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STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF ST. LOUIS

SIXTH JUDICIAL DISTRICT
WRONGFUL DEATH
ASBESTOS/SULLIVAN

Joanne Carlson, as trustee for the
Next of kin of Richard Carlson, decedent,

Court File No. C1-96-601960

Plaintiff,

v.

MEMORANDUM OF LAW
IN SUPPORT OF PLAINTIFF'S
MOTION TO CLAIM
PUNITIVE DAMAGES

Lorillard Tobacco Company, et al

Defendants.

This case originated out of the death of Richard Carlson who died on December 12, 1996 at the age of 65. The decedent, Richard Carlson, smoked Kent cigarettes with the "Micronite" filter in the 1950's, during which time the filter contained, as one of its ingredients, crocidolite asbestos. Mr. Carlson quit smoking cigarettes in 1961. Mr. Carlson died after contracting mesothelioma earlier in 1996, a fatal cancer of the lining of his lungs. Plaintiff has brought suit in this case against the manufacturer of the cigarettes, Lorillard, Inc., and against the manufacturer of the filter, Hollingsworth & Vose Company. Plaintiff now seeks to amend her Complaint to add a claim for punitive damages against the above defendants.

I. Background

The disease from which plaintiff died, mesothelioma, is an incurable cancer of the lining of the lung which is principally caused by exposure to asbestos fibers. The defendants in this case, Lorillard, Inc. and Hollingsworth & Vose Company, have

admitted to manufacturing asbestos-containing filter media and cigarette filters for use on Kent cigarettes during the years 1952 – 1956.

The Kent cigarettes defendants placed into the stream of commerce were intended to be smoked and inhaled by smokers. An integral part of this product involved the famous "Micronite" filter. The "secret" ingredient which Lorillard claimed made the "Micronite" filter so special turns out to be crocidolite asbestos, a substance both defendants knew could cause lung disease at the time they were placing it in the filter.

Rather than tell anybody that the substance in their product was dangerous, Lorillard touted its product in the popular and medical press as "the greatest health protection in cigarette history" which provided "significant" chemical and physiological advantages for smokers.

In 1954, the defendants found out that asbestos was escaping from the filter and contaminating the smoke which was inhaled by users.¹ The fear of lost business prevented defendants from taking any responsible action. Rather than change the product's design, recall the product, attempt to quantify the amount of asbestos escaping or warn consumers of the hazards they faced, both Lorillard and H&V continued to market the product in an unchanged form. Lorillard attempted to allay any potential public concern by changing its advertising to claim that the "Micronite" filter contained a substance which was entirely "pure", "safe", "harmless" and "dust-free."

At least two and one-half years passed from the time defendant found out asbestos was contaminating smoke from Kent to the time they supposedly stopped manufacturing

¹ One of plaintiff's experts will testify about tests done on Kent cigarettes manufactured between 1952-1956. These tests have revealed substantial contamination of smoke with crocidolite asbestos escaping from the filter. Despite their possession of similar cigarettes, defendants have chosen not to perform any tests of their own.

the product. During this period of time, Lorillard sold approximately 10 billion crocidolite-laden Kent cigarettes, thereby sowing the seeds of future harm in the interest of economic and competitive advantage.

Lorillard has boasted a "traditional quality policy" of "products, honestly made, marketed and advertised." This policy was discarded in a wild rush to capture the budding filter tip market of the 1950s.

The callous disregard for the health and safety of consumers is exemplified in the deposition testimony of Dr. Harold Knudson, a former employee of H&V and inventor of the Micronite filter. When asked whether he remembered that the issue of making the filter media safe for the people who smoked the cigarettes ever crossed his mind, he replied, "I don't have a memory to that extent." Exhibit A, pp. 266.1-268.1. When asked whether he would work with a cigarette company which wanted to use his invention in 1991, Dr. Knudson testified, "I would have no reservation." Exhibit F, pp. 288.3-288.23 read into record in Exhibit A, pp. 304.5 – 308.6.

What follows is a detailed analysis of the evidence discovered to date which supports plaintiff's claims for punitive damages.

II. Knowledge of Asbestos and Disease.

Defendant Lorillard has responded to a request for admission concerning asbestos and disease as follows:

Lorillard admits that during the period 1951-1958 it was aware of medical literature which associated exposure to mineral fibers, including asbestos fibers, with the development of certain respiratory injuries.

Exhibit B

Defendant Hollingsworth & Vose has admitted through a 30(b)(6) spokesman that it was aware of the hazards of asbestos as shown by the following testimony:

Q. In the 1952-1954 period, what did you know of the health hazards of asbestos?

A. Not a whole lot but I obviously was aware of the fact that inhalation of any dust or material of that sort was not desirable.

...

Q. At the time did you know that inhalation of asbestos was hazardous to the health?

A. I would certainly know that it was – there was some risk involved.

Q. Did you know that that risk included a disease called asbestosis?

A. Not necessarily, no.

Q. You heard of asbestosis?

A. I guess I had heard of it.

Q. And you knew that asbestosis came from inhalation of asbestos dust, did you not?

A. I believe I did.

Exhibit C, pp. 66-67.

Lorillard's and H&V's awareness of the hazards of asbestos is not surprising. The first detailed case report of asbestosis appeared in 1924 in an article by W. E. Cooke in the British Medical Journal. In 1930, Merewether and Price published their seminal article titled, "The Occurrence of Pulmonary Fibrosis and Other Pulmonary Affections in Asbestos Workers" which appeared in the Journal of Industrial Hygiene. Reviews of the medical literature on asbestosis appeared in the Journal of the American Medical Association in 1930.

In 1933, Dr. Gloyne reported a case of squamous carcinoma of the pleura with asbestosis in the medical journal *Tubercle*. In 1935, Dr. Lynch published the first case report of asbestosis and lung cancer in American literature in the *American Journal of Cancer*. In 1938, Nordmann published a paper titled "The Occupational Cancer of Asbestos Workers," and in 1943, Wedler reported on pleural malignancies in asbestosis cases. In 1949, the *Journal of the American Medical Association*, under the editorial leadership of Dr. Morris Fishbein, took the position that the relationship between asbestosis and lung cancer had been firmly established.² Trial Exhibit 842.

As discussed below, one witness has testified that Dr. Parmele came to his firm to search for a substitute for asbestos in the Micronite filter in mid 1954. This search was prompted, according to this witness, because of Dr. Parmele's stated concern that smokers would claim that they had contracted both lung cancer and asbestosis as a result of exposure to asbestos from the Micronite filter.

Both Lorillard and H&V have admitted actual awareness of the hazards of asbestos at the time they were producing the "Micronite" filter. Given the overwhelming evidence presented in over 200 medical reports prior to 1952, it would be folly to suggest that knowledge of the hazards of asbestos was not available before the defendants embarked on their joint venture.

III. The Rush to Micronite.

In 1950, Dr. Ernest L. Wynder published an article titled, "Tobacco Smoking as a Possible Etiologic Factor in Bronchiogenic Carcinoma" in the *Journal of the American Medical Association*. The first conclusion of this article was that "excessive and

² As discussed below, Dr. Morris Fishbein was hired as a consultant by Lorillard to advise *inter alia*, on medical advertising copy for Kent cigarettes during the years 1952-1957.

prolonged use of tobacco, especially cigarettes, seems to be an important factor in the induction of bronchiogenic carcinoma". With the publication of this article, the search was on for an adequate filter which would reduce the substances in smoke which Wynder and his colleagues felt were responsible for cancer.

Lorillard has stated that its rush to filters was due to a growing awareness of health concerns over smoking and health. Trial Exhibit 2, p. 13.

In approximately March, 1950, the security clearance was taken off of a filter media used by the Federal government in atomic energy installations. The Research Director at Lorillard, Harris Parmele, got wind of the highly efficient filter media and contacted the developer of the substance, Hollingsworth & Vose Company. Trial Exhibits 555, 547 p. 4, 550). In the fall of 1950, a joint program was initiated between H&V and Lorillard, and the facilities at the Research Foundation at the Lowell Technical Institute were used in initial development. Trial Exhibit 555.

In 1951, pilot operations began at the McCard Textile Company in Bedford, Mass. Trial Exhibit 555. In April, 1951, Lorillard contracted with researchers through John Killian to do systemic tests on people smoking various brands of cigarettes. Trial Exhibit 53. These test results were later used in advertisements to promote the "health protection" provided by Kent cigarettes. By July of 1951, a protocol for the manufacture of filter media for Micronite was accepted by Lorillard. Trial Exhibit 555.

In February 1952, the Board of Directors of Hollingsworth & Vose met to set up a wholly-owned subsidiary named H&V Specialties Co., Inc. (hereinafter referred to as "Specialties") to manufacture the asbestos filter media for the Micronite filter. Trial Exhibit 921. That same month, Harold Knudson, the inventor of the filter media, and

Harris Parmele, the inventor of machinery used to assemble the Micronite filter, assigned their patent applications to Specialties. Trial Exhibits 911 and 912. At the same time, Lorillard and Specialties entered into an agreement whereby Specialties would manufacture a filter media in a "loose and uncompact fashion" for use by Lorillard. This same agreement provided that Lorillard would indemnify and save Specialties harmless for all damages, costs, expenses, and liabilities arising from or caused by claims for misrepresentations by Lorillard as to the filter material, or any harmful effects of any finished products sold by Lorillard. Trial Exhibit 916, p. 18.

Prior to its introduction to the public, Lorillard's 30 (b)(6) witness has testified that he believes testing was done to determine whether asbestos escaped from the filter. The witness could not, however, name the investigator or point to any documentation supporting his belief. Exhibit D, pp. 180.9-185.1.

Lorillard's current Vice President of Research, Dr. Alex Spears, has testified that prior to the introduction of any filter it would be important to test that filter to make sure that the filter material remained intact during smoking. Exhibit E, pp. 78.20-81.16.

IV. The Greatest Health Protection in Cigarette History.

Kent with the Micronite filter appeared on the market with a splash on March 19, 1952. A press conference was given at the Waldorf Astoria Hotel in New York City. Present for the occasion were Herbert Kent, President of Lorillard; Robert Ganger, Executive Vice President of Lorillard; Harris Parmele, Director of Research of Lorillard; Harold Knudson, Director of Research at Hollingsworth & Vose; and Aubrey Nicholson, President of Hollingsworth & Vose. Trial Exhibit 553; Exhibit F pp. 160-161.

The press was invited to perform what became the mainstay of Kent advertising for the next two years: the beaker test.³ At the same time, Lorillard's advertising agency, Young & Rubicam, issued a press release touting the benefits of Micronite and quoted Dr. Parmele of Lorillard as saying that what made Micronite so different from other filters on the market was the presence of a "secret mineral ingredient." Trial Exhibit 547 p.6.

Once launched, advertising began in earnest. Ads appeared in all the large newspapers proclaiming the benefits of Micronite, the diligent work of Lorillard, and the high-tech, top-secret nature of the magic ingredient. Trial Exhibits 501, 501A-501F. Not one of these advertisements mentions the word asbestos.

As part of its promotional efforts, Kent went after the medical community. Doctors were initially solicited with a letter stating that Lorillard would never change its policy of refusing to promote cigarettes with questionable health claims. Trial Exhibits 545, 546. Enclosed with the letter was a booklet which Lorillard claimed outlined the physiological advantages of Kent. Trial Exhibit 551. Nowhere in these documents does the word "asbestos" appear.

