

DEVELOPMENT AND EVALUATION OF A USE AND CARE
MANUAL FOR SELECTED RENTAL APARTMENTS

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CHAPTER I

PROBLEM DEFINITION

Introduction

Americans are a mobile people. Twenty per cent of all Americans move one or more times a year, and the average American moves about fourteen times in his lifetime. This pace of movement has increased considerably within the past years, and the trend is toward still increasing mobility (21, pp. 6-8).

The number of renters in the United States is also rapidly increasing. In 1970, 70 million Americans were tenants. Rental dwellings were numbered at 23,554,979 (30, p. 648).

When an individual moves frequently and rents rather than builds his home, he may have little or no input into the type of finishing materials or fixed household equipment installed in his home. The renter may be unfamiliar with some of the finishes and equipment he has rented and may be unable to care for, or use the finishes and equipment as recommended by the manufacturer.

The finishing materials and equipment that a resident acquires in conjunction with a home are a large part of the total cost of the home. In 1969, floor covering alone constituted approximately three to six per cent of the total cost of a home (6, p. 3).

In 1962, the cost of building materials and fixed household equipment in residential homes in the United States was \$596 per 100

square feet of living space. By 1969 this cost had increased to \$760 per 100 square feet of living space (30, p. 681).

Williams and Fitzsimmons (12, p. 468) define durable goods as a type of savings and recommend that individuals follow recommendations concerning the use and care of durable goods so that they will last as long as they are designed to last. If use and care instructions do not accompany a product, the consumer is on his own to decide how to use and care for the product. This is perhaps the case when an individual renting an apartment acquires interior finishes and household equipment without use and care instructions.

Use and care information about interior finishes and household equipment may be available to the tenant from household equipment use and care manuals, high school and college housing and home management texts and classes, federal and state government publications, commercial publications, salesmen, friends, relatives, and landlords or apartment managers. Even though there is a wide variety of sources of information, there is no assurance that these sources of information will be available and applicable to a specific problem when the resident needs the information.

It is believed that an easy to understand use and care manual might save time, energy, and frustration as the resident attempts to solve problems related to the use and care of interior finishes and fixed household equipment. In support of this Van Zante (32, p. 16) says, "A well-written instruction book is an asset to both the manufacturer and the homemaker and can save many problems for both."

In conjunction with the problem of caring for interior finishes and fixed household equipment the tenant must also decide if there are

products or services available in the market place that might aid him with this task. It may be difficult for him to choose the products or services that fit his need. Troelstrup (29, p. 21) indicates that decision making in our present society is a complex problem: "Consumers are literally overwhelmed by a variety of goods and services. Choice making is therefore more difficult than in the make-what-you-need-economy of pioneer times."

Even though decision making is a complex, time consuming activity, Walker (33, p. 622) indicates that homemakers have no more time for decision making today than in 1926.

Increased decision making responsibilities without an increase in time to devote to decision making, combined with increased mobility and frequently changing environments, present the family with a multitude of problems. Learning to properly use and care for certain unfamiliar interior finishes and fixed household equipment in rental apartments, a facet of this problem, was the focus of this study.

Statement of the Problem

The purpose of this study was to develop and evaluate a manual that would aid tenants of large, new, rental apartment complexes in Stillwater, Oklahoma with the use and care of certain interior finishes and fixed household equipment in their apartments.

Objectives

The objectives of this study were:

1. To determine the appropriate subject matter content for an interior finishes and fixed household equipment use and care manual for

apartments in large, new, rental apartment complexes in Stillwater, Oklahoma.

2. To develop a manual incorporating ideas concerning ways of maintaining optimum performance of various interior finishes, and fixed household equipment.

3. To evaluate the manual and make recommendations for further use.

Procedure

The following procedure was carried out to accomplish the three objectives of the study. Objective One was accomplished by the following procedure:

- a. Identified large, new, apartment complexes constructed in Stillwater, Oklahoma within the past seven years. Visited these complexes and identified interior finishes and fixed household equipment used in them.
- b. Interviewed managers of large, new, apartment complexes in Stillwater, Oklahoma to determine what type of use and care information tenants received from managers and what questions and problems concerning use and care of interior finishes and equipment occurred frequently.
- c. Determined from observation of selected units in large, new, apartment complexes, and interviews with managers of large, new, apartment complexes, what the appropriate subject matter content of an interior finishes and fixed household equipment manual should be.

Objective Two was accomplished by the following procedure:

- a. Reviewed literature about how to write a use and care manual and how to maintain certain interior finishes and household equipment.
- b. Read labels on household cleaning product containers found in local grocery stores to determine how manufacturers recommend that their product be used.
- c. Analyzed selected use and care manuals to gain an insight into the construction and organization of use and care manuals.

Objective Three was accomplished by the following procedure:

- a. Submitted a preliminary draft of the manual to consumer resource majors at Oklahoma State University for evaluation. Revised the manual for evaluation by tenants, managers, and educators.
- b. Submitted the revised manual to individuals knowledgeable in the fields of housing, household equipment, and adult education for evaluation.
- c. Submitted the manual for evaluation by tenants and managers of large, new, rental apartment complexes in Stillwater, Oklahoma. The manager group consisted of all managers of large, rental apartment complexes constructed within the past seven years who were willing to participate in the study. The tenant group consisted of two to four tenants in each of the apartment complexes. The tenants were selected by the managers.

- d. Reviewed the evaluations by educators, managers, and tenants to determine recommendations for revision and further study.

Assumptions

The following assumptions were made as this study was planned.

1. A use and care manual for interior finishes and fixed household equipment would be a helpful tool for residents of large, new, apartment complexes in Stillwater, Oklahoma.

2. Tenants would want to utilize a use and care manual to obtain information needed about interior finishes and fixed household equipment.

3. Owners and managers of rental property would want to keep an interior finishes and fixed household equipment manual in each of their rental units for use by the tenant.

Limitations

Some of the limitations of this study were:

1. The apartment complexes involved in this study were a convenience sample chosen because of their location, size, and age.

2. The evaluators of the use and care manual were a small convenience sample. The response of tenants were not necessarily representative of other tenants living in Stillwater or even within the same apartment complex. The responses of managers were representative only of managers of large, new, apartment complexes in Stillwater, Oklahoma willing to aid in the development and evaluation of a use and care manual for rental apartments.

Terminology

Terms used throughout this study are described in the following paragraphs.

Use and Care Manual. The use and care manual is called the "Homemaker's Manual or Instruction Book" by Van Zante (32, p. 16). It should explain how to use an appliance. It may contain care and minor servicing information.

Household Equipment. Household equipment is defined as "anything that contributes through its use to household production in the creation of a new product or in the maintenance or improvement of an existing product" (11, pp. 338-339).

Building Materials. Faulkner and Faulkner (10, pp. 145-218) classify materials into seven major categories. These categories are wood, masonry, ceramic, glass, metal, plastic, and fiber.

Finish. A finish is defined as the surface coating or covering of something (16, p. 1).

CHAPTER II

RELATED LITERATURE

Introduction

As literature was reviewed, a current comprehensive use and care manual for interior finishes and fixed household equipment was not found. Knowledge of residential building materials, fixed household equipment, care of the home, and use and care manuals was necessary for this study. These four topics are briefly discussed in this chapter.

Residential Building Materials

"Homes are built of materials, each having special potentialities and limitations that indicate appropriate forms and uses" (10, p. 179). To gain an insight into problems that a resident may encounter with interior materials, or interior finishes, it is necessary to first identify materials used in residential housing.

The United States Department of Commerce (31, p. 5) categorizes building materials into the following major categories: lumber and wood products; paint, varnish, and lacquer; iron and steel products; plumbing fixtures; portland cement; gypsum products; and clay construction products.

Beyer (3, p. 240) uses a classification similar to this but includes aluminum, plastic, and electrical housing equipment.

Faulkner and Faulkner (10, pp. 145-218) classify materials into seven major categories. These categories are wood, masonry, ceramic, glass, metal, plastic, and fiber. Masonry was further defined as concrete, plaster, stone, brick, tile, and glass (10, p. 167).

Van Zante (32, p. 17) in discussing trends in the use of certain building materials indicates that plastics, aluminum, and various other materials are replacing wood in many building situations.

Van Zante agreed with Beyer (3, pp. 208-209) who stated:

The outstanding development in home building during the last two decades, insofar as building materials are concerned, has been the decreasing use of wood and the substantial increase in the use of aluminum and a variety of composition, synthetic, and other materials.

A material or finish chosen for a particular location in a home must have properties that make it functional, and desirable for use in that location. The following paragraphs will discuss materials often used in three specific locations in the home.

Interior Wall Materials

Since 1945, the preferred interior wall material has shifted from plaster, to wall board--often gypsum board (3, p. 201). A 1962 study of 66 Mississippi homes revealed that paneling, wall board, ceramic, marlite, and glass and brick were interior wall materials used in the homes studied. Ninety-six per cent of the homes studied had wall board on the living room walls; 68 per cent had wood paneling on the kitchen walls; and 84 per cent had ceramic or marlite on the bathroom walls (8, pp. 29-31).

Flooring Materials and Finishes

In 1970, there were about 30 different kinds of flooring materials available on the market. Floor coverings can be classified as either smooth or soft surface (17, p. 2) (34, p. 3). Smooth surface floor coverings used in tile form consist of asphalt, linoleum, vinyl asbestos, cork, vinyl cork, rubber, and solid vinyl tile (6, p. 7). Resilient floor coverings used in sheet form include linoleum, vinyl plastic, cushioned vinyl, and outdoor resilient flooring (6, p. 7).

Non-resilient floor coverings include ceramic tile, quarry tile, terra cotta, brick, slate, flag and bluestone, magnesite, marble, and terrazzo (17, p. 14). A seamless non-resilient smooth surface floor covering that is poured on the subfloor is available. It consists of an epoxy base covered with chips. A polyurethane finish is applied. This floor covering is referred to as Monolethic, or simply seamless floor covering (6, p. 9).

Many varieties of woods are used as flooring. In 1956 hardwood was the predominant floor material used in living, dining, and bedrooms (3, p. 210). A 1962 study by Dale (8, p. 26) showed an increased percentage of carpeting used in living rooms of higher priced homes as compared with living rooms of lower priced homes.

Soft floor coverings (carpets and rugs) can be used in almost any area of the home. Carpeting is becoming a very popular kitchen flooring material (23, p. 35). Soft floor coverings may be constructed of wool, cotton, rayon, acetate, nylon, antron, acrylic, modacrilic, polyester, polypropylene, olefin, or a combination of these fibers.

Counter Finishes

Materials appropriate for counter finishes include ceramic tile, aluminum, stainless steel, hardboard, and vinyl (21, p. 42). Linoleum is still a common material selected for counter finishes (23, p. 137). Laminated plastic is often used for counter finishes also. In a 1970 study, all of 42 kitchens studied had Formica (a type of laminated plastic) kitchen counter finishes (19).

Summary

Current trends in residential building materials are toward an increase in the use of synthetics, aluminum, and other non-wood materials. Wall board, laminated plastics, carpeting, hardwood, and resilient floor coverings are common materials found in residential housing.

Fixed Household Equipment

Heating Equipment

The percentage of homes in the United States using gas as the primary heating fuel had decreased from 65 per cent in 1968 to 54 per cent in 1972. The percentage of homes heated electrically during this same time period had increased from 22 per cent to 36 per cent (31, p. 684). Fifty-six per cent of the homes studied by Dale (8, p. 23) had forced air electric heating systems. Other electrical heating systems included wall heaters, coils, and baseboard type heating systems. Thirty per cent of the homes studied by Dale (8, p. 23) were heated by gas forced air systems. Other gas heating

equipment used were radiant, and space heaters. Both gas and electric water heaters are used in homes today (32, p. 18).

Cooling Equipment

From 1968 to 1972 the number of new homes with air conditioning increased from 31 to 43 per cent (31, pp. 34-40). Methods of cooling homes in Dale's study (8, p. 24) included central air conditioning, window unit air conditioning, ceiling fans, and window fans.

Other Equipment

Other equipment included in the construction of many new homes includes ranges, refrigerators, dishwashers, garbage disposers, kitchen exhaust fans, clothes washers and dryers, food freezers, radios, televisions, intercom systems, and electronic ranges (32, p. 18).

