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Report to the Chairman, Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

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DRINKING WATER

Inadequate Regulation of Home Treatment Units Leaves Consumers at Risk

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Resources, Community, and
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The Honorable John Dingell
Chairman, Subcommittee on Oversight and
Investigations
Committee on Energy and Commerce
House of Representatives

Dear Mr. Chairman:

As requested, we reviewed the regulation, sale, and use of home water treatment units. Specifically, this report discusses the (1) consumer and health concerns associated with these units, (2) types of regulatory controls in place to protect the public from fraudulent claims or increased health risks from these units, and (3) additional steps EPA or other federal agencies should take to protect the public.

As arranged with your office, unless you publicly announce its contents earlier, we will make no further distribution of this report until 30 days after the date of this letter. At that time, we will send copies to other appropriate congressional committees and the Administrator, EPA. We will also make copies available to other interested parties.

This work was performed under the direction of Richard L. Hembra, Director, Environmental Protection Issues, who may be reached at (202) 275-6111. Other major contributors to this report are listed in appendix I.

Sincerely yours,

J. Dexter Peach
Assistant Comptroller General

Executive Summary

Purpose

As consumer concern over drinking water safety has grown in recent years, so have sales of home water treatment units. Gross sales of these units, which treat water either at a single tap or at the point of entry into the home, increased by an estimated 49 percent between 1985 and 1990, totaling nearly $1.8 billion in 1990. Yet, as sales of these units have increased, so have reports of questionable sales practices and false claims of product effectiveness.

Concerned about public awareness and safety, the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, asked GAO to examine (1) the consumer and health concerns associated with these units, (2) the regulatory controls in place to protect the public from fraudulent claims or increased health risks, and (3) whether EPA or other federal agencies should take additional steps to protect the public.

Background

EPA sets maximum contaminant levels to control bacteria, pesticides, and other chemicals found in drinking water. These substances can lead to adverse health effects ranging from intestinal disorders to cancer. Most people in the United States are served by public water systems, which must routinely test drinking water to determine if any such contaminants are present in concentrations greater than EPA allows. Individuals who receive water from private wells, however, must test their own water to determine if these contaminants are present.

Consumers may purchase home treatment units to improve the aesthetic quality of their water or to remove harmful contaminants. Water softeners, physical filters, and some activated carbon units are generally used to improve the aesthetic quality of drinking water, while other activated carbon units, reverse osmosis units, ultraviolet lamps, and distillers are generally used to remove harmful chemicals or microorganisms. Under certain circumstances, public water systems can also use home water treatment units to achieve compliance with EPA's drinking water standards.

Results in Brief

While many responsible companies manufacture home water treatment units, federal and state prosecutors, the Better Business Bureau, and EPA have found that other companies selling the units make fraudulent claims without regard to health risks to consumers. As a consequence, consumers sometimes purchase units that are ineffective or inappropriate for their intended use. While the full extent of consumer problems

and potential health risks associated with the sale and use of these units is unknown, data GAO gathered from numerous sources indicate that (1) dishonest marketers use a variety of misleading sales practices and (2) ineffective units may pose a health risk to consumers if used to treat contaminated water. Despite these concerns, efforts by government and private agencies to educate the public about these issues have been limited.

No single authority exists to ensure that units perform as sales agents claim. Federal regulation is fragmented and incomplete, with several agencies regulating various aspects of the business. Moreover, few states have developed regulatory controls to fill this gap. While both industry officials and an independent national testing organization have developed performance standards, relatively few companies have had their products tested and certified as meeting the standards.

Officials from federal and state agencies and other organizations offered a number of options for better safeguarding public health and improving consumer protection. Among the most promising options are (1) implementing a federally sponsored program for certification of home treatment units to national performance standards and (2) increasing enforcement of existing consumer protection laws. Given the complexity of the issues, the federal agencies that currently share responsibility for regulating home units are in the best position to develop the details of a strategy that protects the public and makes effective use of limited resources.

Principal Findings

Consumer Problems and Potential Health Risks

Because consumers lack adequate information on when and how to purchase a home water treatment unit, dishonest salespeople have been able to use scare tactics or false claims to sell these units. State attorneys general, the Federal Trade Commission, EPA, and the Better Business Bureau staff provided examples of deceptive sales practices. For instance, some dealers representing a large manufacturer falsely advertised that Ralph Nader, the well-known consumer advocate, recommended their filter and that contaminated water is responsible for the high rate of breast cancer found on Long Island. Other companies have falsely claimed that their units are being used on the space shuttle or in the White House. Also, companies have claimed that their products are

"EPA approved," though EPA does not approve or endorse any home treatment units.

Consumers who buy ineffective units not only waste their money but also may inadvertently continue their exposure to contaminated drinking water. For example, EPA estimates that 60,900 private wells contain pesticides exceeding EPA's health-based drinking water standards and that 254,000 private wells contain excessive levels of nitrate. Although water provided by public water systems can also present a health risk, such systems generally deliver water that meets federal and state standards, thus requiring little or no further treatment by households. To the extent that ineffective units are used on contaminated water, however, public health may be jeopardized.

For the most part, public and private organizations do not attempt to actively educate the general public; consumers must request information on their own. Consumer education is particularly important, however, because many units are sold door-to-door or over the phone—situations in which regulating sales agents' oral claims is difficult.

Fragmented Regulation of Home Treatment Units

No single federal agency tests or approves units for consumer use. EPA's Office of Pesticides and Toxic Substances and Office of Ground Water and Drinking Water have some specific authority over the use of home water treatment units. However, this authority is limited and generally does not protect the average consumer from buying ineffective units. Other federal agencies, such as the Federal Trade Commission and the Consumer Product Safety Commission, may take action against home water treatment companies as part of their overall mission to protect consumers, but they generally respond only to complaints and referrals.

Regulation at the state level varies widely. Although at least 21 states regulate some aspect of the sale, installation, or use of home treatment units, only 3 protect consumers by reviewing test data. Most state regulations address who may install units, while others address deceptive sales practices. The major industry trade association has developed standards that address the mechanical performance of home treatment units. However, these standards do not verify the units' effectiveness in actually removing harmful contaminants. Furthermore, only 54 of the estimated 600 manufacturers and assemblers of home water treatment units have had products certified to these standards. While standards developed by an independent testing organization do test product effectiveness, only 43 companies have had units certified.

Options for More Comprehensive Regulation of Units

Given the fragmented regulation, a greater federal role could help ensure that home treatment units perform as claimed and that the public is safeguarded from deceptive sales practices and hazardous products. One option, favored by 35 of 36 states responding to an unpublished American Water Works Association survey, would be to implement a national certification program. Under such a program, manufacturers could have their units certified to third-party performance standards using approved laboratories. Another option would be to increase enforcement of existing consumer protection laws.

Each of these options, however, raises a number of complex issues that would require detailed analysis before implementation. Among the issues to be resolved are questions about the extent to which federal agencies with jurisdiction over home treatment units would need additional regulatory authority; what resources are required to implement a particular approach; and whether the regulatory program is best implemented at the federal or state level. It is up to EPA, the Federal Trade Commission, and the Consumer Product Safety Commission—agencies that share primary responsibility for regulating the home water treatment industry—to work out the best approach.

Recommendations

GAO recommends that the Administrator, EPA, direct the Office of Ground Water and Drinking Water to play a more active role in educating consumers about drinking water quality and the pros and cons of home water treatment. In addition, GAO recommends that the Administrator, in consultation with the Chairmen of the Federal Trade Commission and the Consumer Product Safety Commission, develop and implement a coordinated federal strategy to better regulate the sale and use of home treatment units. Specifically, the agencies should develop ways to (1) ensure that the units are effective, possibly through some type of certification to national performance standards, and/or (2) better protect consumers from deceptive sales practices and potentially hazardous products, through stepped up enforcement of existing laws.

Agency Comments

GAO discussed the facts in this report with officials from EPA, the Federal Trade Commission, and the Consumer Product Safety Commission, who generally agreed with their accuracy. GAO has included the comments of these officials where appropriate. However, as requested, GAO did not obtain written comments on a draft of this report.

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Abbreviations

EPA	Environmental Protection Agency
FTC	Federal Trade Commission
HUD	Department of Housing and Urban Development
HWTU	home water treatment unit
UL	Underwriters Laboratories

Introduction

For years, Americans have taken the availability of safe drinking water for granted. Recently, however, an increasingly health-conscious public has responded to reports of harmful contaminants in public and private water supplies by turning to bottled water[1] or home water treatment units (HWTUs). While some consumers purchase HWTUs because they are dissatisfied with the aesthetic quality of their drinking water, others buy such units because of real or perceived health concerns.

Industry officials estimate that there are approximately 600 manufacturers and assemblers of HWTUs and 4,000 to 5,000 dealers and retail vendors. In addition, there are many thousands of self-employed dealers, such as those who sell products through multilevel marketing operations. According to a market study sponsored by the Water Quality Association, the major industry group, gross revenues for the home water treatment industry grew by 49 percent between 1985 and 1990, totaling nearly $1.8 billion in 1990. Between 1990 and 1995, home water treatment industry revenues are projected to again increase by almost 59 percent.

Consumers who wish to make informed decisions about which units best suit their needs must possess some knowledge about the quality of their drinking water and about home water treatment options before purchasing a unit. Specifically, consumers need to know (1) what constitutes safe drinking water, (2) how to learn about the condition of their drinking water, and (3) which units are appropriate to address their drinking water concerns.

What Constitutes Safe Drinking Water?

Water is considered safe to drink if it meets the Environmental Protection Agency's (EPA) and states' maximum contaminant level requirements. In response to the Safe Drinking Water Act, as amended, EPA has set maximum contaminant levels for a wide range of potentially harmful contaminants, including volatile organic chemicals, pesticides, metals, radionuclides, and microbiological contaminants. EPA has also developed secondary drinking water standards for contaminants that do not affect health but do affect the taste, odor, color, and other aesthetic characteristics of drinking water. The Safe Drinking Water Act calls for EPA to continually review and expand its regulation of drinking water contaminants.

