

Complaint

116 F.T.C.

IN THE MATTER OF

ION SYSTEMS, INC.

CONSENT ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF
SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT*Docket C-3451. Complaint, July 29, 1993--Decision July 29, 1993*

This consent order prohibits, among other things, a California corporation from misrepresenting the contents, validity, results, conclusions or interpretations of any test or study with respect to the NO-RAD System or any other radon-remediation device, or from knowingly selling components of the system to others who make unsubstantiated performance claims about them. The consent order requires the respondent to have competent and reliable scientific evidence to substantiate representations it makes about any performance characteristics of any radon-remediation device.

Appearances

For the Commission: *Phoebe D. Morse* and *Pamela A. Wood*.

For the respondent: *Mark Ostrau, Fenwick & West*, Palo Alto, CA.

COMPLAINT

The Federal Trade Commission, having reason to believe that respondent Ion Systems, Inc., a corporation, has violated the provisions of the Federal Trade Commission Act, and it appearing to the Commission that a proceeding by it would be in the public interest, hereby issues its complaint stating its charges as follows:

PARAGRAPH 1. Respondent Ion Systems, Inc. is a corporation organized, existing, and doing business under and by virtue of the laws of the State of California. Respondent's office and principal place of business is located at 2546 Tenth Street, Berkeley, California.

PAR. 2. Respondent, at all times mentioned herein, has maintained a substantial course of business, including the acts and practices hereinafter set forth, which are in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act.

PAR. 3. Respondent advertised, offered for sale, sold and distributed a device for removing the harmful byproducts of radon gas from the room in which it is operating. The device is called the NO-RAD Radon Removal System (hereinafter, the “NO-RAD System”). Respondent also offers for sale, sells, and distributes components of the NO-RAD System for use by third parties in the manufacture of NO-RAD Systems.

PAR. 4. In the course and conduct of its business, in order to induce the sale of the NO-RAD System, respondent has disseminated or caused the dissemination of advertisements and promotional materials. Respondent’s advertisements and promotional materials for its NO-RAD System include, but are not necessarily limited to, the advertisements and promotional materials attached hereto as Exhibits A and B. These advertisements and promotional materials contain the following statements:

1. Tested by the Harvard University School of Public Health, this compact floor unit removes up to 90% of the dangerous radon decay particles in your home. (Complaint Exhibit A).

2. The NO-RAD Radon Removal System was developed by Drs. Moeller, Maher, and Rudnick at the School of Public Health, Harvard University, in collaboration with Ion Systems, Inc. The NO-RAD System is the only system that has been proven in their laboratory and field tests to be up to 90% effective in removing both attached and unattached radon decay products and in reducing the associated dose to the lungs. ...Proven effective in removing 90% of the radon decay product concentrations. (Complaint Exhibit B).

3. Proven effective in removing 90% of the radon decay product concentrations. (Complaint Exhibit B).

4. The NO-RAD System has been designed and developed by Ion Systems, Inc. in collaboration with a team of researchers at the Harvard School of Public Health. . . . In tests performed in a special laboratory test chamber at the Harvard School of Public Health, the NO-RAD system produced up to a 90% reduction in airborne radon decay product concentrations. (Complaint Exhibit B).

5. TECHNICAL SPECIFICATIONS. Radon Removal Effectiveness: Up to 90% reduction in radon decay product concentrations. (Complaint Exhibit B).

PAR. 5. Through the use of statements contained in the advertisements referred to in paragraph four, including but not necessarily limited to the advertisements attached as Exhibits A and B, respondent has represented, directly or by implication, that:

1. Tests prove that the NO-RAD System removes 90% or up to 90% of the radon decay products in the home.
2. Tests prove that the NO-RAD System reduces the user's risk of developing radon-related lung cancer by up to 90%.
3. The NO-RAD System has been tested and proven effective by the Harvard University School of Public Health.

PAR. 6. In truth and in fact:

1. Tests do not prove that the NO-RAD System removes 90% or up to 90% of the radon decay products in the home.
2. Tests do not prove that the NO-RAD System reduces the user's risk of developing radon-related lung cancer by up to 90%.
3. The NO-RAD System has not been tested and proven effective by the Harvard University School of Public Health.

Therefore, the representations set forth in paragraph five were and are false and misleading.

PAR. 7. Through the use of statements contained in the advertisements referred to in paragraph four, including but not necessarily limited to the advertisements attached as Exhibits A and B, respondent has represented, directly or by implication, that:

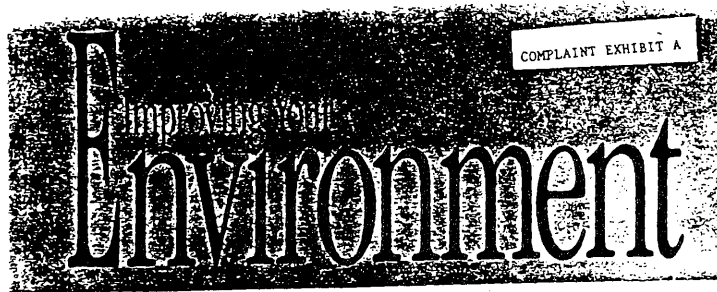
1. The NO-RAD System reduces radon decay products in the home by 90% or close to 90% in an appreciable number of cases under circumstances normally and expectably encountered by consumers.
2. The NO-RAD System reduces the user's risk of developing radon-related lung cancer by 90% or close to 90% in an appreciable number of cases under circumstances normally and expectably encountered by consumers.

PAR. 8. Through the use of statements contained in the advertisements referred to in paragraph four, including but not necessarily limited to the advertisements attached as Exhibits A and B, respondent has represented, directly or by implication, that at the time it made the representations set forth in paragraph seven, respondent possessed and relied upon a reasonable basis for such representations.

PAR. 9. In truth and in fact, at the time respondent made the representations set forth in paragraph seven, respondent did not possess and rely upon a reasonable basis for such representations. Therefore, the representation set forth in paragraph eight was, and is, false and misleading.