Summary

Fixed household equipment consists of heating, cooling, and other equipment. Between the years of 1968 and 1972 there was a decrease in the use of gas and an increase in the use of electricity as a heating fuel. During this same time period, there was an increase in the installation of air conditioning in new homes and a trend toward including more fixed household equipment in the purchase price of a new home.

Care of the Home

Educational literature concerning household care was considered important by early twentieth century home economists. Ellen Richards believed that household sanitary habits must be established for health purposes. She stated:

Dust in the air causes irritation of the air passages, if nothing more, and such furnishings of the house and such care of them and of the floors should be secured as will allow clean air to breathe (24, p. 33).

Elliot (9, p. 157) showed concern for health, preservation of goods, and comfort of the worker as she discussed care and cleaning of the home:

. . . cleanliness tends both to the health of the family and the preservation of food and furnishings. The daily dusted woodwork will not need to be cleaned so often and when cleaned will not take so much time or strength.

Robinson's The Care of the Home (25) was designed to meet the needs of housekeepers and home economics students of the 1920's. Among other things this book discusses household cleaning equipment, products, and procedures.

Current secondary school housing and home management texts contain information about upkeep of the home. Morton's The Home and Its Furnishings (20, pp. 245-360) designed basically to teach the principles of home furnishings, also discusses care of ceilings, walls, woodworks, floor coverings, household fabrics, window shades and blinds. Lewis and Burns' Housing and Home Management (18, p. 115) takes a managerial approach to housecare by discussing the establishment of housekeeping standards, planning work schedules, carrying out plans, using correct tools and procedures, and evaluating results. Homes With Character

(7, pp. 21, 293-302) discusses the cost of household operations and how proper care of a home and its furnishings will reduce the cost by "saving wear on your home and furnishings." Starr's Management for Better Living (27, p. 258) discusses the simplification of house-cleaning by using effective equipment, supplies, and methods.

Summary

Early and present day home economists have published literature about care of the home in the form of home economics text books. The rationale for discussing care of the home in the texts reviewed included improvement of health, preservation of home and furnishings, and improvement of home management skills.

Use and Care Manuals

Appliance manufacturers as well as home economists have long considered use and care manuals as valuable communication from manufacturer to consumer. It is believed that if a consumer understands how to use and care for that which he has purchased, fewer service problems will arise and greater consumer satisfaction will be achieved. In discussing cooking equipment Gravey states:

The importance of using the appliance as the book [use and care manual] instructs cannot be emphasized enough. Not only will the range operate as it was designed but . . . the user will know how the range should be operated safely and for the warranty to be valid (14, p. 15).

Baumgart (2, p. 46) describes the appliance use and care manual as the "owner's most important reference" and suggests reading the manual before and after purchasing an appliance.

Clark (5, p. 34) sees the instruction manual as "a major link between the manufacturer and consumer" and of prime importance in insuring safe, reliable performance.

In a study to determine if homemakers read use and care manuals, Tilden (28, p. 18) reported that 24 of 34 women interviewed regarding an automatic washer use and care manual stated that they read all or part of the manual before using the washer. An additional seven stated that they read part of the manual after the first use of the equipment. Twenty-three of the 34 respondents stated that they referred to the manual occasionally during the time that they had their washers.

In 1969, Anseth (1) conducted a study of use and care manuals of household appliances. Seventy per cent of the 110 respondents stated that they read part or all of the use and care manual of their last purchased appliance before operating the appliance for the first time.

Burley's study (4, p. 34) found that 97 per cent of the consumers responding to a questionnaire read their use and care manual at least one time before operating their washer for the first time. Ninety and four tenths per cent referred to their use and care manual at least once after operating the automatic washer for the first time.

Summary

Leaders of the home appliance industry feel that use and care manuals are an essential reference book for owners of home appliances. Three different studies reviewed revealed the fact that at least 70

per cent of the home appliance owners in each of the three studies had read part or all of the various home appliance use and care manuals being studied.

CHAPTER III

DEVELOPMENT OF A USE AND CARE MANUAL

Introduction

Chapter III will discuss for whom the use and care manual was written, what information was included in the manual, and why the finished manual was designed with particular characteristics.

Selection of the Population

Time and finances would not permit the development and evaluation of a manual comprehensive enough to include information about the use and care of all materials and equipment found in the large variety of rented and owned family dwellings. It was therefore decided that a homogenous group of family dwellings with similar use and care problems was desirable as the housing for which the manual would be developed. Weber's study (35, p. 116) implied that individuals have a tendency to prefer information applicable to their situation and dislike information that was not, thus perhaps a manual should be designed to meet the needs of a specific group of individuals.

It was believed that large, new, rental apartment complexes in Stillwater, Oklahoma offered a situation in which a large number of individuals lived in similar types of housing and had similar use and care problems. Thus a convenience sample of large, new, rental apartment complexes in Stillwater, Oklahoma was chosen as the housing for

which the manual was designed.

To determine the size and location of multi-unit dwellings in Stillwater, Oklahoma, a listing of multi-unit dwellings (referred to in this study as apartment complexes) was secured from the Stillwater Building Inspector's office. This listing consisted of apartment names, addresses, number of units, and owners' names, within the Stillwater city limits. There were 219 apartment complexes listed, ranging in size from two to 298 units. One hundred and ninety-three complexes had from two through 12 units. Eight complexes had from 19 through 48 units. Thirteen complexes had from 64 through 298 units. For the purpose of this study "large" was therefore defined as 64 units or more.

The managers were contacted to determine the construction date of the thirteen large apartment complexes. Eight of the 13 large apartment complexes in Stillwater had been built since 1968. One had been extensively remodeled in 1973, and at least half of the units in three complexes had been constructed since 1968. The other apartment complex had been constructed prior to 1968. For the purpose of this study "new" was therefore defined as apartment complexes in which at least half of the units had been built or extensively remodeled since 1968.

The apartments for which the manual was designed were rental apartments in complexes of 64 or more units in Stillwater, Oklahoma. At least half of the apartments in each complex had been built or extensively remodeled since 1968. There were 10 managers of these 12 complexes who initially agreed to cooperate in the development and evaluation of a use and care manual appropriate for apartments in their apartment complex.

Observing Apartments

To develop a use and care manual for the selected group of apartment complexes, it was necessary to identify materials, finishes, and equipment in the apartments within the complexes. The managers of the ten apartment complexes indicated that there were variations in color scheme, floor plan, and other features, but generally apartments did not vary in type of materials, finishes, and equipment. Therefore, only one apartment was observed at each of the 10 apartment complexes. In eight instances a currently vacant apartment was observed, in one instance a soon to be vacated apartment was observed, and in one instance the manager's apartment (which he indicated was similar to the tenants' apartments) was observed. The following sections describe the materials and equipment in the apartments observed.

Interior Finishing Materials

Each apartment was carpeted in the living and bedroom areas. Six of the 10 apartments had carpeting in the dining area. Nine of the 10 apartments had vinyl asbestos tile floor covering in the kitchen and bath areas, while one had linoleum in the kitchen and bath areas. Three apartments had vinyl asbestos tile floor covering in the dining area, and one had linoleum in the kitchen, dining, and bath areas (see Table I).

In three apartments the bathroom and kitchen cabinets were varnished wood. The remaining seven apartments had cabinets of pressed wood with a high pressure laminated finish.

TABLE I

INTERIOR FINISHING MATERIALS IDENTIFIED IN APARTMENTS IN TEN
LARGE NEW APARTMENT COMPLEXES IN STILLWATER, OKLAHOMA

APARTMENT COMPLEX	FLOORING			CABINETS		WALLS		CEILING		COUNTERTOP	
	Linoleum	Vinyl Asbestos	Carpet	Wood Varnished Finish	Laminated Plastic Finish	Panel	Wall Board	Acous- tical	Wall Board	Ceramic	Laminated Plastic
1	x		x	x			x	x			x
2		x	x		x	x	x		x		x
3		x	x	x			x	x			x
4		x	x	x			x	x			x
5		x	x		x		x	x			x
6		x	x		x		x	x			x
7		x	x		x		x	x		x	
8		x	x		x		x		x		x
9		x	x		x		x	x			x
10		x	x		x		x	x			x
Total	1	9	10	3	7	1	10	8	2	1	9

The wall finishes in nine of the 10 apartments were wall board. The other apartment had wall board on all walls except one which was a wood paneled wall.

The ceilings in eight apartments were acoustical. Two apartments had painted wall board ceilings.

All kitchen and bathroom countertops in the 10 apartments were laminated plastic except in one apartment. This apartment had ceramic tile bathroom and kitchen countertops.

Fixed Household Equipment

Seven of the 10 apartments had gas ranges. The remaining three had electric ranges. All of the apartments had ventilation hoods over the range. Nine of these 10 hoods were charcoal filter vents, and the other hood was vented to the outside (see Table II).

Nine of the 10 apartments had manual defrost refrigerators. One had an automatic defrost refrigerator. All 10 refrigerators had exterior painted enamel finishes, and plastic interiors.

All of the apartments had kitchen food waste disposers. Five had automatic dishwashers and six had hot water heaters within the apartment.

Eight of the 10 apartments had forced air combination heating and cooling systems. Two apartments had forced air heating systems only. Six apartments had the combination heating/cooling unit located in the apartment while four had vents but no visible heating/cooling unit in the apartment. Each of the 10 apartments had wall thermostats to control the heating/cooling system (see Table III).

TABLE II
 KITCHEN EQUIPMENT IDENTIFIED IN APARTMENTS IN TEN LARGE NEW
 APARTMENT COMPLEXES IN STILLWATER, OKLAHOMA

APARTMENT COMPLEX	RANGE			REFRIGERATOR			SINK		FOOD DISPOSER	
	Vent	Gas	Electric	Manual Defrost	Automatic Defrost	Plastic Interior	Painted Enameled Exterior	Plastic		Porcelain Enamel
1	x	x		x		x	x		x	x
2	x	x		x		x	x	x		x
3	x	x		x		x	x		x	x
4	x	x		x		x	x		x	x
5	x	x		x		x	x		x	x
6	x	x		x		x	x		x	x
7	x		x	x		x	x		x	x
8	x		x	x		x	x		x	x
9	x	x		x		x	x		x	x
10	x		x		x	x	x		x	x
Total	10	7	3	9	1	10	10	1	9	10

TABLE III

BATHROOM AND HEATING/COOLING EQUIPMENT IDENTIFIED IN APARTMENTS IN
TEN LARGE NEW APARTMENT COMPLEXES IN STILLWATER, OKLAHOMA

APARTMENT COMPLEX	WATER HEATER		HEATING SYSTEM		AIR CONDITIONING (Forced Air)	TOILET Vitreous China	BATHTUB Vitreous China or Porcelain Enamel	AUXILIARY BATHROOM HEAT		
	In Apt.	Not in Apt.	In Apt.	Not in Apt.				Electric	Gas	None
1	x		x			x	x			x
2	x		x			x	x			x
3		x		x	x	x	x			x
4	x		x		x	x	x			x
5	x		x		x	x	x			x
6		x		x	x	x	x			x
7	x		x		x	x	x	x		
8		x		x	x	x	x			x
9		x		x	x	x	x			x
10	x		x		x	x	x	x		x
Total	6	4	6	4	8	10	10	2	0	9

Interviews With Apartment Complex Managers

The managers of the apartment complexes participating in the study were interviewed to identify problems and questions that had frequently occurred involving the use or care of finishes and equipment in the apartments, and to identify what type of use and care information was transmitted from management to residents.

During the personal interview with each of the managers of the 10 apartment complexes, the managers were asked if any type of use and care instructions or information was kept in the apartments that they managed. Three managers responded that they had seen a few equipment manuals in apartments but they felt that many of the original equipment use and care manuals had been lost. One of these three managers also responded that the dishwashers in their apartments had operating instructions written on the inside of the door. Seven managers stated that no use and care instructions or information was kept in the apartments that they managed.

The managers were asked if any type of use and care instruction or information was given to tenants when they moved into an apartment and if so, how was this information or instruction communicated. Two managers responded that they gave each resident family a resident handbook that included rules and regulations of the complex and also short paragraphs about use of the garbage disposer, range, refrigerator, plumbing, and care of tile flooring.