[1] Food Safety and Quality: Stronger FDA Standards and Oversight Needed for Bottled Water (GAO/RCED-91-67, Mar. 12, 1991) discusses the adequacy of standards and the effectiveness of oversight in the bottled water industry.

The maximum contaminant levels set by EPA under the Safe Drinking Water Act apply only to public water systems that serve 25 or more individuals or provide water to 15 or more service connections. Approximately 85 percent of the U.S. population receives its drinking water from these public water systems, while most others are served by private wells. Although private wells are not subject to federal drinking water regulations and are generally regulated on a very limited basis by the states, EPA also recommends using the maximum contaminant levels for public water systems as a guide for determining whether well water is safe.

Testing Provides Information on Drinking Water Quality

For many consumers, the decision to purchase a HWTU is based upon a desire to improve the aesthetic quality of their drinking water. However, before consumers purchase a unit out of concern about the healthfulness of their drinking water, they need to obtain objective information about the quality of their drinking water supply. Consumers get their drinking water primarily from two sources: public water supplies and private wells. The process for learning about drinking water quality differs depending upon which of these two sources provides water to the consumer.

Consumers who receive their drinking water from a public system may check their water quality by contacting their local water utility office or their state or local health departments. All public water systems are required to regularly test the water they provide to ensure that it meets drinking water standards set by EPA and the states. The results from these tests are available to the public. For consumers using a public drinking water supply that meets national and state drinking water standards, home treatment would seldom be needed for health protection.

In contrast, private well owners are responsible for the quality of their drinking water. EPA recommends that those who draw drinking water from private wells should have their water tested periodically by a state or independent laboratory to determine if it meets health standards. Well owners may contact their local health department for assistance with well water problems.

Many Types of Units Are Available to Address Drinking Water Problems

Consumers who determine that they need a HWTU to remove harmful contaminants from their drinking water, or who simply want to improve the aesthetic properties of their water, need to select a unit that is technically suited to solve their problem. Many different types of units are available to address drinking water problems, and each type of unit generally removes some contaminants well and others poorly. Table 1.1 contains brief descriptions of some of the more commonly used types of HWTUs.

Table 1.1: Description of Commonly Used HWTUs

Type	Description	Contaminants treated	Notes
Water softener	A resin saturated with sodium exchanges sodium for hardness (i.e., calcium and magnesium ions).	Improves aesthetic quality of water by removing hardness, iron, and manganese. May also remove radium.	Can, for example, eliminate the nuisance of stained clothes and build-up on pipes. However, may make water more corrosive, which can increase leaching of lead from pipes into drinking water.
Activated carbon filter	Porous carbon adsorbs and retains chemicals from water.	Removes disagreeable tastes, odors, and colors from drinking water. Can also remove many organic contaminants, like chlorine.	Does not remove microorganisms from drinking water and is not usually considered an effective technology for removing most inorganic contaminants (like salts and metals). Certain specially prepared units can remove lead.
Reverse osmosis unit	Water "separated" from contaminants by pressure through a membrane.	Removes most inorganic contaminants, such as salts, metals (including lead), asbestos, minerals, and nitrate. Also removes some organic contaminants.	Can also remove most bacteria, cysts, and viruses, but not recommended for use on microbiologically unsafe water because some organisms might leak through broken membranes. Typically produces only 1 gallon of drinking water for every 4 gallons entering the unit.
Physical filter	Filter acts like a sieve to filter particles from water.	Removes large particles like grit, sediment, or rust from water; some remove small particles like asbestos.	Some filters can remove some microorganisms but are inadequate to treat microbiologically unsafe water.
Ultraviolet microbiological treatment unit	Germicidal lamp inactivates microorganisms as they pass by light.	Destroys bacteria and inactivates viruses in drinking water.	Most commercially available units provide insufficient intensity to meet requirements for use on microbiologically unsafe water.
Distillation unit	Water boiled in chamber; steam captured and condensed; impurities left behind.	Removes most salts, metals, minerals, particles, and some organic chemicals.	Some organic chemicals are vaporized and condensed, which may cause an increase in their concentration. Although the heat used to vaporize the water kills microorganisms, in some cases bacteria may pass through to the product water.

In addition to deciding which type of unit is most appropriate for their needs, consumers must also determine whether they need to treat all of the water entering the home or only water passing though one tap. While some contaminants only pose a threat when ingested, others are as hazardous when inhaled or absorbed through the skin. Home units used to treat water at a single tap are called "point-of-use" units, while those designed to treat all water entering the home are referred to as "point-of-entry" units.

Consumers must also be aware that most HWTUs are not designed to be used on microbiologically contaminated water, or water of unknown source or quality. Complete microbiological purification is not easily achieved by HWTUs. Very few units are considered water purifiers because they cannot make microbiologically contaminated water safe for human consumption.

Finally, proper maintenance of HWTUs is essential to ensuring that an appropriately selected unit continues to remove the contaminants it was purchased to remove. Consumers should familiarize themselves with the maintenance requirements of any treatment unit they own or buy. In addition, some dealers and manufacturers offer maintenance contracts, which provide for periodic filter replacement or other necessary upkeep.

The Home Water Treatment Industry Is Diverse

Most of the 600 manufacturers of HWTUs are small, independent companies that assemble HWTUs, although there are a number of large manufacturers that sell their units nationwide. While the industry has expanded rapidly during the past 5 years, some companies that produce these units have been in business for over 50 years. These older companies began by producing water softeners to improve the aesthetic quality of drinking water and then expanded into making units designed specifically to remove potentially harmful contaminants. Some companies that produce HWTUs for residential use have also developed and sold water treatment equipment for commercial and industrial applications for many years.

Companies may sell HWTUs to consumers through licensed dealers, independent salespeople, telemarketers, hardware stores, and major retailers. While some units are sold from store shelves, many HWTUs are sold door-to-door, over the telephone, or through the mail.

Federal and State Agencies Have a Role in Regulating HWTUs

At the federal level, regulation of HWTUs is dispersed among several agencies. EPA's Office of Pesticides and Toxic Substances requires manufacturers that claim their units remove microorganisms from drinking water to register their production facilities or units. In addition, EPA's Office of Ground Water and Drinking Water allows public water systems to use point-of-entry treatment units to comply with federal drinking water standards in certain circumstances. The Department of Housing and Urban Development has established criteria under which HWTUS may be installed in residential properties to provide potable water and qualify them for federal mortgage insurance.

Other federal agencies have authority to protect consumers. For example, the Federal Trade Commission (FTC) can take legal action against HWTU companies using unfair or deceptive sales practices. In addition, the Consumer Product Safety Commission has authority to protect consumers from hazardous products and products that could create a hazard.

Some states regulate the sale, effectiveness, or installation of HWTUs sold to consumers. In addition, virtually all states have some type of general consumer protection laws prohibiting misleading or deceptive sales practices.

Objectives, Scope, and Methodology

In an October 1990 letter, the Chairman, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce, expressed concern over the sale, use, and regulation of HWTUs. The Subcommittee was concerned about reports that questioned how well these units perform their intended functions and by reports that people have often been misled by companies that make false claims about their units to sell them. Given the recent and rapid expansion of this industry, the Subcommittee was also concerned whether the existing regulatory controls administered by EPA, other federal agencies, or the states were sufficient to protect the public. On the basis of the Chairman's request and subsequent discussions with his office, we agreed to determine

- the nature and extent of health and consumer concerns that have been raised regarding the sale and use of HWTUs,
- the types of regulatory controls that exist to protect the public from fraudulent claims or increased health risks, and
- whether EPA or other federal agencies should take additional steps to protect the public.

In conducting this review, we collected information from a wide variety of sources, including regulatory and consumer protection agencies at all levels of government, as well as major industry associations with an interest in HWTUs. We addressed the first objective by interviewing federal, state, and other officials with experience in handling consumer concerns about HWTU sales practices. To determine the extent of these concerns, we interviewed EPA drinking water program officials in all 10 EPA regions, representatives from 11 Better Business Bureaus nationwide, and EPA Safe Drinking Water Hotline contractor staff. In addition, we collected statistics on the number of consumer inquiries and complaints made to Better Business Bureaus and the Safe Drinking Water Hotline. We also reviewed written complaints submitted by consumers to Better Business Bureaus.

To gather information about legal actions regarding the sales practices of HWTU manufacturers and dealers, we interviewed FTC attorneys and officials from the attorney general offices in four states—California, Iowa, New York, and Wisconsin. These states were selected because they were the four states reported by industry, EPA, state, and other officials to have done the most to ensure that HWTUs sold in those states worked as claimed by sellers. We also reviewed documentation describing the cases they have pursued. To learn about compliance with EPA regulations regarding HWTU advertising claims, we interviewed officials and collected case documents from EPA's Office of Compliance Monitoring. Finally, we met with industry officials to determine their role in addressing problems with HWTU sales practices.

To determine the nature and extent of health concerns associated with HWTUs, we interviewed officials of EPA's Office of Ground Water and Drinking Water, the Massachusetts Department of Environmental Protection, and the Consumer Product Safety Commission. We also reviewed documents provided by EPA's Risk Reduction Engineering Laboratory and articles that appeared in the Journal of the American Water Works Association and the proceedings of Water Quality Association Annual Conferences.

For the second objective, we interviewed federal, state, industry, and other officials about their organizations' role in regulating the sale and use of HWTUs. Among federal agencies, we contacted EPA Office of Pesticide Programs and Office of Ground Water and Drinking Water officials to learn about their efforts to regulate the home water treatment industry. We also interviewed officials at FTC and the Consumer Product Safety Commission to determine their role in protecting consumers.

