



**U.S. DEPARTMENT OF ENERGY  
COMMERCIAL BUILDINGS ENERGY CONSUMPTION SURVEY FOR 1989  
BUILDING QUESTIONNAIRE**

ID: \_\_\_\_\_

BUILDING NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
STREET

\_\_\_\_\_

CITY STATE ZIP

COMMENTS: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

INITIAL CONTACT TO DETERMINE RESPONDENT

I'm \_\_\_\_\_ from Westat, Inc., a social science research firm. We are conducting a study for the U.S. Department of Energy about energy consumption in nonresidential buildings. May I speak with the building manager or a person knowledgeable about the types of energy coming into the building? May I have that person's name, title and address at which he or she might be located?

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

LOCATION: \_\_\_\_\_ PHONE ( ) \_\_\_\_\_

INTRODUCTION TO INTERVIEW

Hello, I'm \_\_\_\_\_ from Westat, Inc., a social science research firm. We are conducting a study for the U.S. Department of Energy about energy consumption in nonresidential buildings (HAND LETTER). Although your response is voluntary, we hope you will participate in this important study of energy use.

**IF ASKED ABOUT CONFIDENTIALITY, READ:**

Any information we collect that would permit identification of respondents or their buildings will be confidential and used only for statistical purposes. Data that can be identified with individual respondents will not be disclosed or released to anyone, including the Department of Energy, for any other purpose, except as required by law.

INTERVIEWER NAME: \_\_\_\_\_ ID NO. \_\_\_\_\_

TIME BEGAN: \_\_\_\_\_

**A. BUILDING IDENTIFICATION QUESTIONS**

<p><b>BOX 1</b></p> <p><i>IF BUILDING IS A SHOPPING CENTER/MALL, CHECK BOX AND SKIP TO A-7 ON PAGE 4. <input type="checkbox"/></i></p>
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First, I need to make sure we have correctly described the building we want you to answer questions about. The original records indicate the building as (ADDRESS OR DESCRIPTION FROM LABEL OR LISTING).

**A-1. INTERVIEWER OBSERVATION: DOES THE ADDRESS OR DESCRIPTION FROM LABEL OR LISTING REPRESENT AN ENTIRELY FREESTANDING STRUCTURE OR IS THERE ANOTHER STRUCTURE ATTACHED TO OR ABUTTING IT?**

STRUCTURE IS FREESTANDING ..... 1 (A-2)  
 STRUCTURE ATTACHED TO OTHER ..... 2 (A-5)

**SAMPLED STRUCTURE IS FREE STANDING**

**A-2. Is the entire structure owned by the same person or organization?**

YES ..... 1 (A-3)  
 NO ..... 2 (A-4)

**A-3. Is this structure subdivided into separate parts by walls extending from ground to roof without pass-through?**

YES ..... 1 (A-4)  
 NO ..... 2 →

<p><b>GO TO BOX 3 AND CHECK A.</b></p>
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**A-4. What are the addresses of the (separate/separately owned) parts of this structure? IF PARTS OF STRUCTURE DO NOT HAVE ADDRESSES, OBTAIN DISTINGUISHING DESCRIPTIONS.**

- (1) \_\_\_\_\_
- (2) \_\_\_\_\_
- (3) \_\_\_\_\_
- (4) \_\_\_\_\_



<p><b>GO TO BOX 3 AND CHECK B.</b></p>
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**SAMPLED STRUCTURE IS ATTACHED TO ANOTHER**

A-5. What are the addresses of the different parts of this structure attached to (COMPLETE ADDRESS OR DESCRIPTION FROM LABEL OR LISTING)?

A-6. Are there walls extending from ground to roof without pass-through between (ADDRESS OR DESCRIPTION FROM LABEL OR LISTING) and (ADDRESS OR DESCRIPTION OF ATTACHED PART)?

	<u>YES</u>	<u>NO</u>
(1) _____	1	2
(2) _____	1	2
(3) _____	1	2
(4) _____	1	2

**BOX 2**

**SEE A-6. ARE ALL ANSWERS "YES"?**

ALL "YES" .....	1	GO TO BOX 3 AND CHECK A.
NOT ALL "YES" .....	2	GO TO BOX 3 AND CHECK C.

**BOX 3**

**LISTING IS:**

A.  CORRECT. STRUCTURE ON LABEL OR LISTING IS ONE BUILDING. CONDUCT ONE INTERVIEW. GO TO A-7.

B.  INCORRECT. STRUCTURE ON LABEL OR LISTING IS MORE THAN ONE BUILDING. BE SURE TO CROSS OFF ANY ADDRESSES YOU ADDED WHICH ARE ALREADY LISTED. CONDUCT A SEPARATE INTERVIEW FOR EACH BUILDING (EACH PART SEPARATELY OWNED OR SEPARATED BY WALLS) RECORDED AT A-4. GO TO A-7.

C.  INCORRECT. STRUCTURE ON LABEL OR LISTING IS PART OF A LARGER BUILDING. CONDUCT ONE INTERVIEW, INVOLVING ALL PARTS OF THE BUILDING THAT ARE NOT SEPARATED FROM THE LISTED STRUCTURE BY WALLS WITHOUT PASS-THROUGH. GO TO A-7.

A-7. The questions I will be asking refer to the building at (COMPLETE BUILDING ADDRESS). Does this building, as we have described it, have any other addresses associated with it?

RECORD VERIFIED STREET ADDRESS: \_\_\_\_\_

RECORD ADDITIONAL STREET ADDRESS(ES): \_\_\_\_\_

\_\_\_\_\_

A-8. What is the name of this building?

VERIFIED NAME: \_\_\_\_\_ (BOX 4)

OR

BUILDING HAS NO NAME  (A-9)

<p><b>BOX 4</b></p> <p><b>VERIFIED BUILDING NAME IS: (CHECK ONE)</b></p> <p><input type="checkbox"/> <b>NAME OF BUILDING OR ONLY ESTABLISHMENT IN BUILDING</b></p> <p><input type="checkbox"/> <b>NAME OF MAJOR ESTABLISHMENT IN BUILDING</b></p> <p><input type="checkbox"/> <b>NAME OF ESTABLISHMENT BUT NOT MAJOR</b></p>
--

A-9. What is the building's ZIP Code?

\_\_\_\_\_

ZIP Code

<p><b>BOX 5</b></p> <p><b><u>IF AREA SAMPLE:</u> CHECK TO SEE IF THE BUILDING'S ZIP MATCHES ZIP ON THE LABEL (CHECK ONE BOX)</b></p> <p><input type="checkbox"/> <b>BUILDING ZIP MATCHES LABEL: CONTINUE WITH INTERVIEW.</b></p> <p><input type="checkbox"/> <b>BUILDING ZIP DOES NOT MATCH LABEL: VERIFY THAT YOU ARE AT THE CORRECT ADDRESS AND WITHIN THE SEGMENT BOUNDARIES. IF YOU ARE, CONTINUE WITH INTERVIEW. IF NOT, DISCONTINUE AND CALL SUPERVISOR.</b></p>
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**B. PRINCIPAL BUILDING ACTIVITIES**

B-1. What is the gross or total square feet of all the space, both finished and unfinished, enclosed within the exterior walls of this building including: basements, indoor parking facilities, hallways, lobbies, stairways and elevator shafts?

\_\_\_\_\_ **TOTAL SQUARE FEET**

**IF 1,000 OR LESS, GO TO B-8; ON PAGE 8, OTHERWISE, RECORD ON FOLD-OUT AND GO TO B-3.**

DON'T KNOW ..... 9-8 (B-2)

B-2. Here is a card that has categories of total square feet. **HAND CARD 1.** Which category in your estimation best describes the total square feet in this building including all the areas just mentioned? **CIRCLE CODE BELOW AND ENTER B-2 RANGE ON FOLD-OUT PAGE.**

*HAND  
CARD  
1*

- 1,000 SQUARE FEET OR LESS ..... 01 (B-8)
- 1,001 TO 5,000 SQUARE FEET ..... 02
- 5,001 TO 10,000 SQUARE FEET ..... 03
- 10,001 TO 25,000 SQUARE FEET ..... 04
- 25,001 TO 50,000 SQUARE FEET ..... 05
- 50,001 TO 100,000 SQUARE FEET ..... 06
- 100,001 TO 200,000 SQUARE FEET ..... 07
- 200,001 TO 500,000 SQUARE FEET ..... 08
- 500,001 TO 1 MILLION SQUARE FEET ..... 09
- OVER 1 MILLION SQUARE FEET ..... 10
- DON'T KNOW ..... 98

B-3. INTERVIEWER:  
CODE BEST DESCRIPTION BASED ON YOUR  
OBSERVATION.

The purpose of the next few questions is to find out about the kinds of activities that occur within this building. By activity we mean what the building is used for. For example, space in a building may be used for (YOUR OBSERVATION).

B-4. Here is a card that shows how building activities are categorized for this study. HAND CARD 2. Considering all of the (B-1/B-2 SQUARE FEET) square feet in this building, would you estimate that 75 percent or more of this space (is used for/is) (YOUR OBSERVATION)?