Two managers responded that they gave tenants a hand-out sheet with their lease. The hand-out sheet given by one manager included information about use and care of dishwasher, disposer, refrigerator, range, and fireplace. The hand-out given by the other manager included

information about the range, refrigerator, garbage disposer, cabinet care, and tile floor care. Two managers indicated that their lease contained a limited amount of information about proper use of the disposer, dishwasher, range, and refrigerator. Four managers stated that they gave the tenants no use and care information or instruction when they moved into apartments.

When asked what use and care problems or questions occurred frequently, eight managers responded that misuse of the garbage disposer was a frequent problem. Six managers responded that they often had problems with stopped-up drains caused by tenants putting various types of solid matter in the drains. Five managers responded that tenants had asked them how to defrost a refrigerator. Four responded that tenants had problems using the dishwashers. Four indicated that tenants needed floor care information. Three stated that they were often asked how to light pilot lights on gas ranges. Two stated that instructions about how to reset a circuit breaker would be helpful. One manager stated that she felt tenants needed to know how to remove stains from kitchen and bathroom sinks. One manager stated that tenants often asked how to operate the gas or electric fireplaces in their apartments. Another manager stated that tenants who were forced to change from electric to gas cooking did not understand how to cook with gas and felt insecure with the different fuel. This manager therefore recommended information about use of a gas range be included in the manual.

Constructing the Manual

Manual Content

By observing finishing materials and equipment in apartments and discussing use and care problems with managers, specific information that should be included in an apartment use and care manual was identified.

Literature was reviewed about how to use and care for materials and equipment found in the apartments observed. Special emphasis was given to locating information about the use and care problems managers had specifically mentioned.

Information suggested by managers, and included in the final use and care manual was use and care of a food waste disposer, refrigerator, dishwasher, and flooring. Information about how to reset a circuit breaker, how to light a pilot light, and removal of stains from sinks was included.

Some information about materials and equipment observed in apartments, but not mentioned as problems by managers was included. This information included care of bathroom fixtures, cabinets, and water heaters. Information about use and care of heating and cooling equipment was not included in the manual since the managers questioned stated that they were responsible for changing filters, lighting pilot lights, and performing any necessary maintenance work on the heating/cooling equipment.

A list of cleaning products available in local stores was put in the back of the manual. The products were listed by type (example: abrasive cleaner, chemical drain cleaner, water base wax) and

manufacturer's name. This listing was inserted so the reader who could not identify a type of product discussed in the manual could see the names of examples of that type of product.

Manual Form

Once the information to be put into the manual was gathered, it was necessary to write the manual in a form that would be readable and useful to those who would read it. When writing a use and care manual, it is important to know the audience, yet in this case, the only information known about the potential reader was that he would be a resident in a large, new, apartment complex in Stillwater, Oklahoma. Because of the differences in rent, and location of the 10 different dwellings, it was likely that age, income, education, sex, and occupation of the tenants would vary greatly.

It was therefore decided that the reading level of the manual should be consistent with the median school years completed by persons twenty-five years and over in the state of Oklahoma. This median school years completed was recorded in the Digest of Educational Statistics (13, p. 9) in 1973 as 12.1 years. The reading level of the manual was measured by Gunning's formula (15, pp. 38-39) and was found to be ninth, tenth, and twelfth grade reading levels on pages three, nine, and fifteen, respectively.

Previous studies of use and care manuals have identified manual characteristics that were liked by readers. Tilden's study (28) involved analysis and use of a use and care manual for an automatic washer. Main reasons for liking the manual in this study were the stain removal chart, ease of reading, and thorough explanation of

information.

Respondents in Robert's study (26, p. 41) were more likely to read use and care manuals when the manual contained more reasons for use. The largest number of respondents in her study reported using the manual for care information.

To identify factors which affect the usefulness of a use and care manual, Weber (35, p. 63) interviewed selected individuals to determine preferred manual characteristics. These characteristics included (1) diagrams with word rather than number and index labels, (2) detailed table of contents or indexes, (3) clear indexing of separate manual sections, (4) outline presentation of information, (5) step by step operating instructions, (6) large type, (7) illustrations relevant to information. These individuals interviewed preferred certain characteristics generally because these characteristics made the information easy to locate, easy to read, and easy to understand.

Findings from Tilden's and Weber's studies indicate that factors that make a use and care manual readable and easy to understand are preferred. Additional factors to consider when developing a use and care manual include making information easy to locate, including adequate care information, and providing a manual with many rather than few uses.

Factors that help determine readability and ease of reading include clearness of type, contrast of type on paper, size of print, reading level, and illustrations that facilitate the understanding of the written content. Therefore, the manual was printed with black ink on light gold paper to provide sufficient contrast of type and paper. The text was typed on a pica type typewriter and reduced

15 per cent to yield approximately size 12 point type. Headings were approximately 16 to 18 point type. This larger heading type was chosen to create a contrast that would make information easy to locate. The manual was illustrated by a housing and interior design graduate student at Oklahoma State University.

The final manual size was five and one-half inches by eight and one-half inches. This size was preferred by the largest number of respondents in Weber's phase II (35, p. 49) interviews concerning usefulness of use and care manuals.

Checking the Preliminary Draft

After the content and form of the manual had been determined, a preliminary draft of the manual was made. This draft was read and evaluated by the nine Consumer Resource majors at Oklahoma State University who had completed at least the introductory consumer resource course HOCR 2413, Resource Management for Families and Individuals.

These evaluators responded to a written questionnaire consisting of questions requiring a yes or no response, and open-ended questions (see Appendix A). This questionnaire consisted of questions concerning the appropriateness of the title, introduction, vocabulary, arrangement of subject matter, subject matter content, table of contents, understandability of content, clarity of directions, and presentation of information. From these evaluations and the evaluations from members of the thesis advisory committee, the manual was revised and duplicated (see Appendix C).

Summary

Ten apartment complexes were selected as the housing for which a use and care manual would be written. These complexes were chosen because of size, age, location and cooperation of complex managers. Managers were interviewed and apartments were observed to determine the necessary subject matter content of the manual. Previous studies of use and care manuals were reviewed and use and care manuals were observed to determine what form the manual should assume. A preliminary draft of the manual was evaluated by Consumer Resource majors of Oklahoma State University and the advisory committee for this study. Revisions based on these evaluations were made and the manual was reproduced for evaluation by tenants, apartment complex managers, and educators. The following chapter will discuss the evaluation process.

CHAPTER IV

EVALUATION OF THE USE AND CARE MANUAL

Introduction

A single manual designed to contain much of the information needed for use and care of finishes and equipment in specific rental apartments seemed to be a relatively new idea to apartment complex managers interviewed. No literature was found that discussed this idea, or the possible receptiveness of this idea by apartment complex tenants and managers. The evaluation of this manual and the identification of the receptiveness of this idea was therefore an important part of this study.

An evaluation instrument was developed. Individuals were selected to evaluate the manual and responses by the evaluators were tabulated by numbers and percentages. The following sections of this chapter will discuss this evaluation process.

Development of an Evaluation Instrument

The instrument developed to evaluate the use and care manual was a written questionnaire (see Appendix B). It was designed to identify whether or not the evaluators thought the manual contained characteristics considered important in the development process (Chapter III), and to identify whether or not the evaluators would recommend this type manual be placed in rental apartments.

During the development of the manual it was determined that the manual should exhibit the following characteristics:

1. ease of reading
2. ease of locating information
3. contain most of the information needed for the use and care of finishes and equipment in the apartments observed
4. contain information that the reader would consider helpful
5. contain use and care directions written in a clear, concise, easy to follow manner
6. contain information that would tell the reader what type of cleaning products to use for specific cleaning tasks.

Part I of the questionnaire was designed to evaluate characteristics one, two, and three listed above (see Appendix B). Part II of the questionnaire was designed to evaluate characteristics four, five, and six listed above. In Part III of the questionnaire, the evaluator assigned number values to represent a general rating of selected features of the manual. Features in Part III that would facilitate characteristic one, ease of reading, were simpleness of words, readable print, helpful illustrations, and manual size. Features in Part III that would facilitate characteristic two, ease of locating information, were usefulness of table of contents, and subject matter organization. Characteristic four, useful subject matter, and characteristic five, clear directions, were also rated in Part III of the questionnaire. Part IV of the questionnaire supplied descriptive information related to ease of locating information, completeness of manual content, and receptiveness of the idea of an apartment use and care manual for rental apartments. Part V of the questionnaire was distributed to

tenants only. It supplied information about the age, sex, education, apartment family type and size, and number of years the respondents had lived in rental apartments.

Selection of the Evaluators

The manual was evaluated by tenants and managers of the apartments observed earlier in this study. The manual was also evaluated by equipment, housing, and home economics educators at Oklahoma State University. Tenant evaluations were desirable because tenants were the group for whom the manual was designed. Evaluations by apartment complex managers was sought because they had had experience dealing with rental complexes and tenants. Whether or not distribution of this type manual would become a policy of an apartment complex might be greatly influenced by the manager's opinion of the manual. Opinions of selected educators were sought because of their expertise and knowledge of household equipment, finishes, and educational materials. If tenants and managers were receptive to the idea of a use and care manual for rental apartments, evaluations from each of the three groups (tenants, managers, and educators) would be useful in later revising the present manual so it would be well written, educational, and appealing to managers and tenants of apartment complexes.

Questionnaires and manuals were distributed to each of the 10 apartment complex managers who had previously agreed to evaluate the manual. An additional four manuals and four questionnaires were left for tenants at each complex. The manager was asked to distribute the manuals and questionnaires to tenants who would agree to evaluate the manual and return the questionnaire to the manager. Six managers

mailed their evaluations and the evaluations of two to four tenants from their complexes to the Department of Housing, Design, and Consumer Resources at Oklahoma State University. So that tenant and manager responses could be tabulated separately, the word manager was written in the upper right corner of the questionnaire answered by the manager. A total of six managers and 17 tenants responded to the questionnaire. Questionnaires and manuals were distributed to five Oklahoma State University home economics faculty members, the Oklahoma Cooperative Extension Housing Specialist, and the Oklahoma Cooperative Extension Home Management - Family Economics Specialist. Three of the faculty were members of the Department of Home Economics Education, and two were members of the Department of Housing, Design, and Consumer Resources. Five of the seven questionnaires were returned in time to be included in this study.

Description of the Tenant Evaluators

The 17 tenants who evaluated the manual represented six different apartment complexes. Thirteen tenants were female and four were male. Eight respondents had obtained some college or vocational training, six were college graduates, two had attended graduate school, and the educational level of one respondent was not recorded (see Table IV).

Over 80 per cent of the respondents were 40 years of age or younger (see Table V). The largest number of respondents were 17 through 24 years old. Four of the respondents were 25 through 30 years old, four were 31 through 40 years old, and two were 71 years of age or older. One tenant did not respond to this question.

TABLE IV
EDUCATIONAL LEVELS OF TENANT RESPONDENTS

Educational Grouping	Number	Per Cent
Less than high school graduate	---	---
High School Graduate	---	---
Some college or vocational training	8	47.06
College graduate	6	35.29
Some graduate school	2	11.77
No response	1	5.88
Total	17	100.00

TABLE V
AGE GROUPING OF TENANT RESPONDENTS

Age Grouping	Number	Per Cent
17 through 24	6	35.29
25 through 30	4	23.53
31 through 40	4	23.53
41 through 70	---	---
71 or older	2	11.77
No Response	1	5.88
Total	17	100.00

The family composition of six of the tenant respondents was male and female with a child or children and equally, the family description of six of the respondents was male and female with no children. Three respondents were single persons living alone. One family consisted of two or more adults of the same sex, and one tenant did not respond to this question. The family description of the respondents is shown in Table VI.

TABLE VI
APARTMENT FAMILY DESCRIPTION

Family Description	Number	Per Cent
Single person	3	17.66
Two or more adults, same sex	1	5.88
Male and female, no children	6	35.29
Single parent with child/children	---	---
Male and female with child/children	6	35.29
Other	---	---
No response	1	5.88
Total	17	100.00

Table VII shows the length of time tenants had lived in rental apartments. The largest number of respondents (eight) had lived in rental apartments between one and three years. One had lived in rental apartments for less than six months, three had lived in rental apartments between six months and almost one year, three had lived in rental apartments between three and five years, and one had lived in rental apartments for five years or more. One tenant did not respond to this question.

