

IN THE MATTER OF

NORTH AMERICAN PHILIPS CORPORATION

FINAL ORDER, OPINION, ETC., IN REGARD TO ALLEGED VIOLATION OF
SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT

Docket 9209. Complaint, Aug. 3, 1987—Final Order, Oct. 24, 1988

This Final Order prohibits, among other things, the North American Philips Corp., Norelco's parent company, from misrepresenting the performance of the Clean Water Machine or any other product that treats water and also from misrepresenting any test or study of its products. The order requires respondent to have substantiation for any performance claims it makes for any electric-powered consumer appliance, including hair dryers, makeup mirrors, coffee makers, and razors.

Appearances

For the Commission: *Joel C. Winston.*

For the respondent: *Forrest Hainline, III, Swidler & Berlin,*
Washington, D.C.

COMPLAINT

The Federal Trade Commission, having reason to believe that North American Philips Corporation, a corporation ("respondent"), has violated the provisions of the Federal Trade Commission Act, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, alleges:

PARAGRAPH 1. North American Philips Corporation is a Delaware corporation, with its offices and principal place of business located at 100 East 42nd Street, New York, New York.

PAR. 2. Respondent has advertised, offered for sale, sold and distributed the Norelco Clean Water Machine ("Clean Water Machine") and replaceable filter cartridges ("filters") for the Clean Water Machine. The Clean Water Machine is a self-contained, table-top product designed to remove contaminants from tap water by forcing the water through an activated charcoal filter.

PAR. 3. The acts or practices of respondent alleged in this complaint have been in or affecting commerce.

PAR. 4. Respondent has disseminated or caused to be disseminated advertisements and promotional materials for the Machine. Typical of respondent's advertisements and promotional materials for the Machine, but not necessarily all-inclusive thereof, are the advertisements and promotional materials attached hereto as Exhibits A, B, and C. The aforesaid advertisements and promotional materials contain the following statements and depictions:

(a) "Does your tap water contain synthetic detergents, chlorine, trihalomethanes, and organic wastes? ... The Norelco Clean Water Machine can remove up to 90% of these impurities from your family's tap water. (Exhibit A)

(b) "CONTINUOUS CLEAN—Only the unique Norelco Continuous Clean Setting repeatedly recycles the tap water through the filter to help give you cleaner water—water that tastes "bottled water" clean. And independent laboratory tests prove it." (Exhibit A)

(c) "Do you worry about the taste . . . the smell . . . or the clarity of your tap water? The Norelco Clean Water Machine helps remove chlorine, sediment, sulfur, detergent, odors, organic chemicals, and other pollutants you may not even be aware of that are in your tap water. The exclusive filtration system keeps water in contact with the activated charcoal longer for cleaner, clearer water." (Exhibit B)

(d) "Helps Make Tap Water 'Bottled Water' Clean." (Exhibit C)

(e) "Helps remove chlorine, sediment, sulfur, detergent, odors, organic chemicals and other pollutants." (Exhibit C)

(f) "Multilayered activated charcoal filter helps remove chlorine, sediment, sulfur, detergent, odors, organic chemicals and other pollutants. Special design keeps tap water in contact with the charcoal filtering surface longer for better, more efficient cleaning." (Exhibit C)

(g) "Tap Water Enters". . . [shown passing through "Prefilter," "Activated Charcoal," and "Postfilter"] . . . "Cleaner Water Exits." (Exhibit C)

(h) "ONE STEP CLEAN

Tap water passes through the system once, trapping impurities to create crystal-clear water." ["Tap Water" shown passing through "Exclusive Charcoal Filter System" to become "Cleaner Water"]. (Exhibit C)

(i) "Norelco Clean Water Machine" (Exhibits A, B, C)

PAR. 5. Through the use of the statements and depictions referred to in paragraph four above and others in advertisements and promotional materials not specifically set forth herein, respondent has represented, directly or by implication, that:

(a) The Clean Water Machine will effectively help remove organic chemicals from the tap water treated by it, under typical water conditions;

(b) The Clean Water Machine will make the tap water treated by it clean or cleaner, under typical water conditions; and

(c) Independent laboratory tests prove that the Clean Water Machine will make the tap water treated by it clean or cleaner, under typical water conditions.

PAR. 6. In truth and in fact, under typical water conditions,

(a) The Clean Water Machine will not effectively help remove organic chemicals from the tap water treated by it;

(b) The Clean Water Machine will not make the tap water treated by it clean or cleaner; and

(c) Independent laboratory tests do not prove that the Clean Water Machine will make the tap water treated by it clean or cleaner;

because, while the Clean Water Machine may help remove organic chemicals, pollutants, and impurities, if any, from tap water, many original and replacement Clean Water Machine filters were assembled by means of a glue which added a substantial amount of methylene chloride, an organic chemical that is potentially hazardous to consumers' health, to the tap water. Therefore, the representations as set forth in paragraph five were and are false and misleading.

PAR. 7. Through the use of the statements and representations set forth in paragraphs four and five and others not specifically set forth herein, respondent has represented, directly or by implication, that, at the time it made the representations, respondent possessed and relied upon a reasonable basis for such representations.

PAR. 8. In truth and in fact, at the time respondent made said representations, respondent did not possess and rely upon a reasonable basis for such representations. Therefore, respondent's representation as set forth in paragraph seven was and is false and misleading.

PAR. 9. In the advertising and sale of the Clean Water Machine, respondent failed to disclose to consumers with typical water conditions that many Clean Water Machines and original and replacement filters add methylene chloride, an organic chemical that is potentially hazardous to consumers' health, to the tap water processed by the Clean Water Machine. This fact would be material to consumers in deciding whether to purchase the Clean Water Machine and filters. The failure to disclose this fact, in light of the representations made as alleged in paragraph five, was and is a deceptive practice.

PAR. 10. The acts and practices of respondent as alleged in this complaint constitute unfair or deceptive acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act.

EXHIBIT A

WILTON RESIDENTS:

**DOES YOUR TAP WATER
CONTAIN SYNTHETIC
DETERGENTS, CHLORINE,
TRICHALOMETHANES, AND
ORGANIC WASTES?**

Newspapers Question It—Residents Ask It

THE NORELCO

CleanWater MACHINE

can remove up to 90% of these impurities
from your family's tap water.



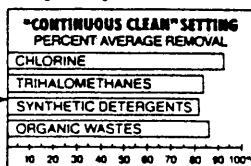
Norelco®

REPLACEMENT FILTERS

Norelco WF1 Replacement Filter for
Clean Water Machine Model WM100.
ONLY \$8.95

WATER THAT HAS NOT BEEN TESTED
OR TREATED FOR HUMAN
CONSUMPTION SHOULD NOT BE USED.

* Limited time offer. See clerk for details.



- Helps remove chlorine, sediment, sulfur, detergents, organic wastes, rust, algae and other impurities.
- Better than faucet-type filters—Up to twice as much charcoal—No installation required.
- Two settings to choose from:
ONE STEP CLEAN—Tap water passes through the system once which helps trap the pollutants to create crystal clear water.
CONTINUOUS CLEAN—Only the unique Norelco Continuous Clean Setting repeatedly recycles the tap water through the filter to help give you cleaner water—water that tastes "bottled water" clean. And independent laboratory tests prove it.
- More convenient than bottled water and easy to replace filters last up to 3 months.
- 15 Day Money-Back Guarantee—See clerk for details.

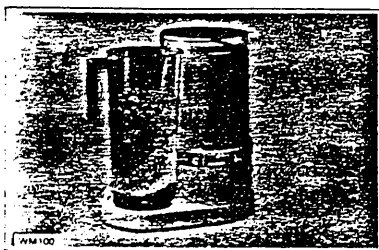
**AVAILABLE AT
CALDOR, MACY'S, SASCOA
AND OTHER FINE STORES.**

200130

EXHIBIT B

The Norelco Clean Water Machine

Helps make tap water taste and smell "Bottled Water" clean in the convenience of your own home for only pennies a gallon.



Independent tests prove it out cleans the leading faucet-type filter.

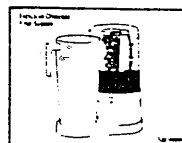
Do you worry about the taste... the smell... or the clarity of your tap water?

The Norelco Clean Water Machine helps remove chlorine, sediment, sulfur, detergent, odors, organic chemicals, and other pollutants you may not even be aware of that are in your tap water. The exclusive filtration system keeps water in contact with this activated charcoal longer for cleaner, clearer water. It contains more than 2 times the amount of activated charcoal as some on-line systems.

By simply turning the filter, you have two settings to choose from—ONE STEP CLEAN or CONTINUOUS CLEAN.



One Step Clean
Tap water passes through the system once, trapping pollutants to create crystal clear water.



Continuous Clean
Unique continuous filtration system recycles tap water to give you water that tastes "bottled water" clean.

No installation required—It's compact in size—48 oz. capacity—Heavy duty plastic carafe with handy storage lid.

WATER THAT HAS NOT BEEN TESTED OR TREATED FOR HUMAN CONSUMPTION SHOULD NOT BE USED.



WCS

WCS—Glass Serving Carafe (48 oz.)
The distinctly designed Norelco Clean Water Machine Glass Serving Carafe by Corning is a complementary addition to any dining table or bar area. Whether used for serving or as an extra storage container, order one now to have the perfect accompaniment for your Clean Water Machine. Comes with its own handy storage lid to keep water at its freshest.



WF1

WF1—Clean Water Machine Filter
The filter that contains more than 2 times the activated charcoal as some on-line systems. It's easy to replace and lasts up to 3 months. Order now and be sure to have one on hand when you need it.

200127

Complaint

111 F.T.C.

EXHIBIT C

EXHIBIT C

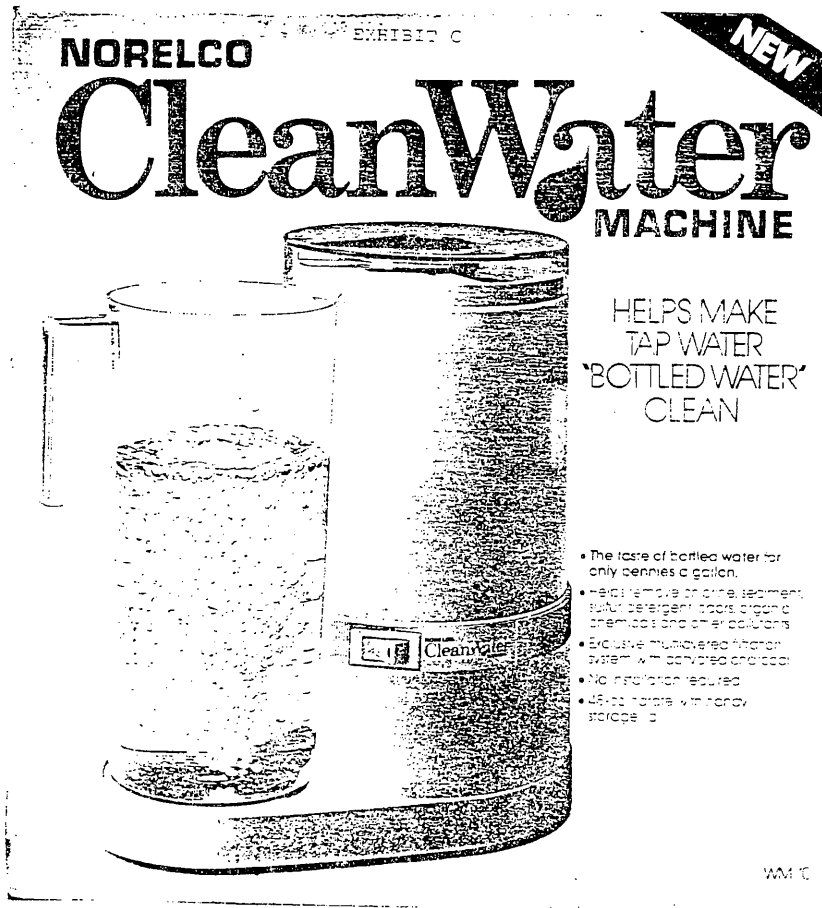
NORELCO

CleanWater

MACHINE

NEW

HELPS MAKE
TAP WATER
"BOTTLED WATER"
CLEAN



- The taste of bottled water for only pennies a gallon.
- Helps remove chlorine, sediment, sulfur, detergent, soap, organic chemicals and other pollutants.
- Exclusive multi-layered filtration system with activated charcoal.
- No installation required.
- Attractive, portable with handy storage lid.

WMTC

NORELCO

CleanWater

MACHINE

HELPS MAKE TAP WATER "BOTTLED WATER" CLEAN

HOW IT WORKS: With a precisely controlled flow, the electric pumping system draws water up and through the heavy-duty activated charcoal filter. Now your tap water can have the taste of bottled water.

The Clean Water Machine helps remove impurities from your tap water. The Norelco Clean Water Machine gives you two settings:

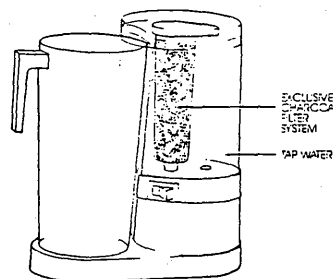
ONE STEP CLEAN

Tap water passes through the system once, trapping impurities to create crystal-clear water.



CONTINUOUS CLEAN

Unique continuous filtration setting recycles tap water to help give you cleaner water - water that tastes bottled water clean.

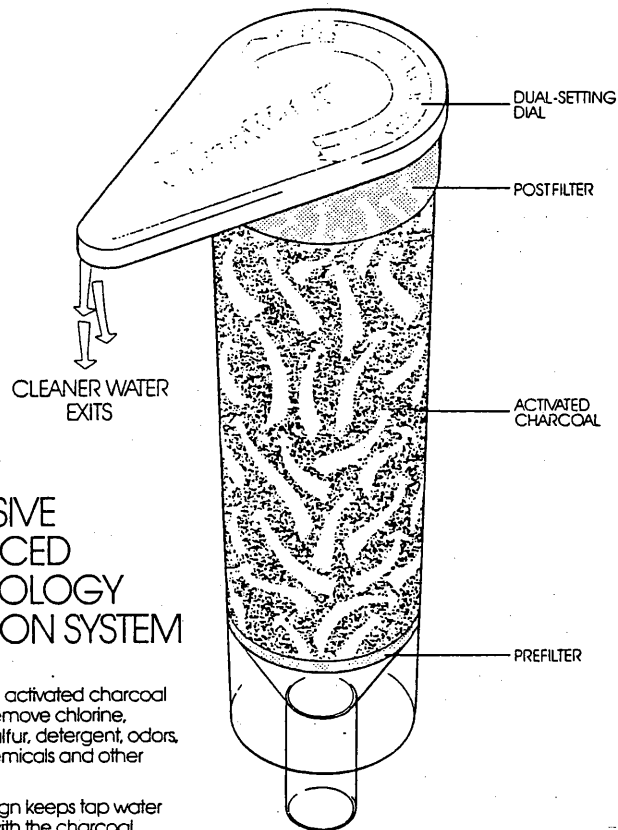


WM 10

EXHIBIT C

NORELCO**CleanWater
MACHINE**

HELPS MAKE TAP WATER "BOTTLED WATER" CLEAN

**EXCLUSIVE
ADVANCED
TECHNOLOGY
FILTRATION SYSTEM**

- Multilayered activated charcoal filter helps remove chlorine, sediment, sulfur, detergent, odors, organic chemicals and other pollutants
- Special design keeps tap water in contact with the charcoal filtering surface longer for better, more efficient cleaning
- Long-lasting, easy-to-replace filter

TAP WATER ENTERS

WATER THAT HAS NOT BEEN TESTED OR TREATED FOR HUMAN CONSUMPTION SHOULD NOT BE USED. THIS APPLIANCE DOES NOT TAKE THE PLACE OF ANY STERILIZATION OR DISTILLATION PROCESSES YOU WOULD NORMALLY FOLLOW.