PAR. 10. The dissemination by respondent of the aforesaid false and misleading representations constituted, and now constitutes, unfair or deceptive acts or practices in or affecting commerce in violation of Section 5(a) of the Federal Trade Commission Act.

EXHIBIT A

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A. RADON REMOVING/AIR CLEANING SYSTEM. Tested by the Harvard University School of Public Health, this compact floor unit removes up to 90% of the dangerous radon decay particles in your home. Its patented ionizing system combines positive ion emissions and an intermittent negative cycle with a dual-stage filtration system and 3-speed fan to collect and trap radon particles more effectively than high-efficiency filters and electrostatic cleaners. In addition, the system also removes particles of dust, smoke and pollen as small as 1/1000 of a micron. Its 3-speed bassock fan and 360° vent design allows optimal air cleaning and circulating effectiveness in areas as large as 300 square feet. Height: 12". Diameter: 16". Weight: 19 lbs.
30617H \$350.00

B. STRESS-RELIEVING DREAM MEDIUM. The only device of its kind available for personal use, this computer-directed audio/visual component system guides your mind into a state of deep relaxation to reduce stress, enhance creativity, accelerate learning and improve levels of concentration. A specially designed software system contained within the hand-held control unit directs ten different cycles of pulsating lights and sounds which match actual patterns of brain wave activity. Once a

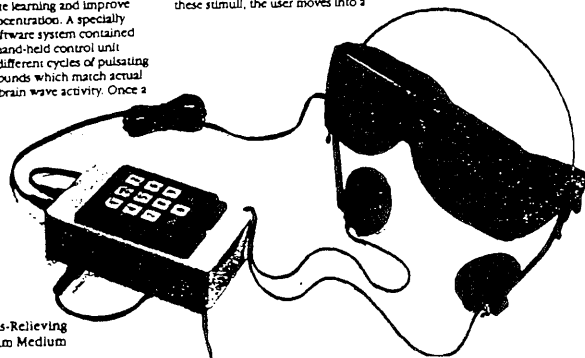


A. Radon Removing/Air Cleaning System

program is chosen, a series of soothing lights, seen through closed eyes behind tinted glasses, synchronizes in the user's mind with easy-listening sounds channeled into the headset. Mentally harmonizing with the frequencies of these stimuli, the user moves into a

state of deep relaxation and heightened creativity normally experienced while dreaming. Programs vary from 15 to 75 minutes. Adaptor included. A rechargeable battery pack may be purchased separately for use outdoors or while traveling. Weight: 1.15 lbs.
33574H \$350.00
33575H Rechargeable Battery Pack \$65.00

C. EARTHQUAKE DETECTION ALARM. This compact wall-mounted device effectively detects the sonic waves that precede a major earthquake and warns you ahead of time with a loud, vibrating alarm. Sensing the low-frequency "P"-type waves that travel twice as fast as an earthquake's devastating shock waves, it affords up to 30 seconds of warning time before a quake of 5.0 or more on the Richter scale actually strikes. Runs on one 9-volt battery (included); automatic reset. Hardware for wall or ceiling mounting is included. Width: 6". Height: 5 1/2". Depth: 1 1/2".
32553H \$34.95



B. Stress-Relieving Dream Medium

ION SYSTEMS NC.

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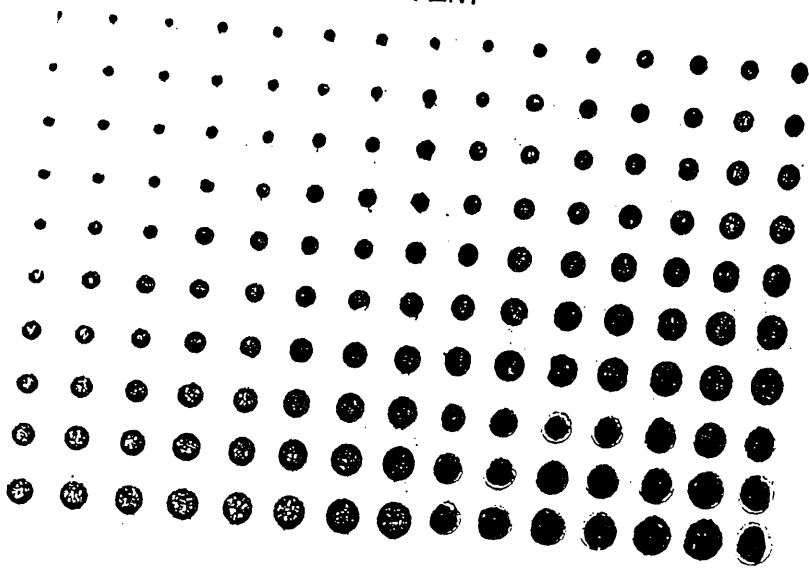
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EXHIBIT B

NO-RAD™
RADON REMOVAL SYSTEM

COMPLAINT EXHIBIT B
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MODEL
1000



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EXHIBIT B

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B143266**NO-RADTM**
RADON REMOVAL SYSTEM**MODEL**
1000

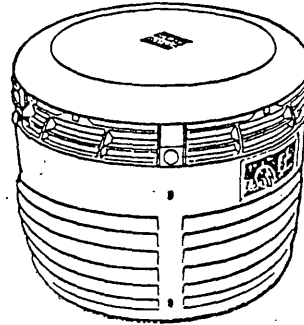
The NO-Rad Radon Removal System was developed by Drs. Moeller, Maher and Rudnick at the School of Public Health, Harvard University. In collaboration with Ion Systems Inc. The NO-RAD System is the only system that has been proven in laboratory and field tests to be up to 90% effective in removing both attached and unattached radon decay products, reducing the associated dose to the lungs. NO-RAD also acts as a powerful air cleaner and ionizer, cleaning the air of other pollutants including dust, smoke, pollen and bacteria and helping to replenish the number of ions lost from the air. In fact, because of its unique characteristics, the NO-RAD Radon Removal System has been granted a patent by the U.S. Patent Office.