<u>ACTIVITY</u>		<u>CIRCLE ONE</u>	<u>YES</u>	<u>NO</u>
a.	VACANT	01	1 (B-7a)	2 (B-5)
b.	OFFICE/PROFESSIONAL	02	1 (C-1)	2 (B-5)
c.	SHOPPING CENTER/MALL/RETAIL/SERVICE	03	1 (C-1)	2 (B-5)
d.	PUBLIC ASSEMBLY	04	1 (C-1)	2 (B-5)
e.	FOOD SALES	05	1 (C-1)	2 (B-5)
f.	PUBLIC ORDER AND SAFETY	06	1 (C-1)	2 (B-5)
g.	OUTPATIENT HEALTH SERVICES/CLINIC	07	1 (C-1)	2 (B-5)
h.	INDUSTRIAL PROCESSING AND MANUFACTURING	08	1 (GO TO B-8)	2 (B-5)
i.	AGRICULTURAL PURPOSES	09	1 (GO TO B-8)	2 (B-5)
j.	LABORATORY	10	1 (C-1)	2 (B-5)
k.	REFRIGERATED WAREHOUSE OR STORAGE	11	1 (C-1)	2 (B-5)
l.	NONREFRIGERATED WAREHOUSE OR STORAGE	12	1 (C-1)	2 (B-5)
m.	EDUCATION	13	1 (B-7m)	2 (B-5)
n.	FOOD SERVICES	14	1 (B-7n)	2 (B-5)
o.	HOSPITAL/INPATIENT HEALTH SERVICES	15	1 (B-7o)	2 (B-5)
p.	SKILLED NURSING/OTHER RESIDENTIAL CARE (NURSING HOME)	16	1 (B-7p)	2 (B-5)
q.	HOTEL/MOTEL/DORM, ETC.	17	1 (B-7q)	2 (B-5)
r.	RESIDENTIAL (LIVING QUARTERS WITH KITCHEN FACILITIES)	18	1 (GO TO B-8)	2 (B-5)
s.	INDOOR ENCLOSED PARKING GARAGE	19	1 (C-1)	2 (B-5)
t.	OTHER (SPECIFY):	20	1 (C-1)	2 (B-5)

B-5. Please tell me which activities occupy space in this building.

CIRCLE ALL ACTIVITIES MENTIONED

B-6. Of the (B-1/B-2 SQUARE FEET) square feet in this building, approximately what percentage of space does this activity occupy?

ASK ALL APPROPRIATE B-7 QUESTIONS BEFORE C-1

a. 01	%	→
b. 02	%	
c. 03	%	
d. 04	%	
e. 05	%	
f. 06	%	
g. 07	%	
h. 08	% IF 50% OR MORE, GO TO B-8	
i. 09	% IF 50% OR MORE, GO TO B-8.	
j. 10	%	
k. 11	%	
l. 12	%	

B-7.

a. 50% OR MORE VACANT, ASK: What was this vacant space previously used for?/OR IF NEVER USED: What was this space intended to be used for?

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m. 13	_____ %	→	B-7. m. How many students can be seated in all of the classrooms in the building at one time? _____ STUDENTS
n. 14	_____ %	→	n. What is the total seating capacity of the food service areas of the building? _____ SEATS
o. 15	_____ %	→	o. What is the licensed bed capacity of the building? _____ BEDS
p. 16	_____ %	→	p. What is the licensed bed capacity of the building? _____ BEDS
q. 17	_____ %	→	q. How many guest rooms are there in the building? _____ ROOMS
r. 18	_____ %		% IF 50% OR MORE, GO TO B-8.
s. 19	_____ %		
t. 20	_____ %		

TOTAL SHOULD EQUAL 100%

BEGIN AT B-8 ONLY IF:

- 50% OR MORE OF THE FLOOR SPACE IN THE BUILDING IS AGRICULTURAL, INDUSTRIAL, OR RESIDENTIAL OR
- BUILDING HAS 1,000 SQUARE FEET OR LESS

B-8. Is the building part of a multibuilding facility or complex? By a multibuilding facility or complex, we mean a group of two or more buildings on the same site owned or operated by a single organization, business or individual.

YES ..... 1 (BOX 6)  
 NO ..... 2 (B-14)

**BOX 6**

**B-9 THROUGH B-13 SHOULD ONLY BE ASKED OF THE FIRST SAMPLED BUILDING AT THE FACILITY. IF THE ANSWERS TO THESE QUESTIONS (OR J-2 THROUGH J-6) ARE RECORDED IN ANOTHER QUESTIONNAIRE, ENTER THE ID NUMBER FOR THAT BUILDING AND GO TO B-14.**

\_\_\_\_\_

*ID OF Q'NAIRE WITH FACILITY INFORMATION*

B-9. What is the full name of the facility?

\_\_\_\_\_

FACILITY

B-10. Does this facility have a central physical plant that produces district heating, district cooling, or electricity?

YES ..... 1  
 NO ..... 2 (B-14)

B-11. Is the central physical plant for this facility located in the building we have been talking about?

YES ..... 1 (B-13)  
 NO ..... 2  
 DON'T KNOW ..... 8 (B-13)

B-12. What is the full name and address of the building containing the central physical plant?

\_\_\_\_\_

BUILDING NAME

\_\_\_\_\_

BUILDING STREET ADDRESS

\_\_\_\_\_

CITY, STATE, ZIP

B-13. What is the name and phone number of a contact person for this central physical plant?

\_\_\_\_\_

CONTACT NAME

\_\_\_\_\_

CONTACT PHONE NUMBER

**TERMINATE:**

B-14. This completes the interview. Thank you very much for your time and help. TIME END: \_\_\_\_\_

**C. ENERGY SOURCES AND END USES**

C-1. Here is a list of various types of fuels or energy sources. Which of these fuels or energy sources were used in this building during the past 12 months? HAND CARD 3.

HAND  
CARD  
3

- |   |  |
|---|--|
| ELECTRICITY<br>NATURAL GAS<br>FUEL OIL, DIESEL OR KEROSENE<br>BOTTLED GAS, LPG OR PROPANE<br>DISTRICT STEAM PIPED INTO THE BUILDING FROM A CENTRAL PLANT OR UTILITY | DISTRICT HOT WATER PIPED INTO THE BUILDING FROM A CENTRAL PLANT OR UTILITY<br>DISTRICT CHILLED WATER PIPED INTO THE BUILDING FROM A CENTRAL PLANT OR UTILITY<br>WOOD<br>COAL<br>ACTIVE SOLAR WITH COLLECTOR PANELS |
|---|--|

FOR EACH ENERGY SOURCE USED, PLACE A CHECK (✓) IN COLUMN C-1 ON THE FOLD-OUT PAGE

C-2. In addition to (NAMES OF ENERGY SOURCES), were there any other energy sources used in this building during the past 12 months?

- YES ..... 1 RECORD ON FOLD-OUT PAGE  
 NO ..... 2 (C-3)

C-3. Which of the energy sources you just mentioned were used in the past 12 months:

RECORD ON  
FOLD-OUT PAGE

- |   |   |  |
|---|---|--|
| a. As the main fuel for heating this building?<br>b. As the secondary or backup fuel for heating this building?<br>c. For cooling this building?<br>d. For heating water, other than for heating this building?<br>e. For commercial or institutional cooking?<br>f. For manufacturing or any other type of industrial activity?<br>g. For electricity generation | } | (CHECK ONLY ONE)<br><br><br><br><br><br><br>(CHECK ALL THAT APPLY) |
|---|---|--|

C-4. SCAN ACROSS THE ROWS ON THE FOLD-OUT PAGE. DOES EACH REPORTED ENERGY SOURCE, OTHER THAN ELECTRICITY, HAVE AT LEAST ONE END-USE REPORTED?

- YES  
 NO: How was (ENERGY SOURCE) used in the building during the past 12 months?

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C-5. SCAN EACH COLUMN ON THE FOLD-OUT PAGE. HAS AT LEAST ONE BOX BEEN CHECKED IN EACH COLUMN?

- YES  
 NO: What energy source was used for (END-USE) during the past 12 months?

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D. HEATING AND COOLING SYSTEMS

**BOX 7**

**IF "NOT PERFORMED" IS CHECKED IN COLUMN C-3a ON THE FOLD-OUT PAGE, GO TO BOX 8 ON PAGE 12.**

D-1. During the heating season in the past 12 months, what percentage of the (B-1/B-2 SQUARE FEET) square feet in the building was heated to at least 50° Fahrenheit? Be sure to include basements and enclosed garages if they are heated to at least 50 degrees.

_____	
PERCENTAGE	
[RECONFIRM C-3a] BUILDING NOT HEATED .....	000 (BOX 8)
DON'T KNOW .....	998

D-2. Do most of the people who work in the building, other than maintenance personnel, have any control over the amount of heat in the building?

YES .....	1
NO .....	2 (D-4)
DON'T KNOW .....	8 (D-4)

D-3. Can most of the people who work in the building set the temperature in their areas by using a thermostat?

YES .....	1
NO .....	2
DON'T KNOW .....	8

D-4. Is there usually a reduction in the heat produced by the system during the hours the building is not in full use?