WM 100

Complaint

EXHIBIT C

NORELCO
CleanWater
MACHINE
HELPS MAKE TAP WATER "BOTTLED WATER" CLEAN

BETTER WATER
FOR BETTER-TASTING FOODS
AND DRINKS



WM 100

Complaint

111 F.T.C.

EXHIBIT C

Norelco

MANUFACTURED BY:
 NORTH AMERICAN PHILIPS CORPORATION, CONSUMER PRODUCTS DIVISIONS
 HIGH RIDGE PARK, STAMFORD, CT 06904

This symbol on the product's nameplate means
 it is listed by Underwriters' Laboratories, Inc.



MADE, PRINTED AND SERVICED IN U.S.A.
 © COPYRIGHT NORTH AMERICAN PHILIPS CORPORATION 1982

NORELCO MODEL WM 100 48-OZ CAPACITY

Clean Water

MACHINE

HELPS MAKE TAP WATER "BOTTLED WATER" CLEAN

Norelco Clean Water Machine WM100 FULL ONE YEAR WARRANTY

North American Philips Corporation warrants each new Norelco Clean Water Machine Model WM100 (except cord and filter) against defects in material or workmanship for a period of one year from the date of purchase, and agrees to repair or replace any defective unit without charge. **IMPORTANT:** The warranty does not cover damage resulting from accident, misuse or abuse, lack of reasonable care, the arising of any attachment not provided with the product or loss of parts or subjecting the product to any but the specified voltage. THIS WARRANTY IS VOID WHEN SERVICE OR REPAIRS ARE PERFORMED BY A NON-AUTHORIZED NORELCO SERVICE CENTER. NO RESPONSIBILITY IS ASSUMED FOR ANY

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SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. You may obtain warranty service at any of the Norelco Service Centers listed on the enclosed card. Simply take or ship the unit postage prepaid to the nearest Norelco Service Center. Damage occurring during transit is not covered by this warranty. **NOTE:** No other warranty, written or oral, is authorized by North American Philips Corporation. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion and limitations may not apply to you.

Made, Printed and Serviced in USA



D>08
M>2297 >>>

INITIAL DECISION BY

JAMES P. TIMONY, ADMINISTRATIVE LAW JUDGE

AUGUST 29, 1988

PRELIMINARY STATEMENT

On August 3, 1987, the Federal Trade Commission ("Commission") issued an administrative complaint charging North American Philips Company ("NAPC" or "respondent") with violations of Section 5 of the Federal Trade Commission Act, as amended (15 U.S.C. 45), in connection with claims made by NAPC in the advertising and sale of its Norelco Clean Water Machine, a home water filtration device. On September 1, 1987, NAPC filed an answer denying that it had violated the Federal Trade Commission Act as charged.

Preliminary matters were addressed on April 4, 1988. Evidentiary hearings for the presentation of complaint counsel's case-in-chief began April 5, 1988, and ended on April 22, 1988. Respondent presented its case from April 25, 1988, to April 28, 1988, and on May 16, 1988. Complaint counsel presented rebuttal testimony on May 27, 1988.

Twenty-four witnesses testified and the transcript of hearings consists of some 2500 pages. More than 250 exhibits were admitted into evidence. [2]

SUMMARY OF COMPLAINT ALLEGATIONS

This proceeding concerns the Norelco Clean Water Machine and its replaceable filters. The Clean Water machine is a self-contained, table-top product designed to remove contaminants from tap water by forcing the water through an activated charcoal filter.

The complaint alleges that respondent's advertisements and promotional materials for the Clean Water Machine represented that the Machine can effectively help remove organic chemicals from the water it treated and can make the water "clean" or "cleaner." The advertisements further claimed that the ability of the Machine to clean the water was proven by independent laboratory tests.

The complaint alleges that these representations were false and misleading because many original and replacement Clean Water Machine filters were assembled by means of a solvent which added to

the filtered water a substantial amount of methylene chloride, an organic chemical that is potentially hazardous to consumers' health. These filters, known as the first generation ("G1") filters, were manufactured in 1982, but continued to be sold by respondent into 1986.

The complaint also alleges that respondent's advertising falsely represented that it had a reasonable basis for its performance claims. Finally, the complaint charges that respondent's failure to disclose to consumers the methylene chloride contamination problem in the G1 filters, in light of the representations made, constitutes a deceptive practice. According to the complaint, this fact would have been material to consumers' decisions whether to purchase the Clean Water Machine and filters. [3]

FINDINGS OF FACT ¹

I. JURISDICTION

1. Respondent North American Philips Corporation ("NAPC") is a Delaware corporation, with its offices and principal place of business at 100 East 42nd Street, New York, New York. (Answer, ¶1.)

2. Respondent, through its Norelco division, sells the Norelco Clean Water Machine and filters for the Clean Water Machine. The Clean Water Machine is designed to remove contaminants from tap water through an activated charcoal filter. (Answer, ¶2; RX 157-G.)

3. NAPC has nationally advertised on network television and in magazines promoting the sale of the Clean Water Machine and its filters. (Answer, ¶4.)

4. The acts and practices of respondent alleged in the complaint have been in or affecting commerce. (Answer, ¶3.)

II. BUSINESS OF RESPONDENT

A. *North American Philips Corporation*

5. NAPC is wholly-owned by N.V. Philips of The Netherlands. (Gains, Tr. 2191.)

6. NAPC manufactures and sells products in three major markets: consumer, industrial and defense. (CX 142-39.)

¹ The following abbreviations are used:

F. - Findings of fact
Tr. - Transcript of hearings, preceded by name of witness
CX - Complaint counsel's exhibit
RX - Respondent's exhibit

7. NAPC's net sales in 1987 were almost \$5 billion. (CX 142-40; CX 147-2.)

B. Norelco Consumer Products Company

8. The Norelco Consumer Products Company ("Norelco"), one of NAPC's 21 divisions and subsidiaries, is headquartered in Stamford, Connecticut. (Dinley, Tr. 2096.) Before January 1988, [4] Norelco was known as the Consumer Products Division ("CPD"). (RX 157-G; CX 147-8.)

9. Norelco manufactures and sells in the United States small consumer electrical appliances such as electric razors, drip coffee makers, irons, travel appliances, clean air machines, electric knives, hand mixers, can openers, hair dryers, curling irons, make-up mirrors, digital blood pressure monitors, digital scales and digital thermometers. (Dinley, Tr. 2097-98, 2128-29; Gaines, Tr. 2158-59.)

10. Norelco's sales ranged between \$221 million and \$242 million in the 1982-1986 period, comprising approximately 5% of total NAPC sales. (CX 142-7; CX 146-1.)

III. THE NORELCO CLEAN WATER MACHINE

A. Background

11. The Norelco Clean Water Machine was advertised and sold during 1982-1986, and is still available from retail sources. As of 1985, Norelco had sold 248,000 Clean Water Machines and 435,365 filters. (CX 142-9 to 142-12, 142-20.)

12. Norelco purchased rights to a water filtration device from the Dynek Company. (Campbell, Tr. 1997-1998; RX 49.) Norelco manufactured the device in its Philips Park factory beginning in June 1982. (Campbell, Tr. 1998; RX 157-M; CX 196-1.)

13. Norelco started marketing the Clean Water Machine at the July 1982 Chicago Housewares Show. (Campbell, Tr. 1995, 2001, 2023.)

14. Prior to placing the Machine on the market, Norelco contracted with United States Testing Co., a product test laboratory, to determine the ability of the Machine to remove certain chemicals under specified conditions. (Rider, Tr. 2456-58; RX 55.) U.S. Testing conducted such tests and reported the results to Norelco in June 1982. (RX 56.) These tests were not designed or able, however, to detect methylene chloride, the chemical leached by the device into the filtered water. (Rider, Tr. 2459.)

B. Design and Manufacture

15. The Clean Water Machine has three basic parts: the housing, the filter cartridge and the plastic water carafe. The housing is a white plastic cylinder. Its interior is divided into two compartments, with a pump at the bottom. (RX 55-D.) [5]

16. The blue plastic filter cartridge is designed to fit into one half of the housing cylinder. Tap water poured into the other half of the housing cylinder is pumped upward into the filter, exits the top of the filter, and flows into the carafe adjacent to the housing. (CX 1-3.)

17. The filter itself is a three-stage device: Inside the filter, the top and bottom stages are microporous, polymer discs designed to remove larger particulate matter from the water. The middle stage is a 60-gram bed of loose activated carbon (coconut charcoal). (RX 55-D; TX 56-J, 56-K.)

18. Activated carbon is the primary filtering ingredient in the Machine. (Coyle, Tr. 1163; CX 2; CX 56-13; CX 56-20; CX 90-34.)

19. Activated carbon has a limited period of usefulness. When a carbon filter becomes saturated, or "loaded," it will release into the filtered water chemicals previously absorbed. (CX 56-17; CX 90-34.)

20. The filters have a useful life of 3-4 months. (RX 55-B; CX 2-2.) Norelco sold replaceable filter cartridges. (CX 32-3; CX 142-10 to 142-11.)

C. Distribution System

21. Norelco sold the Clean Water Machine nationwide through wholesale distributors and retailers. (Lenahan, Tr. 186; CX 142-11.)

22. The Clean Water Machine was available at hundreds of retail outlets, such as department and discount stores, catalogue showrooms, drug chains, and hardware co-op organizations. (Dinley, Tr. 2100.)

23. Norelco Service, Inc. ("NSI") stores also sold the Machine. NSI, operating 16 stores nationwide, was formerly a subsidiary and is now a division of Norelco. (Dinley, Tr. 2139; RX 157-D to 157-H.)

24. Consumers bought filters directly from Norelco after the products were no longer available from local retailers. (Haag, Tr. 225-227; Dugan, Tr. 1098-99; Coyle, Tr. 1177.)

D. Sales

25. Norelco commenced sale of the Clean Water Machine in 1982, and sold a total of 248,401 Clean Water Machines, as follows: [6]

<u>Year</u>	<u>CWMs Sold</u>
1982	159,043
1983	28,388
1984	60,970

The average wholesale sales price per Machine was about \$30. The suggested retail price was \$50 - \$55. (CX 142-8 to 142-10.)

26. Norelco's gross sales receipts from the Clean Water Machine were \$5,347,715, as follows:

<u>Year</u>	<u>Gross Receipts</u>
1982	\$4,465,680
1983	740,492
1984	68,430
1985	73,113

(CX 142-10.)

27. Clean Water Machines continue to be available for purchase by consumers. (CX 188, Stip. 49; Physical Ex. 1.)

28. Norelco manufactured three different versions of filters, which were sold with the Clean Water Machine or as replacements. The first generation, or "G1," filters were made using methylene chloride solvent in three places on each filter; approximately 382,000 were made from June 1982, to mid-November 1982. The second generation, or "G2," filters, were made using methylene chloride solvent in one place; approximately 108,600 were manufactured, beginning mid-November 1982, through September 1983. The third generation, or "G3," filters were made with no methylene chloride; production began in March 1986 and as of June 1986, 50,000 had been purchased. (CX 33-1, 33-2.)

29. Only the G1 filters are at issue in this proceeding. Norelco sold 354,708 G1 filters. (CX 142-11, 142-12, 142-20.) The unit sales price to distributors was \$2.99 and the suggested retail price was \$4.95. Norelco's gross sales receipts from G1 filters were \$1,060,576. (CX 142-11.) [7]

E. Consumer Use

30. Many of the consumers used the Machine to filter five to seven glasses of plain drinking water a day, in addition to other uses. (Bergins, Tr. 261-62; Roche, Tr. 1048-50; Dugan, Tr. 1097.)

31. The Machine had two different cycle settings, one-step clean and continuous clean. On the one-step clean cycle, tap water passed through the system once only. On the continuous clean cycle, tap

water was recycled through the filter for two minutes, or more. According to the package directions, one-step clean makes the water "crystal-clear" but the continuous clean cycle makes the water "cleaner" or "extra clean." (CX 1-3; CX 2-2.)

32. Most consumers changed the filters every three months, or more often. (Haag, Tr. 225; Bergins, Tr. 263-64; Campbell, Tr. 2054.)

IV. ADVERTISING FOR THE CLEAN WATER MACHINE

A. *Advertising Dissemination*

1. Television

33. From September 1982 to January 1984, Norelco spent \$1,244,600 on nationally broadcast network television commercials for the Clean Water Machine. (CX 16-2 to 16-4.)

2. Magazines.

34. From December 1982 to August 1983, NAPC spent \$129,300 on full-page advertisements for the Clean Water Machine in nationally-circulated health-and-fitness related magazines. (CX 16-1, 16-5; CX 188, Stips. 16-24.)

3. Cooperative advertising

35. Norelco's executives believed that localities in which the media had raised suspicions about hazardous chemicals in the drinking water supply would be particularly good markets for the Clean Water Machine. (Dinley, Tr. 2133-34.)

36. Norelco spent \$25,000 with K-Mart on a cooperative advertising campaign targeting Tampa and St. Petersburg, Florida. (Lenahan, Tr. 165-66; Dinley, Tr. 2133-34; CX 19-1.) [8]

4. Promotional materials

37. Norelco issued news releases entitled "What's in Your Tap Water?," "New Norelco Clean Water Machine Makes Tap Water Taste as Good as Bottled Water," and "Norelco Clean Water Machine Fact Sheet." (CX 151 to 154.) The news releases focused on cancer-causing industrial and agricultural chemicals that have seeped into the water supply" and touted the Clean Water Machine as an effective means of removing known or "suspected" carcinogens from tap water. (CX 152-3; CX 154-1, 154-2.)

38. Norelco gave retailers displays advertising the Clean Water Machine. (CX 26; CX 27; CX 31; CX 188, Stips. 43-48.) These items

were designed to attract the attention of browsing shoppers to the hazards of unfiltered tap water and the benefits of using the Clean Water Machine.

5. Packaging

39. The boxes in which the Clean Water Machine and the Clean Water Machine Replacement Filter were packaged included text outlining features of the device. (CX 1; CX 183; CX 188, Stips. 1-2.) Each product box advertised that consumers could purchase additional replacement filters by mail directly from Norelco. (CX 7; CX 8; CX 188, Stips. 8-11.)

B. Advertising Representations

40. A factor in Norelco's decision to enter the water filtration business was public concern about the existence of toxic chemicals in tap water. (Lenahan, Tr. 166-67; Campbell, Tr. 2024.)

41. Norelco advertised the presence of potentially cancer-causing compounds such as "organic wastes," "industrial chemicals," and trihalomethanes² in drinking water. (Campbell, Tr. 2025; CX 152; CX 154.)

