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Contributors

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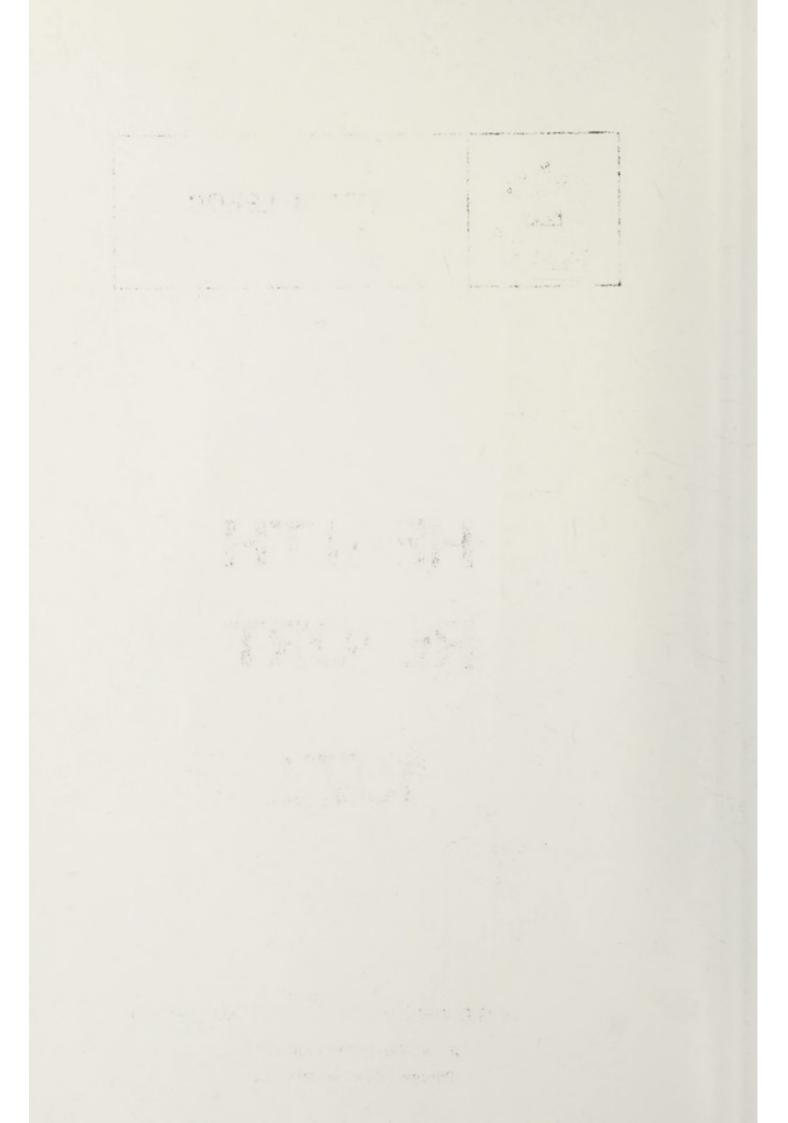
CITY OF LEEDS

HEALTH REPORT

1973

Dr. G.E. WELCH, M.B., B.S., D.P.H., M.F. C.M.,

Acting Medical Officer of Health, Principal School Medical Officer.



CITY OF LEEDS

REPORT

ON THE

HEALTH

OF THE CITY

FOR THE YEAR 1973

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CONTENTS

HEALTH COMMITTEE			 	 1v
PUBLIC HEALTH STAFF			 ob-1-c)	 v
INTRODUCTION			 	 ix
VITAL STATISTICS			 	 1
INFECTIOUS DISEASES			 	 4
TUBERCULOSIS	20.00		 	 7
PERSONAL HEALTH SERVICES:				
MATERNAL AND CHILD HEALTH				00
	Vinos	30 . 1	 	 13
NURSING SERVICES				
HOME NURSING			 	 18
MIDWIFERY			 	 20
HEALTH VISITING			 	 23
VACCINATION AND IMMUNISATIO	ON		 	 25
AMBULANCE SERVICE			 	 27
PREVENTION, CARE AND AFTER-	CARE	2	 	 30
ENVIRONMENTAL HEALTH				70
		••	 	37
REPORT OF THE CITY ANALYST			 	 113

HEALTH COMMITTEE

As at 31st December, 1973

LORD MAYOR

(Alderman Kenneth Travis Davison)

CHAIRMAN: Councillor V. S. Whelan

DEPUTY CHAIRMAN: Councillor Mrs. Doreen M. Hamilton

Alderman Mrs. Vyvyan M. Cardno

" W. Spence

Councillor K. Dockray

" M. J. Greene

" R. D. Hall, M.B., Ch.B., D.P.H.