NO-RAD is effective in removing 90% of the radon decay product concentrations. *Harvard Research Report available upon request.

NO-RAD removes airborne pollution including dust, smoke, pollen and bacteria; filtering out particles as small as 1/1000 micron. NO-RAD acts as an ionizer, replenishing the natural supply of air ions. NO-RAD has longer filter life due to 2-stage filtration system. NO-RAD is easy to operate. NO-RAD has a 1-year warranty.

TECHNICAL SPECIFICATIONS:

Range: Up to 300 sq. ft. (15 ft. x 20 ft. room—8 ft. ceilings). Can handle coverage of larger volumes but with reduced effectiveness.
Ionization Output: 388,000 ions/cc measured at 1 meter.
Product Data: 12" high by 16" diameter; weight 19 lbs.
Voltage: 115 V AC; 65 Watts
Model Number: 4,596,585



Ion Systems, Inc., 2546 Tenth Street, Berkeley, CA 94710 Made in USA. © 1987

ION SYSTEMS, INC.

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No-Rad™ Warranty Registration

Please return this card within 30 days of purchase to register your warranty.

1. Name _____

Address _____

City _____

State _____ Zip _____

2. Date Acquired _____, 19____

3. Model Number Purchased _____

4. Location of use ☐ Home ☐ Office

5. Purchased at:

☐ Dept. Store ☐ Mail Order ☐ Other _____
☐ Catalog ☐ Hardware _____

6. Name of Store _____

City _____ State _____

7. User is ☐ Female ☐ Male

8. Age of user ☐ Under 18 ☐ 18-25
☐ 26-35 ☐ 36-45 ☐ 46-64 ☐ 65 & over

9. Size of Purchaser's Household:
☐ 1 ☐ 2 ☐ 3 ☐ 4 or more

10. How did you first find out about No-Rad?

☐ Friend ☐ Store Display ☐ Ad ☐ Read about it
☐ A Radon Testing Service ☐ Other: _____



Ion Systems, Inc.

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Ion Systems, Inc.
2546 Tenth Street
Berkeley, CA 94710

Form
P-1000
Rev.

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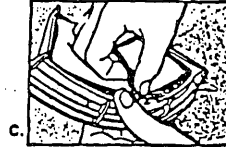
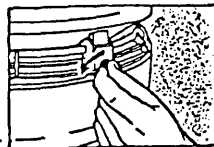


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2546 Tenth Street
Berkeley, California 94710

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FILTER REMOVAL

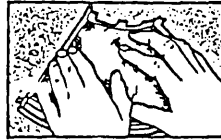
The two stage filter on your air processor is designed to be effective for several months of use in normal environment. Suggested filter replacement with normal usage is 3 to 4 months. The filters should be changed when dirt and debris fall off when tapped lightly on a hard surface. The filters can be removed and replaced as shown below. CAUTION: Unplug the processor before removing filter packs. Replace all parts in reverse order to assemble.



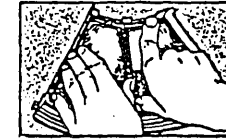
FILTER REPLACEMENT



1. FIRST APPLY BLACK FOAM INTO FRAMEWORK. PUSH UNDER TABS AS SHOWN IN CIRCLE



2. APPLY WHITE FIBER OVER FOAM INSIDE FRAMEWORK



3. WITH FRAMEWORK RESTING FIRM ON FLAT SURFACE, PLACE PLASTIC INSERT OVER FIBER AND SNAP IN PLACE

REPLACEMENT PARTS ORDER FORM

NAME _____

ADDRESS _____

() CHECK OR MONEY ORDER FOR \$ _____ PAYABLE TO ION SYSTEMS, INC.

() CHARGE TO: () VISA () MC ACCT.# _____

CARD EXP. DATE: _____ SIGNATURE: _____

() 4 PACK FILTER SET \$12.50 \$ _____

() EMITTER BRISTLE - EA. \$ 3.50 \$ _____

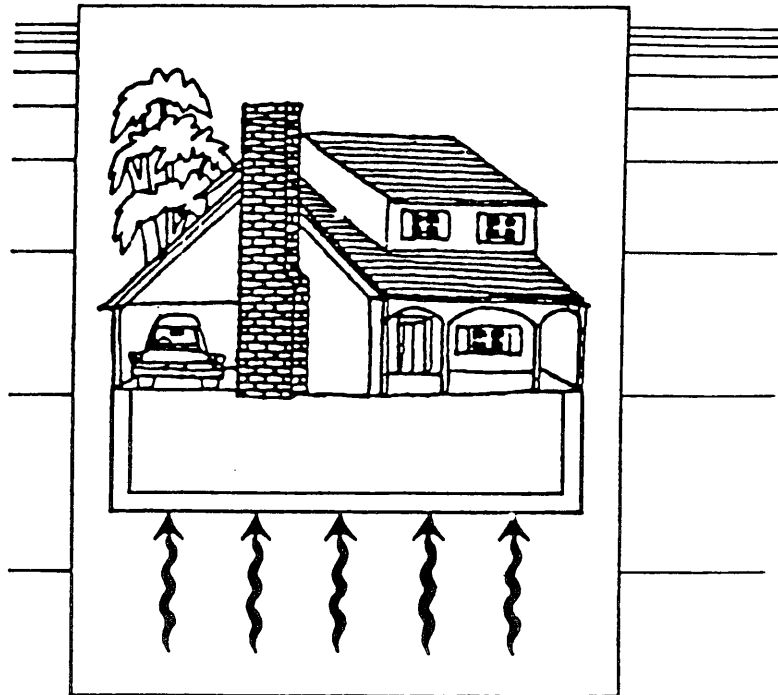
() SPECIAL ONE YEAR SUPPLY \$43.50 \$ _____

(FOUR FILTER SETS) TOTAL \$ _____

Tax/shipping costs included in price

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EXHIBIT B



THE ABC'S OF RADON

Prepared as a public service by:



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B143266**WHAT IS RADON?**

Radon is a natural phenomenon. It's a colorless, odorless and tasteless radioactive gas that's a by-product of the natural breakdown of radioactive decay of uranium. It's found in high concentrations in soils and rocks containing uranium bearing minerals such as granite, shale, phosphate and pitchblend as well as in soils contaminated with certain types of industrial wastes containing these same mineral byproducts.