1. Television

42. The first nationally broadcast television commercial emphasized the Clean Water Machine's ability to make tap water "taste bottled-water clean" and its effectiveness at removing chemicals from drinking water. (CX 10; CX 188, Stip. 14.) [9]

43. The commercial depicted the following:

[Open on picturesque mountain stream. Sound effects: babbling stream.]

ANNR: "Bottled spring water: clean . . . delicious . . . expensive."

[Freeze picture of mountain stream. Pull back to reveal that it is the label on a container of bottled water.]

ANNR: "Now tap water can taste bottled-water clean for pennies a gallon . . ."

[Dissolve to Clean Water Machine sitting on a kitchen counter.]

ANNR: ". . . with the new Norelco Clean Water Machine."

[Dissolve to animation of Clean Water Machine in operation. Darker water is poured in and swirled through the filter. Lighter water exits.]

ANNR: "In minutes, the Norelco system circulates water over and over through its charcoal filter to help trap chlorine, sulphur, odors, rust and other pollutants to give you better water . . ."

² Trihalomethanes are a class of organic chemicals commonly found in water supplies. They are formed when chlorine added to disinfect the water interacts with certain organic matter. Several trihalomethanes are suspected carcinogens. (F. 70, 143.)

[Cut to live action of a woman pouring water for a young boy, which he then drinks.]

BOY: "Thanks, mom."

ANNR: "... for your family's food and drinks."

[Cut to picture of Clean Water Machine on a kitchen counter. Dissolve to a shot of the Clean Water Machine resting on a rock in front of a bubbling mountain stream.]

ANNR: "The new Norelco Clean Water Machine . . . makes tap water taste bottled-water clean."

(CX 10.)

44. Norelco executives were dissatisfied with the poor sales that the first commercial generated. Norelco abandoned the first commercial and initiated a second advertising campaign to alert potential customers that there might be toxic wastes and [10] harmful chemicals in their water and that the Clean Water Machine would help solve that problem. (Campbell, Tr. 2025; CX 143-1.)

45. The second commercial depicted the following:

[Open on the image of a small boy drinking water.]

ANNR: "Is your tap water as clean as it seems? It could contain impurities you don't want your family to drink. Now Norelco can remove up to 90% of organic wastes . . ."

[The term "ORGANIC WASTES" is superimposed over the face of the boy drinking water.]

ANNR: "Chlorine . . ."

["CHLORINE" is superimposed.]

ANNR: "Synthetic detergents . . ."

["SYNTHETIC DETERGENTS" is superimposed.]

ANNR: "and trihalomethanes."

["TRIHALOMETHANES" is superimposed. Cut to a shot of the Clean Water Machine operating on a kitchen counter.]

ANNR: "Introducing the Norelco Clean Water Machine. Unlike other filter systems, it has a unique continuous clean feature to help make your tap water taste bottled water clean . . . or your money back. Help fight impurities in your tap water. With the Clean Water Machine. New from Norelco."

(CX 11.)

2. Magazines

46. Norelco ran two versions of the same advertisement in six health and fitness related magazines, *Health*, *Organic Gardening*, *Prevention*, *Runner's World*, *Fifty Plus* and *Weight Watchers*. (CX 16-5 to 16-9; CX 188, Stips. 16-24.)

47. The magazine advertisement warned consumers that their drinking water might contain potentially hazardous chemicals not

readily detectable by taste or smell. It stated that the Clean Water Machine could help remove these chemicals effectively and presented the device's "Continuous Clean" feature as a particularly desirable means of getting drinking water that is "*extra clean*" (emphasis in original). (CX 16-6 to 16-9.) [11]

48. In bold capital letters, the headline warned, **"YOUR TAP WATER COULD CONTAIN SYNTHETIC DETERGENTS, CHLORINE, TRIHALOMETHANES AND ORGANIC WASTES."** A smaller bold subheading said, "The new Norelco Clean Water Machine can remove up to 90% of these impurities from your family's tap water." (CX 16-6 to 16-9.)

49. The text of the ad read as follows:

Is your tap water as clean as it seems? It could contain impurities you may not want your family to drink.

Now, with the new Norelco Clean Water Machine, you can help filter out detergents, chlorine, trihalomethanes, organic wastes plus rust, sediment, sulfur and algae. To give your family water that looks and tastes "bottled-water" clean. And independent laboratory tests prove it.

The Norelco system is better than faucet-type filters. For one thing, there's almost twice as much charcoal in the Norelco multi-layered filter than in the leading faucet filter systems. And there's no installation required.

For One-Step Clean, the electric pumping system draws water up, swirling it through all of the charcoal once.

For Continuous Clean, water is filtered through the charcoal over and over. Your tap water comes in contact with more charcoal longer, making it extra clean.

Now your tap water can taste "bottled-water" clean for only 6¢ a gallon. The Norelco Clean Water Machine makes your tap water look and taste like expensive bottled water for only pennies a gallon. And it's so convenient. Now you can have bottled water quality when you want, for less. And better water means better tasting coffee, juices, ice cubes, soups and baked goods for your family.

Be completely satisfied or Norelco will refund your money. We're so sure that you and your family will appreciate the Norelco quality and benefits of the Clean Water Machine that we're offering you a money-back guarantee. If you're not completely happy with the machine, just return it prepaid with your sales [12] slip to Norelco within 15 days of purchase and we'll send you a full refund.

(CX 16-6 to 16-9.) (Emphasis in original.)

50. The advertisement also emphasized the desirability of the Clean Water Machine's continuous clean feature by including a bar graph depicting the Machine's purported effectiveness at filtering chemicals from tap water. At the continuous clean setting, the ad claimed that the "maximum removal" rate was slightly over 90% for chlorine,

about 85% for trihalomethanes and organic wastes, and about 80% for synthetic detergents. (CX 16-6 to 16-9.)

51. The ad also included a drawing of the Clean Water Machine in operation, with arrows pointing to the phrase "cleaner water exits" at the point of exit. (CX 16-6 to 16-9.)

3. Cooperative advertising

52. An advertisement for the Clean Water Machine run in the *Tampa Tribune* stated, "Independent tests prove The Norelco Clean Water Machine can remove up to 90% of synthetic detergents, chlorine, trihalomethanes and organic wastes from your tap water." (CX 199.)

53. A radio advertisement for the Clean Water Machine broadcast on Florida stations warned listeners:

Just listen to these news items! "Florida town told: Don't drink the water." "Pollution contaminates Biscayne Aquifer." With all the uncertainties about our tap water, it's good to know K-Mart has the new Norelco Clean Water Machine. Laboratory tests prove the Norelco can help remove from tap water up to 90% of synthetic detergents, organic wastes, chlorine, and trihalomethanes.

(CX 19-6, CX 19-9.)

4. Promotional materials

a. News releases

54. In its news release "What's in Your Tap Water?" Norelco alerted readers to the "harmful contaminants" present in drinking water and emphasized that many of these pollutants were either known or suspected carcinogens in humans. (CX 152.) [13]

55. The release focused on trihalomethanes such as chloroform, which can occur as a by-product of the chlorination process. The Environmental Protection Agency ("EPA") believes chloroform to be carcinogenic. (CX 152-2.)

56. EPA classifies chloroform as a probable human carcinogen (Group "B2"). EPA also classifies methylene chloride as a B2 probable human carcinogen. (Farland, Tr. 787.)

57. The release also warned readers that "industrial chemicals" such as benzene, vinyl chloride, trichloroethylene (TCE), trichloromethane, tetrachloroethylene and bromodichlorobenzene have infiltrated many of the waterbeds, aquifers and underground wells that supply the nation's tap water. According to the release, many of these

compounds are either known carcinogens in humans or “carcinogen[s] in mice and suspected carcinogen[s] in people.” (CX 152-2.)

58. Like these six industrial chemicals, methylene chloride is also an organic compound widely used in industry. (F. 80-81.) EPA classifies vinyl chloride and benzene as known human carcinogens (Group “A”). Like methylene chloride, TCE is a B2 probable carcinogen in humans. (Farland, Tr. 787.)

59. “What’s in Your Tap Water” also stated that the nation’s rivers and streams were polluted with “more than 700 organic chemicals, including 49 known or suspected carcinogenics.” (CX 152-3.)

60. Drinking water that meets government pollution standards may not be good enough, the news release cautioned:

Even when these chemicals occur in amounts that fall within U.S. Environmental Protection Agency guidelines, they can affect the taste, appearance and/or odor of water coming out of your tap. Add to that any dirt or sediment occurring within the water distribution system and you can get water the government considers acceptable but people don’t like to drink.

The release therefore suggested that consumers would be prudent to want tap water of higher quality than what “the government considers acceptable.” (CX 152-1.)

61. Another news release, “Norelco Clean Water Machine Fact Sheet,” claimed that the Clean Water Machine could remove 86% of organic wastes, 93% of chlorine, 81% of synthetic detergents, and 84% of trihalomethanes. It classified organic wastes and trihalomethanes as “carcinogen[s].” (CX 154-1.) [14]

62. The “Fact Sheet” claimed that the Clean Water Machine had a “high removal rate” for pesticides, PCBs, vinyl chloride, and DDT, compounds it labelled “organic contaminants.” PCBs and DDT are considered to be B2 probable carcinogens in humans. (Farland, Tr. 789-90.) According to the news release, the device “greatly reduces harmful [chemical] contaminants.” (CX 154-2.)

b. *Point-of-purchase advertising*

63. The point-of-purchase display Norelco disseminated to retailers warned consumers, “You’re possibly drinking water full of impurities.” Materials sent to retailers claimed that the Clean Water Machine could remove up to 90% of chlorine, trihalomethanes, synthetic detergents and organic wastes. (CX 27; CX 31-2; CX 188, Stips. 45 to 48.)

c. Ad mats

64. Ad mats Norelco disseminated to retailers carried the headline "Your tap water could contain synthetic detergents, chlorine, trihalomethanes, and organic wastes." (CX 22 to CX 25; CX 188, Stips. 25-32.)

65. Norelco also disseminated ad mats for retailers to place in their local newspapers. One ad mat for the Clean Water Machine read, "Fairfield County: Does Your Tap Water Contain Synthetic Detergents, Chlorine, Trihalomethanes, and Organic wastes? Newspapers Question It—Residents Ask It." (CX 28; CX 188, Stips. 33-34.)

66. Norelco disseminated identical ad mats addressed to "Queens and Nassau County" and "Wilton Residents." (CX 165; CX 166; CX 188, Stips. 37-40.) Norelco also disseminated the same ad mat with a generic "Your County" headline. (CX 167; CX 188, Stips. 41-42.)

67. One of the ad mats Norelco disseminated to its corporate-owned Norelco Service Stores asked, "Does Your Tap Water Smell Bad, Taste Bad or Look Bad? Norelco Service, Inc. wants to see if you can tell the difference our Clean Water Machine can make." The text was accompanied by a picture of a woman looking quizzically at an upraised glass of tap water. The ad mat claimed that the device "helps remove chlorine, sediment, sulfur, detergents, odors, organic chemicals and other pollutants from your tap water." (CX 29; CX 188, Stips. 35-36.)

5. Packaging

68. Norelco's packages for the Clean Water Machine states that it "makes tap water 'bottled water' clean," (CX 1-1 to 1-5; CX 183-1) and "helps remove chlorine, sediments, sulfur, [15] detergents, odors, organic chemicals and other pollutants." (CX 1-1, 1-2.)

V. RESPONDENT'S ADVERTISING MADE THE REPRESENTATIONS
ALLEGED IN PARAGRAPH FIVE OF THE COMPLAINT

A. The Organic Chemical Removal Claim

69. The television commercial, the national magazine ads, and ad mats sent to retailers all included the express claim that the device "helps remove" "up to 90%" of "organic wastes." (CX 11; CX 16-6 to 16-9; CX 22 to CX 25.) Other promotional materials, including the NSI ad mats, the product box, the mail order brochure, and one of the news releases claimed that the Machine will "help remove . . . organic chemicals." (CX 1; CX 9-7; CX 29; CX 153-1.)

70. Trihalomethanes are a class of organic chemicals which includes many carcinogens found in drinking water. (Farland, Tr. 785-87; CX 50-2.) Norelco's advertising and promotional materials alleged the Clean Water Machine's effectiveness at filtering out up to 90% of these compounds. (CX 11-2; CX 16-9; CX 28.)

71. Magazine advertisements, ad mats, and the packaging depicted the device's "maximum removal rate" on the continuous clean setting as about 85% for these compounds. (CX 16-6 to 16-9.)

72. Norelco's news releases emphasized that the Clean Water Machine had a "high removal rate" for "organic contaminants" such as pesticides, PCBs, vinyl chloride and DDT, and an 86% removal rate for "organic wastes" as a class and for phenol, an organic by-product of petroleum. (RX 56-G; CX 154.)

73. By advertising that the Clean Water Machine could remove high percentages of organic wastes, trihalomethanes, and organic chemicals, respondent represented that the Machine would effectively help remove organic chemicals from the water it treated.

B. The "Clean or Cleaner" Water Claim

74. Norelco's television commercials, promotional materials, and the package itself claimed that the device could "makes tap water 'bottled water' clean." (CX 11-2; CX 25; CX 183.) A magazine advertisement claimed the Machine's "Continuous Clean" feature makes water "extra clean." (CX 16-6 to 16-9). (Emphasis in original.) [16]

75. Norelco asserted that water is not "clean" if it contains "impurities," "contaminants" or "pollutants" such as "organic wastes, chlorine, synthetic detergents and trihalomethanes." (CX 11-2; CX 27.) The advertisements stressed that the device could make tap water "clean" or "cleaner" by removing "up to 90%" of these chemical compounds. (CX 11-2; CX 16-9.)

76. The product package emphasized that water filtered by the Clean Water Machine would be "cleaner" than water from the tap. The back of the Clean Water Machine box depicted tap water entering the device and water labelled "cleaner water" exiting into the carafe. (CX 1-3; CX 183-3.)

C. The Independent Laboratory Tests Claim

77. The advertisements and promotional materials stressed that Norelco's assertions about the Clean Water Machine's effectiveness were supported by "independent laboratory tests." (CX 16-8, 16-9; CX 28.)

D. *The Reasonable Basis Claim*

78. A television commercial, the magazine advertisement, and the box itself all listed specific chemicals that the Clean Water Machine could purportedly remove ("organic wastes, chlorine, synthetic detergents, and trihalomethanes") and, in most cases, what percentage could be removed. (CX 1-1; CX 11-1, 11-2; CX 16-8, 16-9.) The magazine ad, ad mats and point of purchase shelf card included a bar graph that depicted to the precise percentage point the Clean Water Machine's effectiveness at removing certain chemicals. (CX 16-8; CX 23; CX 26.) Ads referred to independent tests as supporting the claims. (F. 114.)

79. Because of the objective and specific nature of these claims, Norelco represented to the consumer that it had a reasonable basis for making them.

VI. THE METHYLENE CHLORIDE PROBLEM

A. *The Uses of Methylene Chloride in the Clean Water Machine*

80. Methylene chloride (CH_2Cl_2), also known as dichloromethane, is a colorless, liquid volatile synthetic organic chemical with no known natural sources. (Zeise, Tr. 1290; CX 85-3.)

81. The major sources of methylene chloride in the environment are from industrial uses. (CX 85-5.) Methylene chloride is used in certain paint strippers, aerosol paints, [17] adhesives and automotive products. Methylene chloride is also found in metal degreasers and various solvents and cleaners. (Cohn, Tr. 388.)