Beginning in September 1952, Kent advertised in medical journals, starting with the Journal of the American Medical Association. As the advertising agency executive at Young & Rubicam responsible for the Kent account explained, advertising in medical journals was done so that a doctor could "prescribe" Kent to patients who were seeking to cut back on smoking. Exhibit G, pp. 62.13-63.3. Medical journal advertisements continued through at least June, 1955 and appeared in JAMA, the Pennsylvania Medical

³ In the Beaker Test, smoke from Kent and any other brand were exhaled into beakers and placed upside down on a piece of paper. Trial Exhibit 553 p.8. After a period of time, the stains on the paper under the

Journal, the N.Y. State Journal of Medicine, the Journal of the Michigan State Medical Society, the Illinois Medical Journal, the New England Journal of Medicine, California Medicine and the Journal of the Medical Society of New Jersey. Trial Exhibits 509A-509K. A compilation of the magazines each advertisement appeared in is set forth in Trial Exhibit 510. In the early medical ads, doctors were told to write to Lorillard for "special arrangements . . . to assure you of a regular supply" if Kent were not yet locally available. Trial Exhibits 509A-509E.

In September 1952, Kent started sponsorship of The Web, a mystery television show hosted by Jonathan Blake. The Web had an audience of 11,000,000 people weekly and was shown on 51 stations across America. Trial Exhibit 2, p.16. With the Web and other advertising, Lorillard boasted that it put 82,000,000 pre-selling messages a week before smokers across the land. Trial Exhibit 2, p. 17.

Beginning in May of 1953 and continuing through May of 1954, Kent hit the popular press with ads in Life, Time, Newsweek and the Saturday Evening Post. The theme of these ads, combining the beaker test and television visuals from "The Web" was how Kent, through its Micronite filter, offered the "Greatest Health Protection in Cigarette History." Trial Exhibits 502A-502M. A list setting forth the dates they appeared in popular press magazines is set forth in Trial Exhibit 510.

By 1953, the Kent line was in the black and also in the enviable position of getting advertising dollars back into the company's coffers. Kent sales increased by 500% due to successful advertising. Lorillard boasted that Kent advertising was picked as the "No. 1 commercial for the 'hard sell' by Advertising Age - The National Newspaper of Marketing", and that Kent messages reached 100,000,000 people weekly.

glass were examined. Kent's stains were lighter in color than the stains left from other cigarette smoke.

Demand for Kent was so high that manufacturing could not keep up with the orders and new production facilities had to be found. Trial Exhibit 3, pp. 6, 9 and 13.

Lorillard's advertising agency, Young & Rubicam, attributed Kent's stunning success in 1953 in part to the coincidental alarm which arose over the possible connection between smoking and cancer. The agency has stated that Kent, with its health protection story, was the leading beneficiary of the public's concern, since it offered protection. Trial Exhibit 549, p.2. According to Young & Rubicam, part of the success of Kent between 1952 and 1956 was attributed to it being conceived as a "quasi-medicinal" product. Trial Exhibit 549, p.15.

The advertising of Kent and other filter cigarettes was the subject of congressional hearings in 1957 in the House of Representatives on False and Misleading Advertising (Filter-Tip Cigarettes). Kent was used as an example of such advertising in testimony by the acting chairman of the Federal Trade Commission. Trial Exhibit 574, pp. 277, 289-291. In the Committee Report submitted by the Legal and Monetary Affairs Subcommittee, Kent was again mentioned by name. Trial Exhibit 575, p.14. The first two conclusions of the Report state:

1. The cigarette manufacturers have deceived the American public through their advertising of filter-tip cigarettes.

Ironically, while denying the alleged health hazards of cigarette smoking, the cigarette industry has, in its advertising, made these charges appear true.

Without specifically claiming that the filter tip removes the agents alleged to contribute to heart disease or lung cancer, the advertising has emphasized such claims as "clean smoking", "snowy white", "pure", "miracle tip", "20,000 filter traps", "gives you more of what you changed to a filter for" and other phrases implying health protection when actually most filter cigarettes produce as much or more nicotine and tar as cigarettes without filters.

2. The effectiveness of this deceptive advertising is evidenced by the rise in filter-cigarette sales from 1.4 percent of total cigarette sales in 1952 to 40%

in 1957. The American public has paid premium prices of 2 to 6 cents per pack for filter cigarettes for "protection" they did not receive.

Trial Exhibit 575, pp. 24-25 (emphasis added).

V. Lorillard Research

In the 1950s, Lorillard touted the brains behind its Research and Development Department as superior to all others in the industry, despite the company's relatively small size. Lorillard boasted that it made up for its size by making it a practice to tap the talents of leading outside authorities on many of its research projects. Trial Exhibit 2, p. 13. According to Lorillard, the job of the R & D Department was to make sure that the quality of Lorillard's tobacco products was unsurpassed. Trial Exhibit 3 p.14.

The Research Department, according to Lorillard, was a "sentry, maintaining a vigil over all the material that goes into, on and around" Lorillard's finished products. Trial Exhibit 4, p. 14. When the smoking-cancer scare became an issue, Lorillard claimed that its R & D Department was on top of the situation through its "unrelenting" efforts to identify the hundreds of compounds in smoke. Trial Exhibits 4, p.14.

In 1956, Lorillard summarized its R&D efforts as follows:

In the constant search for new horizons, many phases of research, directed by experienced scientists, have been set up to study, develop and test ideas and methods. Data collected at each state in the manufacturing process flow into the central laboratory where conferences determine the establishment of new and better quality controls. Here new ideas are born while old ones are cautiously protected. **Every ingredient is analyzed and blends jealously guarded in determination to maintain Lorillard's traditional quality policy of "products, honestly made, marketed and advertised."**

Trial Exhibit 6, p.9 (emphasis added).

On December 1, 1953, Dr. Parmele issued a statement setting forth the purpose of the Research Program at Lorillard. In his statement, he wrote that

P. Lorillard Company is cognizant of the current interest displayed by many smokers in relationships between cigarette smoking and all phases of health. A program of investigation was initiated by this Company quite some time ago and the results of this research are appearing in leading scientific publications.

Trial Exhibit 548.

One of the most important aspects of Lorillard's research was to insure that any health claims it made in advertising could be backed up with hard data. Its advertising agency, Young & Rubicam, required such back up before it would put health claims in advertisements. Exhibit G, pp. 33.8-33.23.

Unfortunately, as demonstrated by the following instances, Lorillard ignored research which did not support its claims and embellished the research that did.

A. Skin Temperature Tests.

One need only look at the series of Kent advertisements in both the popular and medical press to appreciate the importance Lorillard attached to its "Skin Temperature Test". When the skin temperature at the end of the finger was measured in Kent and non-Kent smokers, researchers found that the Kent smoker suffered no appreciable skin temperature drop, while the non-Kent smoker suffered a drop of between 4 and 8 degrees Fahrenheit.

The importance of this test was never revealed to William Thompson, the executive in charge of the Kent account at Young & Rubicam. Exhibit G, pp. 55.5-60.18. Lorillard's 30(b)(6) witness on advertising did not know what the importance of the skin temperature was. Exhibit D, pp. 109.24-110.6.

The validity of the skin temperature test was called into question by Dr. Parmele himself in a letter dated 1/27/53 to Alden James, the Director of Advertising at Lorillard.

As Dr. Parmele explained, some doctors felt that the skin temperature test was “totally unreliable”. He opined further that there were “probably” some doctors who regarded the test as significant, but the majority of doctors “undoubtedly” regarded the test as having some value, but would readily admit that it is open to improvement. Trial Exhibit 707.

B. Alternative to the Skin Temperature Test.

Because of the shortcomings of the skin temperature test, Lorillard was looking for additional “scientific” proof of the salutary effects of Kent smoke on peripheral blood flow. This work was done by Dr. Morris Friedell and published in the Journal of the American Medical Association July 4, 1953.⁴

Lorillard felt that the results were significant and hoped that it could use the material as an effective means of promoting interest in Kent cigarettes in medical circles. Trial Exhibit. 717.

As Dr. Parmele explained to Advertising Director Alden James, there was a drawback to the Friedell work in that

... Dr. Friedell found that certain competitive filtered brands were almost as good as Kents. **However, this is not mentioned in the report and there is no reason why it should ever be known.**

Trial Exhibit 717 (emphasis added).

The documents regarding this first bit of research into the physiologic effects of Kent reveal a recurring theme in Lorillard’s research. If the results are favorable, use them to promote the product. If unfavorable, bury them as deeply as possible.

C. The Fishbein Treatise on “Effects of Tobacco and of Cigarette Smoking On the Body”

⁴ There is evidence that Lorillard contributed to Dr. Friedell’s work. Trial Exhibit 708. However, Lorillard’s contribution was not mentioned by Dr. Friedell in the article published in JAMA.

Beginning in March, 1953 and continuing through 1957, Lorillard hired Dr. Morris Fishbein, former editor of the Journal of the American Medical Association.⁵ According to his contract, Dr. Fishbein was to assist Lorillard in directing research work, placing articles based on such research in popular press magazines and medical journals, and giving guidance on advertising claims which were based on such research. Trial Exhibits 708, 740, 787 and 821.

In October 1953, Dr. Fishbein wrote to Lorillard stating that he was going to a publisher about writing a book on the effects of tobacco. Trial Exhibit 731. In early 1954, Dr. Fishbein forwarded some of the chapters to Dr. Parmele for a critical review. Dr. Parmele responded on February 26, 1954 with a plea to alter the position of the final paragraph "so that the concluding paragraph of the introduction could convey a more optimistic view, or in other words, one that considers tobacco a blessing." Trial Exhibit 753. To his credit, Dr. Fishbein declined to revise his manuscript. However, Dr. Fishbein was accommodating when it came to inserting a plug for filter tipped cigarettes in the section concerning the effects of tobacco on the mucous membranes.⁶

On March 9, 1954, Dr. Parmele wrote to Dr. Fishbein with more requests for changes in the manuscript to give more emphasis to the superior filtering qualities of Micronite and Kent. Trial Exhibit 754.

On March 30, 1954, Dr. Parmele wrote to Dr. Fishbein with suggested changes in chapters concerning, among other issues, cancer and advertising. As earlier, the suggested changes seek to promote the efficiency of the Micronite filter. At one point, Dr. Parmele seeks to have Dr. Fishbein comment on the honesty of Kent's advertising.

⁵ Dr. Fishbein was the editor of JAMA in 1949 when the Journal declared that the issue of whether cancer and asbestosis were related was no longer an issue. See Section II of this memorandum.

By the summer of 1954, Lorillard was becoming anxious about getting its various research projects into publication. Dr. Parmele explained the problem to Dr. Fishbein in a letter dated July 13, 1954.

As [Alden James, Director of Advertising] told you, he is extremely anxious to have one, if not all three, of these papers accepted for publication, in order that he can have reprints of same available this summer. In other words, he is running out of ammunition for advertising copy, and is therefore extremely anxious to have the work in question accepted. I, likewise, am also very sympathetic in this manner, since my associates find it hard to understand the value of a scientific work unless it is publishable and, therefore, available for reference purposes.

Trial Exhibit 776.

By August of 1955, Dr. Fishbein had finally written an article combining various research projects with the doctors' throat study. Dr. Parmele wrote to Alden James, Lorillard's Director of Advertising, stating that the article was the best they could expect. He also asked Mr. James for comments on the article before he suggested changes to Fishbein, "since its publication in a suitable spot will be of primary interest to you as a possible source for advertising reference, or at least sales promotion". Dr. Parmele also raised concerns about getting the article accepted. Trial Exhibit 801.

By August 23, 1954, Alden James had made his suggestions and Dr. Parmele forwarded them in a letter to Dr. Fishbein.

We have done over the manuscript in question very carefully and Mr. Alden James has done likewise. In our opinion, and with the few corrections made on the copy which we are returning, the paper is quite good, particularly the last part starting with the heading, "Investigations". However, both Mr. James and the writer take exception to the introduction on two counts, namely, it is too long in proportion to the rest of the article, and too incriminating for cigarettes in general.