Outdoors, radon is diluted to such low concentrations that it's not a health risk. Indoors, it can accumulate and cause problems. Radon can enter a house in many ways. Because it's a gas, it can seep in through small cracks in the soil or rock on which a house is built. It can come in through dirt floors, cracks or joints in concrete walls and floors, floor drains, and sumps. It may also be released from the drinking water used in the home or from materials used in its construction.

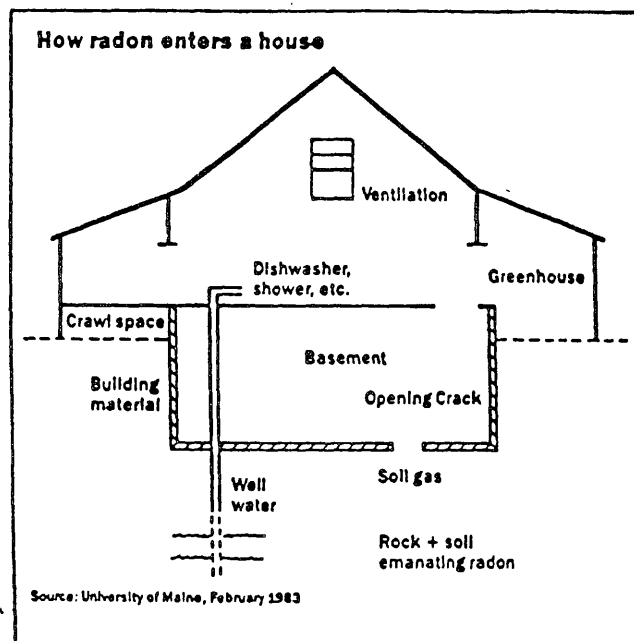


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WHY IS RADON A HEALTH RISK?

Radon can be deadly. The known health effect when exposed to elevated levels of radon is increased risk of developing lung cancer. According to the Environmental Protection Agency, 20,000 people in the U.S. will die of radon-related lung cancer this year. In fact, it has been estimated that exposures to radon cause 25% of the lung cancers in the non-smoking U.S. population. Despite some uncertainty in the risk estimates for radon, it is widely believed that the greater your exposure, the greater the risk of developing lung cancer.

Just how does radon cause lung cancer? Radon itself continues to break down, forming a series of decay products which include atoms of polonium, bismuth and lead. When initially formed, these decay products exist as freely floating atoms in the air. If permitted to remain in the air, these radioactive atoms subsequently become attached to dust and smoke particles. Whether in the free-floating state or in combination with the dust particles, radon decay products are readily deposited and retained in the lungs. Each time you take a breath, the particles enter your lungs and become lodged inside where they continue to release small bursts of radiation. In turn, the radiation produces chemical and biological changes in your lung tissue and this can lead to the development of lung cancer.

WHEN DID RADON BECOME A PROBLEM

Radon has always been around. However, it didn't gain recognition as a potentially serious health problem until recently. It was first thought to be a problem only to people living or working near uranium-mine wastes or on land mined for phosphate. Then it was discovered that houses in various parts of the country have high indoor radon levels caused by either the natural deposits of uranium in the soil on which they were built or by high concentrations of radon in their drinking water supplies.

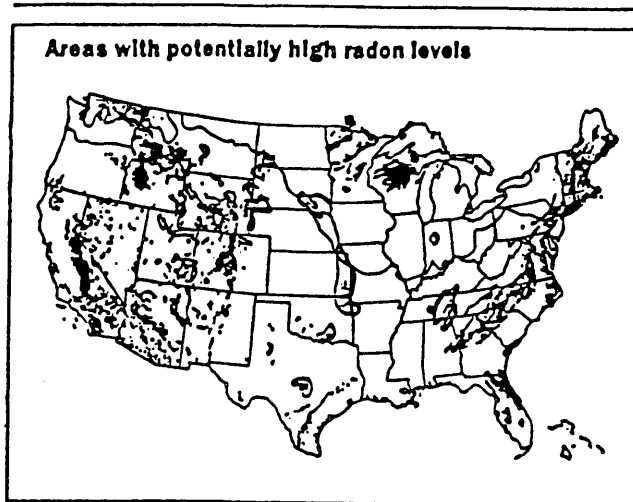
In recent years, scientists have discovered that energy efficiency aggravates the radon problem. Houses that are tightly sealed and weather-proofed allow for little exchange of indoor and outdoor air and this can lead, under certain circumstances, to indoor airborne radon concentrations that can be dangerous. Simply caulking and weather-proofing a house can increase airborne radon concentrations by 20%.

Radon has been found in all 50 states at widely varying levels. The highest concentration of radon has been found in houses

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located on the Reading Prong, a uranium-rich vein of granite that runs through Pennsylvania, New Jersey, New York and lower Connecticut. Above average radon levels have also been found in homes in Montana, Colorado, Washington, North Dakota and Maine as well as in parts of Florida in homes which sit atop reclaimed phosphate mining land. While the Environmental Protection Agency (EPA) estimates that about 1 million homes in the U.S. may have unsafe radon levels, some scientists believe that the figure may be closer to 8 million.

SHOULD YOU HAVE YOUR HOME TESTED?

It's important to realize that most houses in this country are not likely to have a radon problem. The dilemma is that right now, no one knows which houses have radon and which don't. If you are concerned that you may have an indoor radon problem, you can consider having your home tested. A variety of companies offer such services and the EPA has a program for certifying which of these groups are technically qualified to provide such services. You can contact: The Office of Radiation Programs, U.S. Environmental Protection Agency, 401 M Street S.W., Washington, D. C. 20460. Your state public health department may also be able to provide you with information on the availability of detector devices or services.