82. Although most water supplies do not contain detectable methylene chloride, industrial activity can cause methylene chloride contamination of water, generally in the few parts per billion or less range. (F. 145-48.) Low levels of the chemical also may be found in certain brands of decaffeinated coffee, spices, and hops. (CX 124-1, 124-3; CX 156-82.)

83. In manufacturing the Clean Water Machine, Norelco used methylene chloride as a solvent or glue to bond three pieces of the filter together. (Emmons, Tr. 1935-37, 1967-68; CX 195-2.)

84. In August of 1982, Norelco learned that laboratory tests might link methylene chloride to cancer. Quality Engineer David Harcourt spoke with Tom Brown of the Food and Drug Administration ("FDA") about the safety of methylene chloride. Brown told him that the

preliminary results of a recently completed two-year study indicated that "methylene chloride may be considered a weak carcinogenic." (CX 40.)

B. Consumer Reports' Discovery of Methylene Chloride Leaching

85. On November 10, 1982, Mr. Taub, Division Chief for Chemical Testing for *Consumer Reports* magazine, telephoned Norelco and informed it that the Clean Water Machine was emitting a high level of methylene chloride into the water it treated. (Lenahan, Tr. 168-69; CX 41-4.) *Consumer Reports* made the discovery while testing several water purifiers for an upcoming article. (CX 41-4.)

86. Taub told Norelco that the methylene chloride emission continued for the life of the filter, that the amount emitted varied from filter to filter, and that methylene chloride was probably coming from a glue or solvent used to weld the plastic parts of the filter together. Taub also informed Norelco that methylene chloride was a carcinogen. (Dinley, Tr. 2134; CX 41-2, 41-5.) In conversation the next day, Taub told Norelco's Vice President Patrick Dinley that the levels of methylene chloride the filters emitted were as high as 8 parts per million (ppm).³ [18] Taub said that levels of 1 ppm fell within the range of a "suspected carcinogen." (CX 41-2.)

C. Norelco's Testing and Redesign of the Filter

87. Norelco officials William Lenahan and J. Richard Gonzalez contacted U.S. Testing, the firm that performed the original efficacy tests on the Clean Water Machine, to have the filters tested. (Lenahan, Tr. 171-72; CX 41-1, 41-6.) A carton containing twelve filters was delivered to U.S. Testing on November 11th. U.S. Testing selected three of them at random for testing. (Rider, Tr. 2462-64; CX 47.)

88. The filters tested were not production G1 filters. A Norelco engineer brought to U.S. Testing in November 1982 special "worst case samples" designed to emit as much methylene chloride as possible. (Emmons, Tr. 1941.)

89. U.S. Testing found that three Norelco filters emitted 15, 10 and

³ Parts per million ("ppm") are used to signify the concentration of a chemical in water or air. For contaminants in water, the concentration may also be given as the number of milligrams of a chemical per liter of water ("mg/l"). Parts per million generally correspond to the equivalent number of milligrams per liter. (Ohanian, Tr. 1587.) Smaller amounts may be signified as micrograms per liter ("ug/l"), which corresponds to parts per billion ("ppb"), or one-thousandth of parts per million. (Kern, Tr. 996; Coyle, Tr. 1148.) Therefore, 8 ppm could also be expressed as 8 mg/l, 8000 ppb, and 8000 ug/l.

16 ppm (10,000-16,000 ppb) of methylene chloride into the water treated by the Clean Water Machine. (Rider, Tr. 2465; CX 47.)

90. Lenahan directed Norelco's engineering staff to experiment with alternative manufacturing methods to reduce the amount of methylene chloride emission. (Lenahan, Tr. 174; CX 42-1; CX 43-2.) The Norelco engineers experimented with various alternative manufacturing techniques to minimize the amount of methylene chloride. (Emmons, Tr. 1948-51; Rider, Tr. 2466-67.) The Norelco engineers experimented to extend the drying time. (CX 42-1; CX 43-1; CX 44-1.)

91. Norelco sent three filters of this type to U.S. Testing on November 12th. U.S. Testing measured the methylene chloride emission of these filters to be 8.4 ppm, 8.3 ppm, and 5.3 ppm. (CX 43-1; CX 48-1.)

92. Norelco engineers also experimented with four other sets of filters with varying saturation levels and drying times. Designated as Samples B through E, these sets were also sent to U.S. Testing for analysis on November 16th. (Emmons, Tr. 1949-51; CX 48-1; CX 49.)

93. Soon after, Norelco selected Sample E as an acceptable alternative because it emitted between .005 and .006 ppm (5-6 ppb) of methylene chloride, or about 1000 times less than the current production G1 filters. (Emmons, Tr. 1951-52; CX 44-1; [19] CX 49-1.) The process which Norelco used to manufacture these second-generation, or G2, filters, allowed for 24-hour drying time on the pre-filter disc and used a newly-designed retainer rather than methylene chloride to secure the post-filter disc. (Emmons, Tr. 1951-52; CX 33-2; CX 43-2.) The change to the new manufacturing technique cost Norelco a total of \$225, which was used to retool the mold for the new retainer. (Emmons, Tr. 1980-82; CX 206.)

94. The mold for the new retainer was modified by November 15th and production of the new G2 filters began shortly thereafter. (Emmons, Tr. 1951-52; CX 33-1, 33-2; CX 206.) Norelco manufactured a total of 382,000 G1 filters between the start of production in June 1982 and the retooling in mid-November 1982. About 108,600 G2 filters were produced between the retooling in mid-November 1982 and 1986. (F. 28.)

D. Norelco's Decision to Continue Selling G1 Filters

95. After *Consumer Reports* informed Norelco of the methylene chloride problem, and while the company experimented with alterna-

tive filter designs, Norelco continued to sell G1 filters. (Campbell, Tr. 2005.) At that time, Norelco had approximately 214,000 unsold G1 filters in its warehouse. (CX 188-10, Stip. 50.)⁴

96. At the time, Norelco did stop manufacturing new G1 filters in its factory. (Campbell, Tr. 2003.) When they first became aware of the problem, Norelco factory employees consulted a reference book on chemicals and learned that methylene chloride was a suspected carcinogen. The employees isolated all of the 4800 filters then in the factory and covered them with tape. (Emmons, Tr. 1971-72, 1982-84; CX 206.)

97. Within a few weeks, Norelco's Vice President Patrick Campbell decided to release for distribution the filters isolated in the factory. He also decided to continue selling the G1 filters in the company's warehouse. (Campbell, Tr. 2049-52.)

98. Thousands of G1 replacement filters and Clean Water Machines with G1 filters had already been distributed to wholesalers, retailers, NSI stores, and consumers. (CX 142-9 to [20] 142-12.) Norelco did not recall these contaminated filters. (Campbell, Tr. 2049, 2057.) Nor did Norelco change its advertising, which claimed that the Machine would effectively remove organic chemicals and clean the water. (Campbell, Tr. 2058-60.)

99. Norelco asked U.S. Testing to provide information on methylene chloride. (Campbell, Tr. 2009; Rider, Tr. 2467-68, 2491.) Norelco did not ask U.S. Testing to evaluate methylene chloride's toxic or carcinogenic effects. U.S. Testing is a product testing company and does not evaluate scientific data. (Rider, Tr. 2469-70.)

100. Eugene Rider of U.S. Testing told Norelco that methylene chloride was a "suspect carcinogen," defining that term as "a compound capable of causing cancer in animals." (Rider, Tr. 2472, 2475.) This confirmed information Norelco had obtained from *Consumer Reports* and FDA (in both August and November 1982). (Lenahan, Tr. 185; Campbell, Tr. 2002, 2036-38; CX 40; CX 41-4; CX 43-1.)

101. Rider also informed Norelco that the Food and Drug Administration had a regulation limiting the amount of methylene chloride in decaffeinated coffee grounds after processing to 10 ppm.

⁴ Clean Water Machines and replacement filters were manufactured at Philips Park, Norelco's factory in Essex, Connecticut. (Emmons, Tr. 1939-40; Campbell, Tr. 1998; CX 32-1.) Finished goods were transported from the factory to Norelco's warehouse in Long Island City, New York, where they remained until shipped out in response to orders from wholesalers, retailers, NSI stores, or individual mail order customers. (Dinley, Tr. 2098-100, 2139-40; CX 159-19, 159-20, 159-43.)

(Rider, Tr. 2473-74.) The amount in the decaffeinated coffee is about .1 ppm, a level far smaller than the amount leached by the Machine. (Rozman, Tr. 1918-21; CX 124-4.) FDA also told Norelco directly about this rule. (CX 43-1, 43-2; CX 44-1.)

102. Norelco's conclusion that the G1 filters were safe was not supported by the data U.S. Testing provided. Norelco knew that methylene chloride was a suspected carcinogen based on studies that showed the chemical caused cancer in laboratory animals. (Campbell, Tr. 2002, 2027-28, 2036-38; CX 40; CX 43-1; CX 159-35, 159-36.)

103. Patrick Campbell and Emil Misisco, NAPC's Vice President for Quality and Product Assurance, met the *Consumer Reports* officials to discuss the methylene chloride problem that it had called to Norelco's attention a few weeks earlier. (Campbell, Tr. 2013-14, 2016; CX 159-2 to 159-7.) Campbell told *Consumer Reports* that Norelco had corrected the problem by designing a new filter that would leach substantially less methylene chloride than the G1 filter that the magazine had tested. (Campbell, Tr. 2014-15; CX 159-7.)

104. Campbell also informed *Consumer Reports* that Norelco had G1 filters that it intended to sell. Campbell assured *Consumer Reports* that the remaining G1s would be sold out soon. (Campbell, Tr. 2014-16; CX 159-15, 159-16.) [21]

105. On the basis of what Campbell told *Consumer Reports* at that meeting, the magazine published a review of the device in its February 1983 issue. The article informed readers, "Company officials told us that they had already changed the manufacturing process to one that doesn't use methylene chloride." The article continued, "By the time this report appears, most of the old cartridges should be off the market." (CX 50-6.)

106. In fact, G1 filters (both in Clean Water Machines and as replacement filters) remained available on retail shelves for years to come. Norelco itself sold 186,000 G1 filters between late 1982 and early 1986. These filters were distributed both to large retail accounts as well as to consumers ordering replacement filters through the mail. (F. 108-10.)

107. Many consumers purchased a Clean Water Machine after reading the February 1983 *Consumer Reports* article, in reliance on the assurance that the contaminated filters would no longer be on the market. (Price, Tr. 112-13; Haag, Tr. 214-15; Bergins, Tr. 254-55.) Consumers who read a follow-up *Consumer Reports* article in March 1986, learned that they were still purchasing G1 filters. (Haag, Tr. 227; Bergins, Tr. 265.)

108. From July 1984 to February 1985, Norelco sold 10,221 Clean Water Machines to Philips Electronics, Ltd., a Canadian subsidiary of N.V. Philips, NAPC's parent company. (Gaines, Tr. 2191; CX 79-2.) Most of the filters were G1s. (Gaines, Tr. 2192-93; CX 79-2.)

109. Between 1982 and 1986, the Builders Emporium chain in California acquired 4700 Clean Water Machines. More than 4200 of them were stocked with G1 filters. (RX 157-Z61 to 157-Z63; 157-Z96.)

110. Norelco also used the remaining inventory of G1 filters in its warehouse to fill mail orders from consumers. (Haag, Tr. 226, 231; Roche, Tr. 1052-55; Dugan, Tr. 1099, 1102-03; RX 157-Z10, 157-Z55.)

111. Thus, more than three years after Norelco learned that G1 filters emitted a suspected carcinogen, Norelco itself continued to distribute them to unsuspecting consumers.

112. During this three-year period, Norelco also sold G1 filters through its own NSI stores. William Price bought G1 filters at the San Francisco NSI store in late December 1985. (Price, Tr. 126-27, 133-34, 150; CX 150.)

113. In addition, G1 filters were on retail shelves during those years. Annette Bergins bought a G1 from a local Denville, New Jersey store in late 1985. The filters on the shelf were G1s. (Bergins, Tr. 268-69.) [22]

114. Mel Boynton bought a G1 filter from a St. Paul, Minnesota outlet of a national catalogue showroom chain in late 1985. (Boynton, Tr. 625.) Judith Coyle tested a G1 filter in the summer of 1985 that had been purchased from a Philadelphia department store. (Coyle, Tr. 1175.) On August 3, 1987, an FTC employee bought a Clean Water Machine containing a G1 filter at a Washington, D.C. area catalogue showroom. (CX 188, Stip. 48.)

E. Later Tests of the Clean Water Machine

1. The New Shelter Magazine Tests

115. In 1983 Rodale Press, the publisher of several health and energy-related magazines, tested the performance of the Clean Water Machine for an article published in *New Shelter* magazine. (Kern, Tr. 975-77; CX 55-0, 55-6.) The tests were conducted in Rodale's product testing department by Mark Kern.

116. Kern used the "TOX" test to evaluate the Clean Water Machine's ability to lower the level of chemicals in the water. The

TOX test measured the level of total halogenated organic chemicals in the water. (Kern, Tr. 980-82.)

117. A halogenated organic chemical is one which contains, in addition to carbon, an element such as fluorine, chlorine, bromine, or iodine. Most of the compounds which are regulated or required to be monitored by federal law, including methylene chloride, are halogenated organic chemicals. (Coyle, Tr. 1124-30; CX 56-20.)

118. Kern obtained the Clean Water Machine directly from Norelco in January 1983. (Kern, Tr. 1006.) He tested it and found that it added more halogenated organic chemicals than it removed. (Kern, Tr. 1002-05; CX 58.)

119. Following completion of the initial tests, Kern called Norelco about the results. Norelco told Kern that he must have tested an "old filter." (Kern, Tr. 1005-06.)

120. Kern performed a follow-up test of the Clean Water Machine in July 1983. Using the one-step cycle, a Machine purchased in June 1983 from a Pennsylvania department store increased TOX levels by a factor of 22, from 77 ppb to 1713 ppb. (Kern, Tr. 1007-10; CX 56-44.)

121. The Clean Water Machine compared poorly with the other activated carbon filtration devices on the market in 1983 that Kern tested. Whereas the Norelco Clean Water Machine increased TOX by 10-22 times, the remaining nine devices lowered TOX levels by an average of 39% to 73%. (Kern, Tr. 1005; CX 56-20; CX 58.) [23]

122. The October 1983 issue of *New Shelter* contained an article regarding Kern's tests. It reported that the Clean Water Machine filters increased the level of contaminants in the water, and that this result was repeated by a Machine obtained from a department store in the summer of 1983. (CX 55-6.)

2. The North Penn Water Authority Tests

123. Judith Coyle of North Penn Water Authority ("NPWA") tested three Clean Water Machines, and five different filters in 1983 and 1985. Her tests confirmed that the devices were leaching methylene chloride; that contamination levels are higher when the continuous clean cycle is used; and that contamination continues even after a filter has been used for three months.

124. Coyle is the Water Quality Manager of NPWA, a municipal water supplier in the Philadelphia area, and is an expert in water quality and water contamination testing. (Coyle, Tr. 1118-23.)