Looking at the investigations conducted by Dr. Myerson and Dr. Pearlman from a purely practical standpoint, such investigations are only of value to the P. Lorillard Company if the results come out right, which they did, and if these results are published in a source generally available to the

public. Thus, Mr. James looks at your manuscript as a means of utilizing in some way or other the work performed by the two medical authorities above-mentioned. He feels that your paper describes the investigational part of the work very accurately and in a manner which should be acceptable to the publisher, yet of value as a reference in possible advertising. On the other hand, he feels, and the writer must agree, that the introduction almost overcomes the value of the investigational portion, both because of being of approximately equal length and because **nothing much good is quoted relative to cigarettes and the throat.**

Thus, it is our suggestion that if it is impossible to cite any good references in earlier publications, the next best thing would be to reduce the number cited in your present manuscript and also tone them down as far as possible, yet adhering to the truth.

Trial Exhibit 802 (emphasis added).

On September 12, 1955, Dr. Parmele reported to Alden James that Dr. Fishbein "has overcome our joint criticism of the original draft by essentially eliminating the introduction". Trial Exhibit 804. That introduction was the part of the paper Dr. Parmele had critiqued as "too incriminating for cigarettes" and therefore of no practical use for Lorillard.

On September 28, 1955, Dr. Fishbein reported to Dr. Parmele that the article had been accepted by the Journal of the International College of Surgeons and suggested that Lorillard make a contribution to that organization because its director had gone "out of his way" to publish the article promptly. Trial Exhibit 806.

The article, in its edited form, appeared in the Journal of the International College of Surgeons in October 1955. Trial Exhibit 809.³ There is no mention in the article of Lorillard's funding of the original work, of Lorillard's funding of Dr. Fishbein or of

³ The speed with which this article was published is extraordinary. The article was submitted on September 4, 1955 for a journal dated October 1955. The ease with which the article was published can be explained by the fact that Fishbein, in addition to being the author, was a "Consulting Editor" of the Journal.

Lorillard's editorial role. Needless to say, that part of the original article which was "too incriminating" for cigarettes was not in the final version.

Lorillard was thrilled. It ordered 7,500 reprints which it intended to mail to all of the throat specialists in the United States with a brief letter explaining in "dignified terms that the cigarettes with the Micronite filter are Kents." Trial Exhibit 810. Trial Exhibit 812 is an apparent draft of a letter sent to all throat specialists with the article.

Lorillard's efforts with Dr. Fishbein exemplify its attitude towards the results of research it funded. If the research revealed positive results, use it to promote the product. If the research revealed negative results, bury them.

Lorillard's policy of ignoring bad news and focusing on the good is exemplified by some of the documentation of the Chicago Doctor's Throat Study. One of the participants in the study, Dr. Jerome Silver, wrote to Dr. Pearlman in May 1954 stating, "The other concern I have had is the effect of the asbestos which is used in the filter. There have been unofficial reports of cases of asbestosis found in people smoking Kents and said to be solely a result of such smoking. ... I feel that as an individual, 'Kent' served my purposes, but I would like to see a scientific investigation of the effects of the asbestos contained in the filter." Trial Exhibit 767.

VI. Distant Thunder

By the fall of 1952, there were signs that all was not well with Micronite.

A. Inspections of H&V Filter Media Manufacturing Plant

In October of 1952, an inspector from the Division of Industrial Safety of the Department of Labor and Industries in the Commonwealth of Massachusetts asked Division of Occupation Hygiene to visit the H&V Specialties plant to take asbestos dust

counts. Exhibit H, pp. 12.4-13.2. The inspectors went to the plant and told the people at Specialties that they were there to take air samples for asbestos dust which was hazardous to workers. Exhibit H, pp. 22.18-22.24. The inspectors were concerned about asbestosis and lung cancer caused by asbestos exposure, and explained to the people they met at Specialties that the dust was hazardous. Exhibit H, pp. 23.1-26.17.

After taking their samples, the inspectors made seven recommendations which would reduce the workers' risk of harm as a result of exposure to asbestos. Exhibit H, pp. 19.20-20.14. Despite these recommendations, H&V was slow to respond. Exhibit H, p.50.10-50.19.

The inspector from the Commonwealth knew that H&V was manufacturing filters for Kent cigarettes and was appalled, but powerless to do anything about it. His testimony on the subject is illuminating.

Q. Mr. Comproni, can you explain what you mean when you say you were appalled?

A. Well, asbestos is a known carcinogen causing asbestosis and lung cancer and to put it in a product that you are actually breathing air from is not in keeping with the best health practices that -- period.

Q. Did you have occasion to discuss the use of asbestos in a cigarette filter with the people at H&V Specialties when you visited them?

A. Oh, yes.

Q. Tell us about that.

A. Well, we were curious as to why they would go to a toxic material like that for a cigarette filter. And of course their answer was, it is a very good filter material. And it's true, except that the use of it in that type of product we questioned.

Q. And how did they respond when you questioned it?

A. Well, they apparently felt that that was a satisfactory use of asbestos.

Exhibit H, pp. 52.14-53.20.⁹

B. The Search for a Replacement for Asbestos

By December 18, 1952, an inspector in the Massachusetts Division of Industrial Safety reported to his supervisor that during an inspection of the H&V plant he was informed that the company had been conducting experiments to find a substitute for the asbestos filter media. Trial Exhibit 906.

By March 1953, Lorillard and H&V were actively discussing filters which did not have asbestos in them. Trial Exhibit 923. On May 8, 1953, Dr. Parmele of the Lorillard Research Department wrote to Lorillard President Halley concerning a conference on a number of issues, including the "Safety of Micronite". Evidently, studies to "confirm the safety" of Micronite were to be performed by the Laboratory of Industrial Hygiene, and substitutes from Owens-Corning Fiberglas and others were to be examined. H&V Specialties was also discussed as a source of experimentation with synthetic fibers. No reason was given for why H&V was seeking a replacement. Trial Exhibit 11.

On June 4, 1953, Owens-Corning Fiberglas submitted a test report to Lorillard on particles tapped from "Fiberglas" filter plugs. Each filter was tapped four times on a glass slide and the dust was examined. The number of particles observed under a normal light microscope ranged from 24 to 320. The same experiments were done on Kent cigarettes with the Micronite filter. Although no counts were made, the report stated that

⁹ The results of Specialties' slow compliance are self-evident. In an article published in the *New England Journal of Medicine* on November 2, 1989, Talcott and co-authors discuss the incidence of asbestos-related disease in workers from the Specialties' plant. Asbestos-related diseases were present in nearly all Specialties workers in the study cohort. Approximately 18% of the deaths among the cohort were due to mesothelioma. Another 18% of the deaths among the cohort were due to asbestosis. 28% of the deaths among the cohort were due to lung cancer.

"the amount of material or particles obtained was observed to be very small as compared to the Fiberglas filters." Trial Exhibit 81.

In his capacity as a Rule 30(b)(6) speaking for Lorillard, Dr. Spears has testified that some of the particles in the pictures in the OCF report (Trial Exhibit 81) are likely asbestos. Exhibit R, p.355.

C. Concerns Over Asbestos

The May conference on issues concerning the safety of Micronite culminated in a letter dated June 15, 1953 from Dr. Parmele and Lorillard President Halley, in which the Director of Research stated:

As you know, the Micronite filter consists of crepe paper, cotton, cellulose acetate and asbestos. Of these four materials, the asbestos is the only one concerning which hygienic properties might be questioned since asbestos is a form of silica. Therefore and to confirm the work done by Dr. Killian and ourselves, we have had the Laboratory of Industrial Hygiene conduct thorough tests to prove the absence of silica in the smoke from Kent cigarettes.

Trial Exhibit 12.

The letter goes on to explain the report which was enclosed. Unfortunately, the report from the Laboratory of Industrial Hygiene, any relevant reports from Dr. Killian, and any reference to work done by Lorillard at that time have vanished.

However, in his explanation of the Laboratory of Industrial Hygiene report, Dr. Parmele explains that the amount of silica found in Kent smoke was no greater than the amount of silica in the air we breathe. Had Dr. Parmele, a PH.D in Chemistry, bothered to check, he would have found that asbestos is not a silica. It is a hydrated silicate.

D. Dr. William Smith and New York University.

During the early 1950s, Dr. William Smith was a cancer researcher at the prestigious New York University. Dr. Smith has testified that at the end of 1951 or early

1952, he had a meeting with either the president or a vice-president of the company that manufactured Kent cigarettes. Exhibit "S" at 40-43. This executive introduced himself as being from the company that manufactured Kents. Id. at 21.¹⁰

Based upon Lorillard's own documents, this meeting is not only likely, but a virtual certainty. At the time, Dr. Parmele, known by the documents to be the Lorillard liaison with Dr. Smith and NYU, was a Vice President of Lorillard.

Dr. Smith testified that around this time, he had just returned from England where he had visited a number of investigators, men who had worked in the area of asbestos disease. Exhibit "T" at 6. During this trip, he had obtained a substantial body of evidence that asbestos was carcinogenic. Exhibit "T" at 27. Upon his return, Dr. Smith authored a paper which he presented to the Cancer Prevention Committee on October 18, 1950.

This paper and others, including two written by Dr. Smith, were published as a part of the Proceedings of the Cancer Prevention Committee of the A.M.A. Archives of Industrial Hygiene and Occupational Medicine dated March, 1952. At one point in his article, Dr. Smith writes that the majority of the asbestos-related lung cancer cases came from a plant handling "blue" asbestos, which is dustier than other types of asbestos because of its brittle nature. Blue asbestos, or crocidolite, was the type Lorillard used in its Micronite filter.

Dr. Smith testified that he told the "man from Kent" of his recent trip to England to study the carcinogenicity of asbestos, Exhibit S at 41, and showed the individual around the animal laboratory and provided information concerning his recent research trip to England. Exhibit "T" at 24.

¹⁰ This information was elicited from Dr. Smith by counsel for Lorillard, not counsel for plaintiff.

Dr. Smith testified that during his meeting with the man from Lorillard he specifically informed him of the substantial evidence linking asbestos with cancer. He also advised Lorillard that it would be prudent to use some other material besides asbestos in Kent cigarettes. Exhibit "T" at 27. We know that Lorillard received the written evidence linking asbestos to cancer since it has produced from its own files the documents authored by Dr. Smith.

Had Lorillard and H&V bothered to heed the warning signs' distant thunder, they could have avoided the calamitous events of 1954 and substantially reduced the risks facing Richard Carlson and other smokers of Kent.

VII. 1954 – Year of Decision

1954 was a pivotal year for Kent, as well as the cigarette industry in general. On January 4, 1954, the cigarette industry took out a full page advertisement in numerous newspapers across the country to explain what they were going to do about the increasingly bad publicity concerning cigarette smoking and lung cancer. In the document titled, "A Frank Statement to Cigarette Smokers", the industry stated "We accept an interest in people's health as a basic responsibility, paramount to every other consideration in our business." Trial Exhibit 530. The "Frank Statement" is signed by Herbert Kent as Chairman of Lorillard.

On January 25, 1954, Liggett & Meyers began to advertise the filter on its L&M cigarettes with the following statement:

Effective Filtration from a Strictly Non-Mineral Filter Material – Alpha Cellulose. Exclusive to L&M Filters, and entirely pure and harmless to health.

Trial Exhibit 513A. These ads continued for a number of weeks with the same theme.

Trial Exhibits 513B-513D.

William Thompson, the account executive at Young & Rubicam responsible for Kent's advertising, recognized the "non-mineral" reference in the L&M ads as an attack on Kent. Exhibit G, pp. 117.15-118.25.

The 'non-mineral' reference in other advertisements caused Kent's advertising to change. It also appears to have prompted a flurry of activity in Lorillard's research department to prove that the Micronite filter was "dust free". This work was done through non-budgeted expenditures funding outside researchers and through Hollingsworth & Vose.