" R. F. Millet, M.Sc., B.Sc.(Econ.)

" Mrs. Elizabeth A. Nash

" D. Pedder, J.P., M.Sc., A.R.I.C., M.I.Biol.

" R. S. Robertson

" B. M. Selby

" A. P. Sexton

REPRESENTATIVES OF THE LEEDS MEDICAL COMMITTEE

Dr. M. Benard, M.B., Ch.B.

Dr. D. G. Eastham, M.B., Ch.B.

PUBLIC HEALTH SENIOR STAFF

As at 31st December, 1973

Acting Medical Officer of Health and Principal School Medical Officer

Deputy Medical Officer of Health and Deputy School Medical Officer

G. E. WELCH, M.B., B.S., D.P.H., M.F.C.M.

Professor D. B. BRADSHAW, M.A., M.B., B.Ch., B.A.O., D.P.H.

MEDICAL, DENTAL AND NURSING STAFF

Principal Medical Officer (Child Health)

Senior Medical Officer (Child Health)

Senior Medical Officer (Mental Health)

Senior Medical Officer (General Health)

Honorary Assistant Medical Officers of Health (by arrangement with the University of Leeds)

Departmental Medical Officer (Child Health) (Full-time)

(Part-time)

M. ORMISTON, M.B., Ch.B., D.P.H.

H. M. WILSON, M.B., Ch.B.

J. E. MARSHALL, M.B., Ch.B., D.P.H.

W. J. GREEN, M.B., Ch.B., D.P.H.

A. N. MacPHAIL, M.C., M.D., Ch.B., D.P.H. K. SCHWARTZ, M.B., B.Ch., D.P.H., M.R.C.P. Lecturers in Public Health, University of Leeds.

P. BAINES, M.B., Ch.B., D.C.H.

J. FELGATE, M.B., Ch.B., D.P.H.

H. G. HUTTON, B.A. (Cantab.), M.R.C.S., L.R.C.P., D.P.H.

S. G. PEARSON, M.B., Ch.B.

J. SHAW, M.B., Ch.B., M.R.C.O.G.

E. M. TIMOTHY, M.B., B.S., D.R.C.O.G., D.C.H., D.P.H.

M. H. WITT, M.D., L.R.C.P., and S.(Ed.), D.P.H.

E. M. WRIGHT, M.B., Ch.B., D.C.H.

M. YATES, M.B., Ch.B.

E. COUPLAND, M.R.C.S., L.R.C.P.

V. DEVARAJ, M.B., B.S. (Madras)

D.C.G. FIRTH, M.B., Ch.B., D.Obst., R.C.O.G.

H. GALVIN, M.B., Ch.B.

P. J. HEATLEY, M.B., Ch.B.

E. HERVEY, M.B., B.S., M.R.C.S., L.R.C.P., D.C.H.

U. M. HUNT, M.B., Ch.B.

*M. E. JAMIESON, M.R.C.S., L.R.C.P.

J. JOHNSON, M.B., B.S.

M. McCRACKEN, M.B., Ch.B.

B. MOLANDER, M.B., Ch.B.

M. PARSONS, M.B., Ch.B.

A. REGAN, M.B., B.Ch., D.C.H.

M. J. WALLS, M.B., Ch.B.

C. WATSON, M.B., Ch.B., D.Obst., R.C.O.G., M.R.C.G.P.

M. E. DEXTER, M.B., B.S.

U. TANDON, M.B., B.S., D.C.H.

P. JAGADEESH, B.Sc., M.B., B.S.

*Also anaesthetists to the School Dental Service

Area Dental Officers (Full-time)

School Dental Officers (Part-time)

Anaesthetist (Part-time)

Ophthalmologists (Part-time)

Principal School Dental Officer M.B. COGAN, B.Ch.D., L.D.S., D.D.P.H.