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Most testing services require that the homeowner purchase one of the do-it-yourself testing devices. These at-home kits usually consist of a canister for absorbing the radon gas, or a plastic material for recording the radiations it emits. Testing can take either days or months depending upon the type of product and the manufacturer's recommendation. In any case, both devices must subsequently be returned to the supplier for analysis. The results are then mailed to you.

Because of their mode of operation, essentially all of the commercial radon monitoring services provide information only on the concentrations of the radon gas in the air inside the home. They do not include measurements of the concentrations of the radon decay products, nor do they provide direct information on the "Working Level," a unit developed to provide a better indication of the associated health hazard.

EVALUATING RADON'S RISK

The Federal Government hasn't established any mandatory safety levels for radon nor has it set up regulations limiting non-occupational exposures to this gas. What it has done is establish a series of guidelines that individual states can use to determine the extent of the problem. Radon is generally measured in picocuries per liter of air (pCi/l) or Working Levels (WL). The EPA recommends that occupants of any houses containing radon in excess of 4 pCi/l (.002 WL) take remedial action.

STEPS YOU CAN TAKE TO REDUCE RISKS FROM RADON

Your risk of lung cancer from exposure to radon depends on the amount of radon entering your home, how long it remains there, and the length of time you remain in your home and breathe it. The higher the radon level, the faster you should take action to reduce the exposure. Listed below are some of the actions you might take to reduce your risk:

- **Stop Smoking**—Discourage smoking in your home. Epidemiological studies show that the combined risk of smoking and radon is synergistic, that is the combined risk is significantly more dangerous than the sum of the individual risks.
- **Ventilation**—Whenever practical, open windows and vents and turn on fans to increase the air flow. You can also ventilate the house with an air-to-air heat exchanger.

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Radon Risk Evaluation Chart

pCi/l	WL	Estimated number of lung cancer deaths due to radon exposure (out of 1000)	Comparable exposure levels	Comparable risk
200	1	440-770	1000 times average outdoor level	More than 60 times non-smoker risk 4 pack-a-day smoker
100	0.5	270-630	100 times average indoor level	20,000 chest x-rays per year
40	0.2	120-380	100 times average outdoor level	2 pack-a-day smoker
20	0.1	60-210	10 times average indoor level	1 pack-a-day smoker
10	0.05	30-120	10 times average outdoor level	5 times non-smoker risk
4	0.02	13-50	10 times average outdoor level	200 chest x-rays per year
2	0.01	7-30	Average indoor level	Non-smoker risk of dying from lung cancer
1	0.005	3-13	Average indoor level	20 chest x-rays per year
0.2	0.001	1-3	Average outdoor level	

- **Wall and Floor Sealants**—Apply epoxy resin paint or sealant to the walls and floors of the basement, and around any cracks or crevices, including floor drains.
- **External and Internal Exhaust Systems**—Install fans to exhaust the air from the walls of the basement, or install a similar system to create negative pressure in the soil beneath the basement floor or outside the basement walls. Installation of any of these systems, however, can be expensive and its success is dependent on a thorough understanding of the specific sources of radon in the house.
- **Air filtration**—There are a number of air cleaning products currently available—everything from filters to small table top cleaners—that will collect and remove airborne radon decay products. Limited studies however, show that systems, such as filters and electrostatic precipitators that are designed to primarily remove the dust from the air, may actually increase

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the dose to the lungs. The reason for this is that such systems increase the overall concentration of free-floating radon decay product atoms in the air because there are no dust particles to which these atoms can attach.

The NO-RAD™ Radon Removal System, developed by Drs. Moeller, Maher and Rudnick in collaboration with Ion Systems, Inc., is the only system that effectively removes both the freely floating radon decay products as well as those that have become attached to dust particles. For this reason, it is the only system that has been proven in laboratory and field tests, to be up to 90% effective in removing airborne radon decay products and in reducing the associated dose to the lungs. In fact, because of its unique characteristics, the NO-RAD Radon Removal System has been granted a patent by the U.S. Patent Office.

It is important to note that the NO-RAD system does not affect the concentration of the radon gas (which itself is essentially harmless). As a result, monitoring a home for the concentrations of radon gas, before and after the installation of a NO-RAD system, will not provide a measure of the effectiveness of this removal system.

The only monitoring system that can provide a true evaluation is an instrument that provides data on the concentrations of radon decay products such as the type of instrumentation used in the Harvard research tests. Such instruments are expensive, require a skilled operator and take approximately 24 hours for an accurate and representative measurement.

The information in this booklet has been compiled from the following sources:

Citizen's Guide to Radon, produced by the U.S. Environmental Protection Agency, August '86; *Nation*, December 22, '86; *New Shelter*, January '86; *Nuclear News*, September '86; *Science News*, January 18, '86; and *U.S. News & World Report*, March 17, '86.

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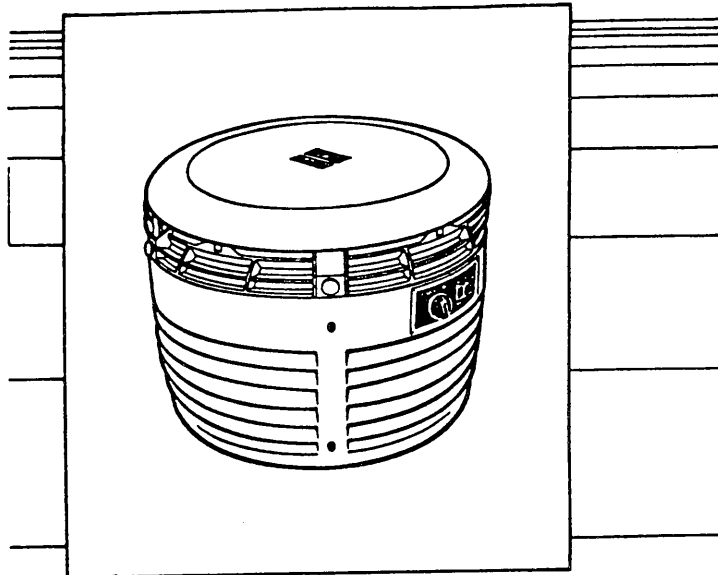


Ion Systems, Inc., 2546 Tenth Street, Berkeley, CA 94710

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B143266**NO-RAD™ RADON
REMOVAL SYSTEM**
MODEL 1000

Up to 90% effective in removing lung-
damaging radon decay products

In order to derive maximum benefit
from your NO-RAD Radon Removal Sys-
tem, please take a few minutes to read
the following information and operating
instructions.