Finally, we met with Department of Housing and Urban Development (HUD) officials to learn about their regulation of HWTUs used to meet federal mortgage insurance criteria for drinking water quality.

To assess the states' role in regulating HWTUs, we spoke with officials in each of our four selected states[2] to learn about the extent and effectiveness of their regulations. We obtained information about the activities of other states from the Water Quality Association.

To determine the extent and effectiveness of industry self-regulation, we met with officials from the Water Quality Association. We also spoke with officials from the National Sanitation Foundation—an independent, nonprofit organization—to learn about its voluntary program to certify HWTU efficacy. We also met with officials from the Association of State Drinking Water Administrators, the American Water Works Association, the International Bottled Water Association, and water treatment company executives to obtain their perspectives on the industry and government efforts to regulate the sale and use of HWTUs.

Finally, our efforts to identify the need for further federal regulation were based largely on the results of our analysis regarding the first two objectives. However, we contacted EPA, FTC, Consumer Product Safety Commission, Water Quality Association, National Sanitation Foundation, and state officials to obtain their views on the feasibility, effectiveness, and reasonableness of alternative strategies.

Our work was conducted between November 1990 and October 1991 in accordance with generally accepted government auditing standards. During our review, we discussed our findings with officials from EPA, FTC, and the Consumer Product Safety Commission and incorporated their comments where appropriate. However, as agreed with the requester's office, we did not obtain written comments on a draft of this report.

[2]In New York, we spoke with officials from the Bureau of Public Water Supply, because New York does not have a formal program to review home water treatment unit efficacy.

Improper Sales Tactics and Potential Health Risks Threaten Uninformed Consumers

While federal and state officials acknowledge that there are many reputable companies in the home water treatment industry, there is substantial evidence that the use of misleading and fraudulent sales tactics is common. As a result, some consumers are buying units that they do not need, or the units do not perform as claimed. For consumers whose water actually contains harmful contaminants, buying a unit that does not function as claimed not only results in a financial loss but also gives the buyer a false sense of security and continues his or her exposure to a potential health risk.

Both the variety of improper sales tactics and the potential health risks from units that do not perform as claimed increase the importance of educating consumers about home water treatment. Consumer education is particularly necessary, given that many HWTUs are sold by door-to-door salespeople or telemarketers, whose oral claims are difficult to regulate. Consumers need to know how to determine whether they need a unit and, if so, how to select one that will effectively address their drinking water problem. While such information is available to consumers in brochures developed by EPA, FTC, and other groups, these materials are generally only distributed on request. The passive nature of these efforts to educate the public means that many people who need this information do not receive it.

Available Data Indicate Consumer Problems and Potential Health Risks

Given the nature of HWTU regulation, it is difficult to determine precisely the extent of consumer and health problems related to the sale and use of these units. As we describe in chapter 3, HWTU regulation is fragmented among several federal agencies, with no single agency measuring product effectiveness or tracking consumer complaints. Because consumers with questions or complaints about treatment units may contact a wide variety of federal, state, local, and private agencies, no central source of information on these units is available. Nevertheless, our discussions with representatives from many agencies indicate that problems are common and sometimes serious.

Officials representing federal, state, and private organizations shared similar concerns about misleading sales practices and public health risks associated with HWTUs. For example, officials from California and Iowa, two states that require certification of HWTU performance, told us that most of the manufacturers that have submitted products for state review have had to scale back some of their health-related claims to be consistent with what was supported by approved test results.

Moreover, legal action taken by state and federal authorities sometimes affected significant numbers of dealers or consumers. For example, the state attorneys general in New York and Wisconsin each took actions to halt certain deceptive practices by dealers representing one large company. Well over 6,000 dealers in the two states were affected by the judgments in these cases. A company prosecuted by FTC distributed more than 354,000 defective water filters that leached a suspected carcinogen into drinking water. One telemarketer convinced an estimated 10,000 people to spend an average of $450 each on water filters that cannot remove all the contaminants that the telemarketer promised the filters could remove.

In addition, statistics from EPA's Safe Drinking Water Hotline and the Better Business Bureau indicate a high level of consumer concern about these products. EPA officials estimated that 30 percent of the nearly 28,000 calls the Hotline received between July 1989 and September 1990 involved HWTUs. Statistics provided by the Better Business Bureau also show a high level of consumer interest in HWTUs. Between 1988 and 1990, consumers made over 126,000 inquiries and filed over 4,000 written complaints about HWTUs.

The extent to which ineffective units threaten health is particularly difficult to quantify. Consumers often cannot readily determine whether their units are effectively removing harmful contaminants unless treated water is tested, since many of these contaminants are tasteless, odorless, and colorless. Units that do not remove the harmful contaminants as claimed—or add harmful contaminants into treated water—may, therefore, go undetected. FTC and state attorneys general provided us with examples of units that did not remove the harmful contaminants that they claimed to remove, although the extent to which the units were actually used on contaminated water is unknown.

Dishonest HWTU Marketers Use a Variety of Misleading Practices

Although some companies that produce HWTUs make an effort to educate their dealers and take care not to make unwarranted claims about the capabilities of their products, other marketers use a variety of misleading and fraudulent sales practices. We found that some sellers of HWTUs use scare tactics to frighten consumers into buying a unit, others overstate the capability of their units, and still others falsely claim that their products are approved by the government. As discussed later in this chapter, consumers who are uninformed about the quality of their drinking water and the capabilities of different types of HWTUs are particularly vulnerable to these misleading sales tactics.

Some Marketers Scare Consumers Into Buying Unneeded Units

Some marketers scare consumers into buying unneeded HWTUs by denigrating the quality of municipally supplied drinking water or performing deceptive in-home tests. While it is true that drinking water from some public water systems—generally the smallest systems—and private wells can present health risks, some marketers depict even drinking water that meets federal and state standards as being laden with pesticides, pollutants, carcinogens, or other contaminants. They further mislead consumers by inappropriately using results from in-home tests designed only to detect substances that do not pose a risk to health.

Both state attorneys general and FTC have acted against companies that try to frighten consumers into buying HWTUs. For example, the California Attorney General's Office charged that one company had told consumers that tens of millions of Americans are drinking water laden with chemicals and viruses that can cause cancer, birth defects, and genetic damage; there was, in fact, no basis for these claims. Salespeople from this company also told consumers that "you can't trust the quality of tap water anywhere" even though the vast majority of people receive their water from public water systems, most of which meet federal drinking water requirements. California officials told us that some consumers who were scared into buying HWTUs costing several thousand dollars had liens put against their homes because they were unable to keep up with the payments for these units.

In another case, the New York Attorney General's Office acted against a New York company that used television advertisements to frighten consumers into buying treatment units. The attorney general charged that these advertisements falsely claimed that ordinary drinking water may contain cancer-causing agents, pesticides, detergents, sewage, and industrial wastes, with pictures graphically depicting these dangerous substances. One picture, for example, showed a consumer giving her child a drink of water from a faucet with a stream of orange and yellow iridescent water flowing out of it. In response to the attorney general's action, the company agreed to stop engaging in any fraudulent, deceptive, or illegal acts, and to pay $45,000 in restitution to consumers. In addition, after FTC charged this company's parent corporation with inducing consumers to purchase HWTUs by misrepresenting that their water was unsafe to drink, the corporation agreed to pay FTC $700,000 for consumer redress.

The New York Attorney General's Office also pursued a company whose distributors falsely claimed that their water filters are the only ones recommended by Ralph Nader and that contaminated water is responsible for the high rate of breast cancer found on Long Island. This company also prepared a videotape used when conducting sales in consumer's homes that pictured a glass of water with the narrator admonishing the consumer, "You better cross your fingers before you swallow," and compared the taste of drinking water to bug spray.

According to EPA, FTC, and state officials, HWTU sellers sometimes mislead consumers by using deceptive in-home tests. These tests are generally designed to detect the presence of substances that affect the aesthetic properties of water but do not pose a risk to health. For example, the New York State Attorney General has filed a complaint against a company whose salespeople are charged with performing in-home tests for aesthetic contaminants, but informing consumers that their tap water contained contaminants such as bacteria, animal skin deposits, lead, or carcinogens. Similarly, the California Attorney General acted against a company whose salespeople performed an in-home test designed only to measure water hardness. These salespeople told consumers that hardness is equivalent to "pollution," when, in fact, many minerals found in hard water are essential to the maintenance of health and prevention of certain diseases.

Several EPA and state officials told us that some treatment unit marketers follow news reports and target areas where a hazardous waste site or contaminated drinking water has been discovered. In addition, some marketers contact EPA offices to obtain EPA's reports to learn which areas are experiencing water quality problems. While some marketers may provide these consumers with potential solutions to their drinking water problems, others use these reports to unnecessarily scare consumers into buying HWTUs. For example, several state and local officials told us that dishonest marketers may scare consumers into buying units by using reports of contamination in nearby areas to sell units in other areas with no proven contamination problems.

Marketers Overstate the Capability of Their Units

Some sellers of HWTUs overstate their units' ability to remove contaminants from drinking water. We found that they may exaggerate the number of contaminants their units will remove or the length of time their units will effectively remove contaminants without maintenance. Enforcement actions taken by FTC and state attorneys general provide

examples of treatment units that do not function as manufacturers or sellers claim they do.

FTC has taken action against a number of marketers that asserted their units can remove more contaminants than they do. For example, the commission pursued a Connecticut manufacturer and distributor whose promotional literature claimed that its countertop water distiller removed all chemicals and impurities from tap water, rendering it absolutely pure and safe. FTC charged that these claims were false and unsubstantiated, because the unit failed to remove potentially carcinogenic volatile organic chemicals. Volatile organic chemicals—such as benzene, methylene chloride, and chloroform—are found in industrial and pesticide wastes, which can enter water supplies. The company was ordered to stop misrepresenting its units. The commission has also obtained restraining orders against, or signed consent agreements with, several other companies making similar overstated claims.

