

APPENDIX AVAILABLE ON REQUEST

Research Report 143

Measurement and Modeling of Exposure to Selected Air Toxics for Health Effects Studies and Verification by Biomarkers

Roy M. Harrison et al.

Appendix 3. Subject Related Forms

Note: Appendices Available on the Web appear in a different order than in the original Investigators' Report. HEI has not changed these documents.

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ACTIVITY DIARY

MATCH STUDY - ACTIVITY DIARY

MEASUREMENT DAY	ID	DATE	

Time	Where are you?	What are you doing?	Are there any windows or doors open?	Anyone	Location number for places visited	Location number for travelling
0000-0030						
0030-0100						
0100-0130						
0130-2000						
0200-0230						
0230-0300						
0300-0330						
0330-0400						
0400-0430						
0430-0500						
0500-0530						
0530-0600						
0600-0630						
0630-0700						
0700-0730						
0730-0800						
0800-0830						
0830-0900						
0900-0930						
0930-1000						
1000-1030						
1030-1100						
1100-1130						
1130-1200						
1200-1230						
1230-1300						
1300-1330						
1330-1400						
1400-1430						
1430-1500						
1500-1530						
1530-1600						
1600-1630						
1630-1700						
1700-1730						
1730-1800						
1800-1830						
1830-1900						
1900-1930						
1930-2000						
2000-2030						
2030-2100						
2100-2130 2130-2200						
2200-2230						
2230-2300						
2300-2300						
2330-2400						
2330-2400	l l		·			

NOW PLEASE COMPLETE A LOCATION SHEET FOR EACH PLACE VISITED AND EACH TIME YOU

TRAVELLING DESCRIPTION SHEET

LOCATION SHEET FOR TRAVELLING - Information About your Journey

Measurement Day		ID		Measurement Date	
Location number	1	2	3	4	5
Length of time travelling? (e.g. 30mins)					
Start time of travelling?					
If return journey along same route, what time is return?					
Where are you travelling from?					
Where are you travelling to?					
How are you travelling? Car/Taxi Motorbike Bus Electric Train Diesel Train Metro/Underground Cycling Walking How busy are the roads? Not busy (very few cars around) Busy at times (busy on some roads) Busy (constant moving traffic)					
Very busy (congested/stationary traffic) Not Applicable (travelling by train/metro) Is anyone smoking?					
No (not smoky at all) Occasionally (slightly smoky) Frequently (smoky) Constantly (very smoky)			0		
Please name the areas travelled through or the bus or train route taken: (e.g. Harborne-Edgbaston-City Centre, Bus Number 22, Train Route - Cross City Line - New Street to Erdington, e.t.c.)					

TRAVELLING DESCRIPTION SHEET (Cont)

Location number (continued from previous page)	1	2	3	4	5
Please name the roads travelled along: (e.g. Hagley Road-Broad Street-Queensway- A38M-A38 Tyburn Road e.t.c.)					
If you are travelling by car, taxi or motobik	e please complete the f	following questions:			
Are you: Driving Passenger Do you own the car/motorbike? No					
Make of car/motorbike?					
Model of car/motorbike?					
Fuel type: Petrol Diesel Engine size					
Year of manufacture					
Is the air conditioning used? Yes No	0	0	0	0	0
Is the fan/heater used? Yes No		_ _	_ _	_ _	_ _
Where was the briefcase kept? In the seating area of the car In the boot of the car In the travel case of the bike Other		0	0	0	0
Any other information you would like to tell us about:					

LOCATION DESCRIPTION SHEET

LOCATION SHEET FOR TIMES WHEN YOU ARE NOT TRAVELLING - Information about the Places you Visit

THERE IS NO NEED FOR YOU TO COMPLETE THIS FOR YOUR HOME - JUST THE PLACES YOU VISIT OUTSIDE YOUR HOME

Measurement Day		ID		Measurement Date	
ocation number	1	2	3	4	5
Name of location					
ength of time you were at the location.					
Floor level:	(tick for the room where you sp	pend most of the time - if you spe	end time in other rooms tell u	us in the box at the end of the shee	t for additional information)
Basement Ground Floor Ist Floor 2nd Floor Brd Floor Other	_ _ _ _ _	_ _ _ _ _			
What direction does the location face?	(tick for the room where you sp	pend most of the time - if you spe	end time in other rooms tell u	us in the box at the end of the shee	t for additional information)
Street Back Garden Side/Side Alley Car Park Park Private Road		0 0 0 0	_ _ _ _		
Has anyone smoked in this location?					
No <i>(not smoky at all)</i> Occasionally <i>(slightly smoky)</i> Frequently <i>(smoky)</i> Constantly <i>(very smoky)</i>		_ _ _ _	_ _ _	_ _ _ _	