A. Non-Budgeted Research Expenditures for 1954.

On February 12, 1954, 18 days after the L&M ad first appeared with its attack on the Micronite filter, Dr. Parmele wrote to William Halley, President of Lorillard, summarizing the various outside research projects. In addition to the budgeted outside research expenditures (including \$25,000 for Dr. Fishbein), Parmele listed three non-budgeted projects. Those included \$25,000 for Althea Revere; \$550/month for Dr. David Kendall to "prove the absence of harmful fibers in Kent smoke;" and \$100/day for Dr. E. F. Fullam "to do one specific job for [Lorillard], namely confirm the absence of any harmful fibers in Kent smoke." Trial Exhibit 13.

B. Ernest Fullam

Dr. Ernest Fullam was one of the three individual consultants in the United States who owned an electron microscope in 1954. Exhibit I, pp. 9.13-10.7. On February 12, 1954, Dr. Parmele wrote to Dr. Fullam to authorize him to undertake "the project in question". As stated by Dr. Parmele:

The project involves a study of the fibrous silicates, if any, from the filters of Kent cigarettes. It is understood that a microscopical study is to be made of any fibrous silicates possibly given off from the filters of Kent cigarettes in normal use. If any silicated fibers or fragments can be found, they are to be shown by electron micrographs and if possible, identified by selected area electron diffraction patterns.

...

The solid material to be thoroughly scanned in both the light and electron microscopes with micrographs and electron diffraction patterns made of any suspected fibrous silicates, if found. These are to be compared for identification with similar patterns and pictures prepared from the silicate fibers removed from the unsmoked cigarette filters. As a control, blanks will be run on the acetone to eliminate the possibility of contaminating materials. A report will be prepared describing the work and explaining the results obtained. This will include any micrographs and patterns made.

...

We are sure that we both agree that the work which you will do in our behalf is completely confidential. We further understand that all of the results either as data, pictures, or patterns will become the property of P. Lorillard Company. You naturally, will have duplicates of such experimental results which we again expect you will keep completely confidential, even after the work is completed.

Trial Exhibit 201.¹¹

Dr. Fullam accepted Lorillard's assignment on February 16, 1954 and on February 19, 1954, Dr. Parmele forwarded the first samples for examination. On the same date, Dr. Parmele confidently wrote to William Halley, President of Lorillard, stating that Dr. Fullam's work was underway "for the purpose of confirming the absence of mineral fibers in Kent smoke by the use of electron microscope." Trial Exhibit 203.

On March 26, 1954, Dr. Fullam forwarded his report to Dr. Parmele. Dr. Parmele thanked him for the work and complimented him highly for the presentation of results and data. Trial Exhibit 204.

¹¹ Lorillard also asked Dr. Fullam to examine surgical masks made out of Micronite filter for "indirect advertising reasons."

Unfortunately for Lorillard, the results were not what it expected. On April 26, 1954, Dr. Parmele wrote to William Halley stated:

As you know, Dr. Fullam of Schnectady, New York, recently examined Kent smoke and confirmed Mrs. Revere's earlier observations, namely that such smoke contained traces of mineral fiber. We are embarked upon a program of attempting to work out a method for the elimination of the presence of such fibers in the smoke.

Dr. Parmele went on to say that Dr. Fullam had agreed to do the microscopical examinations of Kents treated to eliminate mineral fiber from the smoke. Trial Exhibit 205.

Unfortunately, Dr. Fullam's report has disappeared from the files of Lorillard.¹² However, plaintiffs took a 30 (b)(6) deposition of the Fullam Laboratories at which the deponent authenticated approximately 200 electron photomicrographs of asbestos in Kent smoke. Moreover, the deponent was able to identify those pictures which were sent to Lorillard in reports. Trial Exhibits 270, 272, and 283 are three electron photomicrographs taken on March 15, 1954 and included in a report to Lorillard.¹³

Dr. Fullam continued with his work and submitted another report to Lorillard which Dr. Parmele thanked him for on July 2, 1954. Again, Dr. Parmele complicated Dr. Fullam on the excellent job. Trial Exhibit 207. Trial Exhibits 322, 325, 329, 344 and 350 are five electron photomicrographs taken in mid June, 1954 and included in a report to Lorillard.

¹² Nobody is sure why the Fullam reports are missing from Lorillard's files. It is noteworthy that complete reports of Dr. Fullam's work for Lorillard in 1959 do exist and were produced to counsel. None of this later work involved the asbestos Micronite filter. Still, other reports, none of them with findings adverse to Kent, are still in the files of Lorillard.

¹³ The Rule 30(b)(6) designee for the Fullam Laboratories has testified that the photographic plates of "Kent Silicates" were marked to indicate whether the shot was included in a report to Lorillard.

On July 20, 1954, Dr. Parmele sent Dr. Fullam 20 packages of Kents, 15 of which had been treated to eliminate asbestos from the smoke. As Dr. Parmele explained:

We will appreciate it very much if you will observe the relative amounts of mineral fiber in the smoke from these four lots, allowing the same general technique which you used in the investigation prior to this. We hope that the results of your examination will disclose that we are on the right track. We are very anxious to have the smoke from our cigarettes as free of mineral fiber as possible – at least as free or as pure as the air we normally breathe.

Trial Exhibit 208 (emphasis added).

Dr. Fullam did his work and forwarded a report to Dr. Parmele, who wrote to Fullam on August 12, 1954, thanking him for the report and complimenting him on the quality of the work. Trial Exhibit 209. Trial Exhibits 362 and 364 are two electron photomicrographs of Sample 2 – “Regular Kents” which were included in Dr. Fullam’s report to Lorillard; both show “Kent Silicates.”

On October 11, 1954, Dr. Parmele sent a package of 12 samples of Kent cigarettes with various treatments for further testing, As Parmele explained:

These samples represent various treatments which we are currently trying in the hopes of reducing the occurrence of mineral fiber in the smoke. We will appreciate it very much if you will examine the smoke from each sample and let us know as promptly as possible whether or not we have been at all successful.

Trial Exhibit 210.

On October 27, 1954, Dr. Parmele sent six additional lots of Kent cigarettes. He explained that:

Again, each lot represents a different treatment for the purpose of eliminating the occurrence of mineral fibers in the smoke. We will appreciate it very much if you will subject these cigarettes to your regular test procedure and let us know the results as soon as such information becomes available.

Trial Exhibit 210.

Dr. Fullam completed this last series of tests for Lorillard and submitted a report on November 21, 1954. Dr. Parmele again thanked Dr. Fullam for "another excellent job well done." Dr. Parmele also stated

It is possible that in the near future we will be sending you eight (8) more lots of cigarettes, after which we hope to be able to "sign off" on the problem in question.

Trial Exhibit 212.

Lorillard never sent any more asbestos Micronite cigarettes to Dr. Fullam. Lorillard did not remove asbestos from the Micronite filter until May, 1956, and never pulled asbestos Micronite cigarettes from distribution. It never told anyone that asbestos was or had been in the filter. In its own words, it "signed off" on the problem of asbestos in the smoke on November 23, 1954. It did nothing.

C. Althea Revere

Althea Revere was one of three electron microscopists in the United States in 1954. Exhibit I, pp. 38-39. On the day the L&M ad first appeared in Time and Newsweek with its slap at the Micronite filter, Dr. Parmele telephoned Althea Revere and secured her services for \$25,000 to study smoke particles and the filter material in Lorillard's cigarettes. As with Fullam's work, the results of the work she did were to be kept strictly confidential. Trial Exhibit 461.

At some point prior to March 31, 1954, Althea Revere reported to Lorillard that smoke from Kent contained traces of mineral fiber.¹⁴

¹⁴ Dr. Parmele's letter of April 26, 1954 to William Halley states that Dr. Fullam "confirmed Mrs. Revere's earlier observations." Trial Exhibit 205. Dr. Fullam's report was sent to Dr. Parmele on March 26, 1954. Trial Exhibit 204.

testified that Althea Revere told him that she had done work for Kent and had taken pictures of smoke from Kent. Mr. Kelly testified that Mrs. Revere showed him the picture of smoke from Kent. Exhibit L, pp. 50-51. In describing this picture, Mr. Kelly testified that it had long, thin needles on it which Mrs. Revere identified as being asbestos, Exhibit L, pp. 60-65.

Trial Exhibit 480 is an article written by Mr. Kelly in 1980. In the article, Mr. Kelly wrote:

She was deeply involved in the asbestos situation and found that a major tobacco company was using a filter with asbestos in it. She raised a major fuss about it because she knew the dangers of the material before most people did. "I knew the unit size of asbestos. It's a needle and it's insoluble in body fluids.

The documents produced by Lorillard concerning Althea Revere are sparse. There are no reports, letters or other communications from Revere to Lorillard. However, from the documents produced by Lorillard, it is clear that the company hired Mrs. Revere in January 1954 to look for asbestos in Kent smoke. The documents also show that by April, 1954, Mrs. Revere had reported to Lorillard that asbestos was contaminating smoke from Kent. The testimony of Jonathan Revere, Lee Revere and Gerald Kelly fill in the missing gaps. Not only did Althea Revere's work demonstrate that asbestos was present in smoke from Kent, but more importantly, this testimony shows that Althea Revere "raised a fuss" and alerted Lorillard to the seriousness of her findings.¹⁵

¹⁵ In a report prepared for the Life Extension Foundation in 1958, Revere and Farr studied the whole cigarette smoke in order to determine, among other things, whether filter material from various popular brands passed through into the smoke which was inhaled. Some deposits from every filter tip revealed pieces of filter material. Trial Exhibit 479, p.103. In the "Discussion" section of their report, the authors state:

To the crepe-paper and cellulose-acetate filaments used in the construction of certain cigarette filters, particulate materials, in the form of cut fibers, charcoal, etc., are added in large quantities. These particulate materials constitute an important part of the smoke deposits from the cigarettes in which they are used. It would seem to be difficult to justify the use of these loosely held

D. Hollingsworth & Vose

H&V was apparently told by Dr. Parmele that Wanda Farr and Althea Revere had discovered asbestos in smoke from Kent and began to do work at Lorillard's request to conduct its own research. On April 23, 1954, Peter Breymeier, Assistant Technical Director of H&V Specialties, wrote to Dr. Parmele to tell him that:

An oil immersion objective has been ordered for our microscope. As soon as this is received, attempts will be made to confirm, or otherwise, the findings of Mrs. Farr.

Trial Exhibit 945.

On April 29, 1954, Peter Breymeier wrote to Dr. Parmele telling him that:

We have just received our oil-immersion objective. As soon as we have had an opportunity to make examinations of Kent smoke, we will inform you of the results.

Trial Exhibit 946.

Finally, on June 4, 1954, Peter Breymeier wrote to Dr. Parmele to tell him that:

In spite of repeated attempts, we have been unable so far to detect any asbestos in the smoke of Kent cigarettes. **This is probably due to inadequate microscopic technique.** We will continue to hunt for these traces of asbestos and let you know the results.

Trial Exhibit 949 (emphasis added).

H&V was also doing work with experimental filters which contained other fibers as substitutes for asbestos. Mr. Breymeier's letter of June 4 also discussed experiments done with asbestos substitutes including Rayon and Nylon.

substances in the construction of any filter, in view of the large quantities in which they pass into the smoke stream.

Trial Exhibit 479, p. 106 (emphasis added). The work of Farr and Revere so favorably impressed the chairman of the Legal and Monetary Affairs Subcommittee on Government Operations of the House of Representatives that he caused the report to be published by the Life Extension Foundation of New York.
Id.

Evidently, H&V was successful in its efforts to substitute these man-made fibers for the asbestos. On September 14, 1954, Dr. Parmele wrote to Mr. Breymeier giving him the tar and nicotine results of cigarettes employing experimental filters made with dacron fibers. According to Parmele, all of the samples performed very satisfactorily. Trial Exhibit 953.