TABLE VII
LENGTH OF TIME LIVED IN RENTAL HOUSING

Time Grouping	Number	Per Cent
Less than six months	1	5.88
Six months to almost one year	3	17.66
One year to almost three years	8	47.05
Three years to almost five years	3	17.66
Five years or more	1	5.88
No response	1	5.88
Total	17	100.01

Table VIII illustrates the length of time tenants had lived in their present apartment complex. Two respondents had lived in their present apartment complex for less than six months, eight between six months and one year, five between one and three years, and two tenants did not respond to this question.

TABLE VIII
LENGTH OF TIME LIVED IN PRESENT APARTMENT COMPLEX

Time Grouping	Number	Per Cent
Less than six months	2	11.77
Six months to almost one year	8	47.05
One year to almost three years	5	29.41
Three years to almost five years	---	---
Five years or more	---	---
No response	2	11.77
Total	17	100.00

The majority of the respondents were female, educated (with some college or vocational training), less than thirty-one years old, had lived in rental housing for more than one year, and lived in their present apartment complex for six months to almost three years. Their family description most often consisted of male and female with or without a child or children.

Findings from Evaluations by Tenants,
Managers, and Educators

Responses related to evaluative sections of the questionnaire were counted and percentages were determined. Responses came from 17 tenants, six managers, and five educators. The following paragraphs discuss these findings.

Title Evaluation

The use and care manual was entitled "Living With Your Apartment: A Use and Care Manual." Twelve tenants, five managers, and four educators thought the title was interesting and appropriate. Five tenants, one manager and one educator thought the title was appropriate but not interesting. One manager thought the title was interesting but not appropriate. Table IX shows the number and percentage distribution of responses evaluating the title of the manual.

The appropriateness of the title was evaluated on a one-to-nine scale (one equal low, nine equal high). Approximately 65 per cent (11) of the tenants rated the title seven or above while 23.53 per cent (four) of the tenants rated the title four, five, or six. One of the tenants (5.88 per cent) gave the title a one rating. One tenant (5.88 per cent) did not respond to this question. Four of the managers (66.67 per cent) rated the title seven or above, and two of the managers (33.33 per cent) rated the title five or six. Two of the educators (40 per cent) rated the title seven, eight, or nine. Three educators (60 per cent) rated it four, five, or six.

TABLE IX
EVALUATION OF TITLE BY RESPONDENTS*

Title Description	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Poor title	--	--	--	--	--	--
Dull	--	--	--	--	--	--
Uninteresting	--	--	--	--	--	--
Not appropriate for manual	--	--	--	--	--	--
Appropriate but not interesting	5	29.41	1	16.67	1	20.00
Interesting but not appropriate	--	--	1	16.67	--	--
Interesting	12	70.59	5	83.33	4	80.00
Appropriate	12	70.59	5	83.33	4	80.00

*Numbers will not equal total number of respondents and percentages will not equal 100% since respondents sometimes underlined more than one descriptive phrase.

Introduction Evaluation

The purpose of the introduction was to tell the reader what the manual was about and to encourage the reader to continue reading the manual. Approximately 65 per cent of the tenants, 50 per cent of the managers, and 80 per cent of the educators thought that the introduction performed this function. Over 35 per cent of the tenants, 50 per cent of the managers, and 20 per cent of the educators

indicated that the manual did an average job of telling the reader what the manual was for. The following table shows the responses of the evaluators.

TABLE X
EVALUATION OF INTRODUCTION BY RESPONDENTS*

Introduction Description	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
A bother to read	--	--	--	--	--	--
Has no apparent purpose	--	--	--	--	--	--
Does an average job of telling the reader what the manual is for	6	35.29	3	50.00	1	20.00
Tells what the manual is for	11	64.71	3	50.00	4	80.00
Encourages the reader to continue reading	11	64.71	3	50.00	4	80.00

*Numbers will not equal total number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

On a one-to-nine scale (low to high), nine (52.94 per cent) of the tenants, four (66.67 per cent) of the managers, and five (100 per cent) of the educators rated the introduction seven, eight, or nine for appropriateness. Six (35.29 per cent) of the tenants and two (33.33 per cent) of the managers rated the introduction five or

six, the middle range on the scale. One tenant (5.88 per cent) rated the introduction three on the scale. One tenant did not respond to this question.

Vocabulary Evaluation

Most of the evaluators thought the vocabulary was easy to understand. Fourteen tenants, five managers, and four educators underlined the phrase "most words easy to understand." Three tenants and one manager felt that some words needed to be simplified or defined. One educator thought many words were difficult to understand. Table XI shows the evaluation of the vocabulary by the three groups.

TABLE XI
EVALUATION OF VOCABULARY BY RESPONDENTS

Vocabulary Description	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Many words difficult to understand	--	--	--	--	1	20.00
Some words easy to understand but some need to be simplified or defined	3	17.65	1	16.67	--	--
Most words easy to understand	14	82.35	5	83.33	4	80.00

Thirteen (76.47 per cent) of the tenants, six (100 per cent) of the managers and four (80 per cent) of the educators indicated that they felt that words were simple by rating the phrase "simple words" seven, eight, or nine on the one-to-nine (low to high) scale. Three (17.65 per cent) of the tenants and one (20 per cent) of the educators rated the word simpleness five or six. One tenant (5.88 per cent) did not respond to this question.

Print Evaluation

Many of the tenants, managers, and educators felt that the print was not as easy to see as it should have been. Three tenants, one manager, and one educator felt that the print was too small or very hard to see and read. Ten tenants, three managers, and one educator thought the print needed some improvement. Four tenants, two managers, and three educators indicated that they thought the print was a good size and very easy to see. Table XII shows the evaluation of print by the respondents.

On a one-to-nine scale (low to high) 12 of the 17 tenants, three of the six managers, and two of the five educators rated the print between three and six. Four tenants, three managers, and three educators rated the print seven, eight, or nine. One tenant did not respond to this question.

TABLE XII
EVALUATION OF PRINT BY RESPONDENTS*

Print Description	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Very hard to see and read	3	17.65	1	16.67	1	20.00
Too large, too small	2	11.76	1	16.67	1	20.00
Generally O.K. but not as easy to see as it could be	10	58.82	3	50.00	1	20.00
Very easy to see and read	4	23.53	2	33.33	3	60.00
Good size	4	23.53	2	33.33	3	60.00

*Numbers will not equal total number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

Illustration Evaluations

Illustrations were evaluated on two points: as an aid in understanding written content, and as a means of making the manual more interesting. One tenant thought the illustrations usually did not help the reader understand the written content. Seven tenants, three managers, and two educators thought the illustrations usually helped the reader understand the written content. Table XIII shows these evaluations.

TABLE XIII
EVALUATION OF ILLUSTRATIONS BY RESPONDENTS*

Descriptions of Illustrations	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Usually don't help reader understand written content	1	5.88	--	--	--	--
Confusing	--	--	--	--	--	--
Uninteresting	--	--	--	--	--	--
Sometimes helps reader understand written content	7	41.18	3	50.00	2	40.00
Sometimes makes manual more interesting	7	41.18	3	50.00	3	60.00
Usually helps reader understand written content	7	41.18	3	50.00	2	40.00
Usually makes manual more interesting	9	52.94	3	50.00	2	40.00

*Numbers will not equal number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

On the one-to-nine scale the feature "helpful illustrations" was rated seven, eight or nine by 52.94 per cent (nine) of the tenants, 83.33 per cent (five) of the managers, and 40 per cent (two) of the educators. This feature was rated four, five, or six by 41.18 per cent (seven) of the tenants, 16.67 per cent (one) of the managers, and 40 per cent (two) of the educators. One tenant and one educator did not respond to this question.

Seven tenants, three managers, and three educators thought the

illustrations sometimes made the manual more interesting. Nine tenants, three managers, and two educators thought the illustrations usually made the manual more interesting.

Evaluation of Manual Size

Table XIV illustrates that all tenants, managers, and educators agreed that the manual size (five and one-half inches by eight and one-half inches) was all right or a very good size.

TABLE XIV
EVALUATION OF MANUAL SIZE BY RESPONDENTS

Manual size description	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Very awkward size	--	--	--	--	--	--
Size O.K.	6	35.29	2	33.33	1	20.00
Very good size	11	64.71	4	66.67	4	80.00

Evaluation of Table of Contents

Most tenants, managers, and educators thought that the table of contents was detailed adequately and a very good aid in locating information in the manual. One tenant and one manager thought the

table of contents could be improved by adding more detailed information. One manager thought it could be improved by omitting some information. One tenant thought that the table of contents helped very little in locating information in the manual. Table XV shows the responses of the evaluators.

TABLE XV
EVALUATION OF TABLE OF CONTENTS BY RESPONDENTS*

Descriptions of Table of Contents	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Helps very little in locating information	1	5.88	--	--	--	--
Too detailed	--	--	--	--	--	--
Not detailed enough	--	--	--	--	--	--
Generally O.K.	3	17.65	2	33.33	--	--
Could be improved by adding more detailed information	1	5.88	1	16.67	--	--
Could be improved by omitting some information	--	--	1	16.67	--	--
Detailed adequately	13	76.47	3	50.00	4	80.00
Very good aid in locating information	9	52.94	3	50.00	5	100.00

*Numbers will not equal total number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

On a one-to-nine scale 14 (82.35 per cent) of the 17 tenants, six (100 per cent) of the managers, and five (100 per cent) of the educators rated the usefulness of the table of contents seven, eight, or nine. Two (11.76 per cent) of the tenants rated the table of contents five or six. One tenant did not respond to this question.

Evaluation of Subject Matter Organization

Ten (58.82 per cent) of the tenants, three (50 per cent) of the managers, and four (80 per cent) of the educators felt that the subject matter was arranged logically. Six (35.29 per cent) of the tenants, three (50 per cent) of the managers, and one (20 per cent) of the educators felt that the subject matter organization needed minor improvement. Table XVI shows the evaluations by the three groups.

TABLE XVI

EVALUATION OF SUBJECT MATTER ORGANIZATION BY RESPONDENTS*

Subject Matter Organization Descriptions	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Illogical organization	--	--	--	--	--	--
Generally O.K.	7	41.18	3	50.00	1	20.00
Minor improvements needed	6	35.29	3	50.00	1	20.00
Logical arrangement of information	10	58.82	3	50.00	4	80.00

*Numbers will not equal total number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

On the one-to-nine scale, subject matter organization was rated seven, eight, or nine by 10 of the 17 tenants, all six of the managers, and all five of the educators. Subject matter organization was rated five or six by six of the 17 tenants. One tenant did not respond to this question.

Evaluation of Subject Matter Content

More than half of the tenants thought the manual contained most of the information necessary for use and care of their apartments. Six tenants, three managers, and two educators thought that the manual lacked some necessary information. One tenant and one manager thought the manual lacked much necessary information. Two tenants thought the manual contained much or some unnecessary information. Table XVII illustrates the evaluations of subject matter content by tenants, managers, and educators.

TABLE XVII

EVALUATION OF SUBJECT MATTER CONTENT BY RESPONDENTS*

Subject Matter Content Descriptions	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
No response	--	--	--	--	1	20.00
Lacks much information that should be included	1	5.88	1	16.67	--	--

TABLE XVII (Continued)

Subject Matter Content Descriptions	(a)		(b)		(c)	
	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Contains much unnecessary information	1	5.88	--	--	--	--
Lacks some information that should be included	6	35.29	3	50.00	2	40.00
Contains some unnecessary information	1	5.88	--	--	--	--
Contains most necessary information	10	59.82	2	33.33	2	40.00

*Numbers will not equal the total number of respondents and percentages will not equal 100 per cent since respondents sometimes underlined more than one descriptive phrase.