In another case, the California Attorney General's Office pursued a company that made false claims about the capability of its units. For example, the company told consumers that its units removed pesticides from water, even though the units did not remove two major pesticides that may affect the liver and kidneys and are possible cancer-causing agents. In addition, the company falsely claimed that its units removed chloramines, which are used by some public water systems to disinfect drinking water. Small amounts of chloramines generally do not adversely affect the average person. According to the attorney general's complaint, however, the existence of even small amounts of chloramines could endanger the lives of home kidney dialysis patients if they used this device to treat water for the dialysis process.

Some marketers claim that their units will effectively remove contaminants from a greater quantity of drinking water or for a longer period of time than the units actually can. For example, FTC acted against one Florida telemarketer that claimed its unit could remove at least 98 percent of a long list of contaminants from 10,000 or more gallons of tap water. Contaminants included on the list ranged from lead and radon gas to substances such as "acid rain" and "any man-made petrochemicals." The company further claimed that its unit would kill or eliminate bacteria in 10,000 or more gallons of water over at least a 4-year period of time. The commission charged, however, that the unit could not reduce the levels of contaminants in any significant amount of water and could inhibit the growth of certain types of bacteria for a period of

no more than 3 months and in a quantity of water substantially less than 10,000 gallons.

While we obtained numerous examples of unwarranted claims about HWTU capabilities, the actual number of units that do not function as claimed is likely to be much greater. It is relatively easy to determine whether a unit that claims to improve the aesthetic quality of drinking water (e.g., a water softener) is working, for when the product's effectiveness decreases, the consumer will notice the reappearance of undesirable tastes, odors, stains, or other easily recognizable indications. However, health-related contaminants—such as lead, pesticides, nitrates, and some volatile organic chemicals—are usually odorless, colorless, and tasteless and, therefore, consumers usually have no way of knowing whether a unit is effective unless the treated water is tested.

Sellers Sometimes Use False Claims of Government Endorsement

Some sellers of HWTUs assert falsely that their unit or company is government-approved. Many EPA officials told us that a common misrepresentation of government endorsement involves exaggerating the significance of EPA product registration numbers that appear on treatment units. As described in more detail in chapter 3, units that contain a chemical pesticide must be registered with EPA. For example, some activated carbon filters must be registered with EPA because they use silver to reduce the growth of bacteria, which can multiply and clog the filters. Manufacturers are required to submit test data showing that the unit will not leach the pesticide into treated water. The registration number assigned by EPA and displayed on a company's HWTUs generally only indicates that such data were submitted and approved. EPA does not conduct any tests to determine the unit's effectiveness in removing contaminants from drinking water.

Even so, some sellers may directly or indirectly portray the product registration number appearing on every registered unit as an endorsement, recommendation, or approval from EPA. For example, according to a complaint registered with EPA's Safe Drinking Water Hotline, a salesperson claimed that his company's product registration number ended in a "-1" because its unit had been rated number one by EPA.

Sellers may falsely claim government endorsement in other ways as well. For example, FTC acted against two telemarketers, one based in Florida and the other in Texas, that were telling consumers that the U.S. House of Representatives would soon "enact a bill" requiring every household in the United States to have a water purifier, when the House

had no intention of doing so. The Florida company also told consumers that certain numbers on the front of postcards mailed by the company ensure that their promotions conform to Florida state law, when, in reality, the numbers only designated the company's first class mailing permit. The Texas telemarketer claimed that its units were used on the space shuttle when the unit was never used or endorsed by the National Aeronautic and Space Administration. In addition, EPA officials told us about a company that promoted its units as being the only one used in the White House; however, although the company was allowed to install some units in the White House on a trial basis, the units were removed a few months following the installation because White House staff determined that they were ineffective.

Some salespeople have claimed to represent a government agency. For example, the New York Attorney General's Office has recently charged one company with falsely claiming its staff were employed by or consultants to EPA, the New York State Department of Health, the Connecticut Department of Environmental Protection, and the Suffolk County legislature. According to the complaint, the company also falsely claimed that its unit is used by the National Aeronautics and Space Administration. At times, telemarketers from this company indicated or implied in advertising that they were conducting a survey funded by or on behalf of EPA or the New York State Department of Environmental Conservation and that its unit is the only water treatment unit recognized or preapproved as tax deductible by the government.

One California company that claimed to work with the government used elaborate means to make itself appear credible. The company was formed as a nonprofit corporation to develop customer leads for a marketer of HWTUs. Company employees sent consumers a "water survey" along with a flyer claiming that the company is a nonprofit organization "dedicated" to "[c]ollecting and compiling raw statistical information" concerning water quality in Southern California, "[a]lerting the public to the problem of unsafe drinking water," and "[n]otifying various governmental agencies and public officials of the results of our findings." Respondents who returned the questionnaire were contacted by another of the defendants' businesses, which would offer to test their tap water for impurities. Customer leads developed by these visits were then turned over to a sales company.

Ineffective Units May Pose a Health Risk to Consumers

Consumers who buy inappropriate or ineffective units and whose water actually contains harmful contaminants continue their exposure to those contaminants. People using water from private wells need to be particularly concerned about contamination, because their water generally does not have to meet or be tested for compliance with federal drinking water standards. In addition, people who fail to properly maintain their units may also expose themselves to the very contaminants that they are trying to remove. Finally, some units may leach harmful contaminants into drinking water from materials used to construct the units.

Inappropriate or Ineffective Units May Continue Exposure to Harmful Contaminants

In some areas, contamination of drinking water supplies may be significant. According to EPA's 5-year National Survey of Pesticides in Drinking Water Wells completed in 1990, about 60,900 (or 0.6 percent) of the approximately 10.5 million rural domestic wells in the United States contain at least one pesticide that exceeds a maximum contaminant level or health advisory level. About 2.4 percent of rural domestic wells, or approximately 254,000 wells, are estimated to contain nitrate over the maximum contaminant level. The pesticides that EPA identified in well water are potential carcinogens or have been linked to harmful effects on organs such as the liver or kidney, while excessive nitrate concentrations in drinking water can cause serious illness in infants.

Because HWTUs can effectively treat a variety of drinking water problems, EPA encourages people with contaminated private wells to consider purchasing HWTUs.[1] However, consumers must take care in selecting the type and make of unit to install because they may not be able to readily determine if it is effective in removing the contaminants it is supposed to remove. When a unit does not work, it is not only a waste of money, but to the extent that it is used on contaminated water, the unit also poses a potential health risk—the users are unknowingly continuing their exposure to harmful contaminants.

When a device removing aesthetic contaminants fails, the treated water will usually show signs of the failure (e.g., units designed to remove iron will produce rusty water). In addition, the consumer's health is not compromised when aesthetics suffer from a failed unit. However, because many health-related contaminants are odorless, colorless, and tasteless, failure of the HWTU is not easily detected. The problem this creates is

[1]In addition, as discussed in chapter 3, the agency has promulgated regulations allowing public water systems to use point-of-entry HWTUs (i.e., units that treat all of the water going into a home) to achieve compliance with some drinking water standards.

that consumers who have contaminated drinking water and inadvertently buy units that do not work may have a false sense of security and assume that their drinking water is safe when, in reality, it is as contaminated as it ever was.

Continued or Increased Exposure to Contaminants May Result From Improperly Maintained Units

Units must be maintained properly to ensure their effectiveness. For example, activated carbon filters need to be changed periodically because a sudden release of high concentrations of adsorbed organic chemicals may occur when a carbon filter becomes saturated, resulting in a temporary increase in the concentration of a contaminant in drinking water. Periodic replacement of activated carbon filters is also important because bacteria may grow in them, although research indicates that only harmless bacteria are present on the carbon. Proper maintenance is also important to ensuring the safety and effectiveness of other types of HWTUs.

Neglected maintenance is one of the major concerns regarding all types of HWTUs. Some HWTU dealers and manufacturers encourage proper maintenance by offering service contracts for HWTU upkeep. In addition, some manufacturers produce units that have warning lights, automatic shutoff functions, and other features to prevent consumption of untreated water. Other manufacturers, however, do not offer these safeguards to ensure that units are properly maintained. Moreover, certain HWTU salespeople try to sell HWTUs by de-emphasizing maintenance requirements so that equipment seems cheaper and easier to use than might actually be the case.

Some HWTUs May Contaminate Drinking Water

Consumers are not only at risk from units that do not remove the contaminants that they claim to remove but also from units whose materials may leach harmful contaminants into water treated by the units. This risk is particularly significant, because it places consumers who buy units simply to improve the aesthetic quality of safe drinking water at risk.

According to the manager of the National Sanitation Foundation's HWTU certification program,[2] the majority of HWTUs tested by the foundation fail extraction testing designed to ensure that units do not add harmful contaminants to drinking water. While, in most instances, units that fail

[2]The National Sanitation Foundation is a nationally recognized third-party testing organization. The foundation's standards and testing program for HWTUs are discussed in chapter 3.

the testing do not pose a serious problem, some can present a significant risk to public health. For example, one unit tested leached mercury into treated water. Because foundation officials believed that this unit would pose a serious public health threat if marketed to consumers, they warned the manufacturer that they would publicly announce the problem if it was not corrected immediately. Although the foundation's testing generally occurs before the units go on the market and problems are corrected before consumers can be affected, relatively few HWTU companies have their products tested by the foundation.

FTC successfully prosecuted a large manufacturer of one HWTU that was found to actually worsen the quality of drinking water. The hazard was caused by the glue used in the product's replaceable carbon filter cartridge. The glue contained methylene chloride—a volatile organic chemical and suspected carcinogen—which leached into the water passing through the machine in amounts exceeding safe levels set by EPA.