The fact that there were alternatives to asbestos is confirmed by Patent No. 2,765,515 which was applied for on October 7, 1953 and granted on October 9, 1956. This patent, assigned to Harold Knudson to H&V Specialties and Lorillard jointly, states that substances such as glass fibers, nylon, cellulose acetate, viscose rayon, rayon and dacron are satisfactory substitutes for crocidolite asbestos. Trial Exhibit 72. Prior to May, 1956, none of these substances were substituted for the asbestos in the Micronite filter.

E. American Viscose and Richard MacHenry

In the middle of 1954, Dr. Parmele was actively seeking a substitute for the asbestos in the filter. He approached Richard MacHenry of American Viscose located in Marcus Hook, Pennsylvania. American Viscose made staple Rayon fiber, one of the fibers mentioned in Knudson's patent as an appropriate substitute for the asbestos.

Mr. MacHenry was asked about the reason for Dr. Parmele's visit to American Viscose by counsel for H&V at a deposition taken in November, 1995.

Q. I'm very confused here. What was the substance of what Doctor Parmele told you about the dangers of asbestos in the Kent Micronite filter?

A. The dangers were that somebody would claim that they had inhaled asbestos fibers and would sue the company.

Q. For what?

A. For asbestosis or lung cancer.

Q. Who told you that, who told you that that was the danger?

A. Doctor Parmele.

Q. Do you have a specific recollection of him telling you that?

A. Yes.

Q. Would you tell us how it is that you remember that Doctor Parmele told you about the dangers of asbestos in the Kent Micronite filter? What do you remember that?

A. Because that was the basis, the whole basis, for our line of experiments, that's the reason they came to us, to investigate the Micronite – our filter for their fiber.

Exhibit U at 47-48.

Counsel for H&V followed up this questioning as follows:

Q. So you believe you have a memory as we sit here today that the notion of litigation in the future did come up between you and Doctor Parmele?

A. Absolutely.

Exhibit U at 53.

This resulted in further questioning which elicited the following testimony.

Q. Mr. MacHenry, you just testified in answer to Mr. Brake's question, that you have a memory of Doctor Parmele being concerned about claims as a result of the asbestos in the cigarette; is that right?

A. That's right.

Q. Do you have a memory of what Doctor Parmele was concerned about, claims about what, what kind of claims was he concerned about, did he tell you that?

A. I'm sure it's obvious that he was worried about inhaling the fibers and lung cancer. It's just that I don't remember the exact words, but he was concerned about the, let's say the dangers of inhaling asbestos fibers.

...

Q. Your testimony today with regard to Doctor Parmele's concern about the dangers of inhaling asbestos fiber, mainly the diseases that you mentioned, where did that come from, is that from him or from you:

A. He stated that to me.

Exhibit U at 54-55.

On re-examination by counsel for H&V, Mr. MacHenry testified:

Q. With respect to the last question that Mr. Rosenberg asked you, did I understand you to say today that you remember discussions with Doctor Parmele about replacing the organic fibers with inorganic fibers, you remember that; correct?

A. Vice versa.

...

Q. And you gathered that that was, I believe these were your words, you gathered that that was because of a concern about future claims or litigation; correct?

A. Let's not use the word gathered, he said it.

Q. And if you told us during the first examination by Mr. Rosenberg today, that you gathered the reason for the change --

A. That was the wrong word.

Q. Then you misspoke, is that what you're now telling us?

A. Yes.

Q. As you sit here now, ten past one, you are telling us you have a distinct memory of litigation and claims coming up in our discussions with Doctor Parmele; is that right?

A. He just mentioned the possibility. It was prudent to replace them.

Exhibit U at 58-59.

F. The Final Solution

By the end of 1954, the future of asbestos in Micronite looked bleak. Fullam and Revere had both found asbestos coming through in the smoke. Revere had raised health concerns with Lorillard. Pictures of asbestos in Kent smoke gave graphic evidence of the problem. Although H&V had tried to duplicate the work of Revere, it had not been able

to due to self-acknowledged inadequate scientific technique. However, Lorillard and H&V had a problem in that they could not find an adequate substitute.

On December 1, 1954, Dr. Parmele wrote to Harold Knudson, Technical Director of Hollingsworth & Vose. In his letter, Dr. Parmele explained:

We have finally received a report from Dr. Ernest Fullam, the electron microscopist in Schnectady, covering the first 18 samples of experimental Kent cigarettes with which we furnished him. It occurs to us that you may be interested in receiving a summary of Dr. Fullam's findings.

...

We have carefully studied the data in question and must admit that it makes very little sense. We presume that you will agree. As a matter of fact, it makes so little sense that we somewhat question the advisability of sending him additional samples which have been accumulated in recent weeks. **We feel this way particularly since it is our intention to eliminate the use of asbestos in the very near future. However, if it were not for the money involved, it might be interesting to go ahead and submit the additional samples in question in order to acquire a background of information which someday in the future might be useful.**

Trial Exhibit 213 (emphasis added).

Dr. Knudson promptly wrote back, stating:

The other two letters pertain to the problem of anchoring the asbestos in the present Micronite finish. In view of the contemplated elimination of asbestos, we did not wish to go into any detailed analysis of Dr. Fullam's findings at this time. It does seem obvious that his test results make little sense. If you desire, we will go into this problem in greater detail after the present program of deciding on a colored substitute for the asbestos has been solved.

Trial Exhibit 214 (emphasis added).

By early December of 1954, both Lorillard and H&V had conducted tests to see whether asbestos passed into the smoke of Kent. Both Lorillard and H&V knew that Fullam and Revere and Farr had reported the presence of asbestos in the smoke. Dr. Knudson referred to the presence of asbestos in smoke as a "problem of anchoring the

asbestos in the present Micronite furnish.” Despite this awareness, neither Lorillard nor H&V was worried about what effect this asbestos would have on smokers of Kent. The primary concern of these two corporations was centered around finding a colored substitute for the asbestos.

Both Parmele and Knudson were very critical of Dr. Fullam’s report (despite Dr. Parmele’s congratulations to Dr. Fullam for “another excellent job well done”). When asked whether he took any steps to determine whether Fullam was right or wrong, Knudson replied:

I did not. We were – in view – we were in danger of losing our business because of price, and that was the emphasis that we were working toward.

Exhibit A, pp. 220.4-221.9.

Evidently, Lorillard and H&V did not immediately find a colored substitute for asbestos. The Micronite filter was manufactured in an unchanged form until at least May, 1956, Exhibit A pp. 231.4-231.15.

According to Lorillard’s own salesman, cigarette products were only pulled from shelves after one year. Exhibit M, p.42. Thus, Kent with the asbestos Micronite filter, could have been available for purchase up to May, 1957, more than three years after Lorillard first knew there was a problem.

VIII. Reactions to Bad News

The principal actors reacted differently when faced with the bad news that asbestos was not properly “anchored” in the Micronite filter. Their conduct, however, has a common theme. Circle the wagons and protect your own personal interests.

A. Harold Knudson

At the age of 40, and soon after Kent was introduced, Dr. Knudson took up smoking. Needless to say, his brand was Kent. However, after he learned that asbestos was not “anchored” in the filters of the cigarettes he was smoking, Dr. Knudson took steps to ensure that he was no longer at risk: he quit.

In his videotaped deposition, Dr. Knudson testified that he quit in late 1954 or early 1955. However, according to the witness, the fact that his quitting occurred right around the time he was writing to Parmele about the problem of “anchoring” the asbestos in the Micronite filter was merely coincidental. Exhibit A, pp. 288.1-290.18.

B. Lorillard’s Advertising in the Popular Press

Lorillard took a different tack with its advertising. On March 1, 1954, a scant five weeks after the first L&M ad, Lorillard’s popular press advertising copy started to discuss the physical attributes of the Micronite filter, stating that “Kent, and only Kent, has the Micronite Filter . . . made of the **safest**, most effective material ever used on a cigarette.” Trial Exhibit 503A (emphasis added).

On March 15, 1954, ads began appearing that went even further, stating that Kent – and Kent alone – has the **pure, safe, dust-free Micronite Filter...** Trial Exhibit 503B (emphasis added). On April 5, 1954,, ads began appearing which slightly amended this theme to state the following:

Fact: The Micronite Filter is made of a **pure, dust-free** material that is to **safe**, so **effective** it is even used to help filter the air for hospital operating rooms.

Trial Exhibit 503C (emphasis in original).

On April 19, 1954, Lorillard took its boldest step of all in the popular press in a blatant attempt to imply that the AMA endorsed Kent cigarettes and the safety of the Micronite filter.

In 1953, the AMA had conducted tests on the efficiency of various filter cigarettes. The results were published in an article in the Journal of the American Medical Association on July 4, 1953. Trial Exhibit 720. No cigarette was named by brand, but cigarette "B" was found to be the most effective. Cigarette "B" was Kent.

Lorillard's advertisement claimed that the results of the AMA study proved that Kent filtered best. It also made the following claim:

And remember, KENT and **only** KENT has the Micronite Filter, made of a pure, dust-free, completely harmless material that is not only so effective, but so safe that it actually is used to help filter the air in operating rooms of leading hospitals.

Trial Exhibit 503D (emphasis in original). The AMA study made no mention of the safety or harmlessness of the Micronite filter, nor did it discuss the purity or dust-free qualities of Micronite. The implication, however, was there.

This advertisement went too far for the AMA, which labeled it "Cigarette Hucksterism" and an "outrageous example of commercial exploitation of the American medical profession." Prophetically, the Journal of the American Medical Association stated:

The presentation of one fact and the exclusion of all other pertinent facts can result in a serious misrepresentation of the true status of health in relation to the smoking problem. Smokers who are misled are likely to obtain a false sense of security without real protection.

Trial Exhibit 533.

Lorillard let loose a counter-blast taking out full page ads in the newspapers where the original AMA advertisement had appeared. Trial Exhibit 535, and continued with its "Safe, Harmless and Dust-Free" theme in the popular press until June 29, 1954.

Trial Exhibits 503E and 503F. A listing of which magazines these ads appeared in and their respective dates is attached as Trial Exhibit 510.

William Thompson, the advertising executive at Young & Rubicam in charge of the Kent account, explained why the word "safe" was used:

Because we deal in advertising it was implying that there was something harmful about a mineral-based – or a filter with minerals in it so therefore, they were alerting people to – alerting readers they hoped to be sensitive to any other filter. There might be something dangerous in other filters and what they were trying to do here was to say, if you are alarmed by what you are reading in that L&M advertising, it is not referring to our brand.

...

It was to counter L&M planting of the mineral idea. There is nothing harmful about our product.

...

It was serving the function of refuting what L&M was trying to make people believe.

Exhibit G pp. 185.3-186.2).¹⁶

The "safe", "harmless", and "dust-free" advertisements ceased appearing in the popular press on June 29, 1954. When Kent advertising in magazines started up again in October of 1954, the slogan changed to the "voice of freedom", a campaign which Young & Rubicam labeled "an effort to sell health protection by implication." Trial Exhibit 549, p.7.

¹⁶ Apparently Liggett & Myers had considered using asbestos in its L&M filter cigarettes, but decided against it. The reason for not using asbestos, according to a document produced by L&M is as follows: "to begin with, glass containing and asbestos containing materials (which are good filtering media) were eliminated from consideration due either to appearances or possible hazards to the smoker's health." Trial Exhibit 1102.

Regardless, the ads touting the “safe”, “harmless”, and “dust-free” qualities of Micronite appeared after Lorillard knew that harmful asbestos was contaminating smoke from Kent cigarettes.

C. Lorillard’s Advertising in the Medical Press

The “Safe”, “Harmless” and “Dust-Free” campaign was carried into the medical press as well. The advertisement stated:

WHY is it, Doctor, that one filter cigarette gives so much more protection than any other? The answer is simply this: Among today’s nine brands of filter cigarettes, KENT, and Kent alone, has the **Micronite Filter** ... made of a pure, dust-free material that is so safe, so effective it has been selected to help filter the air in hospital operating rooms.