125. NPWA conducts some 3400 tests each year to determine

whether its drinking water meets the EPA contaminant standards and to comply with monitoring requirements. (Coyle, Tr. 1120-1123.) Each day, NPWA determines the specific organic contamination of its water using an EPA-approved method of gas chromatography ("GC") testing. (Coyle, Tr. 1136-37; CX 90-27.)

126. Coyle tested her first Clean Water Machine in April 1983. (Coyle, Tr. 1141-43; CX 59-6.)

127. Coyle first tested the Clean Water Machine with distilled water, known to be free of organic chemicals. The carafe of distilled water filtered through the Machine registered a methylene chloride level of 3360 ppb [3.4 ppm]. (Coyle, Tr. 1145-48; CX 59-6 to 59-7.)

128. Tests of the unfiltered well water showed methylene chloride in the range of 1.3 ppb to 8.7 ppb. When this well water was filtered through the Machine, however, the methylene chloride level was increased to 1990 to 3450 ppb. (Coyle, Tr. 1142-44, 1147-49; CX 59-6, 59-7.) Coyle filtered ordinary tap water, measured to contain no methylene chloride, through the Machine. After filtering, methylene chloride was found in concentrations up to 3670 ppb. (Coyle, Tr. 1156-59; CX 59-9, 59-10.)

129. In 1985, Coyle tested a second Machine containing a G1 filter, which was purchased from a department store in mid-July, 1985. This machine added methylene chloride to the water in a concentration of 2300 ppb [2.3 ppm], using one-step filtration. Moreover, it increased contamination levels of 4700 ppb [4.7 [24] ppm] after five minutes on the continuous clean cycle. (Coyle, Tr. 1167-70; CX 59-3.)

130. Also in 1985, Coyle tested a third Machine using two different filters. The first filter tested, which had already been in use for three months, added methylene chloride to the water in concentrations of 1300 ppb. The Machine was then tested using a new filter, purchased directly from Norelco by mail-order in March of 1985; that filter leached methylene chloride in a concentration greater than 2000 ppb. (Coyle, Tr. 1170-72; CX 59-3.)

131. The Clean Water Machine added to the water more chemicals than it removed. (Coyle, Tr. 1199.) For example, when Coyle filtered ordinary tap water through the Machine in her 1983 tests, it increased the level of total specified chemicals (including methylene chloride) from 10 ppb to between 2079 and 3670 ppb. (Coyle, Tr. 1158, 1199-1200; CX 59-10.)

3. The 1985 Consumer Reports Tests

132. In late 1985, *Consumer Reports* conducted follow-up tests of eight Clean Water Machine filters purchased in four cities. When new, five of the eight filters emitted methylene chloride in concentrations between 2 and 5.5 ppm. (CX 51; CX 54-4.)

133. One filter was subjected to further testing. That filter initially leached 3.5 ppm. Its methylene chloride levels dropped to 1.5 ppm after the first 20 gallons, and continued to decline slowly, to less than 1 ppm, after 50 gallons. (CX 51; CX 54-4.)

134. *Consumer Reports* advised Norelco in-house counsel Lynne Bezikos of these test results in January 1986. (CX 51; CX 54-6; F. 602.)

4. The 1986 U.S. Testing Tests

135. In January 1986, after being advised by the EPA of Coyle's 1985 test results, Norelco submitted three G1 filters to U.S. Testing for analysis. When new, the filters leached methylene chloride in concentrations of 1200 to 1900 ppb on the one-step cycle. Thereafter, the amount of the chemical increased to 1700 to 2300 ppb, using the continuous clean cycle. (RX 30.)

5. The 1987 Intech Biolabs Tests

136. In September 1987, Norelco retained L. Wendell Haymon, Ph.D., President of Intech Biolabs, to test a single G1 filter over a period of time. (RX 156-J, RX 156-M, RX 156-Z5.) [25]

137. Dr. Haymon filtered spring water, containing .13 ppb methylene chloride, through the Clean Water Machine. Initially, filtering increased the level of methylene chloride in the water to 2400 ppb [2.4 ppm]. The levels of methylene chloride in the filtered water declined over time, to 1180 ppb after 50 carafes. (RX 156-X, 156-Z19.)

6. Summary of Test Results

138. The tests of the Clean Water Machine show that G1 filters leach methylene chloride in concentrations of 1.2 to 5.5 ppm. (F. 120, 127-131, 132-133, 135-137.)

139. The tests demonstrate that levels of methylene chloride are higher when the continuous clean cycle is used. Machine users favored the continuous clean cycle, due to Norelco's claim that it would make the water "cleaner." (F. 31.)

VII. THE FALSITY OF RESPONDENT'S ADVERTISING
REPRESENTATIONS

A. *The Organic Chemical Removal Claim*

140. Norelco's representations that under typical water conditions the Clean Water Machine effectively helped remove organic chemicals from the water it was treating were false for the 354,708 G1-filters sold from 1982 to at least early 1986.

1. The organic chemical content of drinking water

141. The term "organic chemicals" includes all substances which contain carbon. (Coyle, Tr. 1124; Ohanian, Tr. 1554-55.) These substances can be divided into natural (primarily decayed vegetation) and synthetic organic chemicals (industrial chemicals). (Coyle, Tr. 1124-25; Ohanian, Tr. 1590.) Natural organics are not regulated by the government because they are not hazardous. (Coyle, Tr. 1127.)

142. Synthetic chemicals are made up of volatile (or purgeable) organic chemicals ("VOCs") and nonvolatile (nonpurgeable) organics. (Coyle, Tr. 1126-27; Zeise, Tr. 1291; Ohanian, Tr. 1555, 1582.) A chemical is considered volatile if it has a relatively low boiling point and readily escapes into the atmosphere. (Zeise, Tr. 1291; Ohanian, Tr. 1554-55.)

143. Many of the chemicals in drinking water of greatest concern from a health standpoint are VOCs. (Coyle, Tr. 1127; Ohanian, Tr. 1555-56; CX 88-3.) These include, for example, trihalomethanes, a class of VOCs mentioned specifically in the advertising for the Clean Water Machine. (Coyle, Tr. 1132; Zeise, Tr. 1291-92.) Trihalomethanes include chemicals such as chloroform which are formed as by-products of the chlorination [26] process used to disinfect water. (Coyle, Tr. 1126-27; Zeise, Tr. 1292.)

144. Methylene chloride is a synthetic organic chemical and a VOC. (Zeise, Tr. 1290; CX 96-15.) It is not a trihalomethane, but a dihalomethane. (Zeise, Tr. 1294.)

a. *Methylene chloride*

145. Drinking water in this country comes from two sources: groundwater (below-ground) and surface water (rivers, lakes, and other above-ground). (Coyle, Tr. 1134.) Methylene chloride is usually not found in groundwater, surface water, or tap water. (Coyle, Tr. 1139, 1159-60; Zeise, Tr. 1297; CX 156-82.)

146. Some water does contain methylene chloride, primarily as a result of industrial activity. (CX 96-15.) Ordinary levels of methylene chloride in such water supplies are in the range of 1.5—2 ppb. (Ohanian, Tr. 1649-50.) The Ogallala Aquifer, an underground water source that supplies drinking water to much of the western United States, has less than 5 ppb of methylene chloride. (Rozman, Tr. 1921-22.)

147. All groundwater drinking water systems and 98% of all surface water systems contain less than 0.5 ppb of methylene chloride. None of the 2% of surface water systems containing more than 0.5 ppb are expected to have levels above 50 ppb. (CX 96-6.)

148. A national survey conducted for EPA, the National Organic Monitoring Survey, found methylene chloride in 15 of 109 water samples, with a median concentration between 1 and 2 ppb. (Ohanian, Tr. 1586-88; CX 186-9.) A second survey, the National Screening Program for Organics in Drinking Water, found detectable methylene chloride in 5 of 118 water systems surveyed. Those five systems had average concentrations of 0.6 ppb. (CX 96-20, 96-25.)

b. Total organic chemicals

149. A national survey of hundreds of water supplies found average concentrations of total organic carbon to be 1.5—2.6 ppm. (Ohanian, Tr. 1589-90; CX 95-44.)

150. Typical VOC concentrations in public water systems are low. A national survey of nearly 1000 groundwater supplies found that only about 0.5% of the samples had total VOC levels above 50 ppb, and none was above 100 ppb. (Ohanian, Tr. 1588-89; CX 184-6.)

151. Surveys have also been conducted on the levels of nonvolatile organic chemicals in water supplies. The National [27] Organics Reconnaissance Survey found a median nonvolatile organics concentration of 1.5 ppm. (Ohanian, Tr. 1582-84; CX 185-4.) The National Organic Monitoring survey of 113 community water supplies found average nonvolatile organics levels of 1.8—2 ppm. (Ohanian, Tr. 1586-87; CX 186-9.)

152. Drinking water typically contains about 1-2 parts per million of organic chemicals, with most of that consisting of non-hazardous natural organics. (Coyle, Tr. 1135.)

2. The Clean Water Machine's chemical removal capabilities

153. U.S. Testing measured the efficacy of the Clean Water

Machine for removing chloroform, a trihalomethane, in mid-1982. (RX 56-U to 56-V.) The test found that after filtering by the Machine, the levels were reduced by 78-90%. (RX 56-V.)

154. *Consumer Reports*, as part of its February 1983 article, also tested the Machine's chloroform-removal capabilities. In these tests, the Machine removed 70-85%. (CX 50-6.)

3. The methylene chloride emission

155. The total organic content of typical water is 1 or 2 ppm, and the Machine removed about 80% of it. The Machine was adding as much or more organic chemicals (in the form of methylene chloride) as it could have been removing under typical water conditions. (F. 138.)

156. Most of the organic content of water is natural. (F. 150-52.) Therefore, the amount of synthetic organics that the Machine would be removing under typical conditions would be far less than the amount of methylene chloride it was adding.

157. *New Shelter* tested the halogenated organic content of tap water before and after filtering by the Machine and found that the levels increased by 10 to 22 times. (F. 119-21.) Judith Coyle's tests found larger increases in the chemical content of the water after filtering. (F. 131.)

B. *The Clean or Cleaner Water Claim*

158. The Clean Water Machine also did not make the water it treated clean or cleaner under typical conditions, as advertised by Norelco. The amount of methylene chloride leached by the Machine's G1 filters was above typical levels of all organic chemicals combined.

159. The Clean Water Machine also did not make the water "cleaner" because, under typical water conditions, it added as [28] much or more methylene chloride than all of the organic chemicals it could have removed.

C. *The Independent Laboratory Test Claim*

160. Norelco's representation that independent laboratory tests proved that the Clean Water Machine made typical tap water clean or cleaner was also false. Since the Machine, in fact, did not make the water clean or cleaner, tests could not have proven that it did.

D. *The Reasonable Basis Claim*

161. Norelco's advertising implied that the company had a

reasonable basis for its performance claims. (F. 78-79.) In fact, because of the methylene chloride problem, these claims were false and unsubstantiated. Since November 1982, Norelco had no basis for claiming that the Machine effectively removed organic chemicals and made the water clean or cleaner.

VIII. RESPONDENT'S FAILURE TO DISCLOSE THE METHYLENE CHLORIDE CONTAMINATION

162. Respondent represented that the Clean Water Machine was effectively removing organic chemicals and cleaning the water, while it continued to sell contaminated G1 filters, from 1982 to 1986. When Norelco was informed of the problem in November 1982, it did not change its advertising or disclose the methylene chloride emission. (F. 98.) Thus, respondent failed to disclose a fact necessary to correct the misleading impression it had created that the Machine was effectively reducing organic chemical levels and cleaning the water.

IX. THE MATERIALITY OF RESPONDENT'S MISREPRESENTATIONS AND FAILURE TO DISCLOSE

A. Respondent's Deceptive Practices Were Material

163. Respondent's misrepresentations about the efficacy of the Clean Water Machine, and its failure to disclose the methylene chloride problem, were material.

164. Respondent's advertising expressly represented that the Machine would effectively help remove organic chemicals, would make tap water clean or cleaner, and that independent tests supported these claims. (F. 69-77.) These representations were made deliberately. (F. 40-41.)

165. The representations and failure to disclose relate to a central feature of the product—its ability to remove [29] chemicals and clean the water. These capabilities are the reasons why consumers purchased it. (F. 168-179.)

166. The representations also implied that the Machine made the water safer by removing potentially hazardous chemicals. The fact that the Machine added to the water a chemical considered by government agencies to be potentially hazardous would have been an important factor in consumers' purchase and use decisions. (Price, Tr. 140-41; Roche, Tr. 1061-62; Louie, Tr. 1217-18.)

167. Other water filtration devices on the market, which did not emit chemicals into the water, removed organic chemicals and made

the water cleaner. (CX 50; CX 55.) Absent respondent's deceptive representations and omission of fact, consumers could have purchased such other, effective devices. (Price, Tr. 140.)

B. Consumer Testimony

168. The advertising presented the Clean Water Machine as an effective means of removing chemicals from tap water. The primary reason consumers bought the Clean Water Machine was because they were led to believe that it could minimize their exposure to chemicals and contaminants in tap water. (Price, Tr. 119-20; Haag, Tr. 218-19; Bergins, Tr. 250-51; Boynton, Tr. 615, 617, 623; Roche, Tr. 1046; Maranki, Tr. 1071-72, 1088.)

169. Consumers who bought the Clean Water Machine were attracted to the name. They understood it to mean that the device would "clean the water [of] contaminants," "ma[k]e it safer to drink." (Bergins, Tr. 256; Roche, Tr. 1047.)

170. Norelco promoted the Clean Water Machine to consumers interested in taking preventive steps to minimize risks to their health. (Haag, Tr. 213; Boynton, Tr. 627; Maranki, Tr. 1089; Campbell, Tr. 2204-26; CX 9-7; CX 19-9.)

171. Even when scientists disagree about the hazards of a certain compound, the consumers want to avoid ingesting chemicals whose potential risks are unknown. (Boynton, Tr. 1218; Roche, Tr. 1062; Maranki, Tr. 1089-90; Dugan, Tr. 1110; Louie, Tr. 1218.)

172. Consumers were aware that the ingestion of chemicals had been linked to cancer, and wanted to avoid that risk. (Bergins, Tr. 251; Roche, Tr. 1054; Maranki, Tr. 1089; Dugan, Tr. 1094.)

173. Some bought the Clean Water Machine to protect the more vulnerable members of their families, such as babies, the elderly and the infirm. (Boynton, Tr. 516; Maranki, Tr. 1070, 1075; Louie, Tr. 1204-05; CX 76-3; CX 135-4; CX 138.) [30]

174. Some consumers were also aware that chloroform, a suspected carcinogen in humans, was present in tap water as a by-product of the chlorination process. (Price, Tr. 111; Haag, Tr. 219; CX 152-2.)

175. For some consumers, their purchase of the Clean Water Machine was part of their overall interest in reducing the risks associated with the ingestion of chemicals. (Bergins, Tr. 251; Boynton, Tr. 627-28; Roche, Tr. 1053.)

176. The consumers who testified were unanimous in their opinion that they would not have purchased the Machine or continued to use

the Machine had they known that the filters they bought injected into their drinking water a chemical that the EPA and other scientific organizations thought to be a possible or probable human carcinogen. (Price, Tr. 141; Haag, Tr. 234; Bergins, Tr. 270-71; Boynton, Tr. 628-29; Roche, Tr. 1061-62; Maranki, Tr. 1088; Dugan, Tr. 1109; Louie, Tr. 1217-18.)