Although first notified of the contamination problem in November 1982, the company continued to sell the filters until 1986, and they were still available on store shelves in August 1987. The company sold more than 354,000 contaminated filter cartridges, 218,800 of which were distributed after the company learned of the methylene chloride problem. Consumers who bought these units paid $50 for a product that they thought would improve their water quality when, in fact, it might pose an additional hazard. The final FTC order against this company, issued in October 1988, prohibited it from making any false claims about this or any other product that treats water and from misrepresenting any test or study of its products. Approximately 1 year later, the company settled a class action suit filed on behalf of consumers who owned the defective filters by establishing a $2.5 million fund to repay people who bought the units or replacement filters for it.

Current Efforts to Educate Consumers Are Generally Passive

We found that many organizations—including EPA's Office of Ground Water and Drinking Water, EPA regional offices, FTC, the Better Business Bureau, various state agencies and cooperative extension offices, public water systems, the Water Quality Association, and the National Sanitation Foundation—have prepared brochures discussing the sale and use of HWTUs. Although some of the organizations, such as FTC, have attempted to promote a "buyer beware" message through press releases, media interviews, and other methods, it appears that existing public education efforts focus on sending brochures to consumers who specifically request the information and do not reach many people who are in

need of them. All too often, consumers do not understand how to determine whether they need a treatment unit and, if so, how to select an appropriate one.

Consumer education is particularly important because of the nature of the HWTU industry. Many HWTUs are sold by door-to-door salespeople or telemarketers. Although establishing regulations requiring product certification or controlling the content of product literature and advertising is feasible, it is very difficult to regulate oral claims made by HWTU salespeople. Even though some marketers use scare tactics, overstate the capability of their units, or misrepresent their products as government-approved, informed consumers are better able to detect misleading sales tactics and avoid purchasing unneeded products. Many EPA and state officials told us that better consumer education is necessary to ensure that consumers only buy effective and appropriate treatment units. In light of the tremendous growth expected in HWTU sales in coming years, the need for consumer education will increase as well.

EPA regional officials who handle consumer inquiries concerning HWTUs told us they believe that EPA should develop a coordinated program to educate consumers about HWTUs, rather than just passively educating them as they do now. These officials suggested several ways of expanding education about HWTUs, such as working with public media to disseminate information regarding home water treatment and requiring HWTU packaging to encourage consumers to learn about their drinking water quality before purchasing a unit.

In addition, some public water systems have found that inserting brochures into water bills is an effective method of educating large numbers of consumers about drinking water quality and the pros and cons of home water treatment. Officials from EPA's Office of Ground Water and Drinking Water suggested that providing brochures to local health departments and agricultural extension services could be an effective way to reach those who are not served by public water systems and, therefore, are at greater risk of exposure to drinking water contamination.

Conclusions

Despite the existence of many reputable companies with sound marketing practices, the use of misleading and fraudulent practices to sell HWTUs has been common and sometimes serious. We found that dishonest salespeople have used a variety of such practices to convince consumers to buy unneeded or ineffective units.

Moreover, when inappropriate or ineffective units are used to treat contaminated water, consumers' health is at risk—particularly consumers who draw water from private wells, which are not subject to federal drinking water regulations and are not routinely tested. People with contaminated water who buy ineffective units are purchasing little more than a false sense of security—inadvertently continuing their exposure to potentially harmful contaminants. In addition, some units may leach toxic substances into drinking water from materials used to construct the units. Finally, some home treatment companies do little to help ensure that consumers will adequately maintain their units. Maintenance is important because people who fail to properly maintain their units may be exposed to the very contaminants that they are trying to remove.

Because consumers are being misled by dishonest sales practices—and because treatment units can, in certain circumstances, pose a threat to public health—we believe that there is a need for more active consumer education regarding the relationship between drinking water quality and the use of HWTUs. We also believe that EPA is the most logical federal agency to lead such an effort because it has the applicable scientific and technical expertise and is already responsible for regulating public drinking water supplies. Other agencies and organizations that respond to consumer complaints regarding HWTUs—such as FTC, the Better Business Bureau, and the Water Quality Association—should continue to disseminate consumer information.

Community water systems,[3] which serve approximately 220 million individuals, provide a readily available vehicle for disseminating objective information on HWTUs to a large percentage of the population. EPA has already developed a series of brochures and fact sheets informing consumers about how to determine if they need a treatment unit and, if so, how to select one appropriate for their needs. Accordingly, one alternative would be for EPA to compile this information in a single brochure and provide it to public water systems for distribution to their customers.

Consumers who obtain their water from private wells, however, may have the greatest risk of exposure to contaminated drinking water and thus, the greatest need for objective information about home water treatment. There are a number of alternatives available for reaching

[3]Community water systems are public water systems that provide water to the same population year-round.

these individuals, including (1) encouraging state and local health departments and agricultural extension services to distribute brochures or otherwise educate consumers in areas served by private wells; (2) providing brochures to operators of transient and nontransient noncommunity water systems[4] for distribution to their users; and (3) working with consumer reporters and other media representatives to provide information to a broad range of consumers.

Recommendation

To help consumers make informed decisions about purchasing a HWTU, we recommend that the Administrator, EPA, direct the Office of Ground Water and Drinking Water to educate consumers about how to determine if they need a HWTU and, if so, how to select the unit most appropriate for their needs. Options include providing public water systems with brochures they can include in water bills, encouraging state and local health departments and agricultural extension services to distribute the brochures in areas not served by public systems, and working actively with public media to disseminate objective information on home water treatment.

[4]All public water systems that are not community water systems are, by definition, noncommunity water systems. Nontransient, noncommunity water systems—such as hospitals, factories, and schools with their own water systems—serve at least 25 of the same people for at least 6 months of the year. Transient noncommunity water systems cater to transitory customers in nonresidential areas such as camp grounds, motels, and gas stations.

Fragmented Regulation Increases Vulnerability to Health Risks and Consumer Fraud

While several federal agencies have some jurisdiction over the sale and use of HWTUs, no single authority exists to ensure that units purchased by the average consumer perform as claimed. Moreover, few states have developed controls to fill the regulatory gap left by the federal government; only three states protect consumers by reviewing test data before allowing units to be sold. Both industry and an independent national testing organization have developed voluntary performance standards for home treatment units. In both cases, relatively few manufacturers have had their units certified as meeting these standards.

As a result of inadequacies in existing regulations governing the sale, use, and effectiveness of HWTUs, some consumers are wasting their money on home treatment units that are ineffective. To the extent that consumers rely on such units to treat contaminated water, they continue their exposure to health risks. These problems suggest that a greater federal role could help ensure that HWTUs perform as claimed and that consumers are protected from deceptive sales practices and hazardous products.

Agencies With Specific Authority Over HWTUs Have a Limited Role in Protecting Consumers

Both EPA and HUD have some regulatory authority that relates directly to HWTUs, but their roles are limited. EPA's Office of Pesticides and Toxic Substances regulates the relatively small number of units that claim to destroy or inhibit the growth of microorganisms. Regulations promulgated by EPA's Office of Ground Water and Drinking Water and recently proposed regulations by HUD require certification of units used under special circumstances but do not apply to treatment units purchased by the average consumer.

EPA's Office of Pesticides and Toxic Substances Regulates Few HWTUs and Does Not Test Products for Effectiveness

Under the Federal Insecticide, Fungicide, and Rodenticide Act, the Office of Pesticides and Toxic Substances has limited authority to regulate HWTUs that use chemicals to inhibit or destroy microorganisms. EPA currently requires two types of units to be registered with EPA: (1) water filters that are intended for use on microbiologically safe water and are impregnated with a chemical—generally silver—which is supposed to retard the growth of bacteria within the filter; and (2) chemical water purifiers, which use chemicals, such as chlorine or iodine, to make raw water fit to drink by destroying dangerous bacteria, viruses, and cysts.

According to officials from the Office of Pesticides and Toxic Substances, few home treatment products are covered by EPA's registration requirement; currently, only 35 of the estimated 600 manufacturers of

HWTUs have products registered. These products include 80 carbon filters that use silver to inhibit bacterial growth within the filter itself and 6 chemical water purifiers. While EPA officials believe that most of the products subject to the requirement are registered, they acknowledged that they have no way of determining the actual compliance rate. They rely primarily on tips from competitors and consumers to identify manufacturers that are out of compliance.

Few manufacturers that register their HWTUs must submit test data to show that their units are effective. In the case of silver-impregnated carbon filters, manufacturers are required to submit test data showing that the unit does not leach excess levels of silver into treated water. EPA does not routinely require data showing that the silver effectively reduces the growth of bacteria within the unit because these products are only recommended for use on microbiologically potable water from a public water system. EPA also requires manufacturers of silver-impregnated carbon filters to submit test data supporting any other contaminant-removal claims, but EPA officials told us that manufacturers of these units rarely make such claims.[1]

Chemical water purifiers are intended for use on raw (untreated) water, which could contain harmful bacteria or other microorganisms. As a result, manufacturers of these units must submit test data, generated according to detailed EPA test protocols, demonstrating that their units effectively destroy microorganisms.

EPA Product and Establishment Registration Numbers Mislead Consumers

Two types of EPA registration numbers may appear on HWTUs: an EPA product registration number and an EPA establishment registration number. All HWTUs that use chemicals to destroy or inhibit microorganisms, and which are therefore registered with EPA's Office of Pesticides and Toxic Substances, must bear a product registration number. In addition, all products made by registered production facilities must bear an EPA establishment number. This requirement applies to both (1) units using chemical means to destroy microorganisms and (2) units using physical means to prevent, destroy, or mitigate microorganisms.[2] Manufacturers of these products must register their production facilities with

[1]While manufacturers often claim that these units remove chlorine, EPA does not require test data to support this claim because it is generally accepted that carbon filters are an effective means of chlorine removal.