Trial Exhibit 509I (emphasis in original). This ad first appeared in April, 1954 and continued at least through November, 1954. A listing of the journals it appeared in and the dates it appeared is attached as Trial Exhibit 510.

As with its claims in the popular press, Lorillard made these claims of “safety”, “harmlessness”, etc. after it knew that harmful asbestos was contaminating smoke from Kent. These advertisements continued until at least November of 1954, a full seven months after Lorillard first knew asbestos was present in Kent smoke. What is particularly outrageous about the medical advertising is the fact that Lorillard was making these representations to the medical profession in an attempt to get doctors to “prescribe” Kent to patients who wanted to cut back. Exhibit G, pp. 62-63.

D. Armour Research Foundation Investigations

As discussed above, Lorillard decided to take no further investigation into the presence of asbestos in smoke in December 1954. This decision was made, according to Dr. Parmele, due to its intention to remove asbestos from the Micronite filter.

Electron microscopy techniques are especially attractive in this work. If the various problems associated with aerosol manipulation in the microscope vacuum chamber can be resolved, positive, unambiguous answer [sic] to many of the questions of particle size, of size distribution, and, to some extent, of composition may be obtained.

Trial Exhibit 33, pp. 37-38.

This was no news to Lorillard. They had already hired two of the country's three electron microscopists, both of whom had found that asbestos was present in smoke from Kent.

On September 27, 1954, Dr. Parmele wrote to President Halley about cost overruns on the Armour Research Foundation project.

The principal reason for the overrun in question was brought about by our request to the Armour Research Foundation that they observe Kent smoke for the presence of asbestos fibers. It is interesting to note that to date they have observed no such fibers in the smoke ...

Trial Exhibit 34.¹⁷

On January 7, 1955, after Lorillard knew that smoke was contaminated with asbestos and after it had decided to "sign off" the problem, Lorillard wrote to the Armour Research Foundation instructing them not to look for foreign materials in smoke.

We do not believe it necessary to run any studies on the presence of ash particles and various foreign materials in smoke.

Trial Exhibit 35.

Lorillard's reluctance to have the Armour Research Foundation examine for foreign materials in smoke can be explained by the fact that both Lorillard and the ARF

¹⁷ This is the only document relating to the Armour Research Foundation where the word "asbestos" appears. There is absolutely nothing in the record to suggest that Armour Research ever knew that it was looking for asbestos. Indeed, the other documents relating to Armour, by virtue of the absence of any mention of asbestos, and by virtue of the suggestion that the search for foreign material in smoke was "not important enough to go into in a large way" suggest that Armour may have been kept in the dark. If Armour did not know what it was looking for, it is not surprising that it did not find it.

were looking forward to publishing the results of the work to date. Trial Exhibit 35. Lorillard could ill-afford to have a published study mention that asbestos was present in smoke from Kent.

In 1997, new documents relating to the work done by the Armour Research Foundation were discovered at the Illinois Institute of Technology. Included in the production were two monthly progress reports, a summary report and a formal report dating from September, 1954 through February 1955. See Trial Exhibit 40.

The first recently discovered document, titled Progress Report No. 11, details work done from August 19, 1954 to September 25, 1954. The report states:

Figure 3 shows the presence of a few asbestos fibers from the Kent filter; they are the long, needlelike particles in the picture. Up to 20 or so fibers were found in a 1950-cc air sample. However, subsequent samples from the same cigarette have hardly any fibers. In one case a large bundle of undispersed fibers was found, as shown in Fig. 4. When 1 cm of a Kent was smoked and then extinguished, no fibers could be collected. When the cigarette was smoked just enough to light it, three fibers were deposited in a filtration test.

Progress Report No. 12, summarizing work done from September 25, 1954 to October 29, 1954, again discusses the presence of asbestos fibers in the aerosol of Kent. It states.

The study of the presence of asbestos fibers in the aerosol leaving the Kent cigarette has been followed up. A filter from a Kent cigarette smoked for one puff was carefully opened above a microscope slide. Many of the asbestos fibers fell on the slide and could be examined under the microscope for the presence of smoke particles. ... In PR 11, it was shown that very few asbestos fibers were found when 1500 cc of air were pulled through a Kent cigarette that had been smoked for one puff.

A document titled "Summary Report, November 1954", discusses the subject of asbestos in the smoke from Kent as does Formal Report 4, dated February 15, 1955. As

with the Fullam and Revere reports, these reports have disappeared from the files of Lorillard.

IX. Post-1954 Conduct

By the end of 1954, both Lorillard and H&V were agreed on one point: further research into the asbestos in Kent smoke was a waste of time and money. Both Lorillard and H&V took this position despite the fact that neither one had ever sought to quantify the amounts of asbestos which were coming through the filter. Exhibit I, pp. 38.2-39.3. Both Lorillard and H&V also took steps to insure that 1) sales would continue; 2) profits would continue; 3) the public would not know about the asbestos in the filter; 4) physicians would not know about the asbestos in the filter, and 5) people at Lorillard and Lorillard's advertising agency would not know about the testing that had been done.

A. Sales Continued for More Than Two Years

As discussed above, Lorillard certainly knew that asbestos was contaminating smoke from Kent by April 26, 1954. Despite this awareness, and despite its failure to ever quantify the amount of asbestos present in smoke in order to determine the extent of the risk, Lorillard admits to selling Kent cigarettes in an unchanged manner until at least May of 1956. See also Exhibit A, pp. 231.4-231.15. From 1954 through 1956, Lorillard sold a total of ten billion Kent cigarettes. Exhibit N.

Other evidence suggests that the asbestos filter was manufactured in an unchanged form until at least early 1957.

A publicity piece put out by Lorillard on its 200th anniversary in 1960 states that the "New" Micronite filter was not even invented until February, 1957. Trial Exhibit 112, pp. 37-38. The president of Hollingsworth & Vose and H&V Specialties in the

Revere – 25,000 and Fullam 1,500 appear. There is also a notation that from 1952-1955 sales were 10.336 billion cigarettes. Trial Exhibit 980.

No other correspondence relating to Dr. Knudson's request exists. However, the letter alone, with the handwritten notes, makes it clear that both Lorillard and Specialties were still interested in pursuing commercial gain with the asbestos Micronite filter.

C. H&V Continued to Look For A Market For Its Cigarette Filter Media

Despite its awareness of the fact that asbestos from Micronite filter contaminated smoke, and despite its readiness to forego any testing which would quantify the amount of asbestos present in smoke, H&V was actively seeking out markets for its filter media well after Lorillard had started making Kent with an asbestos-free material.

On July 18, 1957, Stanley Pasternak, Development Engineer for H&V Specialties visited Dr. Ernest L. Wynder at Sloan Kettering in New York City. This was the same Dr. Wynder who wrote the first articles associating the tars in cigarette smoke with lung cancer back in 1950. This trip was apparently an attempt to discuss with Dr. Wynder the attributes of asbestos-containing filter media. Dr. Wynder told Mr. Pasternak that "asbestos is considered undesirable as would be any material, organic or inorganic, that could dust out and enter the lungs." Trial Exhibit 986. H&V never did market its asbestos filter media to another cigarette manufacturer and on December 31, 1957, the company was merged back into its parent, Hollingsworth & Vose.

H&V's willingness to market its asbestos filter media for use on a cigarette is exemplified by the testimony of Dr. Harold Knudson, the inventor of Micronite. In his discovery deposition, Dr. Knudson testified as follows:

production of the filter media ceased in mid-1956, it is hard to believe that the President of both H&V and Specialties was unaware that his company was not making filter media for a year.

Q. Now, is there any reason why, if a cigarette company approached you today and indicated that they wished to use your invention in a cigarette in 1991, you would try to persuade them not to do it:

A. Well, that's a pretty hypothetical question.

Q. Well, do your best, doctor.

A. I would have no reservations.

Exhibit F, pp. 288.3 – 288.23. When asked about this answer in cross-examination on videotape, Dr. Knudson back-pedaled.

Q. Doctor, now we've had the deposition testimony that you gave this morning read back. Do you stand by that answer that you would have no reservations about having your invention used today on a cigarette filter – on a cigarette as a filter?

A. I assume it might be modified, but the – I meant to imply I would have no reservation about working with another cigarette company.

Q. You do not mean to imply that you had no reservations about using blue asbestos in a cigarette filter media?

A. I didn't say that.

Q. Well, would you have reservations about using blue asbestos in a cigarette filter media in 1991?

A. Not for the reason that you're inferring.

Q. Not for reasons of health?

A. No.

Q. You would have – just so I'm clear as to your answer, doctor, because of the negatives, you would not be concerned about the possible health implications of using blue asbestos as part of a cigarette filter media in 1991?

A. I would wish to confirm that there was no migration of the fiber.

Q. And if there was migration of fiber, you would never want blue asbestos to be used in a cigarette filter, isn't that right?

A. That's a fair statement.

Q. Because it would be potentially deadly?

A. I didn't say that.

Q. Well, why wouldn't you, doctor?

A. Because I choose not to.

Q. Because of your personal preference, or for some other reason, Doctor?

A. I can't give you an answer.

Exhibit A, 307.6-309.8.

D. Disappearing Reports and Blissful Ignorance

As stated above, all four reports of Dr. Fullam and any reports of Revere and Farr have vanished from the files of Lorillard. Other reports generated by Dr. Fullam in 1959 which had nothing to do with the asbestos-containing Micronite have not disappeared. See Trial Exhibits 220 and 223. Only through chance have plaintiffs been able to reconstruct part of the Fullam reports by virtue of Dr. Fullam's practice of keeping all electron photomicrographic plates. As discussed above, the substance of the Revere reports has been reconstructed through the testimony of her son, Jonathan Revere, and newspaper writer, Gerald Kelly.

The presence of asbestos in Micronite was a well-kept secret. It was so well kept that the present Division Manager for Lorillard responsible for selling Kent in the 60 southern counties of Illinois, a man who has been with the company since the early 1950s, did not know that asbestos was in the original Micronite filter until the late 1980s. Exhibit M, pp. 74.18-76.16.

Lorillard has never stated in any public document that its filter contained asbestos between 1952 and 1957. No advertisement ever mentioned the word asbestos.

Dr. Fullam. Dr. Spears also testified that he did not know if Lorillard knew that asbestos was escaping from the Micronite filter prior to its initial sales to the public. Basically, Dr. Spears knew nothing. Exhibit D, pp. 180.9-185.9.

Dr. Knudson's testimony about his awareness of asbestos escaping from the filter is very inconsistent. The following colloquy is taken from his direct examination by his own counsel:

Q. Doctor, do you have any personal knowledge that asbestos fibers escaped from the Kent filter while the Kent cigarette was being smoked?

A. What do you by personal experience?

Q. Do you have any knowledge that fibers came out of that filter?

A. I do not.

Exhibit A pp. 129.10-129.16.²⁰ Dr. Knudson even went so far as to give an opinion to a reasonable degree of scientific certainty that no asbestos could escape from the filter. Exhibit A pp. 129.17-135.16.

In his discovery deposition taken the next day, Dr. Knudson was asked whether the Kent cigarette with the Micronite filter was ever tested to see whether asbestos fiber was escaping from the filter when the cigarette was smoked. He gave the following answer:

I'm sure there were some efforts made to determine that. I recall no occasion on which there were any suspicion that it came out.

Exhibit F pp. 191.18-192.1. Dr. Knudson also "vaguely" recalled that Lorillard had some work done. Exhibit F at 192.14-192.21.