Usefulness of the Manual Information

The majority of the tenant evaluators thought all of the information was very useful (see Table XVIII). The highest per cent of tenants (70.59 per cent) thought the information about plumbing very useful. Fifty per cent or more of the managers thought information about bathroom fixtures, flooring, lighting problems, plumbing, and water heaters was very useful. The majority of educators thought information about bathroom fixtures, kitchen equipment and finishes, lighting problems, and plumbing was very useful. Three tenants and two educators did not respond to the question regarding usefulness of the

TABLE XVIII
EVALUATION OF USEFULNESS OF MANUAL INFORMATION
BY RESPONDENTS

Manual Section	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Bathroom fixtures						
Useless	--	--	--	--	--	--
Somewhat useful	7	41.18	3	50.00	1	20.00
Very useful	9	52.94	3	50.00	3	60.00
No response	1	5.88	--	--	1	20.00
Flooring						
Useless	--	--	--	--	--	--
Somewhat useful	6	35.29	2	33.33	2	40.00
Very useful	10	58.82	4	66.67	2	40.00
No response	1	5.88	--	--	1	20.00
Kitchen equipment and finishes						
Useless	--	--	--	--	--	--
Somewhat useful	6	35.29	4	66.67	1	20.00
Very useful	10	58.82	2	33.33	3	60.00
No response	1	5.88	--	--	1	20.00
Lighting problems						
Useless	--	--	--	--	--	--
Somewhat useful	4	23.53	2	33.33	--	--
Very useful	10	58.82	4	66.67	3	60.00
No response	3	17.65	--	--	2	40.00
Plumbing						
Useless	--	--	--	--	--	--
Somewhat useful	4	23.53	2	33.33	--	--
Very useful	12	70.59	4	66.67	4	80.00
No response	1	5.88	--	--	1	20.00
Water heater						
Useless	--	--	--	--	--	--
Somewhat useful	6	35.29	3	50.00	2	40.00
Very useful	10	58.82	3	50.00	2	40.00
No response	1	5.88	--	--	1	20.00

lighting problems information. One tenant and one educator did not respond to the questions regarding usefulness of information in relation to bathroom fixtures, flooring, kitchen equipment and finishes, plumbing, and water heaters.

A general rating of subject matter usefulness was made by assigning a one-to-nine (low to high) value rating of the usefulness of the total subject matter. Eleven (64.7 per cent) of the 17 tenants, all of the six managers, and all of the five educators rated the usefulness of the subject matter as seven, eight, or nine. Five (29.41 per cent) of the tenants rated the information five to six in the middle of the scale. One tenant did not respond to this question.

Clearness of Directions

The majority of the tenants, managers, and educators thought the use and care directions in the manual were clear. One tenant found kitchen equipment and finishes, plumbing, and water heater use and care directions unclear and from two to five tenants found other sections only somewhat clear. One or two of the tenants and one of the educators did not respond to all questions regarding use and care directions. Table XIX shows responses of evaluators to questions about clearness of directions.

On a one-to-nine scale (low to high) a greater percentage of tenants rated clear directions higher than managers or educators did. About 88 per cent (15) of the tenants, 66.67 per cent (four) of the managers, and 60 per cent (three) of the educators rated clear directions seven, eight, or nine on the scale. Approximately six per cent (one) of the tenants, 33.33 per cent (two) of the managers, and

TABLE XIX
EVALUATION OF CLEARNESS OF USE AND CARE DIRECTIONS
BY RESPONDENTS

Manual Section	17 tenants		6 managers		5 educators	
	N	%	N	%	N	%
Bathroom fixtures						
Unclear	--	--	--	--	--	--
Somewhat clear	3	17.65	2	33.33	--	--
Clear	12	70.59	4	66.67	4	80.00
No response	2	11.76	--	--	1	20.00
Flooring						
Unclear	--	--	--	--	--	--
Somewhat clear	5	29.41	2	33.33	1	20.00
Clear	11	64.71	4	66.67	3	60.00
No response	1	5.88	--	--	1	20.00
Kitchen equipment and finishes						
Unclear	1	5.88	--	--	--	--
Somewhat clear	4	23.53	2	33.33	1	20.00
Clear	11	64.71	4	66.67	4	80.00
No response	1	5.88	--	--	--	--
Lighting problems						
Unclear	--	--	--	--	--	--
Somewhat clear	2	11.76	2	33.33	--	--
Clear	13	76.47	4	66.67	4	80.00
No response	2	11.76	--	--	1	20.00
Plumbing						
Unclear	1	5.88	--	--	--	--
Somewhat clear	4	23.53	2	33.33	--	--
Clear	12	70.59	4	66.67	4	80.00
No response	--	--	--	--	1	20.00
Water heater						
Unclear	1	5.88	--	--	--	--
Somewhat clear	3	17.65	2	33.33	--	--
Clear	12	70.59	4	66.67	4	80.00
No response	1	5.88	--	--	1	20.00

40 per cent (two) of the educators rated clear directions five or six on the scale. One tenant did not respond to this question.

Communication of Cleaning Product

Information

Eleven tenants, five managers, and four educators thought it was very easy to identify the type of cleaning products needed to clean finishes and equipment by reading the manual. Five tenants, one manager, and one educator thought that it was usually easy to identify cleaning products needed for cleaning tasks. One tenant thought that it was difficult to identify the type of cleaning products needed for specific cleaning tasks.

Need for Index or Glossary

The question was asked in the evaluation questionnaire: "Is an index needed to help locate information in this manual?." Seven (41.18 per cent) of the tenants, three (50 per cent) of the managers, and two (40 per cent) of the educators responded "yes" to this question. Ten (58.82 per cent) of the tenants, three (50 per cent) of the managers, and three (60 per cent) of the educators responded "no" to this question.

It was also asked if a glossary of terms was needed to define words used in the manual. Fourteen (82.35 per cent) of the tenants, all of the managers, and four (80 per cent) of the educators responded "no" to this question. Three (17.64 per cent) of the tenants responded positively to this question. One educator did not respond to this question.

Least and Most Liked Features of the Manual

Evaluators were asked to list least and most liked features of the manual. In the least liked category 16 responses were made by the 33 evaluators. Twelve responses were made by only one or two evaluators. Three least liked features of the manual named by five to seven evaluators were: print hard to see or too small (six), omission of important information (six), unclear directions or clarification needed in certain parts of the manual (seven).

More features were listed in the "most liked" category than in the "least liked" category. Fifty-six responses were made by the 33 evaluators. Sixteen responses were made by only one or two evaluators. The features named by more than two evaluators were: the idea of a use and care manual for rental apartments (11), specific information (nine), illustrations (six), good length (five), and writing style (four).

Additional Information and Illustrations Needed in the Manual

Seven tenants, three managers, and one educator stated that no additional information was needed in this type of manual. Ten tenants, three managers, and two educators thought additional information was needed. One educator was not sure if additional information was needed. One educator did not respond to this question.

A number of suggestions were made about additional information needed in the manual. Tenants suggested including information about legal rights of renters, renters' insurance, common household poisons, emergency treatment, household fires, wall care information, care and

efficient use of heating and cooling equipment, and use and care of clothes washers, clothes dryers, and furniture.

Managers suggested adding illustrations of a range hood, and an oven pilot light. Managers' suggestions for additional information included information about use and care of heating and cooling equipment and out of doors grounds around the tenants apartment.

Educators suggested including information about care of drapery, upholstery, wood furniture, use of a fire extinguisher, care of lighting fixtures, use and care of heating and cooling equipment, additional toilet bowl cleaning information, warnings about the use of oven cleaners, and a place for emergency telephone numbers.

Most evaluators felt that all of the information included in the manual was necessary. Two tenants, however, listed repetition of cleaning techniques and information about cleaning with warm sudsy water as unnecessary information. All evaluators recommended that a manual of this type be placed in rental apartments.

Summary of Evaluation Process

An evaluation questionnaire was designed to identify whether or not the manual contained characteristics considered important in the development process and to identify whether or not evaluators would recommend that a manual of this type be placed in rental apartments. Six managers, 17 tenants, and five educators evaluated the manual by completing and returning the written questionnaire. Chapter IV has presented the findings of these evaluations. Chapter V will present a summary of these findings, conclusions that might be

drawn from these findings, and suggest topics for potential research designs related to this study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

FOR FURTHER STUDY

Summary

The major objective of this study was to develop and evaluate a use and care manual for finishes and equipment in apartments in large, new, rental complexes in Stillwater, Oklahoma. Ten managers were interviewed and 10 apartments in large, new, apartment complexes in Stillwater, Oklahoma were observed to determine what type information should be included in a use and care manual for rental apartments.

After these interviews and observations, a manual entitled "Living With Your Apartment: A Use and Care Manual" was developed and reproduced for evaluation by local tenants, managers, and educators. Manuals and evaluation questionnaires were distributed to 10 managers. Four additional manuals and questionnaires were left with each manager for distribution to tenants who were willing to evaluate the manual and return the written questionnaire. A manual and questionnaire was also given to each of seven home economics educators at Oklahoma State University for evaluation. Six managers returned their questionnaires as well as two to four questionnaires from tenants in their apartment complex. The majority of the tenant respondents were young (30 years old or younger), educated (some college or vocational training),

female, and had lived in rental housing for more than one year. Their present family description most often consisted of male and female with or without children. Five educators returned questionnaires in time to be tabulated for this study. A summary of the findings from these evaluations follows.

Summary of Findings

A majority of the evaluators thought the title of the manual was interesting and appropriate. At least 50 per cent thought that the introduction told what the manual was for and encouraged the reader to continue reading the manual. At least 80 per cent of the evaluators indicated that most words in the manual were easy to understand and over 75 per cent rated the words as simple.

Sixty per cent of the educators thought the print was very easy to see and read, however, over 60 per cent of the tenants and managers thought the print was very hard to see and read or at least not as easy to see as it could have been.

Opinions differed as to whether the illustrations were usually or only sometimes helpful in aiding the reader in understanding the written content and making the manual more interesting. A slightly higher per cent (53 per cent) of tenants than managers (50 per cent) or educators (40 per cent) thought that the illustrations usually made the manual more interesting. A higher per cent of educators (60 per cent) than tenants (41 per cent) or manager (50 per cent) thought the illustrations only sometimes made the manual more interesting.

The manual size was considered to be very good by more than 60 per cent of the respondents and all right by the remaining respondents. The table of contents was considered by over 50 per cent of the respondents to be adequately detailed and a very good aid in locating information. The alphabetical arrangement of subject matter was considered all right or logical by all of the respondents.

More than half (60 per cent) of the tenants thought the manual contained most of the information necessary for use and care of their apartments, however, only 33 per cent of the managers and 40 per cent of the educators thought the manual was as complete as it should be. All evaluators thought the information contained in the manual was at least somewhat useful. The majority of the evaluators thought the use and care directions were clear and that by reading the manual the type of cleaning products needed for specific cleaning tasks could be easily identified.

A majority of tenants, managers, and educators thought an index and glossary of terms was not needed. Features most often listed as least liked in the manual included hard to read print, omission of information, and unclear directions. Features most often listed as liked included specific information, illustrations, length, writing style, and the idea of a use and care manual for rental apartments.

Suggestions for information to add to a future manual included information about use and care of heating and cooling equipment, wall finishes, and furnishings. All evaluators recommended that a manual of this type be placed in rental apartments.

Conclusions

Because of the small select group of evaluators, it cannot be concluded that the opinions of tenants, and managers in this study are representative of tenants and managers living in large, new, rental apartment complexes in Stillwater, Oklahoma, or that evaluations of educators are representative of all home economics educators at Oklahoma State University. Evaluations are representative of managers, tenants, and educators who returned questionnaires.

It is interesting to note that all of the evaluators who returned questionnaires judged the subject matter as somewhat or very useful and recommended that a manual of this type be placed in rental apartments. A number of evaluators considered it desirable to keep the manual short, yet one of the least liked features was the omission of information considered important by evaluators. Even though 60 per cent of the tenants evaluated the manual as containing most of the information necessary for use and care of their apartments, when asked whether or not additional information was needed in this type manual, 59 per cent of the tenants responded that it was. Perhaps the most frequently mentioned needed addition, care of walls and use and care of heating and cooling equipment, should be included in this type manual. It is, however, inconclusive whether or not additional information is needed in this type of manual.

Evaluators seemed to like the five and one-half inches by eight and one-half inches size of the manual but tenants and managers were aware of the fact that the print--typed on a non-electric typewriter and reduced--was not as clear as it might have been if a different

kind of reproduction process had been employed.

A high school reading level appeared to be adequate for this group of evaluators. Comments about the manual being almost too elementary pointed out the importance of developing literature at the educational reading level of the reader. Comments about liking the manual because of its simple, easy to read style, pointed out the importance of writing literature in a precise, clear, easy to read style.

It appeared that a use and care manual for rental apartments should be simple yet not elementary; easy to read, perhaps informal in writing style; precise, thorough, yet no longer than necessary; and should contain illustrations that are interesting and facilitate the understanding of the written content. The manual should be carefully tested for clarity of directions and inclusions of information considered necessary and important by the reader. The print in the manual should be very clear and easy to see.