[2]Such units include certain ultraviolet light systems and distillers.

an EPA regional office, submit annual production statistics, and comply with recordkeeping, inspection, and other requirements.

Many EPA officials told us that the inclusion of product and establishment registration numbers on HWTUs misleads some consumers, who simply assume that products bearing these numbers have been tested and approved by EPA. Moreover, as described in chapter 2, we found that some sellers of treatment units have deliberately misled consumers by falsely claiming that the registration numbers indicate that their unit is recommended, approved, or endorsed by EPA, when neither of the numbers signify any such endorsement.

An EPA workgroup formed in 1989 to study EPA's policies regarding water treatment units agreed that salespeople often use these numbers to mislead the public. Accordingly, the workgroup recommended that EPA exempt silver-impregnated carbon filters from product registration requirements, thereby eliminating the use of registration numbers on all HWTUs except the very few units that are chemical water purifiers. The workgroup further recommended that establishment numbers displayed on HWTUs no longer be identified as "EPA Establishment Number" but as "Establishment Number" to eliminate any implied endorsement that arises from the appearance of the letters "EPA" on a unit. Although the Office of Pesticides and Toxic Substances has accepted these recommendations, it has not established a timetable for implementing them.

The Office of Ground Water and Drinking Water's HWTU Regulations Apply Only to Public Water Systems

The Office of Ground Water and Drinking Water regulations allow public water systems to use point-of-entry units—which treat all water going into the home—as a means of complying with maximum contaminant levels for volatile organic chemicals and will eventually allow such treatment for other contaminants.[3] Under these regulations, water systems wishing to use point-of-entry treatment for compliance must obtain state approval for unit operation, maintenance, performance, and safety.

While the Office of Ground Water and Drinking Water's regulations provide some assurance that HWTUs installed at public water systems will be effective, by definition the regulations are targeted at public water systems and are not intended to protect the average consumer. Even

[3]Under EPA regulations, states may also require water systems to use point-of-use devices, which treat water from a single tap, or point-of-entry units as a condition of granting a temporary exemption from a drinking water standard.

though states may approve the use of point-of-entry devices at specific water systems, these approvals do not aid the average consumer in selecting and purchasing a treatment unit for private use.

HUD Plans to Regulate Units Used to Provide Potable Water in Homes With Federal Mortgage Insurance

To qualify for federal mortgage insurance, prospective homeowners must show that the dwelling they wish to purchase is supplied with potable water. Under the Housing and Community Development Act of 1987, the Congress allowed homeowners to use home water treatment units to meet the potability requirement if the existing water supply does not meet standards and a "permanent alternative acceptable water supply" is not available. In response to the legislation, HUD has established criteria for the use of point-of-entry HWTUs at existing and otherwise-insurable single family dwellings. These criteria require that the unit be approved by the National Sanitation Foundation and that local health authorities (1) certify that water treated by the unit meets applicable drinking water standards and (2) approve a plan for the monitoring, maintenance, and replacement of the units. HUD has also issued a proposed rule that will establish uniform criteria for the use of point-of-entry units in both new and existing single family homes.

As with EPA's regulations concerning the use of HWTUs by public water systems, the average consumer will be largely unaffected by the HUD program. According to a HUD official, there is no reliable estimate of the number of homeowners that will apply to use treatment units to qualify for Federal Housing Authority mortgage insurance, but it is believed it will be less than the 1,000 per year estimated in HUD's proposed regulations.

Consumer Protection Agencies Respond to Complaints and Referrals

Some federal agencies take actions relating to HWTUs as part of their role in protecting consumers from fraud and other abuses. The United States Postal Service, for example, has taken action against some HWTU marketers who engaged in mail fraud. For this review, we focused on the agencies whose primary responsibility is consumer protection—FTC and the Consumer Product Safety Commission. The FTC acts to prevent unfair or deceptive practices in commerce and has pursued several cases involving treatment unit manufacturers and sellers. The Consumer Product Safety Commission, while having only limited involvement in HWTU-related cases, has broad authority to protect consumers from hazardous products, including HWTUs that do not perform as manufacturers claim they do.

FTC Acts Against Unfair or Deceptive Marketing Practices

FTC is charged with preventing the use of unfair methods of competition and unfair or deceptive acts or practices in commerce. FTC officials told us that they have three broad concerns in monitoring the home water treatment industry: (1) that manufacturers can substantiate the claims they make about their products; (2) that product marketing is honest and not deceptive, and (3) that marketers do not use scare tactics. The first cases that FTC pursued against HWTU companies involved large producers that were unable to substantiate claims they made about the performance of their units. FTC has also been able to convince district courts to issue restraining orders against, and to freeze the assets of, several telemarketers using fraudulent marketing practices.

Although FTC officials believe that they have had some success in halting the most abusive practices used to sell HWTUS, FTC has neither the authority nor the technical expertise to evaluate the effectiveness of units before they are put on the market. FTC generally acts on complaints about deceptive and fraudulent sales practices after they have occurred—that is, after consumers have already been defrauded. However, FTC has developed two brochures to warn and educate consumers about improper HWTU sales practices.

FTC officials told us that some telemarketers—including those who sell HWTUS—have been prosecuted in one state and have later reopened their operations in another. For example, a Texas company was prosecuted by FTC for defrauding consumers of an estimated $4.5 million and selling water filters that supposedly had been "approved" by EPA and used on the space shuttle. This company subsequently moved its operations to Florida where the telemarketers continued their deceptive sales practices until they were arrested by Florida officials. Overall, FTC has brought nine cases against HWTU marketers since 1987, ranging from a large manufacturer that sold hundreds of thousands of contaminated home water filters, to small "boiler room" telemarketers.

The Consumer Product Safety Commission Has Not Found Opportunities to Apply Its Broad Authority to HWTUs

The Consumer Product Safety Commission has authority to act against manufacturers of consumer products that pose an imminent, substantial, or unreasonable risk. Under the Consumer Product Safety Act, the commission may develop safety rules for consumer products that pose an unreasonable risk of injury. The commission may also require a company whose product (1) creates a substantial risk of injury by failing to comply with consumer product safety rules or (2) contains a defect that is determined to create a substantial product hazard to repair the defect,

replace the product, or refund the purchase price to consumers. In addition, the commission may file an action in a United States district court for the seizure of a product that presents an imminent and unreasonable risk of death, serious illness, or severe personal injury.

Although the commission claims broad jurisdiction over HWTUs, it has played a very limited role in regulating them. Commission officials agreed that units which claim to remove harmful contaminants could pose a substantial risk to consumers if the units were used to treat water actually containing the contaminants and do not perform as claimed. However, the same officials explained that such HWTUs would not necessarily create a hazard substantial enough for the commission to act. They also told us that the commission does not actively seek out HWTUs that do not perform as intended; rather, it responds to self-reported violations by offending manufacturers or to complaints or referrals—most often from consumers, competitors, and state agencies.

Few States Ensure That HWTUs Perform as Claimed

Consumers cannot rely on states to fill the regulatory gap left by the federal government; few states have developed controls over HWTU sales practices or effectiveness. Although at least 21 states have regulations that apply specifically to HWTUs, only 3 of these states—Wisconsin, Iowa, and California—protect consumers by reviewing test data to ensure that HWTUs remove the contaminants that their manufacturers claim they remove. Most other state laws specific to treatment units only define who may install them, whereas a few others prohibit misleading advertising of HWTUs or restrict the amount or content of the wastewater discharged from certain types of units as a result of the treatment process.

Only Three States Review HWTU Test Data to Protect Consumers

Wisconsin, Iowa, and California require manufacturers to submit test data supporting the claims they make about unit performance before allowing the unit to be sold. Thus, consumers have some assurance that the units will effectively remove the contaminants their manufacturers claim they will.[4] Iowa and California officials told us that their states enacted the legislation establishing their review programs in response to problems with sellers who were making deceptive and unsupported

[4]The Massachusetts Board of State Examiners of Plumbers and Gas Fitters requires that HWTUs which attach to plumbing be certified to industry or third-party standards, and reviews HWTU test data as part of its general process for approving plumbing products. However, board officials told us that they are unable to publish a list of approved HWTUs and have difficulty in responding to consumer inquiries regarding HWTU approval.

claims about their units. According to an official of the Wisconsin Department of Industry, Labor, and Human Relations, the Department decided to regulate HWTUs as a result of (1) an increase in the number of complaints about dishonest marketing of HWTUs and (2) a desire to provide consumers whose private wells are contaminated with a selection of units that have been tested for effectiveness and perform as claimed.

On the basis of discussions with program officials in each of these states, we found the programs differ in the types of units regulated, the standards units must meet, and the type and format of information provided to consumers. Although both Iowa and California only regulate units that claim to remove health-related contaminants, Wisconsin regulates all water treatment units that attach to water pipes (including faucets) whether they remove health-related or aesthetic contaminants. Wisconsin does not issue formal performance standards or protocols for most types of units, while Iowa requires manufacturers to test units using state-approved protocols and California requires units to be tested using protocols and standards developed by the National Sanitation Foundation.

Consumers in Wisconsin may ask sellers for a HWTU approval letter issued by the state. In contrast, products in Iowa and California must (1) be accompanied by a performance data sheet that describes the unit's conditions of use and ability to remove contaminants and (2) bear a label directing consumers to read the performance data sheet.[5] Iowa also requires that sellers provide consumers with a state-approved pamphlet describing how to select a treatment unit and that the performance sheet be signed by the consumer and seller before a sale is completed.