²⁰ In his testimony under cross-examination by plaintiffs' counsel, Dr. Knudson admitted that he had written the December 3, 1954 letter to Parmele discussing the problem of "anchoring" the asbestos in Micronite (Trial Exhibit 214), and admitted that he was aware that Dr. Fullam believed that asbestos was coming out in Kent smoke. Exhibit A pp.215.24-217.5;217.24-219.15;223.8-225.1

William Thompson, the Young & Rubicam executive in charge of the Kent account, was never told that asbestos was escaping into the smoke. Exhibit G pp. 132.19-134.6.

The coincidences are too many. Nobody remembers anything about any problems with asbestos passing through the filter. All the reports are missing. However, despite the total ignorance of each of these witnesses concerning the results of testing which was done, every one of them, except William Thompson, is certain that there was never a problem.

According to John Bohlken "it's not a question of even thinking it was a problem". Exhibit P, p.116.14. Mr. Bohlken also testified that the filter was so compressed it was "like plywood; I mean, it was as tight as a drum and if anything could leak out of it, I don't know how." Exhibit P pp. 118.10-118.20. Smoking through a piece of plywood?

According to Spears as the spokesman for Lorillard, there is little possibility that any fibers came from the filter because of the "physical forces" holding them in. Exhibit D pp. 198-22-199.16.

Finally, according to Knudson, in a surprise entry as an "expert witness,"²¹ no fiber could ever escape from the filter due to the "molecular forces", "moisture" and "compression".

Everybody knew nothing could come through. However, there is no research, other than the vaunted "tongue test" to prove it.

E. Responses to Public Inquiry and the Right to Know

²¹ At the videotape deposition of Dr. Knudson, defendants, without any prior notice, elicited "expert opinions" from the witness. Plaintiff strenuously objected, citing the lack of notice and qualifications.

Q. should be advised of the – that a filter contained asbestos then?

A. I think if people were advised of everything that everybody would like to advise them of, they would be swamped with information. I think if you believed you had relevant information at the time, you might consider appropriately divulging it, but what would be relevant about that in 1952, particularly with tests that would indicate there was no exposure.

Exhibit D pp. 217.2-218.3.

Lorillard's and H&V's paternalistic attitudes have not changed one iota since 1952. If the news is bad; bury it. If the news is good; sound the trumpet. If people ask for information, dodge the request. Let Lorillard, with its paternalistic goal of preventing consumer overload, decide what information should be disseminated.

F. The Shift to "New" Micronite.

Lorillard has steadfastly adhered to the position that the shift to non-asbestos "New" Micronite was prompted by cost concerns and had nothing to do with health concerns. There are, however, indications in the documents Lorillard has produced that the safety of asbestos in Micronite was an issue.

In a letter from Parmele to Halley dated May 8, 1953, the issue of the safety of Micronite was raised as a topic which deserved the attention of the department heads at Lorillard. Trial Exhibit 11.

In another letter from Parmele to Halley, this time dated June 15, 1953, the writer told Lorillard's president that the hygienic properties of asbestos had been called into question. Dr. Parmele also told Mr. Halley that it might be appropriate to inform Mr. Kent himself of the implications of using asbestos in Micronite. Trial Exhibit 12.

In addition to the above, there is other evidence that Lorillard changed its product because of health concerns. In January of 1958, Sidney J. Wain, Inc, Lorillard's public relations agency, discussed the reasons for shifting to "New" Micronite.

The new Kent filters are now using a natural and/or organic type of micro-fiber (wood). Originally, (back in 1952), a type of asbestos was used which, while very effective, **was thought in some circles to be a health hazard of its own.**

Trial Exhibit 565 (emphasis added).

Whether or not Lorillard changed its filter design for health concerns makes no difference in assessing the wanton nature of its conduct. If it changed the filter media for health concerns, there was no excuse for waiting more than two years after it found out asbestos was in the smoke to effectuate the change. If it changed only because of the high cost of manufacture, it callously placed its quest for sales and profits ahead of the health of its customers.

One thing is for certain. H&V Specialties would have continued selling Micronite as long as Lorillard was buying it.

X. The Standard for Imposition of Punitive Damages

Minnesota's wrongful death statute specifically provides that "[p]unitive damages may be awarded as provided in Section 549.20", M.S.A. §573.02 subd. 1 (1999). Minn. Stat. §§ 549.191 and 549.20 govern when punitive damages may be awarded in a civil action. §549.20 provides in pertinent part as follows:

Subdivision 1. (a) Punitive damages shall be allowed in civil actions only upon clear and convincing evidence that the acts of the defendant show a deliberate disregard for the rights or safety of others.

(b) A defendant has acted with deliberate disregard for the rights or safety of others if the defendant has knowledge of facts or intentionally disregards facts that create a high probability of injury to the rights or safety of others and;

press. It also found it entirely practicable to tell the medical profession that for patients who needed protection, Kent was the cigarette to prescribe. It also found it entirely practical to tell the medical profession that the ingredients in the filter were “pure”, “harmless”, “safe”, and “dust-free”. There is absolutely no practical reason why Lorillard could not have taken steps to inform people who smoked Kent during the period 1952-1956 that there is at least a potential risk of harm. There is absolutely no practical reason why Lorillard could not have taken steps to inform the medical community that they should be on the alert for asbestos-related diseases in people who were not occupationally exposed to asbestos. Despite this, Lorillard and H&V have never informed anybody that their product contained asbestos, much less that there was a problem keeping it anchored in the filter.

In its rush to Micronite, Lorillard and H&V cut corners and failed to do the work they should have done to ensure that the asbestos it knew was a hazard was not passing into the smoke. Once Lorillard actually had available, graphic evidence of asbestos in Kent smoke and passed that information on to H&V, these two defendants had a number of options. They could have removed the product from distribution until they had solved the problem; or they could have kept the product on the market until they had solved the problem; and they could have kept the product on the market regardless of whether or not they solved the problem. Of these three choices, Lorillard, with the blessing of H&V, opted for the third. By making this choice, Lorillard and H&V placed the importance of sales and earnings over the importance of its customer's health. One percent of the American smoking public continued to puff approximately 10 billion asbestos-laden Kents for two and a half years after these two corporations finally found a solution to

their problem. Asbestos was eliminated from the product and all hard evidence of the “problem of anchoring asbestos” in Micronite disappeared.

It is hard to imagine more appropriate circumstances for the imposition of punitive damages. No company other than Lorillard has told a consumer to suck on its asbestos product for “guaranteed health protection.” No company other than Lorillard has told consumers that its products were “safe, harmless and dust-free” once it found out that asbestos from the product was inhaled into the lungs of users. No company other than Lorillard has ever told physicians that its products were “safe, harmless and dust-free” in an effort to have those physicians tell patients to use the product.

Here, both Lorillard and H&V have admitted to knowing health risks. Other testimony demonstrates that they were told of health risks by others. Both have admitted to doing nothing to inform people of the risks. As if this is not enough, both Lorillard and H&V took active steps to allay any concerns of physicians and consumers about the risks they did such a good job of hiding. As a result of defendants conduct, the seeds of disaster have started to sprout. It is time for Lorillard and H&V to reap what they have sown.

In Horowitz v. Lorillard, No. A072695 (Calif. Ct. of Appeals) slip op. Dated August 12, 1997, the California Superior Court held that the evidence of Lorillard’s and H&V’s conduct was sufficient to uphold a jury’s award of punitive damages against both defendants. While the opinion was not published in official reports, it does contain a detailed examination of the evidence and discussion of the appropriate standard. As the Court stated: “We conclude substantial evidence supports the punitive damage award against Lorillard.” Slip Op. At 21. A copy of this opinion is attached as Exhibit “V”.

With regard to H&V, the court stated that the evidence from Mr. Comproni and correspondence between Knudson and Parmele “constitutes substantial evidence that H&V acted with malice, oppression and/or fraud sufficient to support the punitive damage award.” Slip op. At 25. The imposition of these punitive damages was affirmed by the California Supreme Court, and both Lorillard’s and H&V’s petition for certiorari to the Supreme Court of the United States was denied.

XI. Conclusion

Plaintiff is hard pressed to conceive of a more appropriate factual situation for the imposition of punitive damages. Lorillard’s and H&V’s reaction to bad news did not involve a mere lack of action; it involved deception and misrepresentation.

Failure to allow a claim of punitive damages against these two defendants will send a message to the manufacturers of this country that when faced with evidence that their products pose a substantial risk of harm to consumers, they should tout the safety and usefulness of their products, cleanse their files of the hard evidence demonstrating the dangers of the product, cross their fingers and hold their breath during the disease latency period hoping that the victims of their misconduct and their victim’s physicians will misconstrue the source of injuries caused by the product.

Based upon the foregoing, plaintiff respectfully requests that plaintiff be permitted to amend her Complaint to add a claim for punitive damages against both Lorillard and Hollingsworth & Vose.

DATE: 4/17/99

Respectfully submitted.

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STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF ST. LOUIS

JUDICIAL DISTRICT
SUBJECT MATTER: PERSONAL INJURY
ASBESTOS/SULLIVAN
Court File No. C1-96-601960

Joanne Carlson, as trustee for the
next-of-kin of Richard Carlson,

Plaintiff,

v.

AFFIDAVIT OF BERNIE M. DUSICH

Lorillard, Inc., et al,

Defendants.

STATE OF MINNESOTA)

: ss.

COUNTY OF DAKOTA)

Bernie M. Dusich, being first duly sworn, under oath, deposes and states:

1. That he is one of the attorneys representing Joanne Carlson, plaintiff in the above-entitled matter.

2. That attached hereto and marked as Exhibits A through V, are true and correct copies of pages of the discovery depositions taken in various cases, along with depositions to preserve testimony, all of which have previously been obtained by defendants Lorillard and Hollingsworth & Vose.

3. That all of the exhibits referred to as Trial Exhibits in the Memorandum of Law and marked as Plaintiff's Exhibits are true and correct copies of documents that have previously been provided to Lorillard, the vast majority of which have been obtained from Lorillard in discovery of various cases.

Further your affiant sayeth not.



Bernie M. Dusich

Subscribed and sworn to before me
this 17 day of November, 1999.



Notary Public

DIANE P. KACHLER
NOTARY PUBLIC - MINNESOTA
DAKOTA COUNTY
My Commission Expires Jan. 31, 2000

Trial Exhibit 758. It is significant that Dr. Parmele does not suggest that Dr. Fishbein change the chapter on cancer which reads as follows:

Evidence suggests that some cases of lung cancer have resulted from exposure of industrial workers to dust or vapors containing such substances as ... asbestos.

Trial Exhibit 701, Chapter 6, p. 26.

D. The Chicago Doctors' Throat Study

Beginning in early 1954, Lorillard sent free cartons of Kent cigarettes to 20 doctors of the staff of Cook County Hospital for a period of approximately 2 months. The physicians were to give their opinions as to whether cough and irritation had improved. Once again, Dr. Fishbein acted as a facilitator. Trial Exhibit 759.

In June of 1954, Dr. Fishbein forwarded the physicians' comments to Dr. Parmele, together with a report of the principal investigator. Trial Exhibit 769.⁷

Lorillard was not impressed with the physicians' throat experiment and did not feel that it had gotten its money's worth. The poor quality of the research did not, however, dampen Lorillard's enthusiasm about the usefulness of the results. As Dr. Parmele stated in a letter to Dr. Fishbein on June 10, 1954:

Nevertheless, the results, such as they are, are reasonably convincing and, of course, are in our favor. When combined with similar data from the other three collaborators, they may work out all right.

Trial Exhibit 770.

⁶ Dr. Fishbein's 150 page book which was produced by Lorillard is Trial Exhibit 701.

⁷ One of these physician's letters specifically raises concerns about the presence of asbestos in the filter.

The other concern I have had is the effect of the asbestos which is used in the filter. There have been unofficial reports of cases of asbestosis found in people smoking "Kent", and said to be solely as a result of such smoking.