*(That is, in the evening, on weekends and holidays, during the off-season and so forth?)*

YES .....	1
NO .....	2
BUILDING ALWAYS IN FULL USE .....	7
DON'T KNOW .....	8

D-5. Here is a card showing different types of equipment that may be part of the building's heating system. HAND CARD 4. During the past 12 months, did this building use any:

HAND  
CARD  
4

<u>HEATING EQUIPMENT</u>		<u>YES</u>	<u>NO</u>	<u>DK</u>
a.	Boilers inside the building that produce steam or hot water? <i>(Also include boilers just outside of the building that are primarily associated with it.)</i>	1	2	8
b.	Furnaces that heat air directly, without using steam or hot water? <i>(Similar to a residential furnace)</i>	1	2	8
c.	Individual space heaters, free standing or mounted in wall, ceiling, or window? <i>(This would include portable heaters, hanging unit heaters, heating panels, electric baseboards, wood stoves, and fireplaces.)</i>	1	2	8
d.	Packaged heating units, usually mounted on the roof or on a slab beside the building? <i>(These are self-contained units, usually serving more than one room, which contain both heating equipment and fans.)</i>	1	2	8
e.	Heat pump for heating?	1	2	8
f.	Air ducts or air handling units?	1	2	8
g.	Heating or reheating coils in the air ducts or air handling units?	1	2	8
h.	Circulating hot water with fans? <i>(That is, fan-coil units.)</i>	1	2	8
i.	Steam or hot water baseboards or radiators?	1	2	8
j.	Any other equipment for heating?  (SPECIFY) _____ _____ _____	1	2	8

**BOX 8**

**IF "NOT PERFORMED" IS CHECKED IN COLUMN C-3c ON THE FOLD-OUT PAGE, GO TO D-13 ON PAGE 14.**

D-6. During the cooling season in the past 12 months, what percentage of the (B-1/B-2 SQUARE FEET) square feet in the building was cooled by air-conditioning equipment?

\_\_\_\_\_

PERCENTAGE

[RECONFIRM C-3c] BUILDING NOT COOLED ..... 000 (D-13)  
 DON'T KNOW ..... 998

D-7. Do most of the people who work in the building, other than maintenance personnel, have any control over the amount of cooling in the building?

YES ..... 1  
 NO ..... 2 (D-9)  
 DON'T KNOW ..... 8 (D-9)

D-8. Can most of the people who work in the building set the temperature in their areas by using a thermostat?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

D-9. Is there usually a reduction in the cooling produced by the system during the hours the building is not in full use?

*(That is, in the evening, on weekends and holidays, during the off-season and so forth?)*

YES ..... 1  
 NO ..... 2  
 BUILDING ALWAYS IN FULL USE ..... 7  
 DON'T KNOW ..... 8

D-10. Here is a card showing different types of equipment that may be part of the building's cooling system. HAND CARD 5. During the past 12 months, did this building use any:

HAND  
CARD  
5

<u>COOLING EQUIPMENT</u>		<u>YES</u>	<u>NO</u>	<u>DK</u>
a.	Central chillers inside the building that chill water for air conditioning? <i>(Also include chillers just outside of the building that are primarily associated with it.)</i>	1	2	8
b.	Individual room air conditioners mounted in a window or wall?	1	2	8
c.	Packaged air conditioning units, usually mounted on the roof or on a slab beside the building? <i>(These are self-contained units, usually serving more than one room, which contain both cooling equipment and fans.)</i>	1	2	8
d.	Heat pump for cooling?	1	2	8
e.	Air ducts or air handling units?	1	2	8
f.	Circulating chilled water with fans? <i>(That is, fan-coil units.)</i>	1	2	8
g.	Any other equipment for cooling?  (SPECIFY) _____ _____ _____	1	2	8

BOX 9  
  
IF NO CENTRAL CHILLER (D-10a = "NO"), GO TO BOX 10  
ON PAGE 14.

D-11. HAND CARD 6. When was the building's main central chiller installed?

HAND  
CARD  
6

- 1959 OR BEFORE ..... 1
- 1960 - 1969 ..... 2
- 1970 - 1979 ..... 3
- 1980 - 1986 ..... 4
- 1987 - 1989 ..... 5
- DON'T KNOW ..... 8

**BOX 10**

**IF NO PACKAGED AIR CONDITIONING**  
**(D-10c = "NO"), GO TO D-13**

D-12. HAND CARD 6. When was the building's main packaged air conditioning system installed?

**HAND  
CARD  
6**

- 1959 OR BEFORE ..... 1
- 1960 - 1969 ..... 2
- 1970 - 1979 ..... 3
- 1980 - 1986 ..... 4
- 1987 - 1989 ..... 5
- DON'T KNOW ..... 8

D-13. Are any of the following types of equipment present in this building:

	<u>YES</u>	<u>NO</u>	<u>DK</u>
a. Commercial refrigeration units for the sale or storage of perishable materials, such as food or medical supplies? .....	1	2	8
b. Commercial freezers for the sale or storage of perishable materials, such as food or medical supplies? .....	1	2	8
c. Residential-type refrigerators? .....	1	2	8
d. Residential-type freezers? .....	1	2	8
e. Ice-making machines? .....	1	2	8
f. Soda or any other refrigerated vending machines? .....	1	2	8
g. Water coolers? .....	1	2	8
h. Any other refrigeration equipment, excluding air conditioning? .....	1	2	8
(SPECIFY) _____			
_____			

**E. BUILDING OWNERSHIP AND OCCUPANCY CHARACTERISTICS**

E-1. The next few questions are about the ownership and occupancy of the building. Is the building owned by a government agency?

- YES ..... 1
- NO ..... 2 (E-3)
- DON'T KNOW ..... 8 (E-3)

E-2. Is the building owned by a Federal, State, or local government agency? CIRCLE ONLY ONE.

- FEDERAL GOVERNMENT AGENCY ..... 1
- STATE GOVERNMENT AGENCY ..... 2
- LOCAL GOVERNMENT AGENCY ..... 3

E-3. Here is a card that lists different ways establishments or organizations can occupy a building. By "occupy", we mean to hold or lease space on a full-time basis. HAND CARD 7. Please tell me which category best applies to this building. RECORD HERE AND ON FOLD-OUT PAGE.



- ONE OCCUPANT: THE OWNER OR OWNER'S REPRESENTATIVE ..... 1 (E-6)
- ONE OCCUPANT: NOT THE OWNER OR OWNER'S REPRESENTATIVE ..... 2 (E-6)
- MORE THAN ONE OCCUPANT, INCLUDING THE OWNER OR OWNER'S REPRESENTATIVE ..... 3
- MORE THAN ONE OCCUPANT, BUT NOT THE OWNER OR OWNER'S REPRESENTATIVE ..... 4
- CURRENTLY UNOCCUPIED ..... 5 (E-6)

E-4. (Including the owner or owner's representative), how many establishments or organizations currently occupy the building?

- \_\_\_\_\_ (E-6)  
NUMBER OF OCCUPANTS
- DON'T KNOW ..... 9-8

E-5. **HAND CARD 8.** Which category on this card best describes the number of establishments or organizations currently occupying the building?



- 2 - 5 ..... 1
- 6 - 10 ..... 2
- 11 - 20 ..... 3
- 21 - 49 ..... 4
- 50 - 99 ..... 5
- 100 or more ..... 6
- DON'T KNOW ..... 8

E-6. Was any space in the building vacant or unoccupied for at least 3 consecutive months during the past 12 months?

- YES ..... 1
- NO ..... 2 (E-8)
- DON'T KNOW ..... 8 (E-8)

E-7. Approximately what percentage of the square feet was vacant or unoccupied during that time?

\_\_\_\_\_

PERCENTAGE VACANT

DON'T KNOW ..... 998

E-8. How many months out of the past 12 months was this building in use?

\_\_\_\_\_

NUMBER OF MONTHS

NOT IN USE DURING PAST

12 MONTHS ..... 00 (F-1)

DON'T KNOW ..... 98

E-9. During the months when the building was in use, what were the usual operating hours on:

DAY(S)	TIME	OPEN 24 HOURS	NOT OPEN	OR →	HOURS VARY
a. Monday through Friday?	____ AM to ____ AM PM            PM	<input type="checkbox"/>	<input type="checkbox"/>	} GO TO E-11	<input type="checkbox"/>
b. Saturday?	____ AM to ____ AM PM            PM	<input type="checkbox"/>	<input type="checkbox"/>		
c. Sunday?	____ AM to ____ AM PM            PM	<input type="checkbox"/>	<input type="checkbox"/>		

E-10. HAND CARD 9. Which category on the card best describes the number of operating hours per week for most of the building when it was in use?



0 HOURS .....	0
1-39 HOURS .....	1
40-48 HOURS .....	2
49-60 HOURS .....	3
61-84 HOURS .....	4
85-167 HOURS .....	5
OPEN CONTINUOUSLY .....	7
DON'T KNOW .....	8

E-11. During the months the building was in use, how many people worked in the building during its main shift? Do not include employees who worked out of the building such as drivers with delivery routes, customers, patients, or students. Do include volunteer workers.

_____	(F-1)
NUMBER OF PEOPLE	
DON'T KNOW .....	9-8

E-12. HAND CARD 10. Which category on this card best describes the number of people who worked in the building during its main shift in the months it was in use?



0 .....	00
1-4 .....	01
5-9 .....	02
10-19 .....	03
20-49 .....	04
50-99 .....	05
100-249 .....	06
250-499 .....	07
500-999 .....	08
1,000-2,499 .....	09
2,500-4,999 .....	10
5,000 or more .....	11
DON'T KNOW .....	98

F. BUILDING ENVELOPE CHARACTERISTICS

F-1. Now I would like to ask you some questions about the construction of the building.

When was the construction of the major or largest portion of the (B-1/B-2 SQUARE FEET) square feet completed?

\_\_\_\_\_ YEAR

IF COMPLETED IN 1989, ASK F-2;  
IF COMPLETED BEFORE 1989,  
GO TO F-4

DON'T KNOW ..... 9-8 (F-3)

F-2. In what month of 1989 was the building first open for occupancy?

\_\_\_\_\_ MONTH (F-4)

DON'T KNOW ..... 98 (F-4)

F-3. Here is a card with categories of years. HAND CARD 11. In your estimation, which category contains the year the largest portion of the building was completed?