The agreement of all evaluators in this study that a manual of this type should be placed in rental apartments suggests that this idea should not be abandoned, for there may be a need or desire that would create a market for this form of educational literature. It would be desirable to investigate whether or not this suggestion or implication is in fact a reality.

Recommendations for Further Study

A number of studies could be conducted to determine the feasibility of a use and care manual for housing. It should be determined if an apartment use and care manual would actually save time, energy,

or money for tenants or managers. It should be determined if tenants, once given the manual for use would read it and if or how readily this manual would influence behavior with regard to use and care of equipment and finishes in rental apartments.

A study could attempt to identify if socio-demographic factors were related to the reader's receptiveness of the manual or change in use and care techniques of the reader.

Apartment use and care manuals with different features could be tested to determine if certain features were more useful or influenced the use and care techniques of individuals more than other features influenced them.

A study evaluating the pros and cons of a use and care manual versus a tenants manual with information of interest to tenants other than use and care information could be conducted.

It is important to know the opinions of apartment complex owners regarding use and care manuals for their apartment complexes. It would be desirable to identify willingness of owners to purchase and supply use and care manuals for their tenants.

The feasibility of use and care manuals for housing other than large, new, rental apartment complexes might be investigated.

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APPENDIX A

PREEVALUATION QUESTIONNAIRE

EVALUATION OF A USE AND CARE MANUAL
FOR RENTAL APARTMENTS

With this evaluation sheet is a rough draft of a use and care manual that is being designed for large apartment complexes in Stillwater, Oklahoma. The idea would be for each apartment to have a manual available to instruct tenants in the use and care of certain finishes and equipment in their apartments.

Before this manual goes to "press", I would greatly appreciate your comments, corrections, and/or evaluation of it so that errors and confusion can be ironed out before they become permanently pressed in!

The following questions may be used as a guideline in evaluation of this manual but please feel free to make any additional comments you wish!

GENERAL INFORMATION

1. Is the title appropriate for the manual? Yes _____ No _____.
If not, will you suggest a title?
2. Does the introduction tell the reader what the manual is about? Yes _____ No _____. Does it appeal to the reader to continue reading? Yes _____ No _____.
If not, please cite words or word usage that is difficult to understand.
3. Is the vocabulary easy to understand? Yes _____ No _____.
If not, please cite words or word usage that is difficult to understand.
4. Are the main sections of subject matter arranged in a logical manner? Yes _____ No _____. If not, what arrangement might be better?
5. Is any type of use and care subject matter omitted that you think a renter might need? Yes _____ No _____.
If not, please cite words or word usage that is difficult to understand.
6. Is the table of contents (1) too detailed _____; (2) detailed adequately _____; (3) not detailed enough _____?

SPECIFIC SECTIONS

Instructions: As you read each section of the manual please consider the following questions and make notations on the manual in areas that you think should be changed or clarified.

1. Is the information easy to understand?
2. Are the directions easy to follow?
3. Could the information be more effectively presented in another way? If so, how?

Please return the manual and evaluation sheet to Kathy Butt,
HEW 108, by Friday, April 25, 1975.

YOUR HELP IS GREATLY APPRECIATED! THANKS!!

APPENDIX B

MANUAL EVALUATION QUESTIONNAIRE

EVALUATION OF A USE AND CARE MANUAL
FOR RENTAL APARTMENTS

An apartment use and care manual has been designed for large apartment complexes in Stillwater, Oklahoma. Since this is the first attempt at such a manual, the author would greatly appreciate your evaluation and comments about the manual's structure, content, and usefulness.

After you have read the manual, please use the following guide for evaluation. Underline the phrase or phrases that most clearly reflect your evaluation of particular parts of the manual.

PART I. GENERAL INFORMATION RELATED TO COMPLETE MANUAL

TITLE	A poor title. Dull. Uninteresting. Not appropriate for this manual.	Appropriate but not interesting. Interesting but not appropriate.	Interesting. Appropriate.
INTRODUCTION	A bother to read. Has no apparent purpose.	Does an average job of telling the reader what the manual is for.	Tells what the manual is for. Encourages the reader to continue reading.
VOCABULARY	Many words difficult to understand.	Some words easy to understand, but some words need to be simplified or defined.	Most words easy to understand.
PRINT	Print very hard to see and read. Too large. Too small.	Print generally O.K. but not as easy to see as it should be.	Print very easy to see and read. Good size.
SUBJECT MATTER CONTENT	Manual lacks much information that should be included. Contains much unnecessary information.	Manual lacks some information that should be included. Contains some unnecessary information.	Manual contains most information needed for use and care of an apartment.

TABLE OF CONTENTS	Helps very little in locating information. Too detailed. Not detailed enough.	Generally O.K. Could be improved by adding more detailed information. Could be improved by omitting some information. Some help in locating information.	Detailed adequately. Very good aid in locating information.
ILLUSTRATIONS	Usually don't help reader understand written content. Confusing. Uninteresting.	Sometimes helps reader understand written content. Sometimes makes manual more interesting.	Usually helps reader understand written content. Usually makes manual more interesting.
ORGANIZATION OF SUBJECT MATTER	Illogical organization.	Generally O.K. Minor improvement needed.	Logical arrangement of information.
SIZE OF MANUAL (dimensions 5½" x 8½")	Very awkward size.	Size O.K.	Very good size.

PART II. SPECIFIC INFORMATION RELATED TO MAJOR HOUSEKEEPING SECTIONS

CIRCUIT BREAKER

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow, but sometimes unclear.	Clear. Concise. Easy to follow.

BATHROOM FIXTURES

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow but sometimes unclear.	Clear. Concise. Easy to follow.

BATHROOM FIXTURES (Continued)

CLEANING PRODUCT INFORMATION	Difficult to identify type of cleaning products needed to clean bathroom fixtures.	Usually easy to identify type of cleaning products needed to clean bathroom fixtures.	Very easy to identify type of cleaning products needed to clean bathroom fixtures.
------------------------------------	--	---	--

FLOORING

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow but sometimes unclear.	Clear. Concise. Easy to follow.

KITCHEN EQUIPMENT AND FINISHES

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow but sometimes unclear.	Clear. Concise. Easy to follow.
CLEANING PRODUCT INFORMATION	Difficult to identify type of cleaning products needed to clean kitchen equipment and finishes.	Usually easy to identify type of cleaning products needed to clean kitchen equipment and finishes.	Very easy to identify type of cleaning products needed to clean kitchen equipment and finishes.

PLUMBING

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow but sometimes unclear.	Clear. Concise. Easy to follow.
CLEANING PRODUCT INFORMATION	Difficult to identify type of cleaning products needed to clean drains.	Usually easy to identify type of cleaning products needed to clean drains.	Very easy to identify type of cleaning products needed to clean drains.

WATER HEATER

INFORMATION	Useless information.	Somewhat useful.	Very useful.
DIRECTIONS	Unclear. Difficult to follow.	Usually easy to follow but sometimes unclear.	Clear. Concise. Easy to follow.

PART III. GENERAL RATINGS OF SELECTED FEATURES

Please circle a number value to represent a general rating of each feature listed below. The number rating system progresses from (1) very low to (9) very high.

INTERESTING TITLE	1	2	3	4	5	6	7	8	9
APPROPRIATE INTRODUCTION	1	2	3	4	5	6	7	8	9
SIMPLE WORDS	1	2	3	4	5	6	7	8	9
READABLE PRINT	1	2	3	4	5	6	7	8	9
USEFUL TABLE OF CONTENTS	1	2	3	4	5	6	7	8	9
HELPFUL ILLUSTRATIONS	1	2	3	4	5	6	7	8	9
MANUAL SIZE	1	2	3	4	5	6	7	8	9
SUBJECT MATTER ORGANIZATION	1	2	3	4	5	6	7	8	9
USEFUL SUBJECT MATTER	1	2	3	4	5	6	7	8	9
CLEAR DIRECTIONS	1	2	3	4	5	6	7	8	9

PART IV. SUPPLEMENTAL DESCRIPTIVE INFORMATION

1. Is an index needed to help locate information in the manual?
Yes _____ No _____.
2. Is a glossary of terms needed to define certain words used in the manual? Yes _____ No _____. If yes, which words were most difficult to understand?

3. Please list three things that you liked least about the manual:
 - 1.
 - 2.
 - 3.

4. Please list three things that you liked most about the manual:
 - 1.
 - 2.
 - 3.

5. Please identify by page number and paragraph any areas in the manual that would be improved by more detailed drawings.

6. Should any additional information be included in this type of manual? Yes _____ No _____. If yes, what information?

7. Was any information included in this manual that was unnecessary? Yes _____ No _____. If yes, what information?

8. Would you recommend that a manual of this type be placed in rental apartments? Yes _____ No _____. Why or why not?

PART V. INFORMATION WITH REFERENCE TO RESPONDENT

Please check or fill in answers appropriate for each question.

1. Your apartment family would best be described as:
 - A. Single Person
 - B. Two or More Adults of Same Sex
 - C. Male and Female with No Children
 - D. Single Parent with Child/Children
 - E. Male and Female with Child/Children
 - F. Other. Please specify _____

2. Total number of persons living in your household _____.

3. How long have you lived in rental apartments?
 - A. One Day to Almost Six Months
 - B. Six Months to Almost One Year
 - C. One Year to Almost Three Years
 - D. Three Years to Almost Five Years
 - E. Five Years or More

4. How long have you lived in your present apartment complex?
 - A. One Day to Almost Six Months
 - B. Six Months to Almost One Year
 - C. One Year to Almost Three Years
 - D. Three Years to Almost Five Years
 - E. Five Years or More

5. Age of Respondent:
 - A. 17 through 24
 - B. 25 through 30
 - C. 31 through 40
 - D. 41 through 50
 - E. 51 through 60
 - F. 61 through 70
 - G. 71 or older

6. Sex of Respondent: Female _____ Male _____

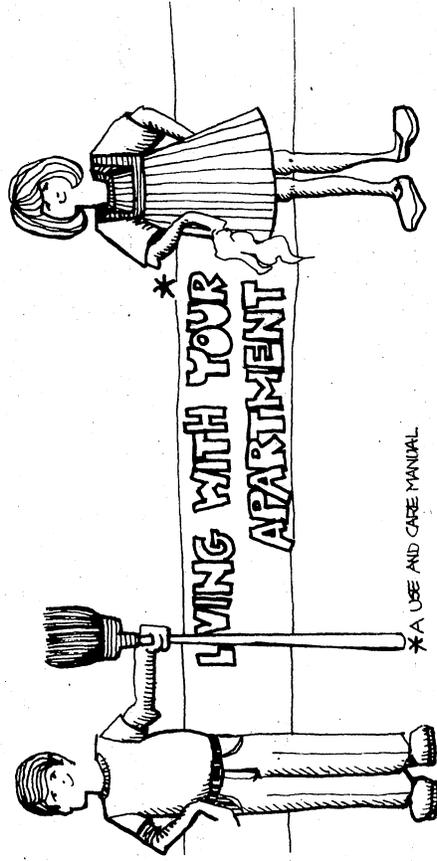
7. Educational level completed by respondent:

- _____ A. Less than High School Graduate
- _____ B. High School Graduate
- _____ C. Attended College or Vocational Technical Training.
Did not graduate
- _____ D. Vocational Technical Training Graduate
- _____ E. College Graduate
- _____ F. Attended Graduate School

THANK YOU VERY MUCH FOR RESPONDING TO THIS QUESTIONNAIRE!! Your comments will help determine the usefulness of this apartment Use and Care Booklet!

APPENDIX C

AN APARTMENT USE AND CARE MANUAL



INTRODUCTION

Lots of people are renting apartments these days! As people move into an apartment, they often find household equipment and finishes with which they're unfamiliar. Questions may arise. Questions like . . .

How to defrost a refrigerator -- for \$40.00 or less?
How to clean a range -- without committing suicide?
What to do when the lights go out?
How to combat 'foreign matter' lurking in the drains?
And many more!

Hopefully this booklet will answer these questions and help you better understand how to care for and use equipment and finishes in your apartment!

Oh, by the way, this booklet was designed for a few other apartments too. And it's possible that they may have something that you don't - like a dishwasher or a water heater! So don't think that you've been burglarized! Just skip that part of the booklet and excuse me for talking about things that aren't important to you!

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BATHROOM FIXTURES

When bathroom fixtures are left until they are really grimy, cleaning them is tough! In the long run, frequent cleaning will probably save time and energy!