LOCATION DESCRIPTION SHEET (Cont)

What is the name of the road the location is on?					
What area is this location in? (e.g. Edgbaston, Northfield e.t.c.)					
What is the distance to this road from the location?					
Less than 10m 10-100m More than 100m	_ _ _			_ _ _	_ _ _
How busy is this road at the time you are there?					
Not busy (very few cars around) Busy at times (busy at certain times) Busy (constant moving traffic) Very busy (congested/stationary traffic)	_ _ _		0 0 0		_ _ _
Are there any photocopiers or printers or faxes?					
Yes No				_ _	_ _
If yes, how many?					
Are there any new carpets or furniture (less than 3 months old)?					
Yes No		_ _			
Has any decorating been done in the last 3 months?					
Yes No					
Is there any other relevant information you would like to tell us about this location?					

APPENDIX 3: SUBJECT RELATED FORMS	
ACTIVITY QUESTIONNAIRES	
	MATCH Study - Sampling Questionnaire

Measurement Day

Volunteer ID Measurement Date

Activities	Please Tick	Specify the activity you are doing	What products are you using?	What is your location?
Cleaning				
Dusting (e.g. furniture polish)				
Vacuuming				
Aerosol and perfume use (including plug-in air fresheners)				
Solvent use (e.g. fertiliser, de-icer, insect spray)				
Dry cleaning				
Candle burning				
Use of a photocopier				
Use of fireplace				
Use of any other fossil fuels (e.g. petrol lawn mower)				
Visit to petrol station/refuelling car				
DIY - Painting				
DIY - Wallpapering				
DIY – Gluing				
DIY – Other <i>(please specify)</i>				
Gardening <i>(e.g. lawn mowing)</i>				
Other (please specify)				
Not Applicable - non of above activities done.				

APPEN	IDIX 3: SUBJECT RELATED	FORMS			
STORA	AGE QUESTIONNAIRE				
	MATCH STU	DY STORA	GE QUESTIONNAIRE	Ξ	
Measure	ement Day	ID		Date	
Does th □	he volunteer have an integral Yes No	garage?			
During	the measurement week has Yes No N/A	a car been	kept in the garage?		
Are any	y of the following items store N/A Petrol Vehicle Diesel Vehicle Petrol Lawnmower Open Paints Closed Paints Solvents Ink/Toner Petrol Diesel Fertiliser Glues	d/used in	the garage?		
Are any	y of the following items store N/A Petrol Vehicle Diesel Vehicle Petrol Lawnmower Open Paints Closed Paints Solvents Ink/Toner Petrol	d/used in	the home?		

 Diesel Fertiliser

Glues

Printers

Photocopier Fax Machines

APPE	NDIX 3: SUBJECT RELATED FORMS		
ном	E QUESTIONNAIRE		
DATE	Ē:	I.D. CODE	
QUE	<u>STIONNAIRE</u>		
PAR	T A: GENERAL INFORMATION ABOUT YO	OUR HOUSE	
A.1	DESCRIBE THE LOCATION OF THE HOME.	Please tick one box	
		Rural area Suburb City centre	
A.2	DESCRIBE THE TYPE OF DWELLING. Ple	ase tick one box	
		Flat Centre terrace house End terrace house Semi-detached house Detached house	_ _ _
A.3	APPROXIMATELY WHEN WAS YOUR HOUS	E BUILT? <u>Please tick one box</u>	
		Before 1920 1920 – 1940 1941 – 1950 1951 – 1960 1961 – 1970 1971 – 1980 1981 – 1990 Since 1990 Don't know	
IF Y	OU DO NOT LIVE IN A FLAT, PLEASE GO	TO QUESTION A.7	
A.4	ON WHICH FLOOR IS THE FLAT LOCATED?	?	
	(Please specify, e.g. 1, 2, 3 or Basement =	B, Ground Floor = F)	
A .5	WHAT IS IMMEDIATELY BELOW THE FLOC	OR OF YOUR FLAT?	
	Please tick one box	The ground Another flat Garage Other (please describe below)	