HAND  
CARD  
11

1899 or before .....	01	1970 - 1979 .....	06
1900 - 1919 .....	02	1980 - 1983 .....	07
1920 - 1945 .....	03	1984 - 1986 .....	08
1946 - 1959 .....	04	1987 - 1989 .....	09
1960 - 1969 .....	05	DON'T KNOW .....	98

F-4. How many floors are in the tallest section of the building? Please include basements, floors that may be used as a parking garage, or any other floors below ground level.

\_\_\_\_\_ # OF FLOORS

DON'T KNOW .....998

F-5. Here is a card that shows different types of construction materials. **HAND CARD 12.** Which best describes the **major type** of exterior wall construction material used on this building? **CIRCLE ONLY ONE.**



- WINDOW OR VISION GLASS (GLASS THAT CAN BE SEEN THROUGH) ..... 01
- DECORATIVE OR CONSTRUCTION GLASS ..... 02
- CONCRETE PANELS ..... 03
- BRICK, STONE, STUCCO, OR OTHER MASONRY .... 04
- WOOD, PLASTIC OR METAL SIDING, SHINGLES OR SHAKES ..... 05
- PRE-ENGINEERED METAL OR LIGHT-WEIGHT METAL PANELS ..... 06
- OTHER (SPECIFY) \_\_\_\_\_ 07
- DON'T KNOW ..... 98

F-6. Here is a card with different types of roofing materials. **HAND CARD 13.** Which best describes the building's **major type** of exterior roof surface? **CIRCLE ONLY ONE.**



- WOOD SHINGLES, SHAKES OR OTHER WOODEN MATERIALS ..... 01
- SLATE OR TILE SHINGLES ..... 02
- ASPHALT, FIBERGLASS, OR OTHER SHINGLES ..... 03
- BUILT-UP (TAR, FELTS OR FIBERGLASS AND A BALLAST, SUCH AS STONE) ..... 04
- METAL SURFACING ..... 05
- PLASTIC, RUBBER, OR SYNTHETIC SHEETING (SINGLE OR MULTIPLE PLY) ..... 06
- CONCRETE ..... 07
- OTHER (SPECIFY) \_\_\_\_\_ 08
- DON'T KNOW ..... 98

**G. THE LIGHTING SYSTEM**

The next set of questions pertains to the lighting system used in this building during the past 12 months.

G-1. What percentage of the (B-1/B-2 SQUARE FEET) square feet of the interior of this building was lit...

a. During usual operating hours?

\_\_\_\_\_ %  
 NOT IN USE DURING PAST  
 12 MONTHS .....997  
 DON'T KNOW .....998

b. During off-hours? Do not include the space lit by emergency lighting.

\_\_\_\_\_ %  
 NO OFF-HOURS .....997  
 DON'T KNOW .....998

IF ANY PERCENTAGE OF THE BUILDING WAS LIT DURING THE PAST 12 MONTHS, CONTINUE WITH G-2; OTHERWISE SKIP TO SECTION H.

COLUMN A	COLUMN B
<p>G-2. During the past 12 months, was any of the square footage in this building lit by:</p> <p><u>LIGHTING TYPE</u></p>	<p>IF "YES" IN COLUMN A: What percentage of the electrically lighted <u>interior</u> space in the building is lit by (LIGHTING TYPE):</p>
<p><u>YES</u> <u>NO</u> <u>DK</u></p>	
<p>a. Incandescent bulbs? ..... 1 2 8</p>	<p>_____ %</p>
<p>b. Fluorescent lights? ..... 1 2 8</p>	<p>_____ %</p>
<p>c. High-Intensity Discharge lights such as mercury vapor, metal halide or high pressure sodium? ..... 1 2 8</p>	<p>_____ %</p>
<p>d. Some other lighting equipment? ..... 1 2 8                      (SPECIFY) _____                      _____</p>	<p>_____ %</p>
<p><b>TOTAL MUST BE AT LEAST 100%</b></p>	

H. ENERGY CONSERVATION FEATURES OR PRACTICES

COLUMN A	COLUMN B	COLUMN C
<p>This next section deals with energy conservation features or practices.</p> <p style="text-align: center;">FEATURE</p> <p>H-1. As of July 1, 1989 were any of the following features present in this building?</p>	<p>IF "YES" IN COLUMN A ASK: (Was/Were) the (FEATURE) installed during building construction or added afterwards?</p>	<p>IF "ADDED" IN COLUMN B ASK: When was the (FEATURE) added? Was it in 1989, between 1984 and 1988, or before 1984?</p>
	<p>DK    INSTALLED    ADDED</p>	<p>1989    1984-1988    BEFORE 1984    DK</p>
<p>a. Roof or ceiling insulation?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>b. Insulation in exterior walls?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>c. Storm windows, storm doors or double- or triple-paned glass?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>d. Tinted or reflective glass or shading films?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>e. Exterior or interior shadings or awnings?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>f. Weather stripping or caulking?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>
<p>g. High-efficiency ballasts for lighting?</p> <p>    YES ..... 1   —————&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p>	<p>8      1      2 —&gt;</p>	<p>1      2      3      8</p>

H-2. As of July 1, 1989, did the building have a computerized energy management and control system (EMCS)?

YES ..... 1  
 NO ..... 2 (H-4)  
 DON'T KNOW ..... 8 (H-4)

H-3. As of July 1, 1989, did the EMCS control:

	<u>YES</u>	<u>NO</u>	<u>DK</u>
a. Lighting? .....	1	2	8
b. Heating and cooling (HVAC)? .....	1	2	8
c. Anything else? .....	1	2	8
SPECIFY _____			
_____			

H-4. As of July 1, 1989, was there a regularly scheduled maintenance and repair program for the heating and cooling system in the building?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

H-5. As of July 1, 1989, did the building have any environmentally controlled space for computers; that is, a computer area with a separate air conditioning system?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

H-6. As of July 1, 1989, had the building ever participated in a utility sponsored conservation program to improve the efficiency of the lighting system, the efficiency of any equipment, or the thermal efficiency of the building's shell?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

I. COGENERATION

I-1. Is there equipment in the building that can generate electricity for any purpose other than emergency or backup power?

YES ..... 1  
 NO ..... 2 (J-1)  
 DON'T KNOW ..... 8 (J-1)

I-2. Does the building have a cogeneration system? That is, does it have equipment that produces both electricity and usable heat?

YES ..... 1  
 NO ..... 2 (I-6)  
 DON'T KNOW ..... 8 (I-6)

I-3. During the past 12 months, how many kilowatthours of electricity were cogenerated in the building?

\_\_\_\_\_

KILOWATTHOURS

ELECTRICITY NOT GENERATED IN  
 PAST 12 MONTHS ..... 0-0  
 DON'T KNOW ..... 9-8

I-4. What was the total nameplate capacity of all cogeneration units that were in place in the building on December 31, 1988?

\_\_\_\_\_

KILOWATTS

DON'T KNOW ..... 9-8

I-5. As of December 31, 1988, was the building's cogeneration system electrically interconnected with an electric utility? That is, was it able to deliver electricity to the grid as well as receive electricity?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

I-6. Is the building currently designated as a Qualifying Facility under the Public Utilities Regulatory Policies Act of 1978, or PURPA?

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

J. CENTRAL PHYSICAL PLANT/FACILITIES

J-1. Is the building part of a multibuilding facility or complex? By a multibuilding facility or complex, we mean a group of two or more buildings on the same site owned or operated by a single organization, business or individual.

YES ..... 1 (BOX 11)  
NO ..... 2 (BOX 12)

**BOX 11**

*J-2 THROUGH J-6 SHOULD ONLY BE ASKED OF THE FIRST SAMPLED BUILDING AT THE FACILITY. IF THE ANSWERS TO THESE QUESTIONS (OR B-9 THROUGH B-13) ARE RECORDED IN ANOTHER QUESTIONNAIRE, ENTER THE ID NUMBER FOR THAT BUILDING AND GO TO BOX 12.*

---

*ID OF Q'NAIRE WITH FACILITY INFORMATION*

J-2. What is the full name of the facility?

\_\_\_\_\_

FACILITY

J-3. Does this facility have a central physical plant that produces district heating, district cooling, or electricity?

YES ..... 1  
NO ..... 2 (BOX 12)

J-4. Is the central physical plant for this facility located in the building we have been talking about?

YES ..... 1 (J-6)  
NO ..... 2  
DON'T KNOW ..... 8 (J-6)

J-5. What is the full name and address of the building containing the central plant?

\_\_\_\_\_  
BUILDING NAME

\_\_\_\_\_  
BUILDING STREET ADDRESS

\_\_\_\_\_  
CITY, STATE, ZIP

J-6. What is the name and phone number of a contact person for this plant?

\_\_\_\_\_  
CONTACT NAME

\_\_\_\_\_  
CONTACT PHONE NUMBER

<p><i>BOX 12</i></p> <p><i>SCAN C-1 COLUMN ON THE FOLD-OUT PAGE. DOES THIS BUILDING HAVE AT LEAST ONE SHADED ENERGY SOURCE CHECKED?</i></p> <p style="text-align: center;"><input type="checkbox"/> YES (J-7)</p> <p style="text-align: center;"><input type="checkbox"/> NO (SKIP TO Q-2 ON PAGE 38)</p>
---

J-7. The next few questions are about the companies or organizations that supplied the building with energy during the past 12 months. An energy supplier may be a utility or private dealer, or it may be a central physical plant or distribution center.