177. Consumers paid \$50 for a product that they thought would promote good health, only to find that it might pose an additional potential hazard. (Boynton, Tr. 618; Maranki, Tr. 1088-89; CX 138.)

178. The Clean Water Machine instructions included the following warning in two separate places:

WATER THAT HAS NOT BEEN TESTED OR TREATED FOR HUMAN CONSUMPTION SHOULD NOT BE USED. Only tap water which has been rated as safe for drinking should be used. The Norelco Clean Water Machine will help remove elements which adversely affect taste, odor, clarity, and color of tap water. THIS APPLIANCE DOES NOT TAKE THE PLACE OF ANY STERILIZATION OR DISTILLATION PROCESSES YOU WOULD NORMALLY FOLLOW.

(Emphasis in original.) (CX 2-1.)

179. Consumers used the Clean Water Machine to provide their families water freer of chemicals than what government agencies deemed to be allowable. (Price, Tr. 118-19; Haag, Tr. 222; Bergins, Tr. 259; Boynton, Tr. 626-27; Maranki, Tr. 1087-88; Louie, Tr. 1217.)

X. THE POTENTIAL HAZARDS OF METHYLENE CHLORIDE

180. The consensus of governmental and scientific bodies is that methylene chloride is potentially hazardous. Consumers would not have purchased a device to remove potentially hazardous [31] chemicals when the device added a chemical that many scientists and government agencies consider hazardous. (Price, Tr. 140; Haag, Tr. 233-34; Bergins, Tr. 270-71; Boynton, Tr. 628; Roche, Tr. 1061-62; Maranki, Tr. 1089; Dugan, Tr. 1110; Louie, Tr. 1218.)

181. Both parties' experts agreed that it would be prudent to avoid unnecessary ingestion of methylene chloride at the levels leached by the Clean Water Machine. (Cohn, Tr. 468; Farland, Tr. 827; Rozman, Tr. 1922-23; Klaassen, Tr. 2434.)

A. *The Carcinogenicity of Methylene Chloride*

182. Several government agencies and scientific organizations have concluded that methylene chloride causes cancer in laboratory animals

and is a possible or probable human carcinogen. (Farland, Tr. 956-67; Zeise, Tr. 1312-13; CX 105-21.) Respondent's expert witnesses agreed that methylene chloride causes cancer in laboratory mice and can reasonably be considered a possible human carcinogen. (Rozman, Tr. 1803-04; Klaassen, Tr. 2393-96.)

183. Complaint counsel's expert witnesses testified that ingestion of the methylene chloride leached by the Clean Water Machine raises the risk that users could contract cancer. (Cohn, Tr. 454; Zeise, Tr. 1393.) The existence of this risk supports the conclusion that respondent's deceptive practices were material. All of the experts agreed that it would be prudent for consumers to avoid drinking water containing these levels of methylene chloride. (Cohn, Tr. 468, 554; Farland, Tr. 827, 969-70; Zeise, Tr. 1454-55; Ohanian, Tr. 1561-62; Rozman, Tr. 1922-25; Klaassen, Tr. 2434.)

1. Actions by government agencies and scientific organizations

a. *Environmental Protection Agency*

184. Since early 1985, EPA has classified methylene chloride as a "probable human carcinogen" (Category B2) under its cancer assessment guidelines. (Farland, Tr. 717, 946-47.) This category covers substances for which there is sufficient evidence of carcinogenicity in tests of laboratory animals and inadequate human evidence. (Farland, Tr. 718; CX 110-10.)

185. The EPA Guidelines establish five categories of evidence of carcinogenicity: [32]

- Group A— Human carcinogen
- Group B— Probable human carcinogen ⁵
- Group C— Possible human carcinogen
- Group D— Not classifiable as to human carcinogenicity
- Group E— Evidence of non-carcinogenicity for humans

(Farland, Tr. 716-17; CX 110-10.)

b. *Consumer Product Safety Commission*

186. In September 1987, the Consumer Product Safety Commission ("CPSC") issued a notice of interpretation and enforcement policy, announcing its intention to prosecute manufacturers who fail to affix warning labels. (Cohn, Tr. 319-21; CX 121-1, 121-2.)

⁵ Group B is divided into two subclassifications. Group B1 covers chemicals for which the human evidence is limited, while Group B2 covers chemicals for which the human evidence is inadequate, but the animal evidence is sufficient. (Farland, Tr. 717-18; CX 110-10.)

187. In issuing this notice, CPSC concluded:

After considering the comments on the proposed rule and other available evidence, the Commission has concluded that there is little or no uncertainty involved in a determination that household products containing methylene chloride and presenting significant exposures to consumers may pose a carcinogenic risk to humans unless and until persuasive evidence to the contrary is obtained.

(CX 121-3.)

c. Food and Drug Administration

188. Methylene chloride is used by some companies to decaffeinate coffee. (CX 124-3.) Since 1967, an FDA regulation has set a maximum level of 10 ppm residue in the ground coffee beans. (CX 122-1.)

189. At the maximum level of 10 ppm in the grounds, brewed liquid coffee would contain, at most, about 0.1 ppm. (Rozman, Tr. 1918-21; CX 124-4.)

190. The FDA has also proposed to ban methylene chloride in cosmetics, including aerosol hair sprays. (CX 124.) The agency [33] has concluded that methylene chloride causes cancer in animals and may be carcinogenic to humans. (CX 124-2.)

d. Occupational Safety and Health Administration

191. In 1971, the Occupational Safety and Health Administration ("OSHA") established a maximum permissible level of exposure to methylene chloride in the workplace of 500 ppm for an eight-hour day. In 1986, OSHA issued an advanced notice of proposed rulemaking to lower the limit, because the 500 ppm standard may not adequately protect workers against potential cancer and other risks. (CX 128-1.) OSHA concluded that methylene chloride was a proven carcinogen in laboratory animals. (CX 128-5.)

e. International Agency for Research on Cancer

192. The International Agency for Research on Cancer ("IARC") is an international organization of cancer experts. (Farland, Tr. 716; Klaassen, Tr. 2372-73.)

193. IARC's most recent review of methylene chloride was published in 1986 and reached the same conclusion as EPA. (Farland, Tr. 723-26; CX 113-63.)

f. *State of California*

194. The State of California has had in effect since 1982 or 1983 a nonregulatory guideline, or "action level," for methylene chloride in drinking water of 40 ppb. (Zeise, Tr. 1402-03; CX 130-2.)

195. California has a law that requires that bottles used for bottled water not leach more than 1 ppb of methylene chloride into the water. (Zeise, Tr. 1397-98; CX 131-5.)

196. The 1987 California Department of Health Services report on the health effects of methylene chloride concluded that it is a probable human carcinogen. (Zeise, Tr. 1312; CX 132-96.)

g. *Other states*

197. Ten states have guidelines for methylene chloride in drinking water. The maximum levels range from 2 ppb to 150 ppb. (Ohanian, Tr. 1594; CX 190-117.)

h. *Private organizations*

198. The National Sanitation Foundation is a non-profit organization that develops standards and tests products for water filtration devices to ensure that drinking water is not toxic. (Bell, Tr. 1241; CX 115-8, 115-20.) The acceptable [34] level for methylene chloride is 5 ppb. (Bell, Tr. 1244-45; CX 115-23.)

199. The Water Quality Association, an international trade association of water treatment device manufacturers, has developed voluntary guidelines for the use of solvents in the manufacture of such devices. (Bell, Tr. 1246-47; CX 114.) The guidelines allow 5 ppb of methylene chloride. (Bell, Tr. 1247; CX 114-14.)

200. No government agency or scientific organization has concluded that methylene chloride is not a carcinogenic risk to humans. (Cohn, Tr. 466; Zeise, Tr. 1313; Klaassen, Tr. 2399.)

2. The scientific evidence

201. Methylene chloride is a probable human carcinogen. (Cohn, Tr. 391; Farland, Tr. 824; Zeise, Tr. 1312, 1393.) The opinion is shared by a significant portion of the scientific community. (Cohn, Tr. 391.)

B. *The Non-Cancer Toxic Effects of Methylene Chloride*

202. Methylene chloride ingestion can also result in adverse health effects other than cancer. Methylene chloride added to water by the Clean Water Machine exceeds safe levels set by the EPA, and raises a potential risk to the health of its users.

203. Methylene chloride is a toxic chemical that can produce a number of adverse health effects. (Ohanian, Tr. 1501-11; CX 127-11; CX 128-5.)

204. Methylene chloride poses risks to individuals with heart disease. (Ohanian, Tr. 1502-03; CX 83-1, 83-4, 83-5.)

205. Some people are more sensitive to carbon monoxide formed by ingestion of methylene chloride, including individuals with ischemic heart disease, pregnant women, and children. (Ohanian, Tr. 1509; CX 83-4 to 83-5; CX 99-104.)

206. The National Academy of Sciences' *Drinking Water and Health*, issued in 1980, evaluated the toxicity of methylene chloride. (Ohanian, Tr. 1520; CX 94-16 to 94-20.) The Academy established recommended safe levels of ingestion of methylene chloride by adults for one and seven-day periods. (Ohanian, Tr. 1526; CX 94-16 to 94-20.) These levels, termed "SNARLs" (Suggested No Adverse Response Levels), are based only on non-cancer toxic effects. (Ohanian, Tr. 1518.)

207. The one-day SNARL for methylene chloride was set at 35 mg/1 (35 ppm). The seven-day SNARL was 5 mg/1, meaning that it [35] is considered safe to ingest that amount of methylene chloride per day for up to seven days. (Ohanian, Tr. 1526; CX 94-19, 94-20.)⁶ The longer the period of exposure, the less of the chemical is acceptable. (Ohanian, Tr. 1527; CX 94-20.)

208. The EPA's Office of Drinking Water established its own SNARLs for methylene chloride on March 14, 1981. (Ohanian, Tr. 1529; CX 83.) EPA issues Health Advisories for chemicals for which binding maximum contaminant levels have not yet been set. (Ohanian, Tr. 1529.)

209. EPA's Health Advisories are not legally enforceable. (Ohanian, Tr. 1622; CX 83-1.) Unlike the maximum contaminant levels ("MCLs"), the Health Advisories are strictly health-based and do not consider costs, technology, or other factors. (CX 83-1.)

210. Most toxic effects other than cancer are believed to have a "threshold" dose. Doses below that level are considered safe. (Zeise, Tr. 1364-68.)

211. The SNARL is based on the highest dose level in the study at which no adverse effects were detected—the "NOEL" or no observed effect level. (Zeise, Tr. 1364; Ohanian, Tr. 1518-22.)

⁶ The calculation of these SNARLs contained a computational error. The one-day SNARL should be 4 mg/1, and the seven-day SNARL should be 6.4 mg/1. (Ohanian, Tr. 1526; CX 83-6, 83-7.)

212. In setting the SNARL, the NOEL is reduced by a safety factor. A factor of ten is applied because of the uncertainties of extrapolating from animal studies to humans. (Ohanian, Tr. 1522-24; Klaassen, Tr. 2292; RX 133-Z13.)

213. EPA's SNARLs are calculated for children, while the National Academy of Sciences' SNARLs are based on adults. (Ohanian, Tr. 1531; CX 83-1) Since children drink more water per unit of body weight and are therefore considered more sensitive, the EPA SNARLs are lower. (Ohanian, Tr. 1531, 1606-07.)

214. In 1981 EPA calculated SNARLs for methylene chloride for the following durations of exposure:

one-day	13.00	mg/1 (13ppm)
ten-day	1.50	mg/1 per day
longer-term	.15	mg/1 per day

(Ohanian, Tr. 1531-32; CX 83-5 to 83-7.) [36]

215. The EPA SNARLs were updated in 1985 based on new animal data. (Ohanian, Tr. 1535-37; CX 84.) The EPA SNARLs were also updated in 1987. (Ohanian, Tr. 1539; CX 85.) EPA declined to set a lifetime SNARL because of methylene chloride's carcinogenicity. (Ohanian, Tr. 1539-42; CX 85-9 to 85-11.)

216. The levels of methylene chloride added by the Clean Water Machine exceed the safe levels set by EPA in 1981, 1985 and 1987. Most tests of the Machine detected amounts exceeding the ten-day SNARL of 1.5 mg/1. (F. 138.)

217. The fact that the amount of methylene chloride added by the Machine exceeds levels recommended by EPA as safe would have been material information to consumers in purchasing or using the Machine. (Price, Tr. 140; Haag, Tr. 234; Bergins, Tr. 270; Boynton, Tr. 628; Roche, Tr. 1061; Maranki, Tr. 1088; Dugan, Tr. 1109; Louie, Tr. 1217.)

C. The Evidence Available In 1982

218. Norelco was informed in November 1982 of the methylene chloride leaching problem and continued selling G1 filters. (F. 95-98.)

219. By November 1982, Norelco was aware that methylene chloride was a suspected carcinogen through its discussions with U.S. esting, *Consumer Reports*, and FDA. (F. 100.)

220. Two studies suggesting methylene chloride caused cancer in laboratory animals, by Dow Chemical and the National Toxicology

Program ("NTP"), were available in November 1982. (Farland, Tr. 825, 944-45; Zeise, Tr. 1385-86.)

221. The Dow Chemical study found in salivary gland tumors in male rats and benign mammary gland tumors in rats of both sexes. (Cohn, Tr. 393; Zeise, Tr. 1322; CX 103-9.) The NTP gavage study reported cancer responses. (Cohn, Tr. 450-51; Farland, Tr. 825; Zeise, Tr. 1386-88.)

222. Methylene chloride also had been shown to be genotoxic in bacteria tests, and carcinogenic potential. (Cohn, Tr. 450; Farland, Tr. 944; Zeise, Tr. 1388-89.)

223. There was sufficient evidence in 1982 that individuals drinking water filtered by the Clean Water Machine were potentially at risk of developing cancer. (Cohn, Tr. 450-54; Farland, Tr. 826; Zeise, Tr. 1392.)

224. By 1982, both the National Academy of Sciences and EPA had set recommended safe levels of ingestion of methylene chloride in drinking water for non-cancer effects. The levels of [37] methylene chloride leached by the Clean Water Machine exceeded these recommended safe levels. (Ohanian, Tr. 1534-35, 1562-63.)

225. By 1982, the National Academy of Sciences guides for methylene chloride were published. (Ohanian, Tr. 1529; CX 94.) The EPA Health Advisory was also available. (Ohanian, Tr. 1533-34.)

226. Norelco was aware of the FDA's rule on methylene chloride levels in decaffeinated coffee grounds. (F. 101.)

227. Had Norelco consulted qualified toxicologists in 1982, they would have warned the company that the methylene chloride leached by the Clean Water Machine created a potential carcinogenic hazard and would have advised it not to expose people to the chemical. (Zeise, Tr. 1392; Rider, Tr. 2482-83.)

228. Had Norelco contacted EPA's Office of Drinking Water, it would have been told of the existence of the Health Advisory for methylene chloride and could have ascertained that they were exceeding the guideline. (Ohanian, Tr. 1534, 1562-63.)

229. EPA had by that time also published in the Federal Register proposed rulemakings relating to volatile organic chemicals generally and methylene chloride specifically. (Ohanian, Tr. 1566; CX 86; CX 88.)