APPENDIX 3: SUBJECT RELATED FORMS HOME QUESTIONNAIRE (Cont) A.5 WHAT IS IMMEDIATELY ABOVE YOUR FLAT? Please tick one box The roof – is it a top floor flat Another flat Other (please describe below)

	The roof – is it a top floor flat Another flat Other (please describe below)		Another flat	
A.7	DO YO	DU HAVE A GARAGE?	Yes No	
A.8		E GARAGE PART OF YOUR HOME (OR D INDERNEATH OR SIDE OF YOUR HOME)		
A.9	(a)	DO YOU KEEP A CAR IN THE GARAGE?	Usually Sometimes Never If never, please go to F	
	(b)	WHAT TYPE OF FUEL DOES THE CAR RUN	ON? LRP petrol Unleaded petrol Diesel Don't know	
A.10	WHIC	H ROOM HAS A DOOR TO THE GARAGE	Please tick one box Hall Kitchen Utility room Living room None Other (Please describe below)	

HOME QUESTIONNAIRE (Cont)

I		MANY ROO a number in	MS DO YOU USUALLY HEAT AT THIS TIME OF each box	YEAR?	
	Livin	g rooms	(include studies, dining rooms etc. but not kitchen din or living rooms with kitchen included	ners	
	Livin	g room or di	ning room which includes kitchen		
	Bedr	ooms			
	Othe	er rooms			
	WHAT	DO YOU US	SE AS THE MAIN METHOD OF HEATING AT THIS TIP	ME OF YEAR?	
	(a)	WHAT FUE Please tick	L DO YOU USE FOR YOUR MAIN HEATING?		
			Natura Electric Bottlec Other	city	
	(b)		E OF HEATING SYSTEM DO YOU USE FOR YOUR MA	AIN HEATING?	
		<u>Please tick</u>	Electric storage he Central heating wit Warm air central h	h radiators eating or fires in each heated	
	WHE	re is your	BOILER LOCATED? Kitchen Hallway Under stairs Other (Please desc	ribe below)	
	DO Y	OU USE AN'	Y ADDITIONAL TYPE OF HEATING AT THIS TIM	1E OF YEAR?	
				Yes No If no, please go t	□ □ o B.6

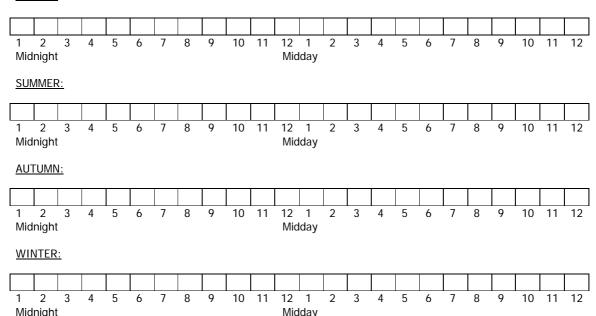
APPENDIX 3: SUBJECT RELATED FORMS HOME QUESTIONNAIRE (Cont) B.5 WHAT TYPE OF ADDITIONAL HEATING DO YOU USE MOST? WHAT FUEL DOES IT USE? Please tick one box (a) Natural gas Electricity Bottled gas Coal /coke Wood Paraffin Other (Please describe below) (a) WHAT TYPE OF HEATING SYSTEM DO YOU USE FOR YOUR ADDITIONAL HEATING? Please tick one box Electric storage heaters Central heating with radiators Warm air central heating Individual heaters or fires in each heated room Other (Please describe below) B.6 DO YOU USE ANY FURTHER GAS OR SOLID FUEL WHICH YOU HAVE NOT INCLUDED IN YOUR MAIN OR ADDITIONAL HEATING (NOT INCLUDING COOKING FUEL)? Yes (please describe below) No If yes, please describe in box below

HOME QUESTIONNAIRE (Cont)

ON A TYPICAL WEEKDAY, FOR EACH SEASON, AT WHAT HOURS DO YOU NORMALLY **B.7** USE SOME FORM OF HEATING?