... I feel that as an individual "Kent" served my purpose best but I would like to see a scientific investigation of the effects of the asbestos contained in the filter."
Trial Exhibit 767 (emphasis added).

The documents produced by Lorillard show no activity with Mrs. Revere between April and October 1954. However, on October 11, 1954, Dr. Parmele wrote to Mrs. Wanda Farr, Mrs. Revere's co-worker:

Under separate cover, we are sending you 12 samples of Kent cigarettes in which the filters have been treated by various and sundry means to reduce the occurrence of asbestos mineral fiber in the smoke. We will appreciate it very much if both you and Mrs. Revere will give these samples your usual good attention and let us know as promptly as possible what, if anything, has been accomplished.

Trial Exhibit 471.

All reports written by Mrs. Revere or Mrs. Farr have disappeared from the files of Lorillard.

However, there are three witnesses to the work done by Althea Revere. They are her two children and a newspaper reporter.

Jonathan Revere is the son of Althea Revere. In a deposition taken on September 4, 1991, Mr. Revere testified as to his knowledge of the work his mother had done for Lorillard. This knowledge, according to Mr. Revere, was the result of over 100 conversations over 30 years with his mother where they discussed the work she had done for Lorillard. When asked what his mother had told him about the Lorillard job, Mr. Revere testified:

[s]he was hired by P. Lorillard in 1954 to undertake a study of smoke aerosols emanating from Kent cigarettes with the original Micronite filter. She performed that work, reported to P. Lorillard, was paid for her work and that in a summary to that report at some time or other during the course of the contract attempted to alert the research department of Lorillard, who were her clients, that there were, there was a presence of discernible particles of asbestos in crystalline form, I believe, summarizing what she told me, that had they been inhaled by a human being would have entered the lungs, and because of the physical structure of the asbestos particles, which were sharp, would have become, some of them would have become embedded - might, might, become embedded into lung tissue.

A further problem which my mother discerned was that those particles of asbestos because of their being carried within the smoke aerosol attracted and carried concentrated liquid droplets of nicotine and tar which posed a further physiological side effect. My mother said to me that it was part of her summary report to P. Lorillard that she felt this posed a severe problem to the continuing use of the original Kent Micronite filter. My mother never said to me whether she recommended that Lorillard immediately cease production and sale of the Kent Micronite filter but that she did put in language into her report reflecting the seriousness of her findings.

Exhibit J, pp. 174-176.

Mr. Revere's testimony is corroborated by the testimony of Lee Revere, daughter of Althea Revere. In a deposition taken on September 4, 1991, Lee Revere testified that she recalled the work for Lorillard, and recalled written reports being sent to Lorillard by her mother. When asked what her mother told her about the work for Lorillard, she testified:

My mother talked about how Kents were advertised as such a great, safe filter and how they weren't at all. They were extremely dangerous.

...

Basically, it concerns her finding in the filter about asbestos and how deadly the stuff is, and how it was made, it didn't filter out. It kept the carcinogens, enhanced them with those needle-sharp, what looked like crystals that were in there.

Exhibit K, pp. 20-23.

Finally, the fact that Althea Revere warned Lorillard of the impact of asbestos in smoke from Kent is corroborated by the testimony of Gerald Kelly, presently the editor of the Martha's Vineyard Times newspaper.

In a deposition taken on September 5, 1991, Mr. Kelly testified how, in 1980, he conducted an interview with Mrs. Revere which resulted in an article published in the Grapevine, another newspaper on Martha's Vineyard. In his testimony, Mr. Kelly

However, in addition to doing no further work through Dr. Fullam, Mrs. Revere or H&V, Lorillard asked that other outside researchers on its payroll not undertake any steps which might reveal the presence of asbestos in smoke.

On February 16, 1954, Dr. Parmele wrote to M.A. Fisher at the Armour Research Foundation asking him to do some research in addition to what had already been budgeted for. Dr. Parmele explained:

Earlier work done here in our laboratory has indicated that smoke from an ordinary cigarette contains traces of what might be termed foreign particles, such as mold spores, grains of silt, and the like. Therefore, in the course of your regular work on our project, we wonder if Mr. Langer could make casual observations for the presence of such foreign material when viewing normal smoke particles under the microscope. We would particularly be interested in knowing whether the foreign material is any different in Kent smoke than in Old Gold smoke. We believe that there will be no evidence of particles of the Micronite filter in the Kent smoke. Although all of this would be interesting to know about, it is, of course, not important enough to go into in a large way. It simply occurred to us that during the normal course of Mr. Langer's experiments, he might incidentally make certain observations relative to the above.

Trial Exhibit 32.

The Armour Research Foundation submitted its report to Lorillard on April 15, 1954. In the section of their report dealing with "Microscopy", the investigators reported that:

Since the smoke particles are mostly in the submicron range and some are beyond the resolution of the optical microscope, electron microscope pictures should be of value. Conventional electron microscopes are capable of magnification of 100,000s in contrast with the maximum figure of about 2000x for conventional light microscopy. With this magnification, the size of the smallest particles could be obtained. Also, these pictures would show the extent to which solid particles are present inside the individual liquid droplets. Therefore, the exploratory work described below was undertaken with the electron microscope. This investigation has not been completed, since the optical microscope has given sufficient information, but it does show that electron microscopy of smoke particles should be feasible. ...

1950s has testified that he did not know that Lorillard was going to use a new filter on Kent until it was publicly announced on the radio. Exhibit O, pp. 157-158.¹⁸ Lorillard's own annual report states that this public announcement occurred in May, 1957. It strains credulity to believe that the President of H&V Specialties was kept in the dark for one year about his company's loss of the Lorillard contract.

This evidence supports the allegation that the manufacture of filter material continued until May of 1957. As discussed above, Lorillard's own witness testified that product was not pulled from the shelf until one year after manufacture. Thus, asbestos-containing Kent cigarettes may have been available for purchase until April, 1958. See Exhibit M, p.42.

B. Commercial Success Continued For More Than Two Years

Needless to say, because sales continued, profits also continued for more than two years. H&V Specialties continued to make profits from the sale of its asbestos filter media. As shown by Trial Exhibits 993, 994 and 995, Specialties earned \$385,179 in 1954; \$177,210 in 1955; and \$31,821 in 1956 from the sale of Micronite.

In a letter to Parmele on January 4, 1956, Dr. Knudson stressed the importance of demonstrating the "commercial success" of Kent in prosecuting their patent application for Micronite. In order to show the commercial success, Dr. Knudson suggested compiling figures on the approximate cost of research and development and the number of cigarettes sold. Dr. Knudson specifically asked Parmele to include in his figures the amount spent for the "electron photomicrographs". In handwritten notes, the names

¹⁸ Mr. Nicholson was very clear in his deposition that the first time he learned that Lorillard was going to a new filter was when he heard it on the radio. Lorillard has stated in its 1957 Annual Report that "New" Kent was not announced until May, 1957. Trial Exhibit 7. Although both Lorillard and H&V claim that

The presence of asbestos in smoke from Kent was an even better kept secret. John Bohlken, an assistant to Dr. Parmele who worked in the Research & Development Department of Lorillard from January 23, 1952 until February 28, 1991, testified that he had never heard of Dr. Fullam or Mrs. Revere. He also testified that as far as he knew, Lorillard never hired any consultants to test cigarettes to see whether asbestos from filters passed in to the smoke. According to Mr. Bohlken, Dr. Parmele never told him what the outside consultants were doing. Exhibit P, pp. 34.5-36.5.

M.S. Block was the Chief Engineer at Lorillard and responsible for the design and installation of the machinery necessary to manufacture Kent cigarettes in the early 1950s. According to Mr. Block, he was never aware of any tests being done to determine whether particles from the Micronite filter were passing into the smoke from Kent.¹⁹

Exhibit Q, pp. 51.9-51.16.

Alex Spears joined Lorillard in 1959 as a Research Associate and has worked his way up to the position of Executive Vice President of Operations and Research at Lorillard, a post he has held since 1979. On April 30, 1991, Lorillard produced Dr. Spears in response to a Rule 30(b)(6) deposition notice.

As the spokesman for Lorillard, Dr. Spears testified that he believed Lorillard tested to see whether asbestos was contaminating smoke prior to marketing Kent. Initially, Dr. Spears thought that these tests were done by Drs. Fullam and Revere, but he later changed his mind, saying that their work was done later. He continued to claim that earlier testing was done, but he could not recall the document that led him to the conclusion. He also could not recall its author, but thought it was either Mrs. Revere or

¹⁹ Mr. Block did volunteer that repeated "tongue tests" involving the placement of his tongue on the end of the Micronite filter showed nothing coming off. Exhibit Q, pp. 41.8-42.18.

Lorillard's efforts to sweep the asbestos problem under the rug are exemplified in a letter written by Dr. Parmele on March 3, 1955 to John Anacker of Avel, New Jersey. Evidently, Mr. Anacker wrote to Lorillard with a number of questions. One of these questions concerned the composition of the filtering element of Kent. In response to this inquiry, Dr. Parmele stated:

The filtering element of Kent cigarettes is composed of Micronite, which is a rather complex mixture, the exact nature of which we believe it is unethical for us to disclose.

Trial Exhibit 564.

What are the ethics involved? Lorillard's advertisements make constant reference to three of the four ingredients found in Micronite. The only one which was never mentioned was asbestos.

William Thompson was a Kent smoker for a number of years when asbestos was in the filter. When asked whether he would have wanted to know that the asbestos-containing filter was releasing asbestos into the smoke from Kent cigarettes he responded as follows: "If it were releasing I would have wanted to know that." Exhibit G pp. 229.23-231.2.

However, according to Alex Spears, as Lorillard's spokesman, there would have been no reason to inform the public that asbestos was in the filter.

Q. If a consumer wanted to avoid being -- avoid the possibility of smoking a cigarette that had asbestos in its filter, did Lorillard do anything to provide the smoker with enough information to make that choice?

A. I don't know of anything. I'm a little amazed though that you would suggest through a question that they should have.

Q. You don't -- Lorillard does not that that --

A. That's a personal --

- (1) deliberately proceeds to act in conscious or intentional disregard of the high degree of probability of injury to the rights or safety of others; or
- (2) deliberately proceeds to act with indifference to the high probability of injury to the rights or safety of others.

Punitive damages are imposed both to punish and deter wrongdoers, and others from committing intentional wrongs and from deliberately disregarding the safety or rights of others. See, Molenaar v. United Cattle Co., 553 N.W.2d 424, 429 (Minn. App. 1996); Lundman v. McKnown, 530 N.W.2d 807, 815 (Minn. App. 1995); Rosenbloom v. Flygare, 501 N.W.2d 597, 601 (Minn. 1993).

Where the evidence is sufficient to permit a jury to conclude that it is highly probable that the defendant acted with deliberate disregard to the rights or safety of others, the “clear and convincing” standard under Minn. Stat. §549.20 has been satisfied. See Ulrich v. City of Crosby, 848 F. Supp. 861, 868 (D. Minn. 1994) (quoting Weber v. Anderson, 269 N.W.2d 892, 895 (Minn. 1978)).

To determine if a plaintiff has made a proper showing that a defendant demonstrated a deliberate disregard for the rights of others, the court need only examine the evidence presented in support of the motion to amend plaintiff’s complaint for punitive damages, “without considering evidence submitted in opposition.” Northwest Airlines, Inc. v. American Airlines, Inc., 870 F. Supp. 1499, 1502-1503 (D. Minn. 1994) (citing Swanlund v. Chimano Indus. Corp., 459 N.W.2d 151, 154 (Minn. App. 1990)).

The evidence in the present case is clear and convincing that Lorillard and H&V demonstrated a wanton, reckless and callous disregard of the peril in which they placed Richard Carlson and other Kent smokers. Back in 1952, 1953, 1954, 1955 and 1956 Lorillard found it entirely practicable to tout the “guaranteed health protection” in the lay