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THE RADON RISK

Radon, an invisible, odorless and tasteless radioactive gas becomes deadly when trapped inside your home. A natural by-product of radioactive decay of uranium-bearing minerals in the soil, it can creep into your home through cracks in the foundation, through gas, sewer and pipe lines, through openings around sump pumps and drains, and even through your water supply.

Outside, it dissipates into the atmosphere and becomes diluted to harmless concentrations. However, within a home, particularly one that is tightly-sealed for energy-efficiency, radon can accumulate to toxic levels or concentrations over a period of time. The greater your exposure to radon, the greater the risk of developing lung cancer.

Although radon is an inert gas, it is radioactive. As it decays, it breaks down into solid radioactive atoms. These atoms are initially produced in a free-floating state but subsequently become attached to particles of dust and smoke in the air. When you inhale these particles, they become lodged in your lungs where they continue to give off harmful radiation.

THE PATENTED NO-RAD™ RADON REMOVAL SYSTEM

The NO-RAD System has been designed and developed by Ion Systems, Inc. in collaboration with a team of researchers at the Harvard School of Public Health. Using a patented system of ionization, filtration, and air circulation, NO-RAD is highly effective in removing airborne radon decay products and in reducing the associated radiation dose to the lungs. In tests performed in a special laboratory test chamber at the Harvard School of Public Health, the NO-RAD system produced up to a 90% reduction in airborne radon decay product concentrations. (Harvard test results are available upon request.)

NO-RAD functions as more than a radon remover. It's also a highly effective ionizer, air cleaner and air circulator. NO-RAD helps to clean the air of other pollutants, including dust, smoke, pollen, and bacteria, filtering out particles as small as 1/1000 of a micron. And when used as a fan, it pleasantly cools your home during the summer and helps circulate hot air during the winter.

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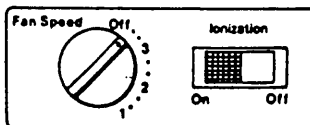
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A Word About Ionization: Ions are electrically charged air molecules which are constantly being created through the dynamic interaction of natural forces—waterfalls, rain, ocean surf, wind and cosmic rays. Ions act like magnets for dust, dirt and radon, causing airborne pollutants to bond together and settle out of the air. But in an indoor environment, there's very little opportunity to maintain or replenish the number of ions lost from the air. The NO-RAD system removes potentially harmful indoor pollutants and replaces air ions. The result—air that is as fresh and clean as nature intended.

EASY-TO-OPERATE

The NO-RAD System has a simple control panel consisting of a 4-position fan control and a separate ionization control.



SETTING #3—HIGH SPEED

SETTING #2—MEDIUM SPEED

SETTING #1—LOW SPEED

Fan Speed Control—The 4-position control (including OFF) allows for varying speeds for air circulation. When using NO-RAD as a radon remover or air cleaner, it's recommended that the fan speed be switched to Position #3 (High Speed) for the first hour for maximum effectiveness. You can then lower your NO-RAD to Position #2 (Medium Speed) for average room use, especially if the room is large. Turn it down to Position #3 (Low Speed) for continual low-level maintenance. Low speed is perfect for bedtime use or for winter use when "wind chill" is a factor.

Ionization Control—When NO-RAD is used as a radon remover or air cleaner, both the fan and the ionizer should be turned on. Once switched on, the ionizer will continue to emit a steady stream of ions. There is no need to turn the ionizer on if your NO-RAD is being used only as an air circulator. And both the ionizer and the fan should be turned off when NO-RAD is not in use.

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Filters—The easily removable two-stage filters are designed to be effective for several months of constant use before they need to be replaced. The entire filter pack is actually more efficient and longer lasting due to the 2-stage filter. Most of the dirt and pollution is trapped by the first filter before it passes through to the second.

Filter Removal—Filters should be removed and changed when dirt and debris fall out when the filter pack is lightly tapped. Follow the steps shown in the diagrams below when removing and replacing filters. *CAUTION: Always unplug the unit before removing the filter packs.*

FILTER REMOVAL



FILTER REPLACEMENT



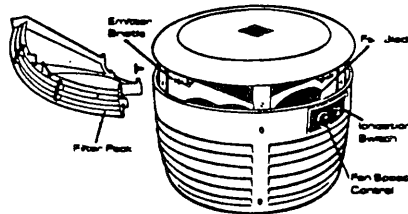
- a. Always turn off and unplug the NO-RAD first.
- b. Turn the ridged knobs counter-clockwise.
- c. Slide out the filter pack (total of 4 packs with two filters each). Take off plastic insert.
- d. Peel off the white filter, then the black foam and discard both. The radon decay products on the filters are essentially harmless and require no special precautions for disposal.
- e. Replace with clean black foam that's placed into framework. Make sure it's secure by pushing it under the tabs shown in the circle.
- f. Take a clean white filter and place it over the black foam.
- g. Replace plastic insert over white filter and snap into place.
- h. Slide the filter pack back in.
- i. Tighten the knobs.

EXHIBIT B

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CLEANING

The NO-RAD System works best when cleaned on a regular basis. Depending upon the amount of dirt and radon in the air, your NO-RAD system should be cleaned as often as needed.