Please mark off the boxes to show when you have heating on

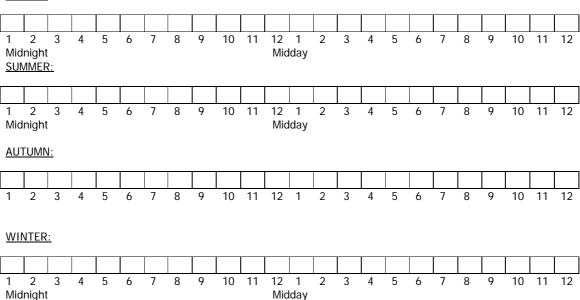




AND ON A TYPICAL DAY AT THE WEEKEND, FOR EACH SEASON, WHAT HOURS DO YOU B.8 NORMALLY USE SOME FORM OF HEATING?

Please mark off the boxes to show when you have heating on

SPRING:



Midday

PPE	NDIX 3: SUBJECT RELATED FORMS		
HOME	QUESTIONNAIRE (Cont)		
B.9	WHAT MAIN COOKING FUEL DO YOU USE? PIG	ease tick one box	
		Natural gas Electricity Bottled gas Other (Please describe below)	
IF V	OU DO NOT USE GAS FOR COOKING PLEASE	- CO TO DADT B 12	
IF YC	OU DO NOT USE GAS FOR COOKING PLEASE	GO TO PART B.13	
B.10	HOW MANY HOURS IS YOUR GAS COOKER US ON WEEKDAYS?	ED PER DAY ON AVERAGE	rs
B.11	HOW MANY HOURS IS YOUR GAS COOKER US AT WEEKENDS?	ED PER DAY ON AVERAGE	rs
B.12	DO YOU EVER USE THE GAS COOKER, WHEN YOU HEAT THE KITCHEN (OR ANY OTHER PART		<u>(</u>
		Yes, regularly Yes, sometimes Yes, only occasionally No, never	
B.13	DO YOU HAVE A COOKER HOOD? Include cooker hoods which extract air to the cair and return it to the kitchen.	outside, but NOT hoods which only filt	er
		Yes No <u>If no, please go to PAR</u>	
B.14	HOW OFTEN IS THE COOKER HOOD USED? F	lease tick one box	
		Fan not used Fan sometimes used Fan pormally used when room in use	

APPENDIX 3: SUBJECT RELATED FORMS								
HOME QUESTIONNAIRE (Cont)								
PART C:	WIN	IDOWS	& VENTIL	ATION				
			VHICH DIRI ox if applicab	ECTION THE WI <u>le</u>	NDOWS IN YO	OUR HOM	IE FA	CE. <u>Please</u>
		Stre	et Side	Back Garden	Side Stree			ner (please specify)
Kitchen					Alle	у		specify)
Bathroom								
Living room								
Your bedroom	1							
Other*								
Other*								
*Please specify (e.g. dining room, second bedroom, corridor, etc.) C.2 HOW OFTEN ARE THE WINDOWS USUALLY OPEN AT THIS TIME OF YEAR DURING THE DAY? Please tick one box for each room type								
	All o	or most	Part of the	e Only when	Rarely or	No win	dow	Don't know
		ne time	day	needed	never	INO WIII	dow	DON'T KNOW
Kitchen			1					
Bathroom								
Living rooms								
Bedrooms								
Other rooms								
		ne box fo	r each room				ı	
			Il or most	Sometimes	Rarely o	r never		Don't know
Kitchen			ights					
Bathroom								
Living rooms								
Bedrooms								
Other rooms								
C.4 DO YOU HAVE DOUBLE GLAZING? Yes No								
This is are fit throug	C.5 DO YOU HAVE ANY ELECTRIC EXTRACTOR FANS? This is a question about electric fans which extract air from the home to the outside. These fans are fitted in a window or wall, you may have one in a ceiling which blows air up a pipe and through the roof.							
Do <u>no.</u>	<u>t</u> includ	de cooker	hoods. <u>Plea</u>	se tick one box.		Yes No <u>If no, pl</u>	ease (□ □ go to PART C.7