**K. ELECTRICITY PAGE**

NO ELECTRICITY USED IN BUILDING. GO TO NATURAL GAS PAGE.

K-1. What is the name and address of the electric utility or central physical plant that supplied electricity to the building during the past 12 months?

Has any other supplier provided electricity to the building in the past 12 months? ASK K-1 UNTIL THE RESPONDENT ANSWERS "NO" AND CHECK THE "NO OTHER SUPPLIERS" BOX.

IF ONE OCCUPANT OR VACANT, GO TO K-5.

MULTIPLE OCCUPANTS

K-2. Is the electricity bill or statement from (SUPPLIER) for the entire building or do any of the tenants or establishments have separate statements?
K-3. How many separate bills or statements are there? PROBE IF ANSWER IS "DON'T KNOW": Could you give an estimate or the approximate number of separate bills or statements?
K-4. Please tell me the name of each company, organization or agency that received a bill or statement from (SUPPLIER) for electricity during the past 12 months.  <p>IF LIST IS NOT PROVIDED, COMPLETE A "SUPPLIER CUSTOMER SHEET."</p>

ONE OCCUPANT OR VACANT

K-5. Does the bill or statement from (SUPPLIER) cover just this building or does it cover other buildings as well?
K-6. What is the approximate square footage of the <u>other</u> buildings that are included on this bill or statement?

BOX K  
ASK ABOUT NEXT ELECTRICITY SUPPLIER. IF NO ADDITIONAL SUPPLIERS, GO TO NATURAL GAS PAGE.

SUPPLIER NO. 1		SUPPLIER NO. 2		SUPPLIER NO. 3	
K-1.	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS		
K-2.	ONE BILL/STATEMENT ..... 1 (K-5) SEPARATE STATEMENTS ..... 2 (K-3)	ONE BILL/STATEMENT ..... 1 (K-5) SEPARATE STATEMENTS ..... 2 (K-3)	ONE BILL/STATEMENT ..... 1 (K-5) SEPARATE STATEMENTS ..... 2 (K-3)		
K-3.	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS		
K-4.	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX K</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX K</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX K</div>		

K-5.	JUST THIS BUILDING ..... 1 (BOX K) OTHER BUILDING(S) ..... 2 (K-6) DON'T KNOW ..... 8 (BOX K)	JUST THIS BUILDING ..... 1 (BOX K) OTHER BUILDING(S) ..... 2 (K-6) DON'T KNOW ..... 8 (BOX K)	JUST THIS BUILDING ..... 1 (BOX K) OTHER BUILDING(S) ..... 2 (K-6) DON'T KNOW ..... 8 (BOX K)		
K-6.	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8		

L. NATURAL GAS PAGE

NO NATURAL GAS USED IN BUILDING. GO TO FUEL OIL/DIESEL/KEROSENE PAGE.

L-1. What is the name and address of the company that supplied natural gas to this building during the past 12 months?

Has any other company supplied natural gas to the building in the past 12 months? ASK L-1 UNTIL THE RESPONDENT ANSWERS "NO" AND CHECK THE "NO OTHER SUPPLIERS" BOX.

IF ONE OCCUPANT OR VACANT, GO TO L-5.

MULTIPLE OCCUPANTS

L-2. Is the natural gas bill from (SUPPLIER) for the entire building or do any of the tenants or establishments have separate bills?

L-3. How many separate bills are there? PROBE IF ANSWER IS "DON'T KNOW": Could you give an estimate or the approximate number of separate bills?

L-4. Please tell me the name of each company, organization or agency that received a bill from (SUPPLIER) for natural gas during the past 12 months.

IF LIST IS NOT PROVIDED, COMPLETE A "SUPPLIER CUSTOMER SHEET."

ONE OCCUPANT OR VACANT

L-5. Does the bill from (SUPPLIER) cover just this building or does it cover other buildings as well?

L-6. What is the approximate square footage of the other buildings that are included on this bill?

BOX L  
ASK ABOUT NEXT NATURAL GAS SUPPLIER. IF NO ADDITIONAL SUPPLIERS, GO TO FUEL OIL/DIESEL/KEROSENE PAGE.

SUPPLIER NO. 1		SUPPLIER NO. 2		SUPPLIER NO. 3	
L-1.	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS		
L-2.	ONE BILL/STATEMENT ..... 1 (L-5) SEPARATE STATEMENTS ..... 2 (L-3)	ONE BILL/STATEMENT ..... 1 (L-5) SEPARATE STATEMENTS ..... 2 (L-3)	ONE BILL/STATEMENT ..... 1 (L-5) SEPARATE STATEMENTS ..... 2 (L-3)		
L-3.	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS		
L-4.	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX L</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX L</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX L</div>		
L-5.	JUST THIS BUILDING ..... 1 (BOX L) OTHER BUILDING(S) ..... 2 (L-6) DON'T KNOW ..... 8 (BOX L)	JUST THIS BUILDING ..... 1 (BOX L) OTHER BUILDING(S) ..... 2 (L-6) DON'T KNOW ..... 8 (BOX L)	JUST THIS BUILDING ..... 1 (BOX L) OTHER BUILDING(S) ..... 2 (L-6) DON'T KNOW ..... 8 (BOX L)		
L-6.	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8		

M. FUEL OIL/DIESEL/KEROSENE PAGE

NO FUEL OIL/DIESEL/KEROSENE USED IN BUILDING. GO TO STEAM/HOT WATER/CHILLED WATER PAGE.

M-1. What is the name and address of the company that supplied (fuel oil/diesel/kerosene) to this building during the past 12 months?

Has any other company supplied (fuel oil/diesel/kerosene) to the building in the past 12 months? ASK M-1 UNTIL THE RESPONDENT ANSWERS "NO" AND CHECK THE "NO OTHER SUPPLIERS" BOX.

IF ONE OCCUPANT OR VACANT, GO TO M-5.

MULTIPLE OCCUPANTS

M-2. Is the (fuel oil/diesel/kerosene) bill from (SUPPLIER) for the entire building or do any of the tenants or establishments have separate bills?

M-3. How many separate bills are there? PROBE IF ANSWER IS "DON'T KNOW": Could you give an estimate or the approximate number of separate bills?

M-4. Please tell me the name of each company, organization or agency that received a bill from (SUPPLIER) for (fuel oil/diesel/kerosene) during the past 12 months.

IF LIST IS NOT PROVIDED, COMPLETE A "SUPPLIER CUSTOMER SHEET."

ONE OCCUPANT OR VACANT

M-5. Does the bill from (SUPPLIER) cover just this building or does it cover other buildings as well?

M-6. What is the approximate square footage of the other buildings that are included on this bill?

BOX M  
ASK ABOUT NEXT SUPPLIER. IF NO ADDITIONAL SUPPLIERS, GO TO STEAM/HOT WATER/CHILLED WATER PAGE. IF MORE THAN THREE FUEL OIL/DIESEL/KEROSENE SUPPLIERS, GO TO "ADDITIONAL SUPPLIER PAGE."

SUPPLIER NO. 1		SUPPLIER NO. 2		SUPPLIER NO. 3											
M-1.	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	NAME _____ _____ ST. ADD. _____ PO BOX _____ CITY _____ STATE/ZIP _____  <input type="checkbox"/> NO OTHER SUPPLIERS	M-2.	ONE BILL/STATEMENT ..... 1 (M-5) SEPARATE STATEMENTS ..... 2 (M-3)	ONE BILL/STATEMENT ..... 1 (M-5) SEPARATE STATEMENTS ..... 2 (M-3)	ONE BILL/STATEMENT ..... 1 (M-5) SEPARATE STATEMENTS ..... 2 (M-3)	M-3.	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	M-4.	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>
M-3.	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	_____ NUMBER OF BILLS/STATEMENTS	M-4.	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>	LIST PROVIDED ..... 1 NOT PROVIDED ..... 2  <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">GO TO BOX M</div>								

M-5.	JUST THIS BUILDING ..... 1 (BOX M) OTHER BUILDING(S) ..... 2 (M-6) DON'T KNOW ..... 8 (BOX M)	JUST THIS BUILDING ..... 1 (BOX M) OTHER BUILDING(S) ..... 2 (M-6) DON'T KNOW ..... 8 (BOX M)	JUST THIS BUILDING ..... 1 (BOX M) OTHER BUILDING(S) ..... 2 (M-6) DON'T KNOW ..... 8 (BOX M)	M-6.	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8	_____ SQUARE FOOTAGE DON'T KNOW ..... 8
------	---	---	---	------	---	---	---

**N. STEAM/HOT WATER/CHILLED WATER PAGE**

NO STEAM, HOT WATER, OR CHILLED WATER USED IN BUILDING. GO TO SECTION O.  
CHECK BOX ABOVE COLUMNS ON NEXT PAGE FOR EACH DISTRICT ENERGY SOURCE USED.

N-1. What is the name and address of the company or organization that supplied (steam/hot water/chilled water) to the building during the past 12 months?

IF CENTRAL PLANT WITH NAME AND ADDRESS RECORDED IN SECTION B OR J:  
ENTER "CP" IN COLUMN AND GO TO N-5.

IF NOT CENTRAL PLANT: RECORD NAME AND ADDRESS IN COLUMN.

IF ONE OCCUPANT OR VACANT, GO TO N-5a.

MULTIPLE OCCUPANTS

N-2. Is the bill from (SUPPLIER) for (steam/hot water/chilled water) for the entire building or do any of the tenants have separate bills?