1. Always turn off and unplug the NO-RAD first.
2. Exterior parts may be wiped clean with warm water and a mild detergent. CAUTION: Don't use solvents or

industrial strength cleaners as they may damage the plastic parts. Don't get the electrical parts wet.

3. In order to clean the interior parts, you will have to disassemble your NO-RAD. Your task will be simplified if you follow these steps:

- a. Remove the 4 filter packs.
- b. Remove the 3 side panels, not including the side panel containing the controls.
- c. Wipe the blade and deflector cone with warm water and mild detergent. Don't get the motor or other electrical parts wet.
- d. Lightly grasp the emitter bristles with a pair of pliers and remove them.

Soak them in detergent and warm water and carefully rinse clean. Shake the elements a few times to remove the water from its bristles. Make sure they're thoroughly dry before replacing. The emitter bristles need to be kept clean to ensure proper operation of the ionization system.

- e. You can wipe the power cord clean with a damp cloth.
- f. Reassemble unit in reverse order. Don't plug in your NO-RAD until all the parts are totally dry.

Replacement filters and bristles can be obtained from Ion Systems, Inc. Just send a check or money order for \$12.00 per 4-pack filter kit or \$3.50 per emitter bristle (cost includes postage, handling and any applicable sales tax). Mail to: **Ion Systems, Inc.**, 2546 Tenth Street, Berkeley, CA 94710.

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PLACEMENT

Your NO-RAD Radon Removal System will work best when you follow these general guidelines:

Generally it is recommended that at least one NO-RAD remover be installed in a central location in each occupied room of a house. However, if you have purchased a single unit, you can move your NO-RAD in and out of the rooms that you spend the most time in. It's preferable to place your NO-RAD near the center of the room and plug it into a 120 volt outlet. It can also be placed towards the edge of a room as long as the unit is still a couple of feet away from the wall.

Your NO-RAD should be turned on to maximum speed and left running in that position for at least one hour to quickly reduce radon product concentrations. Your NO-RAD unit can then be turned down to medium speed for average use or you can run it on low speed for continual low-level maintenance.

NOTE: When the air in a home is unusually dirty, normal operation of NO-RAD will cause some of the dirt to accumulate on the walls. This can be minimized by keeping the NO-RAD in the center of the room and only running it when the room is occupied.

SAFETY PRECAUTIONS

- Don't operate the fan without the filter packs in place.
- Don't insert fingers or objects through the blade guards.
- Don't get the electrical parts wet.
- Do not use your NO-RAD in an explosive atmosphere.
- Always unplug it before changing filters or cleaning the unit.
- NO-RAD operates on electrostatic charges created by air ionization. It is possible to get a slight shock of static electricity if you're in close proximity or if you directly touch the emitter bristles. This is similar to the shock from walking across a new carpet and touching a door knob. Whether you will feel this depends on the clothes you are wearing, the humidity, and a number of other factors. This is normal to the operation of the NO-RAD and is not an indication of malfunction.
- Keep your NO-RAD at least 3 feet away from computers, floppy disks, calculators, telephones, answering machines and other sensitive electronic equipment because the ions may affect their operation. *Always disconnect the NO-RAD and wait two minutes before opening the cover of any personal computer.*

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TECHNICAL SPECIFICATIONS

Radon Removal Effectiveness: Up to 90% reduction in radon decay product concentrations

Coverage: Up to 300 sq. ft. (15' x 20' room - 8' ceiling). Can provide coverage of larger areas but with reduced removal effectiveness.

Ionization Output: 388,000 ions/cc measured at 1 meter

Product Data: 12" high by 16" diameter; weight 19 lbs.

120V AC, 65 Watts

*Harvard Research Report available upon request.

Patent Number 4,596,585.



Designed and manufactured in the United States by
Ion Systems, Inc., 2546 Tenth Street, Berkeley, CA 94710

If you'd like more information on radon and its effects—
please write for our booklet "The ABC's of Radon."

Warranty: NO-RAD Radon Removal System is warranted to be free from defects in materials and workmanship for a period of one year from the date of purchase. Within the warranty period, Ion Systems, Inc. (ISI) will replace or repair any component of the NO-RAD defective in material and/or workmanship. For warranty service, package the unit carefully in its original carton and send, postage-paid to ISI. This warranty does not apply to any defects caused by negligence, accident or failure to properly follow instructions. To be valid, registration card must be completed and returned to ISI within 30 days of the purchase date. ISI neither assumes nor authorizes any representative or other person to assume for it any other liability for loss or damages in connection with the sale or shipment of its products. ISI makes no claim for its radon remover products other than those expressed in this literature.

DECISION AND ORDER

The Federal Trade Commission having initiated an investigation of certain acts and practices of the respondent named in the caption hereof, and respondent having been furnished thereafter with a copy of a draft of complaint which the Boston Regional Office proposed to present to the Commission for its consideration and which, if issued by the Commission, would charge respondent with violation of the Federal Trade Commission Act; and

The respondent, its attorneys, and counsel for the Commission having thereafter executed an agreement containing a consent order, an admission by respondent of all the jurisdictional facts set forth in the aforesaid draft of complaint, a statement that the signing of said agreement is for settlement purposes only and does not constitute an admission by respondent of facts, other than jurisdictional facts, or of violations of law as alleged in such complaint, and waivers and other provisions as required by the Commission's Rules.

The Commission having thereafter considered the matter and having determined that it had reason to believe that the respondent has violated the said Act, and that complaint should issue stating its charges in that respect, and having thereupon accepted the executed consent agreement and placed such agreement on the public record for a period of sixty (60) days, now in further conformity with the procedure prescribed in Section 2.34 of its Rules, the Commission hereby issues its complaint, makes the following jurisdictional findings and enters the following order:

1. Ion Systems, Inc. is a corporation organized, existing, and doing business under and by virtue of the law of the State of California. Respondent's office and principal place of business is located at 2546 Tenth Street, Berkeley, California.

2. The Federal Trade Commission has jurisdiction of the subject matter of this proceeding and of the respondent and the proceeding is in the public interest.