HOME QUESTIONNAIRE (Cont)

PLEASE INDICATE WHETHER THERE IS A FAN IN THE ROOMS LISTED IN THE TABLE BELOW, AND WHETHER IT IS USED, BY TICKING THE APPROPRIATE BOXES

	No fan	Fan present, but not used	Fan sometimes used	Fan normally used when room in use
Kitchen				
Bathroom				
Other rooms				

C.7	WOULD YOU SAY THAT WINDOWS AND/OR VENTILATORS IN	YOUR HOME PROVIDE			
	ADEQUATE FRESH AIR? Please tick one box	Usually Sometimes Never			
PAR1	D: THINGS THAT AFFECT THE AIR IN YOUR HOME				
D.1	DO YOU SMOKE INDOORS HERE?	Yes No			
D.2	DOES ANYONE ELSE IN YOUR HOUSEHOLD SMOKE INDOORS	HERE? Yes No			
D.3	DOES ANYONE ELSE REGULARLY SMOKE INDOORS HERE?	Yes No			

IF NOBODY SMOKES PLEASE GO TO D.5

D.4 FOR EACH PERSON WHO SMOKES INSIDE YOUR HOME PLEASE ESTIMATE THE AMOUNT SMOKED PER WEEK INSIDE YOUR HOME.

PERSON	1	2	3	4	5	6
Cigarettes (number)						
Pipe tobacco (oz)						
Small cigars (number)						
Large cigars (number)						

No

D.5 FOR EACH ROOM IN THE TABLE BELOW, PLEASE WRITE HOW MANY MONTHS AGO YOU DID EACH OF THE FOLLOWING If more than 12 months write X

	Wallpapering	Carpeting / Lino	Sanding / Stripping
Kitchen			
Living rooms			
Bedrooms			
Other rooms			

HOME QUESTIONNAIRE (Cont)

IF NO NEW CARPET/LINO HAS BEEN LAID PLEASE GO TO D.8

	THE WORK ETTENS THE BLEN LAID TELASE GO TO	D .0	
D.6	WAS RUBBER-BACKED NYLON CARPET LAID? Please tick of	one box	
		Yes No Don't know	
D.7	WAS THE CARPET/LINO GLUE TO THE FLOOR? Please tick	one box	
		Yes No Don't know	
D.8	HAS ANY SEALANT BEEN USED IN THE LAST 12 MONTHS? This question is about sealants used for waterproofing aro Please tick one box	?	
	Trease tiek one box	Yes No Don't know	
D.9	HAVE YOU NOTICED ANY PATCHES OF MOULD ON THE W CEILINGS OF YOUR HOME AT ANY TIME IN THE LAST 12		
	<u>If yes, please i</u>	Yes No ndicate in which room(s) ir	□ □ 1 the box
	<u>below</u>		
D.10	DO YOU OWN ANY PETS (WHICH ENTER THE HOUSE) ?	Yes	
		No If no, please q	□ o to D.12
	If yes, please indica	te in which room(s) in the	
D.11	WHICH ROOMS ARE YOUR PET ALLOWED IN?	Kitchen	
		Living rooms Bedrooms Other rooms	

HOMI	E QUESTIONNAIRE (Cont)			
D.12	DO YOU DO ANY DIY?			
Yes	•			
No	•			
If yes	please specify any recent DI	Y in the box below, inc	luding approxii	mately when it
was d	one.			
D.13	PLEASE TICK TO INDICAT	E HOW OFTEN DO Y	OU DO THE F	OLLOWING
	Most days or every day	About once a week	Less often	Rarely / never
Hoove	ər			
Dust				
D.14	PLEASE TICK TO INDICAT	E HOW OFTEN YOU	USE THE FOL	LOWING
	Most days or			
every	day About once a week	Less often Rarel	y / never	
Aeros	ol insect killer			
Aeros	ol air freshener			
Other	aerosol			
D.12	DO YOU DO ANY DIY?			
				Yes □ No □