BATHTUB & SHOWER

To prevent dirt build-up on bathtubs, use a water conditioner (see page 17) in your bathtub.

Clean bathtubs and showers with warm water and detergent. Scour with baking soda or a nonabrasive cleaner (see page 17).

Ceramic tile? Clean with warm water and detergent or a general household or tile cleaner (see page 17).



COUNTERTOP

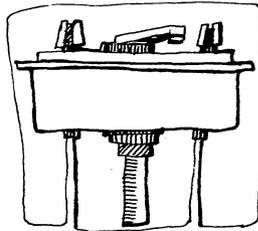
Wipe countertop with a sudsy cloth. Remove stains from laminated plastic (formica) with a damp cloth on which a small amount of bleach has been added.

Countertops will scar easily if scratched with a sharp instrument.

MIRROR

Wipe mirrors with a damp cloth on which a small amount of vinegar, ammonia, or rubbing alcohol has been added. Dry with a dry cloth, paper towel or crumpled newspaper.

Drying mirrors with newspaper not only recycles old newspapers, it also leaves the mirrors with no lint and a bright polished look!

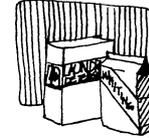


SINK

Wipe sink with a sudsy cloth. Remove stains by scouring with baking soda or a nonabrasive cleaner (see page 17). Abrasive cleansers (see page 17) will damage the glass-like finish of a sink and leave a rough scratched glaze that will collect dirt and be very difficult to clean.

1

An inexpensive non-abrasive cleanser can be made by combining nine parts whiting (available at paint and some hardware stores) with one part heavy duty powdered laundry detergent.



TOILET BOWL

Commercial toilet bowl cleaners, detergents, or disinfectants can be used to clean the interior of the toilet bowl.

If commercial toilet bowl cleaners are used, keep in mind that they are highly acidic and dangerous to skin and almost all finishes except the interior of the toilet bowl. Follow the directions on the can carefully.

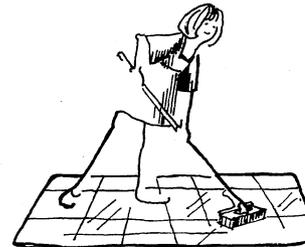
WARNING! Never mix chlorine bleach or any cleaner containing chlorine bleach with a commercial toilet bowl cleaner. If these two cleaners are mixed, A DEADLY GAS WILL FORM!

FLOORING

Flooring is subjected to lots of hard wear! To keep it looking good longer, flooring needs frequent attention.

LINOLEUM, VINYL ASBESTOS

To wash - wet mop with warm water and detergent. Rinse with clear water. Excessive water will fade floor color and warp or loosen tile. Prevent the use of too much water by wringing mop or cloth until only damp, not dripping wet.



To wax - use a water base wax (see page 18). Follow directions on the can or bottle. Since some dirt particles will penetrate the wax, and old wax will yellow, it is necessary to remove old wax occasionally.

2

To remove wax - wash with vinegar water (two cups vinegar to one gallon of water). After the wax is removed, wash with warm water and detergent, rinse, and wax again if desired.

CARPETING

Dirt and grit settling to the base of a carpet will rub and cut the carpet fibers as the carpet is walked on. Because of the damage done to carpets by dirt and grit, it is necessary to vacuum carpets frequently with a vacuum that has very strong suction.

Daily - remove dust and surface litter with a vacuum cleaner or carpet sweeper.

Weekly - clean thoroughly with a vacuum cleaner. As you vacuum, cover each area of the carpet with seven or eight strokes of the vacuum cleaner.

Occasionally - every six months or when a carpet becomes dingy, clean it by one of the following two methods. But before using any cleaning product on your carpet, test the product by cleaning a small inconspicuous area of the carpet in the manner recommended on the cleaning product container. If the tested area fades or appears damaged in any way, consult the manager for proper cleaning procedure.

1. Use a foam spray carpet cleaner. Follow directions on the container. After application vacuum thoroughly.
2. Dilute and apply a mild carpet shampoo with a carpet shampooer. As you shampoo, dampen only the pile, not the backing. After application vacuum thoroughly.

CAUTION! Avoid the use of soap, ammonia, bleach, washing soda, or a harsh cleaning agent on carpets.

Periodically - carpets should be cleaned by a professional carpet cleaner

Spills - if something is spilled on a carpet, blot it immediately with a paper towel. Wipe the carpet with a damp sponge if necessary. 3

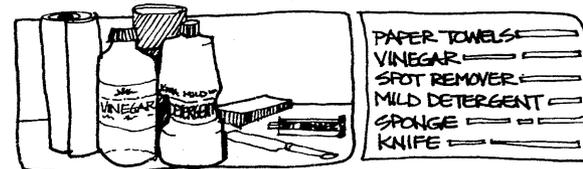


CARPET STAIN REMOVAL

STAIN	TREATMENT
Water Soluble such as fruit juices, soft drinks, sugar, candy, starch, urine, and also small burns.	Water Soluble 1. Blot liquid with a paper towel. 2. Sponge lightly with cold water. 3. Sponge with a small amount of detergent-vinegar solution.* 4. Let carpet dry and brush pile into place. 5. Repeat steps three and four if necessary.
Grease or Oil such as Butter, oil, ball point pen ink, lotions, creams, and hand lotion.	Grease or Oil 1. Blot liquid with a paper towel. Scrape solid matter with a dull knife. 2. Sponge the stain with cleaning fluid or spot remover. 3. Repeat step two if necessary. 4. Brush pile into place.
Combination such as coffee, tea, peanut butter, milk, blood, crayon, vomit, shoe polish.	Combination 1. Blot liquid with a paper towel. Scrape solid matter with a dull knife. 2. Apply a small amount of detergent-vinegar solution.* Let the carpet dry. 3. Apply cleaning fluid or spot remover. 4. Brush pile into place. 5. Repeat steps two, three, and four if necessary.
Undetermined Stain	Undetermined Stain 1. Apply a small amount of detergent-vinegar solution.* 2. Let carpet dry. 3. If stain remains, apply cleaning fluid or spot remover. 4. Repeat steps one, two, and three if necessary.

* To make detergent-vinegar solution add one tablespoon neutral detergent and one tablespoon white vinegar to one quart of warm water.

Stains - Remove stains as soon as noticed. Keep supplies needed for stain removal together for easy and quick access.



KITCHEN EQUIPMENT & FINISHES

CABINETS

It's hard to tell what's wood and what's laminated plastic these days! If your cabinets are plastic (even though they look like wood) clean them with mild detergent and water or a general household cleaner (see page 17).

If your cabinets are wood, avoid the use of water. Clean with a liquid cleaning wax.

If you are unsure whether your cabinets are wood or plastic - check with the manager - or clean like wood.



COUNTERTOP

Wipe the countertop with a sudsy cloth. Remove stains from laminated plastic (formica) with a cloth dampened with a small amount of bleach.

Abrasive cleansers (see page 17) and scouring pads will scratch countertop surfaces.

DISHWASHER

THINGS THAT MAY NOT BE DISHWASHER SAFE

Because of high temperature and strong detergents used in automatic dishwashers, some dishes should not be washed in automatic dishwashers.

Things that may not be dishwasher safe include plastics, aluminumware, wooden bowls, wooden utensils, iron skillets, hobby kit ceramics, some silverware knives, carving

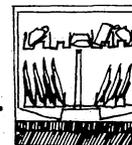


knives, and rubber utensils. Immersible electric appliances are not dishwasher safe unless specified on the appliance or in the appliance use and care manual.

If unsure if an item is dishwasher safe, check the manufacturer's recommendations.

OPERATING NOTES

Automatic dishwashers clean by spraying hot water and detergent at high speeds over dirty dishes. For best results with your dishwasher, the following suggestions are made.



- * Arrange dishes with deep bottoms and curved sides on angles so they will drain well.
- * Be careful that small objects do not fall through the dish rack. They can damage the propeller as it operates.
- * Use only dishwashing detergent designed for automatic dishwashers.
- * A rinse additive may be used to overcome streaks and spots on dishes. If a rinse additive dispenser is not located in your dishwasher, a solid rinse aid may be purchased and hung on the upper rack of the dishwasher.

CARE OF DISHWASHER

Interior. The interior of a dishwasher is generally self-cleaning. If a white film appears on the inside, wipe with a damp cloth and a mild nonabrasive cleaning agent (see page 18). Wipe again with a clean cloth. If the film persists, run the dishwasher through a complete cycle using one cup of vinegar instead of detergent.

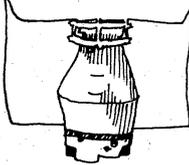
Rubber Door Gasket. Wipe gaskets with warm sudsy water, rinse, and dry.

Exterior. Wipe exterior with a sudsy cloth, rinse, and dry. An appliance wax/cleaner may be used. Avoid abrasive cleansers.

FOOD WASTE DISPOSER

A food waste or garbage disposer is attached to a kitchen sink and is designed to grind and dispose of some food waste.

It is made of two basic parts. The top part is called the hopper or waste container, and holds the waste as it is being ground. The lower part contains the motor. This motor activates the shredding device located at the bottom of the hopper.



GRINDABLES

A food waste disposer will grind quick grinding foods such as carrots, beets, potatoes, cabbage, onions, lettuce, leafy green vegetables, and melon rinds.

It may grind slower grinding waste such as corn husks, animal fat, chicken skin, ham rind, corn cobs, and citrus fruit rind.

It may grind heavy wastes such as nuts, dried peas and beans.

However, for the protection of the disposer, cut corn cobs, melon rind, and citrus fruit rinds in smaller pieces before grinding. Grind slow grinding waste and heavy waste only in small amounts and with other types of waste.

NON-GRINDABLES

A food waste disposer will not grind metal, china, plastic, paper, string, oyster or clam shells, filter tip cigarettes, hard bones, large amounts of liquid grease, celery, potting soil, coffee grounds, and fruit pits.



OPERATING NOTES

To operate a disposer, follow the steps listed below:

1. Put the waste in the waste container (top part of the disposer). Do not pack.
2. Turn the COLD water faucet on and let the water run into the hopper. There must be sufficient water to flush the ground food down the drain. Disposers should never be operated without cold running water.
3. Turn the motor on. Flip the motor switch located on the sink cabinet or on a near by wall.
4. Let the food grind. There will be a decrease in noise as the waste leaves the waste container and enters the drain.
5. Turn the motor off by flipping the motor switch to the OFF position.
6. Continue flushing the drain with water for at least thirty seconds. This will remove waste from the drain.
7. Turn the water off.

IF THE DISPOSER WON'T OPERATE

If the motor stops during operation, turn the motor and the water off immediately. Let the motor cool for at least three to five minutes. Then check the following things:

* Is the disposer overloaded? After the motor is turned off, remove part of the waste. Some disposers are equipped with an overload protection device. This device will shut off the motor automatically when it becomes overloaded. It may reset automatically when the overload or jam is corrected, or it may have to be reset manually. To reset manually, look for a reset button located on the bottom of the disposer unit. Press this button and check to see if the disposer will now operate.

* Has a foreign object - knife, silverware, bottlecap, etc. - fallen into the waste container? If so, after the motor is turned off, remove the object with prongs. If the object is difficult to remove, check to see if the disposer is equipped with an automatic reversing switch. As the water is running, flip the ON switch to the OFF position then back to the ON position. The motor may reverse and free the jammed object.

CARE OF THE DISPOSER

The disposer is designed to stay clean and free from clogs if (1) only recommended wastes are put in the disposer, and (2) if sufficient water is used to flush the waste through the drain.

It may be desirable to flush the drain occasionally by filling the sink three to four inches full of water, removing the stopper, and letting the water run through the disposer.

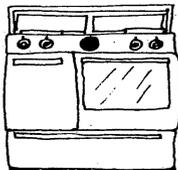
Do not use chemical drain cleaners in the disposer! They will corrode the shredding device!

Dispose of all waste shortly after placing in the disposer. If acidic foods are left standing in the disposer, the acid will corrode the metal.

Make sure the disposer is free of waste before operating the dishwasher (if you have one). Dishwasher and disposer drains are often the same. If the waste line is not free of waste when the dishwasher is operating, there is the possibility of dirty water backing up into the dishwasher and spotting dishes.