While these state programs provide assurance that treatment units perform as claimed, the programs create some new problems as well. State and industry officials told us that different requirements regarding the type of units regulated, the test protocols that are acceptable, and the type and format of information that must be provided to the consumer may cause difficulty for companies that operate in more than one state. According to one association official, the Water Quality Association opposes state review of HWTUs in part because (1) manufacturers will have difficulty distributing their units in multiple states if each state

[5]New York State also requires HWTU manufacturers to provide a consumer data sheet and include a label on the unit that instructs consumers to read the data sheet. However, although New York law states that the data provided on the sheet must be factual, the state does not review test data and does not require that testing laboratories be state or EPA certified or follow any specific test protocols.

has different labeling regulations and (2) certifying treatment units will be very costly if each state has different test specifications. These difficulties may increase as more states move to regulate HWTUs.

Some State Laws Target Home Water Treatment Industry Sales Practices

Virtually all states have general consumer protection laws that would apply to HWTUs and other products, and we found that a number of states have successfully prosecuted dishonest sellers of treatment units under such laws. Some states have also developed laws to provide consumers with additional protection from misleading sales practices. For example, Massachusetts enacted a law restricting the use of in-home tests in response to many reports of consumers who were frightened into believing that their tap water was hazardous to their health.

In addition, we found that several states—including California, Louisiana, and Tennessee—and even one county in New York have passed laws to specifically prohibit the use of misleading and fraudulent practices in the sale of HWTUs. However, while these laws help protect consumers from those who use such tactics, they do not ensure that the products sold to consumers have been tested as effectively removing the contaminants they claim to remove.

Industry Product Performance and Promotion Standards Have Limited Effectiveness

Although they are limited in scope, the Water Quality Association has developed voluntary standards and testing protocols for a variety of commonly used types of HWTUs. Manufacturers who wish to have their units certified to the standards pay the association to test their units. The association has also developed product promotion guidelines to improve the accuracy and completeness of HWTU advertising.

Few Manufacturers Have Certified Products to Industry Standards

Compliance with Water Quality Association product standards has been limited. Of the estimated 600 manufacturers and assemblers of HWTUs, only 54 have certified products to the association's standards. According to association officials, the demand for testing has only developed during the past 5 years, and some companies still resist product testing.

In addition, the Water Quality Association's certification program does not test the ability of these units to remove harmful contaminants. Rather, the association only certifies units' mechanical performance

(e.g., ability to maintain proper water pressure) and efficacy in removing some aesthetic contaminants (e.g., hardness, chlorine). While the units certified to date are among the industry's top sellers, most are water softeners used to improve the aesthetic quality of drinking water.

The Water Quality Association Has Developed Product Promotion Guidelines

The Water Quality Association has developed product promotion guidelines to discourage marketers of HWTUs from making inaccurate or incomplete claims about their products. These guidelines require sellers not to mislead consumers and to support product performance and other written or verbal claims with factual test data.

The promulgation of the guidelines was originally prompted by concerns expressed to the association by various agencies of the federal governments of the United States and Canada, state and provincial enforcement agencies, and members of the HWTU industry that the general level of industry advertising and promotional claims often falls below acceptable norms of accuracy and completeness. According to EPA Office of Ground Water and Drinking Water officials, some HWTU companies make a concerted effort to ensure that their dealers are well trained and do not use misleading sales techniques; other companies do not monitor their dealers as closely and experience problems as a result.

Water Quality Association officials told us that all members have recently been required to follow these formerly voluntary guidelines. The association has a formal process to review complaints about HWTU advertisements that violate the promotion guidelines. To date, most complaints have come from competing companies, although association officials say they are working to encourage government agencies and individual consumers to use the process as well. Through February 1991, the complaint review panel had handled approximately 120 complaints since its creation in March 1985. Water Quality Association officials told us that they have settled many more complaints informally.

Unfortunately, the Water Quality Association product promotion guidelines and complaint review process have been unable to halt the use of misleading and fraudulent HWTU sales practices. The association can take few actions against violators of its product promotion guidelines. Association officials told us that until recently, the only penalty for losing a case was that the winning complainant could use the decision as a marketing tool to disparage guilty competitors.

During 1991, the Water Quality Association developed a process for expelling members who violate product promotion guidelines. This sanction, however, will not be effective against manufacturers that are not association members. Association officials contend that more and more companies are taking the process seriously and are using attorneys to respond to complaints.

Few Manufacturers Have Certified Units to Third-Party Standards

Unlike the Water Quality Association, the National Sanitation Foundation has developed performance standards and testing protocols that include certification of units' ability to reduce contaminants that affect health. Here too, however, we found that industry participation was limited. As of October 1991, only 43 of the estimated 600 manufacturers had had units certified by the foundation. While some of these companies are among the industry's largest, most certified units are designed only to improve the aesthetic properties of drinking water.

The National Sanitation Foundation standards require HWTUs to undergo a review of design and construction, testing for product effectiveness in removing contaminants, a review of product labeling and literature, and testing to ensure product materials do not add harmful substances to drinking water. They are national consensus standards developed by experts from academia, regulators (including EPA), industry representatives, public health officials, and HWTU users. The HWTU standards developed by the National Sanitation Foundation have been certified by the American National Standards Institute, which ensures that consensus standards are developed appropriately.

Officials from state programs that review test data told us that they believe certifying compliance with National Sanitation Foundation standards provides good assurance that a product will function as claimed. However, EPA, state, and Water Quality Association officials cautioned that certification to National Sanitation Foundation standards does not guarantee that a product will meet all of a manufacturer's performance claims because HWTU companies sometimes (1) make additional claims that are not covered by foundation standards or (2) choose not to certify all claims for which standards do exist.

Although the Water Quality Association's code of ethics obliges members to strive to support their product performance claims with test data, association officials expressed concern about mandatory testing programs because many small companies cannot afford such testing. National Sanitation Foundation officials told us, however, that both

large and small companies have had their units certified by the foundation. According to foundation officials, manufacturers pay between $12,000 and $50,000 for each certification, depending on the type of unit certified, the range of contaminants the product claims to remove, and the amount of drinking water the product claims to treat. Water Quality Association officials told us that in an effort to reduce testing costs, the association is (1) providing funding for the National Sanitation Foundation to develop test protocols that use a single contaminant to predict a HWTU's ability to remove a number of related contaminants and (2) encouraging other laboratories to compete with the National Sanitation Foundation in testing HWTUs for compliance with foundation standards. The standards are in the public domain and may be used by any testing laboratory.

States Are Reluctant to Approve the Use of HWTUs by Public Water Systems

Comments provided by EPA, industry, and other officials indicate that home treatment may be the only affordable solution for some small water systems that are having difficulty complying with EPA maximum contaminant level requirements. EPA is currently leading an initiative to encourage small water systems to use alternative technologies—like HWTUs—to solve difficult compliance problems. Many states, however, remain reluctant to approve the use of such units by public water systems because of concerns about the units' effectiveness in treating drinking water, the ability of water system officials to properly monitor and maintain the equipment, and the poor reputation of some companies in the HWTU industry.

HWTUs May Offer Solutions to Difficult Compliance Problems at Small Water Systems

EPA's current regulations permit states to develop policies allowing public water systems to use point-of-entry treatment to comply with maximum contaminant level regulations. As EPA issues new and more stringent standards, small public water systems—which already account for over 90 percent of all maximum contaminant level violations—will find it increasingly difficult to comply with drinking water standards. According to EPA and industry officials, some small systems with serious compliance problems may find point-of-entry devices less costly to buy and easier to install than custom-designed central treatment plants. Other EPA and state officials agree that point-of-entry devices may provide a viable solution for very small systems.

In addition to having a disproportionate share of compliance problems, most small systems face financial difficulties, which may place compliance with the 1986 Safe Drinking Water Act amendments out of reach.

In June 1990, we reported that many water systems have serious financial problems that prevent adequate treatment of drinking water and, in most states, 90 percent or more of these troubled systems are classified as small systems.[6] We also reported that EPA officials expect the addition of new drinking water requirements, many of which will pose increased technical challenges, to only exacerbate compliance problems for small systems.

HWTUs offer potential solutions for small systems with serious compliance problems and financial difficulties. Various studies have provided examples of point-of-entry or point-of-use units that have been used in a number of states to effectively treat volatile organic chemicals, pesticides, radon, fluoride, arsenic, and other contaminants. Although many of these studies were conducted at private wells rather than public water systems, EPA is sponsoring an initiative to help small water systems better determine when point-of-entry (and point-of-use) treatment may technically and cost-effectively solve their drinking water problems.

To encourage small water systems with compliance and financial difficulties to use alternative treatment methods to meet drinking water requirements—including point-of-entry, point-of-use, and other technologies—EPA has established a public-private initiative to address the concerns many have expressed regarding the use of these alternative methods. Task force activities include (1) sponsoring field testing of alternative technologies to look at their technical and cost-effectiveness; (2) developing an information clearinghouse for small water systems that are considering alternative treatment technologies, including information on the experience of other systems that have used such methods to address similar problems; and (3) determining what type of guarantees state drinking water administrators would require before they would allow public water systems to use point-of-use or point-of-entry units, and whether HWTU companies are willing to provide the states with the guarantees the state administrators desire.

[6]Drinking Water: Compliance Problems Undermine EPA Program as New Challenges Emerge (GAO/RCED-90-127, June 8, 1990).

Many States Remain Reluctant to Approve the Use of HWTUs by Public Water Systems

Although point-of-entry treatment may offer a practical solution for small systems with compliance and financial difficulties, EPA and other officials told us that many states have not approved the use of point-of-entry treatment by public water systems for compliance with maximum contaminant levels. Officials we interviewed offered several reasons why states are reluctant to allow water systems to use point-of-entry treatment. According to the deputy executive director of the Association of State Drinking Water Administrators, state program managers are concerned that public water systems will not properly monitor and maintain equipment located in individual homes, where access may be limited. The same official also told us that state drinking water offices are conservative and prefer to address the problems of small water systems using technology traditionally employed at large systems. Officials from EPA and the Water Quality Association agreed, pointing out that HWTUs simply do not fit the standard protocols established by state drinking water administrators.