ORDER

I.

It is ordered, That respondent Ion Systems, Inc., a corporation, its successors and assigns, and its officers, agents, representatives, and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, labelling, packaging, offering for sale, sale or distribution of the NO-RAD Radon Removal System (“NO-RAD System”) in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act, do forthwith cease and desist from misrepresenting, directly or by implication, that:

A. Tests prove that the NO-RAD System removes 90% or up to 90% of the radon decay products in the home.

B. Tests prove that the NO-RAD System reduces the user’s risk of developing radon-related lung cancer by up to 90%.

C. The NO-RAD System has been tested and proven effective by the Harvard University School of Public Health.

II.

It is further ordered, That respondent, its successors and assigns, and its officers, agents, representatives and employees, directly or through any corporation, subsidiary or division or other device, in connection with the advertising, labelling, packaging, offering for sale, sale or distribution of the NO-RAD System or any other radon or radon progeny remediation device 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 respondent, its successors and assigns, and its officers, agents, representatives and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, labelling, packaging, offering for sale, sale or distribution of the NO-RAD System or any other radon or radon progeny remediation device in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, directly or by implication, any performance characteristic(s) of any such product unless at the time of making such representation respondent possesses and relies upon competent and reliable scientific evidence which substantiates the representation. For purposes of this order, “competent and reliable scientific evidence” shall mean tests, experiments, analyses, research, studies or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.

IV.

It is further ordered, That respondent, its successors and assigns, and its officers, agents, representatives, and employees, directly or through any corporation, subsidiary, division or other device, in connection with the advertising, labelling, packaging, offering for sale, sale or distribution of the NO-RAD System or any other radon or radon progeny remediation device in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act, do forthwith cease and desist from representing, directly or by implication, that said product can or will remove or reduce radon decay products in the area in which it is operating by any quantitative amount, unless respondent discloses, in close proximity to such representations, the following statement:

“IMPORTANT NOTICE: When you reduce [radon decay products] by any given amount, the reduction in risk of contracting radon-related lung cancer will always be less. The amount of risk reduction will vary.”

For purposes of this order, “quantitative amount” shall include any specific numerical amount or range and shall include any language containing descriptions of quantitative amounts or ranges, including but not limited to such terms as “all,” “most,” “majority,” “much of,” and “many.”

For purposes of this order, “radon decay products” shall include any descriptive term for the harmful byproducts of radon gas, including but not limited to such terms as “radon progeny,” “radon daughters,” and “potential alpha energy concentrations.” The same descriptive term(s) for such byproducts that is used in the representation shall be used in the required disclosure, with the appropriate term(s) substituted for the bracketed section of the above disclosure.

In any print advertisement or promotional material, the above disclosure shall be printed in a typeface and color that are clear and prominent, and, in multi-page documents, shall appear on the cover or first page.

In any advertisement disseminated on television broadcast, cablecast, home video or theatrical release, the above disclosure shall be displayed as a legible superscript with a simultaneous voice-over recitation of the disclosure in a manner designed to ensure clarity and prominence.

In any radio advertisement, the above disclosure shall be spoken in a manner designed to ensure clarity and prominence.

On the package label, the above disclosure shall be printed in a typeface and color that are clear and prominent and shall appear on the front panel of the package.

Nothing contrary to, inconsistent with, or in mitigation of the above disclosure shall be used in any advertisement in any medium or on the package label.

V.

It is further ordered, That respondent, its successors and assigns, and its officers, agents, representatives, and employees, directly or through any corporation, subsidiary, division or other device, do forthwith cease and desist from offering for sale, selling or distributing any components of the NO-RAD System or any other radon or radon progeny remediation device in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act, to any corporation, licensee, distributor, or other entity that respondent knows or has reason to know represents, directly or by implication, any performance characteristic(s) of any radon or radon progeny remediation device manufactured from those component(s), unless at the time of the making of such representation such other entity possesses and relies upon competent and reliable scientific evidence that substantiates the representation.

VI.

It is further ordered, That for three (3) years after the date of the last dissemination of the representation to which they pertain, respondent shall maintain and upon request make available to the Federal Trade Commission for inspection and copying:

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

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

VII.

It is further ordered, That respondent shall forthwith distribute a copy of this order to all operating divisions, subsidiaries, franchisees, officers, managerial employees, and all of its

employees, agents, licensees and distributors, engaged in the preparation and placement of advertisements or promotional materials covered by this order and shall obtain from each such employee, agent, licensee and distributor a signed statement acknowledging receipt of the order.

VIII.

It is further ordered, That for five (5) years after service upon it of this order, 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 that may affect compliance obligations under this order.

IX.

It is further ordered, That respondent shall, within sixty (60) days after service upon it of this order 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.

IN THE MATTER OF

PERFECTDATA CORPORATION

CONSENT ORDER, ETC., IN REGARD TO ALLEGED VIOLATION OF
SEC. 5 OF THE FEDERAL TRADE COMMISSION ACT*Docket C-3452. Complaint, Aug. 2, 1993--Decision, Aug. 2, 1993*

This consent order prohibits, among other things, a California marketer of electronic office equipment care and maintenance products from representing that any product containing a Class I or Class II ozone-depleting substance -- as defined by the Clean Air Act Amendments of 1990 -- is ozone friendly, contains no ozone depleting CFCs, or has ozone guard, and from representing or implying that any such product will not damage or deplete the ozone in the upper atmosphere. The respondent also is prohibited from making any environmental benefit claims for any of its products unless the company possesses and relies upon competent and reliable scientific evidence to substantiate the claims.

Appearances

For the Commission: *Ralph E. Stone.*

For the respondent: *Lee R. Mannheimer*, President, Simi Valley, CA.

COMPLAINT

The Federal Trade Commission, having reason to believe that PerfectData Corporation, a corporation, hereinafter sometimes referred to as 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. PerfectData Corporation is a California corporation, with its principal office or place of business at 1825 Surveyor Avenue, Simi Valley, California.