N-3. How many separate bills are there? PROBE IF ANSWER IS "DON'T KNOW": Could you give me an estimate or the approximate number of separate bills?

N-4. Please tell me the name of each company, organization or agency that received a bill from (SUPPLIER) during the past 12 months.

IF LIST IS NOT PROVIDED, COMPLETE A "SUPPLIER CUSTOMER SHEET."

ONE OCCUPANT OR VACANT

**IF CENTRAL PLANT:**

N-5. Is there a statement indicating how much (steam/hot water/chilled water) the central physical plant pipes into just this building or does the statement cover other buildings as well?

N-6. What is the approximate square footage of the other buildings on the district loop that serves this building?

**IF NOT CENTRAL PLANT:**

N-5a. Does the bill from (SUPPLIER) cover just this building or does it cover other buildings as well?

N-6a. What is the approximate square footage of the other buildings that are included on this bill?

BOX N  
ASK ABOUT NEXT DISTRICT ENERGY SOURCE. IF NO ADDITIONAL DISTRICT SOURCES, GO TO SECTION P.

STEAM

HOT WATER

CHILLED WATER

<p>N-1.</p> <p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p>	<p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p>	<p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p>
<p>N-2. ONE BILL ..... 1 (N-5a)</p> <p>SEPARATE BILLS ..... 2 (N-3)</p>	<p>ONE BILL ..... 1 (N-5a)</p> <p>SEPARATE BILLS ..... 2 (N-3)</p>	<p>ONE BILL ..... 1 (N-5a)</p> <p>SEPARATE BILLS ..... 2 (N-3)</p>
<p>N-3. _____</p> <p>NUMBER OF BILLS</p>	<p>_____</p> <p>NUMBER OF BILLS</p>	<p>_____</p> <p>NUMBER OF BILLS</p>
<p>N-4. LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center;"><b>GO TO BOX N</b></p>	<p>LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center;"><b>GO TO BOX N</b></p>	<p>LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center;"><b>GO TO BOX N</b></p>

<p>N-5. STATEMENT FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>STATEMENT INCLUDES OTHER BUILDING(S) ..... 2 (N-6)</p> <p>NO STATEMENT ..... 7 (BOX N)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>	<p>STATEMENT FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>STATEMENT INCLUDES OTHER BUILDING(S) ..... 2 (N-6)</p> <p>NO STATEMENT ..... 7 (BOX N)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>	<p>STATEMENT FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>STATEMENT INCLUDES OTHER BUILDING(S) ..... 2 (N-6)</p> <p>NO STATEMENT ..... 7 (BOX N)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>
<p>N-6. _____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p>_____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p>_____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>
<p>N-5a. BILL FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>BILL INCLUDES OTHER BUILDING(S) ..... 2 (N-6A)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>	<p>BILL FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>BILL INCLUDES OTHER BUILDING(S) ..... 2 (N-6A)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>	<p>BILL FOR BUILDING ONLY ..... 1 (BOX N)</p> <p>BILL INCLUDES OTHER BUILDING(S) ..... 2 (N-6A)</p> <p>DON'T KNOW ..... 8 (BOX N)</p>
<p>N-6a. _____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p>_____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p>_____</p> <p>SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>

O. **ADDITIONAL SUPPLIER PAGE** (FOR USE WHEN MORE THAN THREE SUPPLIERS FOR ANY ENERGY SOURCE)

O-1. Has any other company supplied (ENERGY SOURCE) to the building in the past 12 months? ASK O-1 UNTIL THE RESPONDENT ANSWERS "NO" AND CHECK THE "NO OTHER SUPPLIERS" BOX.

IF ONE OCCUPANT OR VACANT, GO TO O-5.

MULTIPLE OCCUPANTS

O-2. Is the (ENERGY SOURCE) bill from (SUPPLIER) for the entire building or do any of the tenants or establishments have separate bills?

O-3. How many separate bills are there? PROBE IF ANSWER IS "DON'T KNOW": Could you give an estimate or the approximate number of separate bills?

O-4. Please tell me the name of each company, organization or agency that received a bill from (SUPPLIER) for (ENERGY SOURCE) during the past 12 months.

IF LIST IS NOT PROVIDED, COMPLETE A "SUPPLIER CUSTOMER SHEET."

ONE OCCUPANT OR VACANT

O-5. Does the bill from (SUPPLIER) cover just this building or does it cover other buildings as well?

O-6. What is the approximate square footage of the other buildings that are included on this bill?

BOX O  
ASK ABOUT NEXT SUPPLIER. IF NO ADDITIONAL SUPPLIERS, RETURN TO APPROPRIATE ENERGY SOURCE PAGE.

<p style="text-align: center;">ENERGY SOURCE</p> <p>O-1.</p> <p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p> <p><input type="checkbox"/> NO OTHER SUPPLIERS</p>	<p style="text-align: center;">ENERGY SOURCE</p> <p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p> <p><input type="checkbox"/> NO OTHER SUPPLIERS</p>	<p style="text-align: center;">ENERGY SOURCE</p> <p>NAME _____</p> <p>ST. ADD. _____</p> <p>PO BOX _____</p> <p>CITY _____</p> <p>STATE/ZIP _____</p> <p><input type="checkbox"/> NO OTHER SUPPLIERS</p>
<p>O-2. ONE BILL/STATEMENT ..... 1 (O-5)</p> <p>SEPARATE STATEMENTS ..... 2 (O-3)</p>	<p>ONE BILL/STATEMENT ..... 1 (O-5)</p> <p>SEPARATE STATEMENTS ..... 2 (O-3)</p>	<p>ONE BILL/STATEMENT ..... 1 (O-5)</p> <p>SEPARATE STATEMENTS ..... 2 (O-3)</p>
<p>O-3.</p> <p>NUMBER OF BILLS/STATEMENTS</p>	<p>NUMBER OF BILLS/STATEMENTS</p>	<p>NUMBER OF BILLS/STATEMENTS</p>
<p>O-4. LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">GO TO BOX O</p>	<p>LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">GO TO BOX O</p>	<p>LIST PROVIDED ..... 1</p> <p>NOT PROVIDED ..... 2</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">GO TO BOX O</p>
<p>O-5. JUST THIS BUILDING ..... 1 (BOX O)</p> <p>OTHER BUILDING(S) ..... 2 (O-6)</p> <p>DON'T KNOW ..... 8 (BOX O)</p>	<p>JUST THIS BUILDING ..... 1 (BOX O)</p> <p>OTHER BUILDING(S) ..... 2 (O-6)</p> <p>DON'T KNOW ..... 8 (BOX O)</p>	<p>JUST THIS BUILDING ..... 1 (BOX O)</p> <p>OTHER BUILDING(S) ..... 2 (O-6)</p> <p>DON'T KNOW ..... 8 (BOX O)</p>
<p>O-6.</p> <p style="text-align: center;">SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p style="text-align: center;">SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>	<p style="text-align: center;">SQUARE FOOTAGE</p> <p>DON'T KNOW ..... 8</p>

P. ENERGY SOURCE DELIVERY

P-1.  NO ELECTRICITY USED IN BUILDING. GO TO P-2.

Earlier you mentioned that the building used electricity. This card lists different features found in electric rate schedules or tariffs. HAND CARD 14. Do any of the electricity accounts of the building have:

HAND  
CARD  
14

	<u>RATE FEATURES</u>	<u>YES</u>	<u>NO</u>	<u>DK</u>
a.	Seasonal pricing? <i>(The price depends on the season of the year.)</i>	1	2	8
b.	Time-of-day pricing? <i>(The pricing depends on the time of day.)</i>	1	2	8
c.	Time-of-day lock-out or limit? <i>(Use is prohibited or restricted to a reduced level at fixed times of the day.)</i>	1	2	8
d.	Interruptible or curtailable rate? <i>(Service is temporarily cut off or demand must be reduced by the customer on short notice to maintain service for higher priority users.)</i>	1	2	8
e.	Metered peak demand?	1	2	8

P-2.  NO NATURAL GAS USED IN BUILDING. GO TO P-3.

Earlier you mentioned that the building used natural gas. During most of the past 12 months, were any of the natural gas accounts in the building on an interruptible service rate?

*(This is a special rate offered by gas companies to customers that allows the gas company to cut back on the amount of gas supplied to the building during periods of high demand.)*

YES ..... 1  
 NO ..... 2  
 DON'T KNOW ..... 8

P-3.  NO FUEL OIL OR DIESEL USED IN BUILDING. GO TO P-4.

Earlier you said the building used (fuel oil/diesel). Think about all the fuel oil storage tanks for this building. What is the total capacity, in gallons, of all the fuel oil storage tanks?

\_\_\_\_\_

GALLONS

DON'T KNOW .....9-8

P-4.  BUILDING NOT HEATED. GO TO SECTION Q.

Could this building switch to a different main heating fuel within one week's time without substantially reducing the area heated or the temperature maintained in the heated area?

YES ..... 1  
 NO ..... 2 (SECTION Q)  
 DON'T KNOW ..... 8 (SECTION Q)

P-5. If the building did have to switch the main heating fuel within one week's time, what fuels would be used instead of (ENERGY SOURCE FROM C-3a)? CIRCLE ALL MENTIONED.