EPA and state officials told us that many states resist using these units because of the reputation of some HWTU companies as perpetrators of sales scams. Finally, a number of EPA and other officials reported that state administrators are concerned that there have not been enough field studies to determine which problems can be cost-effectively solved by point-of-entry treatment.

Options for More Comprehensive Regulation of HWTUs

Based on the existence of fraudulent and deceptive sales practices—as well as the potential health risks associated with using ineffective HWTUs on contaminated drinking water—it is questionable whether the existing patchwork of federal regulation is adequate to safeguard the public. Moreover, only a few states have established their own regulatory programs, and manufacturers' compliance with voluntary product standards is limited.

Officials from federal and state agencies and other organizations we contacted offered a number of options for addressing these problems. Key options frequently identified include (1) implementing a federally sponsored program for HWTU certification to national performance standards and (2) increasing enforcement of existing consumer protection laws. Each of these options, however, raises a number of complex issues that would require detailed analysis before implementation. These issues include, for example, questions about the extent to which federal agencies with jurisdiction over HWTUs would need additional regulatory or enforcement authority; what resources are required to implement a

particular approach; and whether the regulatory program is best implemented at the federal or state level. EPA, FTC, and the Consumer Product Safety Commission—agencies that currently share responsibility for regulating the HWTU industry—could work out the best approach to safeguarding the public.

Certification to National Standards Would Help Ensure Units Perform as Claimed

One option for federal regulation of HWTUs is to develop a national program to certify both the mechanical performance of HWTUs and their effectiveness in treating drinking water contaminants. Under such a program, HWTU manufacturers would certify their products to EPA-accepted standards using third-party testing laboratories approved by EPA to conduct such testing. Because performance standards, such as those developed by the National Sanitation Foundation and certified by the American National Standards Institute, already exist for many HWTUs, EPA would not have to develop its own standards but could adopt existing ones.

Officials within and outside EPA told us that given its technical expertise and its experience in regulating public drinking water systems, EPA would be the logical agency to oversee a national certification program for HWTUs if such a program were established. Drinking water officials in most of the EPA regions we contacted believe that third-party certification would help ensure that units function as manufacturers claim. Moreover, according to a 1989 unpublished survey of state drinking water administrators, conducted by the American Water Works Association, there is widespread support among the states for a national testing and certification program; 35 of the 36 states responding to the survey believe such a program is warranted because of concerns about unethical advertising practices, questionable or inadequate device performance or design, and inadequate device operation and maintenance.

A number of considerations, however, would need to be addressed in designing a national certification program. One is whether EPA needs additional authority to regulate HWTUs or can do so under the Safe Drinking Water Act. A preliminary analysis done by EPA's Office of General Counsel in 1978 suggested that EPA's existing authority to regulate drinking water supplied by public water systems does not extend to HWTUs. However, an EPA attorney responsible for drinking water issues reiterated that the 1978 analysis was limited in scope and very old. Additional study is needed to resolve this issue.

Another major consideration is whether a national certification program should be voluntary or mandatory for HWTU companies. According to Consumer Product Safety Commission officials, voluntary standards can become quite effective once consumer education programs take effect and the standards are widely accepted. Commission officials told us that the buying public responds so strongly to the Underwriters Laboratories (UL) symbol, for example, that some retailers will only stock UL-approved electrical equipment.

On the other hand, relatively few manufacturers have had their products certified to existing, voluntary standards promulgated by the National Sanitation Foundation or by the major industry group, the Water Quality Association. While an EPA-sponsored program could be expected to generate greater participation from industry because the agency is more widely known by the public—and, in fact, some industry salespeople have successfully used false claims of EPA endorsement as a marketing tool—the effectiveness of a voluntary program is a key consideration.

Implementing a mandatory national certification program would likely require more resources and entail some type of enforcement effort to ensure industry participation and prevent the sale of uncertified units. According to the Director of EPA's Office of Ground Water and Drinking Water, because of federal resource constraints, any program to certify HWTUs would have to involve third-party testing paid for by manufacturers. Such testing can be costly; for example, National Sanitation Foundation officials told us that certifying a unit to their standards generally costs between $12,000 and $50,000. Water Quality Association officials believe that the cost of complying with a mandatory certification program could drive some manufacturers out of business.

Yet another issue to be evaluated is whether a certification program is best implemented at the federal or state level. Officials representing state programs that review HWTU test data fear that a national program run from one central location will be so far removed from the states and localities in which problems are occurring that enforcement will be difficult. In addition, to the extent that different or additional standards may be needed for HWTUs used at public water systems (as opposed to units intended for use by individual consumers), states have first hand knowledge about site-specific conditions that may need to be addressed through special requirements. One alternative to deal with concerns over the appropriate roles of the federal and state governments could be for EPA to implement a certification program at the national level, but

still grant states authority to impose additional requirements as necessary to deal with specific problems.

Stepped Up Enforcement Would Help Protect Consumers From Deceptive Sales Practices and Potentially Hazardous Products

Another option offered by some EPA and industry officials is to increase enforcement of existing consumer protection laws. Such an approach could help both to increase controls over industry sales practices and take ineffective HWTUs off the market. Some EPA officials suggested that FTC could remedy HWTU marketing problems if the commission specifically targeted the industry for a period of time. Water Quality Association officials also told us that FTC—along with state attorneys general and the association's own complaint review process for violations of product promotion guidelines—should play a larger role in addressing fraudulent marketing of HWTUs.

Similarly, the Consumer Product Safety Commission—which has authority to act against manufacturers of consumer products that pose an imminent, substantial, or unreasonable risk—could become more actively involved. Commission officials attribute their relative inaction on home treatment units to a lack of complaints and referrals involving units that are intended to remove harmful contaminants from drinking water and those that could pose a hazard if ineffective. To counter this problem, a formal system could be established whereby EPA and FTC regularly refer cases involving potentially hazardous units to the commission.

Increased enforcement by FTC and the Consumer Product Safety Commission could complement, rather than simply replace, a national HWTU certification program. Under a coordinated, multiagency approach, it would be possible to take better advantage of the Consumer Product Safety Commission's authority to recall products deemed to be hazardous because they are not effective in removing contaminants. In addition to taking action against deceptive sales practices, FTC could play a role in enforcing a national program to certify HWTUs, should such a program be adopted. FTC is more experienced in prosecuting HWTU manufacturers and sellers and, according to EPA officials, is better equipped to handle an expanded enforcement role.

Conclusions

Current regulation of HWTUs is fragmented and incompiete. No single authority exists to provide consumers with reasonable assurance that the HWTUs they purchase will perform as manufacturers and sellers

claim they will. EPA, FTC, HUD, and the Consumer Product Safety Commission together do not ensure that the vast majority of consumers are buying treatment units that perform as claimed. Moreover, only three states—Wisconsin, Iowa, and California—protect consumers by reviewing test data to ensure that units sold in those states are as effective in removing contaminants as claimed by manufacturers. Finally, few manufacturers have certified units under voluntary HWTU testing programs operated by the National Sanitation Foundation or the Water Quality Association.

These piecemeal regulations leave consumers vulnerable to health risks and sales fraud. The number of consumers at risk will continue to grow as more people, especially those whose water is known to be contaminated, use home units to treat their drinking water. Federal agencies that currently have jurisdiction over HWTUs—in particular EPA, FTC, and the Consumer Product Safety Commission—could act to reduce the widespread consumer fraud and potential health risks associated with the sale and use of HWTUs. A coordinated, multiagency approach seems appropriate because the often cloudy distinction between public health and consumer concerns has implications for the scope and level of involvement of each agency.

EPA, FTC, and the Consumer Product Safety Commission could form a task force to determine the most appropriate federal response to the consumer and health concerns surrounding the sale and use of HWTUs. Possible regulatory approaches include a national HWTU certification program, stepped up enforcement of existing consumer protection laws, or some combination thereof. Among the factors this task force could consider in designing an effective strategy for safeguarding the public are (1) the extent to which each agency's existing regulatory authority is adequate or needs to be supplemented, (2) what resources are required to implement a particular approach, (3) whether the regulatory program is best implemented at the federal or state level, and (4) whether different approaches are needed for regulating HWTUs used by average consumers and public water systems.

In addition, EPA should act expeditiously to modify its current regulation of HWTUs under the Federal Insecticide, Fungicide, and Rodenticide Act. Many federal and state officials told us that requiring EPA registration and establishment numbers to appear on HWTUs does more harm than good, because some sellers of these units have falsely claimed that these numbers indicate that EPA has approved, endorsed, or tested the units.

Consequently, we agree with the Office of Pesticides and Toxic Substances' water treatment workgroup that EPA should (1) exempt water treatment units that use chemicals such as silver to inhibit the growth of harmless bacteria within the unit from product registration requirements and (2) require establishment numbers appearing on HWTUs to be preceded by the words "Establishment Number" rather than "EPA Establishment Number."

Recommendations

We recommend that the Administrator, EPA, in consultation with the Chairmen of the Federal Trade Commission and the Consumer Product Safety Commission, develop and implement a coordinated federal strategy to better regulate the sale and use of home treatment units. Specifically, the agencies should develop ways to (1) ensure that the units are effective, possibly through some type of certification to national performance standards, and/or (2) better protect consumers from deceptive sales practices and potentially hazardous products, through stepped up enforcement of existing laws.

We also recommend that the Administrator, EPA, direct the Office of Pesticides and Toxic Substances to act expeditiously to (1) exempt from Federal Insecticide, Fungicide, and Rodenticide Act product registration requirements any water treatment units using chemicals such as silver to inhibit the growth of harmless bacteria within the unit and (2) require establishment numbers appearing on treatment units to be preceded by the words "Establishment Number" rather than "EPA Establishment Number."

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