230. There was sufficient information available in 1982 that the methylene chloride leached by the Clean Water Machine posed a potential carcinogenic and toxic risk to users. Norelco knew that

methylene chloride was a suspected carcinogen based on laboratory animal tests. Additional information confirming methylene chloride's hazards, and indicating the government's attempts to limit exposure to it, was available. Norelco's search for such information was inadequate. (Rider, Tr. 2467-70.)

XI. RESPONDENT'S 1986 FILTER REPLACEMENT PROGRAM

A. *Reappearance of the Methylene Chloride Problem*

231. Judith Coyle's 1985 tests showed that two Clean Water Machines leached methylene chloride. (Coyle, Tr. 1172.) In the late summer of 1985 she telephoned Frank Bell of EPA's Office of Drinking Water and sent him a copy of her test report. (Coyle, Tr. 1173-74; Bell, Tr. 1229; CX 59-3, 59-5.)

232. In mid-September 1985, Bell contacted Robert Gaines, manager of Norelco's Health Care division. (Bell, Tr. 1229-30; Gaines, Tr. 2159-60.) Bell told Gaines that, according to Coyle's tests, the Clean Water Machine added a potential [38] carcinogen to the water in high quantities, and that it was not proper for Norelco to continue selling the product. (Bell, Tr. 1229-30.)

233. Bell sent Gaines a copy of Coyle's report and asked him to respond. (Bell, Tr. 1230.) Shortly thereafter, Coyle also spoke with Gaines, and told him the filters that she had tested were G1 filters. (Coyle, Tr. 1173-74, 1177; Gaines, Tr. 2163-65, 2177-79.)

234. Over the following week or so, Gaines did some research regarding methylene chloride, and learned that it was a suspected carcinogen. (Gaines, Tr. 2163, 2175-78.) In addition, he learned that Norelco had continued to sell G1 filters in the filter design change in 1982. (Gaines, Tr. 2175-76, 2184.)

235. Norelco's legal staff instructed Gaines to await an EPA letter before acting. (Gaines, Tr. 2184-85.)

236. Norelco personnel would not return Coyle's calls when she tried to relay further information to the company. (Coyle, Tr. 1177-78.) When *Consumer Reports* called Norelco in January 1986 to alert it of the continuing contamination problem, Norelco insisted that it thought that its filters were "problem-free." (CX 51; CX 54-6.)

237. Despite its knowledge of the methylene chloride problem Norelco continued to sell G1 filters to consumers until early 1986. (Roche, Tr. 1052-55; Dugan, Tr. 1102-03.)

238. In mid-February 1986, the March 1986 issue of *Consumer Reports* contained an article entitled "A good reason to shut off

Norelco's water filter." The article reported that Norelco had broken its "promise [of] corrective action" to *Consumer Reports*, and had continued to sell contaminated filters. (CX 51.)

239. Norelco's President Kress then ordered that all Clean Water Machines and filters be removed from the NSI sales shelves. (RX 157-Z15 to 157-Z18, 157-Z81.)

240. On February 25, 1986, Norelco ordered the destruction of the remaining G1 filters. (Crowley, Tr. 2213; RX 157-Z37, 157-Z87.)

B. The Filter Replacement Program

241. In February, 1986, Norelco decided to initiate a filter replacement program, whereby it would replace consumers' G1 filters with the newly designed G3 filters which contained no methylene chloride, beginning in March 1986. (Gaines, Tr. 2190; Crowley, Tr. 2206-07; CX 33-2.) This action was taken in [39] response to government pressure. (Dinley, Tr. 2138-39; Gaines 2190.)

1. The number of notifications made

242. Norelco sold 248,000 Clean Water Machines, and 354,000 G1 filters. (F. 25, 29.) A total of 19,188 consumer notification letters were sent out. (CX 33-6; CX 144-1, 144-2.)

243. Norelco sent 1505 letters to trade customers, notifying them of its replacement program. (CX 144-2.)

2. Norelco's replacement program letter

244. Norelco's letter to consumers announcing the filter replacement program was dated March 14, 1986:

Norelco first marketed the Clean Water Machine in 1982 after extensively testing its ability to filter drinking water. In late 1982, subsequent independent testing demonstrated that the Clean Water Machine filters contained traces of methylene chloride in the glue used to seal the filter cartridge. Notwithstanding the lack of conclusive data regarding methylene chloride, Norelco changed its filter design in late 1982 to remedy any potential problem.

Recently it has come to our attention that a few of the Clean Water Machine filters of the old design could still be found on retail shelves. There are no established EPA standards for concentration levels of methylene chloride in water. Methylene chloride is found in decaffeinated coffee, spices, hairspray, paint thinner and other consumer products. However, Norelco has undertaken a voluntary replacement of filters of the old design with filters of a design which do not produce any methylene chloride.

Norelco is offering to replace all old design filters with filters of a new design. If you have a filter with a date code of 472 or lower, or no date code at all, we will

replace it for you free of charge. The date code is molded on the underside of the filter dial.

To obtain replacement filters, send your existing filters to:

Norelco Service Inc.

30—10 Review Avenue

Long Island City, NY 11101 [40]

Norelco will reimburse you for your postage.

(CX 69.)

245. The consumer letter contained misleading statements that minimized the methylene chloride problem. Norelco knew that EPA listed methylene chloride as a probable human carcinogen and that G1 filters emitted methylene chloride in levels above those deemed safe for non-cancer effects by the 1985 EPA Health Advisory. (Gaines, Tr. 2195-96; Crowley, Tr. 2229; CX 65-1, 65-4; CX 66.)

246. The March 1986 *Consumer Reports* article generated consumer complaints to Norelco. In response Norelco stated that there were no known health risks and no established standards which the G1 filters did not meet. (Crowley, Tr. 2237.)

3. Consumer response to the replacement program

247. In response to the replacement program, Norelco received 2460 claims from consumers and trade customers. (CX 142-22.)

248. In response to these claims, Norelco distributed 18,998 filters to consumers, and refunded a total of \$12,268, some of which was for returned Machines. In addition, it distributed 239 filters to trade customers, and replaced filters in 3000 Clean Water Machines that had yet to be sold to retail customers. (CX 142-22.)

249. Norelco's cost for the replacement program was \$132,000. (RX 157-Z96.)

DISCUSSION

XII. THE FACTS

Norelco began production of the Clean Water Machine in June 1982, using a chemical solvent, methylene chloride, to glue together parts of the Machine's replaceable filter cartridge. (F. 12, 13, 83.) In November 1982, Norelco launched an advertising campaign that encouraged consumers to question the quality of their tap water. (F. 44.)

These advertisements asked, "Is your tap water as clean as it seems? It could contain impurities you don't want your family to

drink." According to the ads, "independent tests prove" that the Clean Water Machine can "remove up to 90%" of "organic wastes, chlorine, synthetic detergents and trihalomethanes" from drinking water. Urging consumers to "help clean up [their] tap [41] water," Norelco promised that the device could make tap water "bottled-water clean." (F. 45-51.)

In November of 1982, *Consumer Reports* informed Norelco that the Clean Water Machine's replaceable filter was emitting high levels of methylene chloride, a suspected carcinogen, into the filtered water. (F. 85-86.) Norelco had learned from the Food and Drug Administration three months earlier that methylene chloride, the solvent used in the filters, was linked to cancer. (F. 84.) Norelco verified this information through tests performed by the United States Testing Company. (F. 87-89.)

By that time, Norelco had already distributed thousands of the contaminated "G1" filters to wholesalers and retailers.⁷ (F. 94-95.) About 214,000 remained in Norelco's warehouse. (F. 95.) Company officials met with the *Consumer Reports* staff and said that Norelco had changed its manufacturing method to produce a second-generation ("G2") filter that leached less methylene chloride, and that the G1 filters would sell out soon. The magazine reported this information in its February 1983 issue. (F. 103-107.) Norelco, however, continued to sell G1s for the next three years. (F. 106-114.)

In September of 1985, the Environmental Protection Agency contacted Norelco after it learned that G1 filters were still being sold. (F. 232.) *Consumer Reports*, working on a follow-up to the February 1983 article, questioned Norelco in January of 1986 about the continued availability of filters. (F. 236.) Norelco finally undertook a G1 filter replacement program in March 1986. (F. 241.) Norelco contacted fewer than 10% of all Clean Water Machine owners about the availability of an improved filter, and did not mention that the G1s emitted a suspected carcinogen into the water. (F. 242-244.) Of the more than 354,000 G1 filters that Norelco sold, it replaced about 22,000. (F. 242, 248.)

XIII. THE VIOLATIONS

Respondent's television and radio commercials, magazine and newspaper ads, promotional materials and packaging expressly

⁷ Norelco distributed G1s as original equipment in Clean Water Machines, which retailed for about \$50 each, as well as separately-boxed replacement filters, which retailed for about \$5 each. (F. 25-29.)

represented that the Clean Water Machine would effectively help remove organic chemicals from water, that it would make water "clean" or "cleaner," and that independent tests proved that the device made water "clean" or "cleaner." (F. 45, 48-50, 63-68, 69-77.) [42]

An advertisement is deceptive if it contains a material representation or omission that would be likely to mislead reasonable consumers. *Cliffdale Associates, Inc.*, 103 FTC 110, 164-65 (1984), *appeal dismissed sub nom.*, *Koven v. FTC*, No. 84-5337 (11th Cir. October 10, 1984); *Thompson Medical Co.*, 104 FTC 648, 816-17 (1984) *aff'd*, 791 F.2d 189 (D.C. Cir. 1986), *cert. denied*, 107 S.Ct. 1289 (1987).

The G1 filters emitted levels of methylene chloride far higher than those found in typical tap water. Methylene chloride is a synthetic organic chemical associated with industrial waste, which the advertising promised the Clean Water Machine would filter out. A reasonable consumer would have read these ads to mean that water coming out of the Clean Water Machine would contain lower levels of organic chemicals and would be clean or cleaner than water put into it. Water filtered by the Clean Water Machine, however, contained a higher level of organic chemicals (and a far higher level of industrial contaminants) than typical tap water. Consumers were, therefore, misled by Norelco's representations.

The claims are material. Accurate information about the filter's emission of methylene chloride would likely have affected a reasonable consumer's decision to buy the Clean Water Machine. *American Home Products Corp.*, 98 FTC 136, 368 (1981), *aff'd*, 695 F.2d 681 (3d Cir. 1982).

Respondent expressly promised that the Clean Water Machine would "help remove up to 90% of organic chemicals" and would make tap water "clean" or "cleaner." The claims relate directly to the primary purpose of the product: to remove potentially hazardous chemicals from tap water and make it "clean" or "cleaner."⁸ Consumers bought the Clean Water Machine to remove chemicals from their drinking water. They would not have bought the Machine had they known that the device, in fact, added an organic contaminant to the water. (F. 168, 176.)

The consumers who bought the Clean Water Machine hoped to gain an "extra margin of safety" by filtering chemicals out of their tap

⁸ *Fedders Corp.*, 85 FTC 38, 61 (1975), *petition dismissed*, 529 F.2d 1398 (2d Cir.), *cert. denied*, 429 U.S. 818 (1976). (F. 169.)

water—including chemicals they “may not even be aware of.” (F. 171-172.) They wanted to minimize the risks of drinking chemicals in tap water. (F. 169, 170.) Even when scientists might disagree about the hazards of a certain chemical, consumers wanted to avoid any unnecessary exposure. (F. 171.) [43]

Norelco knowingly exposed consumers to the hazard that the company’s advertisements promised to correct. Consumers who took advantage of the continuous-clean function and changed the filter received a higher dose of methylene chloride. (F. 139.)

A. Amount of Methylene Chloride Leached

The G1 filters used in the Clean Water Machine add from 1.2 to 5.5 ppm of methylene chloride to tap water. (F. 138.) Ordinary levels of organic chemicals in water are about 1.5 to 2.6 ppm. Those organic chemicals include mostly harmless decayed vegetation that naturally occurs in the water supply but also potentially hazardous synthetic organic chemicals from industrial pollution and agricultural run-off. (F. 149-152.)

Norelco’s advertisements for the Clean Water Machine focused not on the presence of decaying leaves, bark or vegetation in tap water, but rather on synthetic organics: “chlorine, synthetic detergents, organic wastes, and trihalomethanes.” (F. 40-41, 69-73.) Volatile organic chemicals in drinking water are well below 100 ppb (.1 ppm). (F. 150.) Consumers bought the product to remove these industrial contaminants, many of which have been linked to cancer or other adverse health effects. (F. 168-179.) The Clean Water Machine added many times the amount of synthetic organics than would be typically present in consumers’ tap water. Consumers did not get what they paid for, and would have been better off drinking water straight from the tap.

B. Alleged Embargo

Norelco’s Vice President Patrick Campbell testified that after Christmas 1982, he knew that G1 filters would be on retail shelves far longer than what he had told *Consumer Reports*. He testified that sometime in 1983 he ordered that the replacement G1s that remained in the warehouse be “embargoed,” that is, segregated and not distributed. (Campbell, Tr. 2017-20.)

The record does not support Campbell’s testimony. At trial, Campbell could recall few details about the embargo, such as how he

implemented it or how he communicated it through the distribution chain. Campbell's testimony was also disputed by every other current or former Norelco official who took the stand. (Lenahan, Tr. 160, 185-90; Dinley, Tr. 2135-37; Gaines, Tr. 2175-76; Crowley, Tr. 2219-21; CX 159-23 to CX 159-26.)

The company sold many G1s from its warehouse after the purported embargo began. Almost 90% of the 214,000 G1 filters in Norelco's warehouse in November 1982 were sold by 1986 to consumers, trade customers and others. The inventory of G1 and G2 filters was commingled in the warehouse. (Gaines, Tr. 2017-20, 2192-93; Crowley, Tr. 2219.) [44]

C. Scientific Evidence

Every expert who testified stated that methylene chloride provides no benefit to humans and that a consumer would be prudent to avoid ingesting it. Respondent's experts would not have bought the Clean Water Machine for their own use. (F. 181, 183.)

Every official body that evaluated methylene chloride (Environmental Protection Agency, Consumer Product Safety Commission, International Association for Research on Cancer, the State of California) has found it to be a possible or probable human carcinogen and potentially hazardous to humans. (F. 184-200.) This fact alone, makes the representations material. ⁹ *Simeon Management Corp.*, 87 FTC 1184 (1976), *aff'd*, 579 F.2d 1137 (9th Cir. 1978).

XIV. RESPONDENT'S CONDUCT

Norelco learned from *Consumer Reports* in November 1982 that the Clean Water Machine leached significant amounts of methylene chloride. (F. 85-86.) Norelco officials met with the magazine staff before press time and told them that it had designed a new filter that leached substantially less methylene chloride and that the G1 filters would be sold out within a short period of time. The magazine reported this in its February 1983 article and consumers relied on the article in purchasing the Machine. (F. 103-107.) Norelco allowed unsuspecting consumers to buy and use the remaining 214,000 contaminated filters that remained in its warehouse and the thousands still available on the retail shelf and in Norelco's own NSI stores. (F. 106-114.)

⁹ Norelco's advertising claims are false or misleading and relate to something consumers consider important. No proof of actual injury is necessary. Material false claims are legally presumed to cause injury. *International Harvester*, 104 FTC 949, 1056 (1984).