ELECTRICITY ..... 01  
 NATURAL GAS ..... 02  
 FUEL OIL/KEROSENE/DIESEL ..... 03  
 DISTRICT STEAM ..... 04  
 DISTRICT HOT WATER ..... 05  
 OTHER (SPECIFY)..... 06

\_\_\_\_\_  
 \_\_\_\_\_

Q. WAIVERS

Q-1. As I mentioned, the purpose of this study is to relate building characteristics with energy consumption and expenditures. This information can only be obtained by going directly to each energy supplier of the building. In order for the energy company to release this information to Westat, we need to have an authorization form from you, or some other representative of your company. **We also need account numbers for the building.**

a. Should the authorization form be signed by you or someone else?

RESPONDENT ..... 1  
 SOMEONE ELSE (SPECIFY) ..... 2

NAME: \_\_\_\_\_  
 TITLE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP: \_\_\_\_\_  
 PHONE NUMBER: ( ) \_\_\_\_\_

b. Should the account number(s) be obtained from you or someone else?

RESPONDENT ..... 1  
 INDIVIDUAL LISTED ABOVE ..... 2  
 SOMEONE ELSE (SPECIFY) ..... 3

NAME: \_\_\_\_\_  
 TITLE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP: \_\_\_\_\_  
 PHONE NUMBER: ( ) \_\_\_\_\_

<i>BOX 13</i>			
<i>AFTER WAIVER OBTAINED, CODE STATUS OF ACCOUNT NUMBER EFFORT</i>			
	<u>OBTAINED</u>	<u>NOT OBTAINED</u>	<u>INAPPLICABLE</u>
<i>ELECTRICITY</i>	1	2	3
<i>NATURAL GAS</i>	1	2	3

Q-2. RECORD TIME ENDED AND CONTINUE WITH SECTION S, THE CENSUS SUPPLEMENT.

TIME ENDED: \_\_\_\_\_

Public reporting burden for this collection of information is estimated to average six (6) minutes per response, including time for hearing and responding yes or no to each of the questions. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460; and to the Office of Management and Budget, Paperwork Reduction Project (2070-0104), Washington, D.C. 20503.

**R. ASBESTOS IN BUILDINGS**

**LABEL**

Now I would like to ask you a few questions about any asbestos the building may contain and any asbestos treatment that may have taken place. This information will be used to help establish environmental policies.

*(Asbestos is a group of naturally occurring minerals that separate into long, thin fibers. It was used for many years to insulate and to fire-proof buildings.)*

In this series of questions, we are only concerned with asbestos-containing materials inside the building. Asbestos in the attic, in the basement, or in the crawl spaces under the building is considered to be inside the building. We are not interested in asbestos used on the exterior of the building such as for roofing shingles or exterior wall shingles or siding.

R-1. Does the building, excluding the exterior roof and walls, currently contain asbestos?

- YES ..... 1
- NO ..... 2 (R-3)
- DON'T KNOW ..... 8 (R-3)

R-2. Here is a card showing types of asbestos found in buildings. HAND CARD 14A. Does the building contain asbestos in:

HAND  
CARD  
14A

	<u>YES</u>	<u>NO</u>	<u>DK</u>
a. Heating or cooling system insulation wrap? .....	1	2	8
b. Sprayed on or trowelled on surfacing material? .....	1	2	8
c. Ceiling tiles? .....	1	2	8
d. Flooring tiles? .....	1	2	8
e. Some other form? RECORD BELOW .....	1	2	8

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R-3. Has any asbestos ever been removed from or treated in the building?

- YES ..... 1
- NO ..... 2 (R-5)
- DON'T KNOW ..... 8 (R-5)

COLUMN A	COLUMN B														
<p>R-4. Here is a card showing different ways asbestos may have been treated in the building. HAND CARD 14B. At any time, was any asbestos:</p> <div style="border: 1px solid black; padding: 5px; display: inline-block; margin-bottom: 10px;"> <p><b>HAND CARD 14B</b></p> </div> <p style="margin-left: 100px;"><u>TREATMENT</u></p> <p>a. Removed?</p> <p>    YES ..... 1—&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p> <p>b. Encapsulated or sealed with a protective coating?</p> <p>    YES ..... 1—&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p> <p>c. Enclosed behind an airtight permanent barrier?</p> <p>    YES ..... 1—&gt;</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p> <p>d. Treated in some other way?</p> <p>    YES (SPECIFY) _____ 1—&gt;</p> <p>    _____</p> <p>    _____</p> <p>    NO ..... 2</p> <p>    DON'T KNOW ..... 8</p> <p>e. RESPONDENT MENTIONS THAT SOMETHING WAS DONE BUT DOES NOT KNOW SPECIFICALLY WHAT WAS DONE.</p> <p>    YES ..... 1—&gt;</p> <p>    NO ..... 2</p>	<p>IF "YES" IN COLUMN A, ASK FOLLOWING FOR EACH OF THREE TIME PERIODS:</p> <p>Was any of this work done:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">(1) Since January 1, 1989?</td> <td style="width: 33%; text-align: center;">(2) During 1988?</td> <td style="width: 33%; text-align: center;">(3) Before 1988?</td> </tr> <tr> <td style="text-align: center;">YES NO DK</td> <td style="text-align: center;">YES NO DK</td> <td style="text-align: center;">YES NO DK</td> </tr> </table>									(1) Since January 1, 1989?	(2) During 1988?	(3) Before 1988?	YES NO DK	YES NO DK	YES NO DK
(1) Since January 1, 1989?	(2) During 1988?	(3) Before 1988?													
YES NO DK	YES NO DK	YES NO DK													
	1	2	8	1	2	8	1	2	8						
	1	2	8	1	2	8	1	2	8						
	1	2	8	1	2	8	1	2	8						
	1	2	8	1	2	8	1	2	8						
	1	2	8	1	2	8	1	2	8						

R-5. Has the building been inspected for asbestos by an EPA or State certified inspector?

- YES ..... 1
- NO ..... 2
- R MENTIONS INSPECTOR BUT DOES NOT KNOW IF CERTIFIED ..... 3
- DON'T KNOW ..... 8

S. CONSTRUCTION IMPROVEMENTS AND MAINTENANCE AND REPAIRS SUPPLEMENT

TIME BEGAN: \_\_\_\_\_

The final questions of the interview are about expenditures for construction improvements and maintenance and repairs to this building during 1989. This information will be used to measure the effect of these activities on the U.S. economy.

S-1. The first question is about the cost of construction improvements, including additions, alterations, and major replacements to the building. Approximately, what is the total amount of money that will be spent in calendar year 1989 by all persons and businesses for construction improvements to the building? **Include expenditures to date plus estimated expenditures for the remainder of the year.** Construction improvements are defined on this card. HAND CARD 15.

HAND  
CARD  
15

\$ \_\_\_\_\_ (S-2)  
 DOLLARS

NEEDS A FEW DAYS TO COMPILE DATA ... 9-6 (S-1a)  
 DON'T KNOW ..... 9-8 (S-1b)

S-1a. When can I call you back to get this information?

\_\_\_\_\_ (S-2)  
 DATE TIME

S-1b. What is the name, address, and telephone number of the person who is most likely to know the total amount expected to be spent on construction improvements to this building during calendar year 1989?

NAME: \_\_\_\_\_ (S-2)

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE NUMBER: ( ) \_\_\_\_\_

NO ONE PERSON KNOWS THE TOTAL ..... 6 (BOX 14)  
 DON'T KNOW ..... 8 (BOX 14)

BOX 14

CHECK QUESTIONS E-3 AND E-4 ON PAGE 15 AND CIRCLE ONE:

CURRENTLY UNOCCUPIED (E-3 = 5) ..... 1 (S-1c)

ONE OCCUPANT: THE OWNER (E-3 = 1) ..... 2 (S-2)

ONE OCCUPANT: A TENANT (E-3 = 2) ..... 3 (S-1c)

TWO OCCUPANTS: THE OWNER AND A TENANT  
 (E-3 = 3 AND E-4 = 2) ..... 4 (S-1c)

ALL OTHER SITUATIONS (MORE THAN ONE TENANT) ..... 5 (S-2)

S-1c. How much money will the owner spend on construction improvements to this building during calendar year 1989?

\$ \_\_\_\_\_ (S-1e)  
DOLLARS

DON'T KNOW ..... 9-8 (S-1d)

S-1d. What is the name, address, and telephone number of the person who is most likely to know how much the owner will spend on construction improvements to this building?

NAME: \_\_\_\_\_ (S-1e)

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE NUMBER: ( \_\_\_\_\_ ) \_\_\_\_\_

DON'T KNOW ..... 8 (S-2)

S-1e.  CURRENTLY UNOCCUPIED. SKIP TO S-2.

S-1f. How much (additional) money will the current tenant spend on construction improvements to this building during calendar year 1989?

\$ \_\_\_\_\_ (S-2)  
DOLLARS

DON'T KNOW ..... 9-8 (S-1g)

S-1g. What is the name, address, and telephone number of the current tenant in this building?

NAME: \_\_\_\_\_ (S-2)

ADDRESS: \_\_\_\_\_

CITY, STATE, ZIP: \_\_\_\_\_

PHONE NUMBER: ( \_\_\_\_\_ ) \_\_\_\_\_

S-2. The next question is about expenditures for maintenance and repairs to the building. This refers to the cost for the upkeep of the building rather than additional investment in it and is described in more detail on this card. **HAND CARD 16.**

Approximately, what is the total amount of money that will be spent in calendar year 1989 by all persons and businesses for maintenance and repairs to the building? **Include expenditures to date plus estimated expenditures for the remainder of the year.**

HAND  
CARD  
16

\$ \_\_\_\_\_ (S-2e)  
DOLLARS

NEEDS A FEW DAYS TO COMPILE DATA ... 9-6 (S-2a)

DON'T KNOW OR NO ONE PERSON

KNOWS ..... 9-8 (BOX 15)

S-2a. When can I call you back to get this information?