RANGE

Most ranges are designed with four surface burners, an oven, and a broiler. In an electric range the broiler is located in the oven. In a gas range the broiler is located in a separate compartment below the oven.

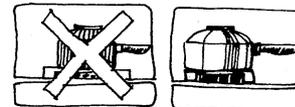


OPERATING NOTES

When cooking with surface burners consider the following points:

- * Avoid cooking with high heat. Rapidly boiling is no hotter than simmer, and cooks no faster.
- * Cover pans whenever possible. Steam is as hot as boiling liquid.

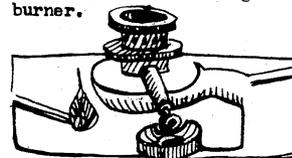
- * Prevent the waste of fuel by matching pan size to burner size.



GAS RANGE ONLY

If a surface burner will not light when turned on, turn the burner switch off and check the following points:

- * Is the burner resting correctly on its support?
- * Does the flash tube (lift cook top to locate) form a straight line from the pilot to the burner?
- * Is the burner dirty or clogged?
- * Is the pilot lit? To light the pilot, lift the cook top and hold a lighted match to the pilot burner.



- * To light the oven pilot be sure that the oven burner is in the OFF position. Pull the broiler drawer out and hold a lighted match to the pilot at the rear of the oven burner to light the pilot. If the pilot lights close the broiler drawer and turn the oven on.

CARE OF THE RANGE

Wipe the top of the range, oven, or broiler with a warm sudsy cloth after each use. This will eliminate hours of scouring baked on grease.

Top of the Range

- * Soak removable parts in strong detergent solution. Electric range surface units may lift up for ease of cleaning.

- * Sponge the top of the range with warm water and detergent.
- * Rinse removable parts, dry gas burners, and replace parts.

Oven

- * Sponge with warm sudsy water. If scouring is necessary a steel wool pad may be used.
- * If a commercial oven cleaner is used keep the room well ventilated. Do not use spray type oven cleaners in gas ovens and broilers. Read the directions on the label carefully.

Broiler

- * Sprinkle the broiler pan with detergent. Fill the pan with hot water. Place the rack on the pan and cover with a damp paper towel.
- * Clean gas broilers with hot water and detergent. Scour with steel wool pad. Avoid the use of spray type oven cleaners in gas broilers.



RANGE HOOD

A range hood is designed to remove cooking odors from the kitchen. For efficient operation and safety clean the hood regularly.

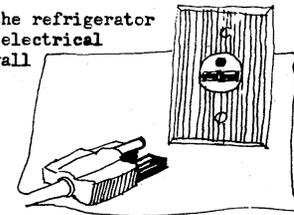
- * Clean the canopy with mild detergent and warm water.
- * Remove the aluminum mesh filter and clean with mild detergent and hot water.
- * Clean the fan blades with mild detergent and warm water.
- * **DO NOT** clean the charcoal filter. Water will render it ineffective.

REFRIGERATOR

A refrigerator is designed to cool foods placed in it and to cool the air around the food.

OPERATING NOTES

1. Start the refrigerator by placing the electrical plug into the wall outlet.



2. Set the thermostatic control knob located inside the refrigerator on a middle number.

3. Allow the refrigerator several hours to cool before loading with food.

4. Check the temperature at the meat storage area. The temperature should be 40 degrees or below.

5. If the temperature is too warm, adjust the thermostat to a higher number. If it is too cool, adjust to a lower setting.

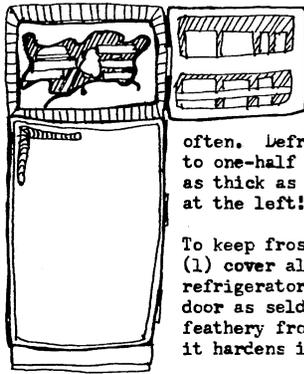
CARE OF THE REFRIGERATOR

Interior. Clean the interior with a solution of two tablespoons baking soda to one quart of warm water. Avoid the use of an abrasive cleanser (see page 17).



Rubber Door Gasket. Clean the door gasket with a sudsy cloth. Rinse and dry.

Exterior. Wipe the exterior with a sudsy cloth. Rinse and dry. An appliance wax cleaner may be used. Avoid the use of abrasive cleansers.



Defrosting. The frost that accumulated on freezers that are not automatically defrosting will cut down the efficiency of cooling and force the motor to run more often. Defrost when frost is one-fourth to one-half inch thick. NOT when it is as thick as the unfortunate refrigerator at the left!

To keep frost from forming as quickly. (1) cover all foods and beverages in the refrigerator, (2) open the refrigerator door as seldom as possible, (3) remove feathery frost from the freezer before it hardens into ice.

To defrost, turn the thermostat to the OFF position. Remove ice trays and food from the freezer. Blow with a fan or hairdryer to speed melting. Small heating elements designed to quickly defrost refrigerators are safe for refrigerators with metal interiors, but may melt the interior of the freezer or refrigerator if it is plastic. As the ice melts, remove the water collected in the tray under the freezer unit.

Cleaning for the last time. Defrost, clean interior, door gasket, and exterior as mentioned above. To prevent mildew caused by unevaporated moisture left in an air tight refrigerator, turn the refrigerator thermostat to OFF and prop the freezer and refrigerator doors open. OR if the electricity will remain on while you are away, leave the refrigerator ON. Turn the thermostat to the lowest setting. Close the freezer and refrigerator doors.

REFRIGERATOR CONCERNS

<u>PROBLEM</u>	<u>CAUSE</u>	<u>SOLUTION</u>
Motor won't run	Broken circuit	Reset circuit breaker.
	Loose connection at wall outlet or motor. worn cord.	Notify manager.
Motor runs too much.	Dirty condenser.	Clean condenser coils located at back of refrig. with vacuum or brush.
	Too much hot food in refrigerator.	Cool food before placing in refrig.
	Door leaking air.	Test by closing door on a dollar bill. If bill pulls out easily, there is a poor fit. Notify manager.
	Door opened too often or left standing open.	Have all foods ready to place in refrig. before opening door
Freezer unit collects too much ice	Door leaking air.	Contact manager.
	Uncovered foods in refrigerator.	Cover foods.
	Temperature too low in refrig.	Set temperature at 35 to 45 degrees.

SINK

Wipe the kitchen sink with a sudsy cloth. Remove stains by scouring with baking soda or a nonabrasive cleaner (see page 17).

Abrasive cleansers will damage the glass-like finish of your sink and leave a rough camaged glaze that will collect dirt and be more difficult to clean.

A sharp blow may crack or chip a sink.

LIGHTING FAILURE

CIRCUIT BREAKER/ FUSE BOX

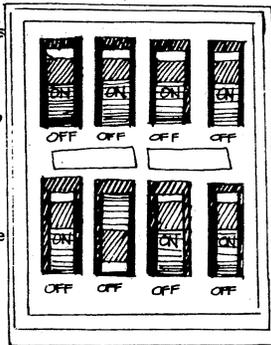
If the electricity goes off in your apartment a circuit may have been overloaded and a circuit breaker may have tripped automatically.

When a circuit breaker trips, this is a sign that something is wrong! Often it is caused by plugging in too many electrical appliances and trying to use more energy than is available. This is called overloading a circuit.

To restore electricity to an overloaded circuit that has been tripped, first unplug some electrical appliances in your apartment. Then locate the circuit breaker box. This is a metal box probably visible on one of your walls. After you have located the box, identify the switch inside the box that has tripped. The tripped switch is the one that has moved midway between the ON and the OFF position.

To reset the circuit breaker, move the switch to the OFF position, then move the switch to the ON position. This should restore electricity to the circuit.

If a circuit breaker trips often and does not appear to be overloaded, contact the manager. Further investigation may be necessary.



PLUMBING

Stopped up drains are many renters and managers number one problem! To keep plumbing systems operating properly, don't let grease, garbage, coffee grounds, potting soil, hair, heavy paper, or other foreign substances fall into drains or toilet bowls.

Sluggish drains indicate that foreign matter is in the drain. To remove this matter, try a forced cup (or plumber's friend).

Forced Cup. A forced cup is a rubber bell-shaped cup about five inches in diameter fastened to a round stick that

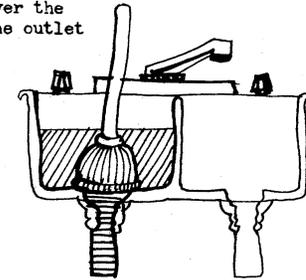
resembles a broom handle. This tool can be used effectively in sink or toilet bowl drains. It is not designed to be used in a garbage disposer drain. To use:

1. Fill the sink partly full with water. Omit this step for toilet bowls.

2. Place the rubber cup over the mouth of the drain. Or over the outlet of the toilet bowl.

3. Force the stick up and down a few times, causing suction and compression.

4. Repeat this operation until minor obstructions are removed



Chemical Drain Cleaners. Most chemical drain cleaners are very hazardous substances. They should be used with caution and only when drains are sluggish.

Read directions for use and storage on container label.

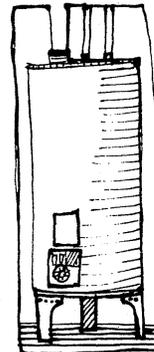
Keep chemical drain cleaners and other household cleaners out of reach of children and pets.

If neither a forced cup or a chemical drain cleaner unclogs your drain, contact the manager.

WATER HEATER

If there is a hot water heater in your apartment and you are responsible for its control, there are two things that you should know about. These two things are (1) the thermostat, and (2) the drain valve.

(1) **The thermostat** is located at the bottom of the water heater tank. It is designed to control the water temperature. This can be manually adjusted to make the hot water in your apartment either hotter or cooler.



(2) The drain valve is also located at the bottom of the tank. It is designed to allow the user to flush out any mineral deposits that may settle in the bottom of the tank. This keeps the water clean and prolongs the life of the tank. In using this drain valve, remove only a small amount of water. Never allow the tank to drain dry!

Dust mops, dustcloths, or other flammable things stored close to a water heater are a fire hazard!

CLEANING PRODUCTS

Listed below are examples of household cleaning products. This list is not intended to recommend particular products but simply to give examples of cleaning products available in local stores.

ABRASIVE CLEANSERS

Pine Sol Cleanser
Ajax Blue Dot Cleanser
Comet Cleanser
Old Dutch (moderately abrasive)
Bon Ami Cleanser (low abrasive)

AUTOMATIC DISHWASHER DETERGENT

Cascade
Big Load Finish
Electra Sol
Palmolive Crystal Clear
Formula 211 Calgon

BATHWATER ADDITIVES THAT ACT AS WATER SOFTENERS

Jergens Bubbling Bath Beads
Vaseline Intensive Care Bath Beads
Calgon Bubble Bath
Mr. Bubble

CARPET CLEANERS: SPRAY FOAM

Glory Spray Foam Rug Cleaner
Woolite Spray and Vacuum Rug Cleaner
Spray and Vac from Glamorene

CHEMICAL DRAIN CLEANERS

Liquid Plumber
Plumber Saver
Lewis Lye
Draino
Drain Power
Master Plumber

GENERAL HOUSEHOLD CLEANER (non-abrasive)

Top Job
Spic and Span
Fantastic Spray Cleaner
Klean and Shine
Mr. Clean

LAUNDRY DETERGENTS

Dash
Breeze
Bold
Cheer
Era

MILD DETERGENTS

Ivory Liquid
Dawn
Joy
Lux Liquid
Dove for Dishes

NON-ABRASIVE CLEANSERS

409 Bathroom Cleanser
Fantastic Bathroom Cleaner
Lyson Basin Tub and Tile Cleaner
Pine Sol Foam Bathroom Cleaner

OVEN CLEANERS

Mr. Muscle Overnight Oven Cleaner
Easy Off Oven Cleaner
Dow Oven Cleaner
Arm and Hammer Oven Cleaner

SPOT REMOVER

Textize K2r Spot Remover
Penn Camp Quik'n Easy Spot Remover
Energine Fireproof Spot Remover
Wink Carpet Stain Remover

TILE CLEANER

see non-abrasive cleansers

TOILET BOWL CLEANER

Santi Flush
Lysol Toilet Bowl Cleaner
Vanish
Automatic TyD Bowl

WATER BASE WAX

Klear Floor Wax
Glo Coat
Aerowax Floor Finish
Mop and Glow
Step Saver

VITA

Katherine Nichols Butt

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