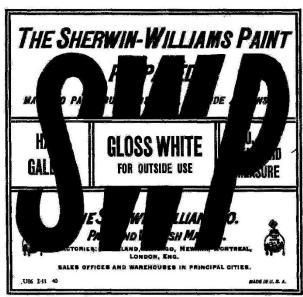
Appellate Appendix: Volume 150, Page 44504



0007-SWP-000173387 1501-0003

Appellate Appendix: Volume 150, Page 44505





0007-SWP-000329509 1501-00013

Appellate Appendix: Volume 150, Page 44506

APPENDIX I

UNITED STATES CONSTITUTION

* * *

AMENDMENT I

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.

* * *

AMENDMENT XIV

Section 1.

All persons born or naturalized in the United States, and subject to the jurisdiction thereof, are citizens of the United States and of the State wherein they reside. No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws.

Section 2.

Representatives shall be apportioned among the several States according to their respective numbers, counting the whole number of persons in each State, excluding Indians not taxed. But when the right to

vote at any election for the choice of electors for President and Vice President of the United States, Representatives in Congress, the Executive and Judicial officers of a State, or the members of the Legislature thereof, is denied to any of the male inhabitants of such State, being twenty-one years of age, and citizens of the United States, or in any way abridged, except for participation in rebellion, or other crime, the basis of representation therein shall be reduced in the proportion which the number of such male citizens shall bear to the whole number of male citizens twenty-one years of age in such State.

Section 3.

No person shall be a Senator or Representative in Congress, or elector of President and Vice President, or hold any office, civil or military, under the United States, or under any State, who, having previously taken an oath, as a member of Congress, or as an officer of the United States, or as a member of any State legislature, or as an executive or judicial officer of any State, to support the Constitution of the United States, shall have engaged in insurrection or rebellion against the same, or given aid or comfort to the enemies thereof. But Congress may by a vote of two-thirds of each House, remove such disability.

Section 4.

The validity of the public debt of the United States, authorized by law, including debts incurred for payment of pensions and bounties for services in suppressing insurrection or rebellion, shall not be questioned. But neither the United States nor any State shall assume or pay any debt or obligation incurred in aid of insurrection or rebellion against the

United States, or any claim for the loss or emancipation of any slave; but all such debts, obligations and claims shall be held illegal and void.

Section 5.

The Congress shall have power to enforce, by appropriate legislation, the provisions of this article.

CALIFORNIA CIVIL CODE - CIV

DIVISION 4. GENERAL PROVISIONS

[3274 – 9566] (Heading of Division 4 amended by Stats. 1988, Ch. 160, Sec. 16.)

PART 3. NUISANCE [3479 - 3508.2]

(Part 3 enacted 1872.)

TITLE 1. GENERAL PRINCIPLES

[3479 – 3486.5] (Title 1 enacted 1872.)

3480. Section Thirty-four Hundred and Eighty. A public nuisance is one which affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.

(Amended by Code Amendments 1873–74, Ch. 612.)

CALIFORNIA CIVIL CODE - CIV

DIVISION 4. GENERAL PROVISIONS

[3274 – 9566] (Heading of Division 4 amended by Stats. 1988, Ch. 160, Sec. 16.)

PART 3. NUISANCE [3479 - 3508.2]

(Part 3 enacted 1872.)

TITLE 2. PUBLIC NUISANCES

[3490 - 3496] (Title 2 enacted 1872.)

3490. No lapse of time can legalize a public nuisance, amounting to an actual obstruction of public right.

(Enacted 1872.)

CALIFORNIA CODE OF CIVIL PROCEDURE - CCP

PART 2. OF CIVIL ACTIONS [307 – 1062.20] (Part 2 enacted 1872.)

TITLE 10. ACTIONS IN PARTICULAR CASES [725a – 871.7] (Title 10 enacted 1872.)

CHAPTER 2. Actions for Nuisance, Waste, and Willful Trespass, in Certain Cases, on Real Property [731 - 736] (Chapter 2 enacted 1872.)

731. An action may be brought by any person whose property is injuriously affected, or whose personal enjoyment is lessened by a nuisance, as defined in Section 3479 of the Civil Code, and by the judgment in that action the nuisance may be enjoined or abated as well as damages recovered therefor. A civil action may be brought in the name of the people of the State of California to abate a public nuisance, as defined in Section 3480 of the Civil Code, by the district attorney or county counsel of any county in which the nuisance exists, or by the city attorney of any town or city in which the nuisance exists. Each of those officers shall have concurrent right to bring an action for a public nuisance existing within a town or city. The district attorney, county counsel, or city attorney of any county or city in which the nuisance exists shall bring an action whenever directed by the board of supervisors of the county, or whenever directed by the legislative authority of the town or city.

(Amended by Stats. 2010, Ch. 570, Sec. 2. (AB 1502) Effective January 1, 2011.)

State of California HEALTH AND SAFETY CODE Section 17920.10

17920.10. (a) Any building or portion thereof including any dwelling unit, guestroom, or suite of rooms, or portion thereof, or the premises on which it is located, is deemed to be in violation of this part as to any portion that contains lead hazards. For purposes of this part, "lead hazards" means deteriorated leadpaint, lead-contaminated contaminated soil, or disturbing lead-based paint without containment, if one or more of these hazards are present in one or more locations in amounts that are equal to or exceed the amounts of lead established for these terms in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations or by this section and that are likely to endanger the health of the public or the occupants thereof as a result of their proximity to the public or the occupants thereof.

(b) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code) further interpreting or clarifying the terms "deteriorated lead-based paint," "lead-based paint," "lead-contaminated dust," "containment," or "lead-contaminated soil," regulations in Chapter 8 (commencing with Section 35001) of Division 1 of Title 17 of the California Code of Regulations adopted by the State Department of Health Services pursuant to

Sections 105250 and 124150 shall interpret or clarify these terms. If the State Department of Health Services adopts new regulations defining these terms, the new regulations shall supersede the prior regulations for the purposes of this part.

- (c) In the absence of new regulations adopted by the State Department of Health Services in accordance with the rulemaking provisions of the Administrative Procedure Act defining the term "disturbing leadbased paint without containment" or modifying the term "deteriorated lead-based paint," for purposes of this part "disturbing lead-based paint without containment" and "deteriorated lead-based paint" shall be considered lead hazards as described in subdivision (a) only if the aggregate affected area is equal to or in excess of one of the following:
 - (1) Two square feet in any one interior room or space.
 - (2) Twenty square feet on exterior surfaces.
 - (3) Ten percent of the surface area on the interior or exterior type of component with a small surface area. Examples include window sills, baseboards, and trim.
- (d) Notwithstanding subdivision (c), "disturbing lead-based paint without containment" and "deteriorated lead-based paint" shall be considered lead hazards, for purposes of this part, if it is determined that an area smaller than those specified in subdivision (c) is associated with a person with a blood lead level equal to or greater than 10 micrograms per deciliter.
- (e) If the State Department of Health Services adopts regulations defining or redefining the terms

"deteriorated lead-based paint," "lead-contaminated dust," "lead-contaminated soil," "disturbing lead-based paint without containment," "containment," or "lead-based paint," the effective date of the new regulations shall be deferred for a minimum of three months after their approval by the Office of Administrative Law and the regulations shall take effect on the next July 1 or January 1 following that three-month period. Until the new definitions apply, the prior definition shall apply.

(Added by Stats. 2002, Ch. 931, Sec. 1.5. Effective January 1, 2003.)