Norelco continued selling G1 filters after a cursory evaluation of the information on methylene chloride. U.S. Testing informed Norelco that laboratory studies had found methylene chloride to be carcinogenic in animals. Norelco chose to interpret this to mean that the levels leached by the Clean Water Machine would be safe in humans. (F. 99-102.)

This interpretation was erroneous. (F. 102.) Chemicals that produce cancer in animals are considered to have the same potential in humans, absent compelling evidence to the contrary. (Klaassen, Tr. 2357; CX 105-115.) [45]

By November 1982, Dow Chemical and the National Toxicology Program of the National Institutes of Health had released studies showing that methylene chloride caused cancer in laboratory animals. (F. 220-221.) Methylene chloride had been shown by this time to be genotoxic (able to cause mutations in DNA) in bacteria tests, an indication that the chemical had cancer-causing potential. (F. 222.) The levels of methylene chloride leached by the Clean Water Machine exceeded SNARLs set by the EPA and the National Academy of Sciences for safe levels of ingestion for non-cancer effects. (F. 224-225.) The levels of methylene chloride leached by the Clean Water Machine far exceeded the levels allowed by the FDA in decaffeinated coffee. (F. 101.) Other volatile synthetic organic chemicals, compounds in the same class as methylene chloride, were known or suspected by 1982 to be toxic and carcinogenic. EPA had already announced in the Federal Register its intention to regulate volatile organic chemicals generally and methylene chloride specifically. (F. 229.)

As soon as employees in the Norelco factory had heard about the methylene chloride problem, they consulted a chemistry reference book that was on the premises and learned that methylene chloride was a suspected carcinogen. Concerned about the consumers who were using the filter and the employees who were applying methylene chloride on the assembly line, they taped up and isolated in a corner of the building all 4800 finished filters that were still in the factory. (F. 96.) In a few weeks Vice President Patrick Campbell directed that the 4800 filters, along with the 214,000 G1s in inventory, be distributed to consumers in the ordinary course of business. (F. 97.) Norelco knew by early 1983 that slow sales would likely keep G1s on the retail shelf for up to fifteen years. (Campbell, Tr. 2071-72.)

Norelco officials again were told in 1985 that G1 filters were still

being sold. Judith Coyle of North Penn Water Authority contacted Frank Bell of the EPA in September 1985 and told him that a Clean Water Machine filter recently purchased directly from Norelco leached substantial amounts of methylene chloride. Bell then informed Norelco's Health Care Division Manager Robert Gaines that G1 filters were still for sale and sought Norelco's response. According to Bell, Norelco chose instead to "stonewall" and provided no response. (F. 231-237.)

Norelco took no action until it received a formal letter from EPA in January 1986. (CX 59-0.) Norelco decided to undertake the replacement program a few days before a scheduled meeting with representatives of the EPA, CPSC, FDA, and FTC. (Bell, Tr. 1233-34; F. 241.) Although NAPC sold more than 248,000 Clean Water Machines, it sent notices only to its trade customers and to 19,188 consumers. (F. 242.) [46]

Rather than inform consumers that methylene chloride is potentially hazardous, the Norelco notice letter emphasized how widespread its use is, implying that ingestion of the chemical is not a cause for concern. Norelco assured owners that "methylene chloride is found in decaffeinated coffee, spices, hairspray, paint thinner and other consumer products," but did not add that the amount leached by the Clean Water Machine far exceeded the levels allowed in decaffeinated coffee and that the Food and Drug Administration had already proposed a rule banning its use in all cosmetic products, including hairspray. (F. 189-190, 240.)

The letter represented that "there are no established EPA standards for concentration levels of methylene chloride in water," even though the amount of methylene chloride leached by the Machine exceeded the levels that an EPA Health Advisory had recommended as safe and several other agencies considered the chemical to be a probable human carcinogen. (F. 240; F. 245.)

XV. THE ORDER

The order requires respondent to cease and desist from the specific misrepresentations alleged in the complaint. The order also prohibits misrepresentations of test results and requires a reasonable basis for any performance claims for any Norelco electric-powered consumer appliance. These provisions are commonly included in deceptive advertising cases, and are well-within the Commission's authority to ensure that the violations do not recur. *FTC v. Colgate-Palmolive Co.*,

380 U.S. 374, 394-95 (1965); *Sears, Roebuck & Co. v. FTC*, 676 F.2d 385, 394-96 & n. 20 (9th Cir. 1982).

The Commission has entered orders covering many of the company's products on the basis of violations as to a single product. *Litton Industries, Inc.*, 97 FTC 1, 78-80 (1981), *aff'd*, 676 F.2d 364 (9th Cir. 1982); *Sears, Roebuck*, 95 FTC 406, 515-22 (1980), *aff'd*, 676 F.2d 385 (9th Cir. 1982).

In fashioning the appropriate remedy, three factors are relevant: the seriousness and deliberateness of respondent's violations, the transferability of the violation to other products, and respondent's past record of violations.¹⁰ *Sears, [47] Roebuck*, 676 F.2d at 392. However, not all of these factors need be present to justify a multi-product order: "The weight to be given to a particular factor or element will vary. The more egregious the facts with respect to a particular element, the less important it is that another negative factor be present." *Id.*

Norelco's violations in this case were serious, deliberate and egregious. Norelco knew about the methylene chloride problem in November of 1982, and continued to sell contaminated G1 filters until early 1986. The product exposed consumers to a potential health hazard. *American Home Products*, 695 F.2d at 706-08. Consumers could not have evaluated on their own the truthfulness or falsity of the representations. *Id.* The claims are "clear, direct, unqualified, and explicit," and thus more likely to mislead consumers. *Sears, Roebuck*, 676 F.2d at 393. The size and duration of the deceptive advertising campaign were substantial. *American Home Products*, 695 F.2d at 707, 709; *Sears, Roebuck*, 676 F.2d at 394.

By exposing consumers to a potential carcinogen, Norelco increased risks to consumers' health. The company directed the ad campaign to health-conscious consumers who did not want to subject themselves to contaminants in tap water. That Norelco exposed consumers to methylene chloride for three years knowing that the chemical had

¹⁰ In the past five years, the Commission has issued three complaints against North American Philips Corporation charging false and unsubstantiated performance claims for Norelco appliances. The other two cases, relating to the "Black Pro" shaver's claim to cure razor bumps and the Clean Air Machine's claim to remove indoor pollutants, both resulted in consent orders. *North American Philips Corp.*, 101 FTC 359, 363 (1983); *North American Philips Corp.*, 107 FTC 62, 71 (1986). The Commission has taken into account as evidence of prior misconduct the existence of multiple consent orders with the FTC and other agencies. *Jay Norris, Inc.*, 91 FTC 751, 856 & n. 33 (1978); see also *Thompson Medical Co., Inc.*, 104 FTC 648, 832 n. 78 (1984). This seems to be a misuse of the stipulation that the "agreement is for settlement purposes only and does not constitute an admission by respondent that the law has been violated," and appears to be contrary to law. *ITT Continental Baking Co. v. FTC*, 532 F.2d 207, 223 n. 23 (2d Cir. 1976). I have therefore disregarded these consent orders as evidence of past violations.

been linked to cancer demonstrates disregard for the welfare of its customers, and a "blatant and utter disregard" for the law. *Sears, Roebuck*, 676 F.2d at 394.

Norelco's 1986 replacement program did little to mitigate the violations. The company undertook the effort only when threatened with government action and bad publicity from *Consumer Reports*. Norelco notified fewer than 10% of all Clean Water Machine owners about the program. The letter Norelco sent contained inaccurate statements, tending to downplay the seriousness of the problem. The replacement program was not "a good faith attempt to eliminate [deceptive representations] [48] rapidly," and does little to temper the egregiousness of Norelco's conduct. *American Home Products*, 695 F.2d at 708-09.

Norelco no longer manufactures the Clean Water Machine. The advertising strategy used by Norelco in this case, misrepresenting the Clean Water Machine's chemical removal capabilities, is, however, readily transferable to Norelco's other products. *Sears, Roebuck*, 95 FTC at 516; and 676 F.2d at 392. Therefore, a multi-product order is warranted. In *Sears, Roebuck*, the company's misrepresentations regarding the performance of its dishwasher resulted in an order barring false or unsubstantiated performance claims for 14 major appliances, such as trash compactors and microwave ovens. *Sears, Roebuck*, 95 FTC at 515, 524.

The order in this case requires a reasonable basis for performance claims and prohibits misrepresentations of tests or studies for any Norelco electric-powered consumer appliance. At present, Norelco manufactures fewer than 20 such appliances, including digital thermometers, scales and blood pressure monitors; razors; coffee makers; Clean Air Machines; irons; travel kits; steamers; electric knives; hand mixers; can openers; hair dryers, curling irons and brushes; and makeup mirrors. (Dinley, Tr. 2128-29; Gaines, Tr. 2158-59.) This product line accounts for less than 5% of NAPC's annual sales of \$4.5 billion and less than 12% of its consumer sales. (CX 188-1D; Stip. 51; F. 10.)

CONCLUSIONS OF LAW

1. The Federal Trade Commission has jurisdiction over the advertising and sale of Norelco Clean Water Machines and their replaceable filters under Section 5 of the Federal Trade Commission Act.

2. Respondent's use of false, misleading and deceptive statements and representations, and respondent's failure to disclose material facts, as herein found, were likely to mislead reasonable consumers into believing that such statements and representations were true and induced them to purchase substantial quantities of Clean Water Machines and filters by reason of those mistaken beliefs.

3. The acts and practices of respondent as herein found were all to the prejudice and injury of the public and constitute unfair and deceptive acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act.

4. The accompanying order is necessary and appropriate under applicable legal precedent and the facts in this case. [49]

ORDER

I.

It is ordered, That respondent North American Philips Corporation, a corporation, its successor and assigns, and its officers, representatives, agents and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, offering for sale, sale or distribution of the Norelco Clean Water Machine, or any other appliance, device or product designed or intended for the purpose of treating water ("device"), in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from:

A. Representing, directly or by implication, contrary to fact, by the use of the words "helps clean," "helps remove," "helps eliminate," or any other words or phrases of similar import, that any such device effectively helps remove organic chemicals or any specified organic chemical from consumers' tap water, under typical water conditions;

B. Representing, directly or by implication, contrary to fact, that any such device effectively provides clean or cleaner tap water, under typical water conditions;

C. Representing, directly or by implication, contrary to fact, that independent laboratory tests, or any other tests, prove that any such device effectively provides clean or cleaner water, under typical water conditions; and

D. Representing, directly or by implication, contrary to fact, by the use of the words "helps clean," "helps remove," "helps eliminate," or any other words or phrases of similar import, that any such device effectively helps remove impurities or pollutants, or any specified impurity or pollutant, from consumers' tap water, under typical water conditions.

II.

It is further ordered, That North American Philips Corporation, a Corporation, its successors and assigns, and its officers, representatives, agents and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, offering for sale, sale or [50] distribution of any electric-powered consumer appliance sold under the "Norelco" trademark, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from misrepresenting, in any manner, directly or by implication, the contents, validity, results, conclusions, or interpretations of any test or study.

III.

It is further ordered, That North American Philips Corporation, a corporation, its successors and assigns, and its officers, representatives, agents and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, offering for sale, sale or distribution of any electric-powered consumer appliance sold under the "Norelco" trademark, in or affecting commerce, as "commerce" is defined in the Federal Trade Commission Act, do forthwith cease and desist from making, directly or by implication, any performance-related representation for or about such product unless, at the time the representation is made, respondent possesses and relies upon a reasonable basis, consisting of competent and reliable evidence, that substantiates the representation.

For purposes of this provision, to the extent evidence consists of scientific or professional tests, analyses, research, studies or any other

evidence based on expertise of professionals in the relevant area, such evidence shall be "reliable and competent" only if those tests, analyses, research, studies, or other evidence are conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession or science to yield accurate and reliable results.

IV.

It is further ordered, That for three (3) years from the date that the representations to which they pertain are last disseminated, respondent shall maintain and upon request make available to the Federal Trade Commission or its staff for inspection and copying:

A. All materials relied upon to substantiate any claim or representation covered by this order; and

B. All test reports, studies, surveys or other materials in its possession or control or of which it has knowledge that contradict, qualify or call into question such representation or the basis upon which [51] respondent relied for such representation, including complaints from consumers.

V.

It is further ordered, That respondent shall forthwith distribute a copy of this order to each of its operating divisions and to each of its officers, agents, representatives or employees engaged in the preparation and placement of advertisements or other such sales materials covered by this order.

VI.

It is further ordered, That respondent shall notify the Commission at least thirty (30) days prior to any proposed change in the corporation such as a dissolution, assignment or sale resulting in the emergence of a successor corporation, the creation or dissolution of subsidiaries or any other change in the corporation which may affect compliance obligations under this order.

VII.

It is further ordered, That respondent shall, within sixty (60) days after service of this order upon it, and at such other times as the Commission may require, file with the Commission a report, in writing, setting forth in detail the manner and form in which it has complied with this order.

FINAL ORDER

The Administrative Law Judge filed his Initial Decision in this matter on August 29, 1988, finding that the respondent engaged in unfair and deceptive acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act, 5 U.S.C. 45. An appropriate Order to remedy the violations was appended to the Initial Decision.

Service of the Initial Decision was completed on September 22, 1988. Neither respondent nor complaint counsel filed an appeal.

The Commission having determined that this matter should not be placed on its docket for review, and that the Initial Decision and the Order therein shall become effective as provided in Section 3.51(a) of the Commission's Rules of Practice, 16 CFR 3.51(a),

It is ordered, That the Initial Decision and the Order therein shall become the Final Order and Opinion of the Commission on the date of issuance of this Order.

IN THE MATTER OF

IOWA CHAPTER OF THE AMERICAN
PHYSICAL THERAPY ASSOCIATION

CONSENT ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF
SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT

Docket C-3242. Complaint, Nov. 4, 1988—Decision, Nov. 4, 1988

This consent order prohibits, among other things, the Iowa Chapter of the American Physical Therapy Association (ICAPTA) from restricting any physical therapist from accepting or continuing employment with any physician, or from declaring such employment illegal or unethical.

Appearances

For the Commission: *Erika R. Wodinsky.*

For the respondent: *Glenn Goodwin, Duncan, Jones, Riley & Finley, Des Moines, Ia.*

COMPLAINT

Pursuant to the provisions of the Federal Trade Commission Act, as amended, 15 U.S.C. 41 *et seq.*, and by virtue of the authority vested in it by said Act, the Federal Trade Commission, having reason to believe that the Iowa Chapter of the American Physical Therapy Association has violated the provisions of Section 5 of the Federal Trade Commission Act, 15 U.S.C. 45, and it appearing to the Commission that a proceeding by it in respect thereof would be in the public interest, hereby issues its complaint, stating its charges as follows:

PARAGRAPH 1. Respondent Iowa Chapter of the American Physical Therapy Association ("ICAPTA"), sometimes referred to herein as "respondent," is a corporation formed pursuant to the laws of the State of Iowa. Respondent is a voluntary association of approximately 360 physical therapists, who comprise over 65% of the physical therapists licensed to practice in Iowa. Its principal business office is located at 1454 30th Street, Suite 201, West Des Moines, Iowa.

PAR. 2. Respondent's members are generally engaged in the business of providing physical therapy services to patients for a fee. Except to the extent that competition has been restrained as alleged