APPE	NDIX 3: SUBJ	ECT F	RELATED F	ORM	S						
	If yes, please when it was o		ify any rece	nt DIY	' in the box	below	, including a	ippro	oximately		
D.13	PLEASE TICK TO INDICATE HOW OFTEN DO YOU DO THE FOLLOWING										
		1	st days or very day	Abo	out once a week	Le	ess often	R	arely / never		
	Hoover Dust										
D.14											
			Most day		About or weel		Less ofte	en	Rarely / never		
	Aerosol insec killer	t		<u>.</u>							
	Aerosol air freshener										
	Other aeroso	l									
D.12	DO YOU DO A	NY DI'	/ ?				Yes No				
	If yes, please sp done.	oecify a	any recent DI\	<u>/ in the</u>	box below, in	ncluding	<u>approximatel</u>	y wh∈	en it was		
D.13	PLEASE TICK	ΓΟ ΙΝΕ	DICATE HOW	/ OFTE	n do you e	OO THE	FOLLOWING	<u> </u>			
			,		ut once a Les		ess often Rai		rely / never		
	Hoover	CV	ery day		WCCK						
	Dust										
D.14	PLEASE TICK	TO INE	DICATE HOW	OFTE	N YOU USE	THE FO	LLOWING				
			Most days every da		About onc	e a	Less often		Rarely / never		
	Aerosol insect k										
	Aerosol air fresh	nener									

Other aerosol

SCREENING QUESTIONNAIRE

MATCH STUDY SCREENING QUESTIONNAIRE

Your Details:					
1. Full Name:		I			
2. Are you: □ □	Male Female				
3. What is your a	age? 18-25 26-35 36-45 46-55 56-55 66 and over				
4. What is your l	nome address?				
5. What is your l	nome telephone number?				
6. What is your	work address?				
7. What is your	work telephone number?				
8. Do you have a	any other contact information?				
Your Occupation	on:				
9. What is your	occupation?				
10. Please descr	ibe your occupation?				
11. Is your occu	pation: Full Time Part Time Job Share Shift Work Other, please describe				
12. Please indica	ite what hours you work:				
Your Travel:					
	niles is your home from your workp Less than 5 miles 5-10 miles 10-15 miles 15-20 miles 20-30 miles More than 30 miles	place?			
14. How do you	travel to work? Car Train Tube Bus Cycle Walk Other, please describe				
	es your journey to work take you o Less than 5 minutes travelling tim 15-30 minutes travelling time 30-45 minutes travelling time 45-60 minutes travelling time More than 1 hour travelling time				
16. What time d	o you leave your home in the morn	ning to get to work?			
17. Do you use a □ □					
If yes, how long from work)?	per day on average would you say Less than 30 minutes 30-60 minutes 1-2 hours 2-4 hours More than 4 hours	you spend in your vehicle for work purposes (excluding travel to and			
18. What is your	annual average mileage (work and Less than 5,000 miles 5,000-10,000 10,000-15,000 15,000-20,000 20,000-30,000 more than 30,000 miles	d domestic)?			

Other Information:

ETS QUESTIONNAIRE

APPENDIX 3: SUBJECT RELATED FORMS MATCH STUDY - Environmental Tobacco Smoke (ETS) Questionnaire Measurement Day Date Time of Exposure: e.g. 3pm-4pm 1) Please complete the following table: How far was the smoker How many people were Approx how many How long were you smoking from you cigarettes were smoked? exposed to the smoke for? Less than 2 meters More than 2 meters 2) Who was the smoker? A friend or relative in my company A person who was not in my company A passer by 3) Where were you exposed to the smoke? Outside in an open space Inside in an enclosed space Other, please describe For Open Spaces: 4) If you were in an open space please describe it: Private garden Park Playground Street **Bus Stop** Other, please describe 5) How long were you in the open space? (e.g. 3pm-4pm) For Enclosed Spaces: 6) If you were in an enclosed space please say where you were: 7) How smoky is the room? Not smoky at all Slightly smoky, people are occassionally smoking Smoky, people are frequently smoking Very smoky, there are people constantly smoking 8) How ventilated is the room? It is well ventilated There is some ventilation It is not ventilated П I don't know 9) Are there any sources of ventilation in the room? П Open windows Open doors Fan Ceiling fan Air extractors П Air conditioning Passive Ventilation Don't know 10) When you were exposed to the smoke were any heating sources on? Yes No

Don't know