\_\_\_\_\_ (S-2e)  
DATE TIME

*BOX 15*

*CHECK QUESTIONS E-3 AND E-4 ON PAGE 15 AND CIRCLE ONE:*

<i>CURRENTLY UNOCCUPIED (E-3 = 5) .....</i>	<i>1 (S-2b)</i>
<i>ONE OCCUPANT: THE OWNER (E-3 = 1) .....</i>	<i>2 (S-2e)</i>
<i>ONE OCCUPANT: A TENANT (E-3 = 2) .....</i>	<i>3 (S-2b)</i>
<i>TWO OCCUPANTS: THE OWNER AND A TENANT (E-3 = 3 AND E-4 = 2) .....</i>	<i>4 (S-2b)</i>
<i>ALL OTHER SITUATIONS (MORE THAN ONE TENANT) .....</i>	<i>5 (S-2e)</i>

S-2b. How much money will the owner spend on maintenance and repairs to this building during calendar year 1989?

\$ \_\_\_\_\_ (S-2c)  
DOLLARS

DON'T KNOW ..... 9-8 (S-2e)

S-2c.  CURRENTLY UNOCCUPIED. SKIP TO S-2e.

S-2d. How much (additional) money will the current tenant spend on maintenance and repairs for this building during calendar year 1989?

\$ \_\_\_\_\_ (S-2e)  
DOLLARS

DON'T KNOW ..... 9-8 (S-2e)

S-2e. END: This completes the interview. Thank you very much for your time and help.

TIME ENDED: \_\_\_\_\_

<b>BOX 16</b>		
<b>INDICATE WHO PROVIDED THE EXPENDITURE INFORMATION FOR CONSTRUCTION IMPROVEMENTS AND MAINTENANCE AND REPAIRS:</b>		
	<b>S-3 CONSTRUCTION IMPROVEMENTS (CIRCLE ONE)</b>	<b>S-4 MAINTENANCE AND REPAIRS (CIRCLE ONE)</b>
a. OWNER	1	1
b. OWNER'S BUSINESS OR REPRESENTATIVE	2	2
c. TENANT	3	3
d. TENANT REPRESENTATIVE	4	4
e. OTHER (SPECIFY)	5	5
_____		
RESPONDENT NAME: _____		
TELEPHONE: ( _____ ) _____		

**INTERVIEWER OBSERVATIONS**

FILL THIS OUT IF YOU COMPLETE THE BUILDING INTERVIEW.

1. Building is, or is part of a facility that is, a (CIRCLE ONE):

- Hospital ..... 1
- College/University ..... 2
- Elementary/Middle/High School ..... 3
- Post Office ..... 4
- Other ..... 5

2. Does the interview's definition of the building agree with the listing sheet (BOX 3 = "CORRECT")?

- YES, AGREES WITH LISTING ..... 1 (4)
- NO ..... 2
- INAPPLICABLE (SHOPPING CENTER) ..... 7 (4)

3. A. Please indicate the name and address(es) of the building from the listing sheet.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

\_\_\_\_\_

B. Please indicate the name and address(es) of the building as defined for the interview.

(A-8) NAME: \_\_\_\_\_

(A-7) ADDRESS: \_\_\_\_\_

\_\_\_\_\_

C. Please explain the circumstances of the disagreement between listing and interview definition of the building.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. The individual who completed all or most of the questionnaire should be recorded on the front cover. Did any other person respond to the questionnaire?

- YES ..... 1
- NO ..... 2 (6)

5. Please list all other respondents.

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

LOCATION: \_\_\_\_\_ PHONE NO. (\_\_\_\_) \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

LOCATION: \_\_\_\_\_ PHONE NO. (\_\_\_\_) \_\_\_\_\_

6. What is your observation of the type of building or kind of business that occurs within the building? Please be thorough in your description.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Is this building, as defined for the interview, freestanding or attached to another building?

- FREESTANDING ..... 1
- ATTACHED ..... 2

8. Please describe any unusual circumstances you may have encountered in obtaining the waiver. (If you did not obtain the waiver or account numbers, explain why.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Is this a strip shopping center or enclosed mall?

- STRIP SHOPPING CENTER ..... 1
- ENCLOSED MALL ..... 2
- NOT A STRIP CENTER/MALL ..... 3 (END)

10. Approximately how many establishments are in this shopping center/mall?

- 2-5 ..... 1
- 6-10 ..... 2
- 11-20 ..... 3
- 21-49 ..... 4
- 50-99 ..... 5
- 100 OR MORE ..... 6

**NONINTERVIEW REPORT**

FILL THIS OUT IF YOU DID NOT COMPLETE  
THE BUILDING INTERVIEW.

1. Why were you unable to complete the interview?

- REFUSAL/BREAKOFF ..... 1
- INELIGIBLE BUILDING ..... 2 (4)
- RESPONDENT COULD NOT BE  
CONTACTED ..... 3

2. IF NOT RECORDED ON FRONT COVER: What is the name, title, and telephone number of the individual who refused, broke off, or could not be contacted for the interview?

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

TELEPHONE NO. (    ) \_\_\_\_\_

3. Why did the respondent refuse? (RECORD VERBATIM) OR: Why were there problems contacting the respondent?

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SKIP TO 5

4. Please explain in detail why the building was ineligible for the interview.

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

5. What is your observation of the type of building or kind of business that occurs within the building?

\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_
\_\_\_\_\_

6. How many floors does the building have, ground level and above?

\_\_\_\_\_
# OF FLOORS

IF INELIGIBLE BUILDING: END.

7. IF INDUSTRIAL, AGRICULTURAL, OR RESIDENTIAL MENTIONED IN 5: Would you estimate that 50% or more of the space in this building is used for (industrial/ agricultural/residential) activities?

- YES ..... 1
NO ..... 2
DON'T KNOW ..... 8

8. Which category in your estimation best applies to the total square feet in this building?

- 1,000 square feet or less ..... 1
1,001 to 50,000 square feet ..... 2
Over 50,000 square feet ..... 3
DON'T KNOW ..... 8

**SUPPLIER CUSTOMER SHEET**

ENERGY SOURCE: \_\_\_\_\_

SUPPLIER'S NAME: \_\_\_\_\_

LIST OF RECIPIENTS OF SEPARATE BILLS	ADDITIONAL INFORMATION TO EXPLAIN BILLING
1. Name _____ Address _____	_____ _____
2. Name _____ Address _____	_____ _____
3. Name _____ Address _____	_____ _____
4. Name _____ Address _____	_____ _____
5. Name _____ Address _____	_____ _____
6. Name _____ Address _____	_____ _____
7. Name _____ Address _____	_____ _____
8. Name _____ Address _____	_____ _____
9. Name _____ Address _____	_____ _____
10. Name _____ Address _____	_____ _____
11. Name _____ Address _____	_____ _____
12. Name _____ Address _____	_____ _____

**SUPPLIER CUSTOMER SHEET**

ENERGY SOURCE: \_\_\_\_\_

SUPPLIER'S NAME: \_\_\_\_\_

LIST OF RECIPIENTS OF SEPARATE BILLS	ADDITIONAL INFORMATION TO EXPLAIN BILLING
13. Name _____ Address _____	_____ _____
14. Name _____ Address _____	_____ _____
15. Name _____ Address _____	_____ _____
16. Name _____ Address _____	_____ _____
17. Name _____ Address _____	_____ _____
18. Name _____ Address _____	_____ _____
19. Name _____ Address _____	_____ _____
20. Name _____ Address _____	_____ _____
21. Name _____ Address _____	_____ _____
22. Name _____ Address _____	_____ _____
23. Name _____ Address _____	_____ _____
24. Name _____ Address _____	_____ _____

**SUPPLIER CUSTOMER SHEET**

ENERGY SOURCE: \_\_\_\_\_

SUPPLIER'S NAME: \_\_\_\_\_

LIST OF RECIPIENTS OF SEPARATE BILLS	ADDITIONAL INFORMATION TO EXPLAIN BILLING
25. Name _____ Address _____	_____ _____
26. Name _____ Address _____	_____ _____
27. Name _____ Address _____	_____ _____
28. Name _____ Address _____	_____ _____
29. Name _____ Address _____	_____ _____
30. Name _____ Address _____	_____ _____
31. Name _____ Address _____	_____ _____
32. Name _____ Address _____	_____ _____
33. Name _____ Address _____	_____ _____
34. Name _____ Address _____	_____ _____
35. Name _____ Address _____	_____ _____
36. Name _____ Address _____	_____ _____

**SUPPLIER CUSTOMER SHEET**

ENERGY SOURCE: \_\_\_\_\_

SUPPLIER'S NAME: \_\_\_\_\_

LIST OF RECIPIENTS OF SEPARATE BILLS	ADDITIONAL INFORMATION TO EXPLAIN BILLING
37. Name _____ Address _____	_____ _____
38. Name _____ Address _____	_____ _____
39. Name _____ Address _____	_____ _____
40. Name _____ Address _____	_____ _____
41. Name _____ Address _____	_____ _____
42. Name _____ Address _____	_____ _____
43. Name _____ Address _____	_____ _____
44. Name _____ Address _____	_____ _____
45. Name _____ Address _____	_____ _____
46. Name _____ Address _____	_____ _____
47. Name _____ Address _____	_____ _____
48. Name _____ Address _____	_____ _____