P. ATKINSON, L.D.S.

E. M. McRAITH, L.D.S.

B. NIMAN, L.D.S., R.C.S.

P. IRVINE, L.D.S.

P. NORMAN, B.Ch.D., L.D.S.

R. H. ALLEN, L.D.S.

K. M. M. O'KEEFFE, B.Ch.D., L.D.S.

M. WHEELER, B.D.S.

V. J. METCALF, B.Ch.D.

E. PAPAYANNI, D.D.S. (Greece)

F. SOUTHAM, L.D.S.

W. W. BALLARDIE, M.B., Ch.B.

*W. PRATT, M.B., Ch.B.

*J. L. WOOD, M.R.C.S., L.R.C.P.

A. M. KING, M.B., B.S., M.R.C.S., L.R.C.P.

S. D. CAMPBELL, B.A., M.B., B.Ch., B.A.O., D.O.

*Appointed by the Regional Hospital Board

Director of Nursing Services Divisional Nursing Officer (Training)

Area Nursing Officer

Area Nursing Officer Area Nursing Officer Area Nursing Officer Area Nursing Officer and

Non-Medical Supervisor of Midwives

M. WALTON, S.R.N., S.C.M., H.V.Cert.

K. E. WHALLEY, S.R.N., S.C.M., H.V.Cert., Q.N.Cert.

B. G. MUNRO, S.R.N., S.C.M., H.V.Cert., D.N. (London)

E. BROWN, S.R.N., S.C.M., Q.N.Cert.

P. HEATH, S.R.N., S.C.M., H.V.Cert.

J. E. KING, S.R.N., S.C.M., H.V.Cert.

J. THOMPSON, S.R.N., S.C.M.

Chief Public Health Inspector and Deputy

Chief Public Health Inspector Deputy Chief Public Health Inspector J. H. WYATT, M.A.P.H.I.

A. O. WHEATLEY, M.A.P.H.I., A.M.R.S.H.

City Analyst and Deputy

City Analyst

Deputy City Analyst

R. A. DALLEY, M. Chem. A., F.R. I.C., F.I.F.S.T.

L. A. PERKIN, B.Sc., LL.B., M.Chem.A., F.R.I.C., F.I.F.S.T.

Senior Administrative Staff

Administrative Officer Senior Administrative Assistant Chief Assistant (Sanitation) Administrative Assistant (Capital

Proframme and Projects)

Administrative Assistant (Finance) R. K. MUNRO Administrative Assistant (Personnel)

J. E. LONG, D.M.A., M.I.L.G.A., A.M.R.S.H. W. WILSON, A.C.I.S., F.H.A., A.M.R.S.H.

J. R. MOIR

J. T. MAURY

J. D. SWAILES

Senior Administrative Staff (Continued)

Administrative Assistant (General Services) Administrative Assistants (Child Health) Administrative Assistant (General Health) Administrative Assistant (Nursing Services) B. M. FAWCETT

W. KING

A. A. YATES, D.M.A.

E. RENSHAW

W. R. ROBERTS

Disinfestation Officer Chief Ambulance Officer

W. O. BODDY, M.A.P.H.I.

J. H. DAYKIN, F.I.A.O., L.M.R.S.H.

Consultants to the Health Committee

Consultant Adviser in Tuberculosis

Consultant Adviser, Infectious Diseases

Consultant in Child Health

Consultant Adviser in Venereal Diseases

Consultant Adviser in Mental Health

Otologist Orthopaedic Surgeon Ophthalmic Surgeons

Oral Surgeon

G. F. EDWARDS, M.B.E., M.B., B.S., M.R.C.P., M.R.C.S.

J. STEVENSON, M.B., Ch.B., M.R.C.P.

Professor R. W. SMITHELLS, M.B., B.S., M.R.C.P., D.C.H.

J. A. H. HANCOCK, L.R.C.P., M.R.C.S.

Professor Max HAMILTON, M.D., M.R.C.P.,

*T. McM. BOYLE, F.R.C.S.

*D. J. McWILLIAMS, F.R.C.S.

O. O. FFOOKS, F.R.C.S.

*J. NOLAN, F.R.C.S.

Professor T. TALMAGE READ, F.R.F.P.S., F.D.S., R.C.S., L.R.C.P.

*Appointed by the Regional Hospital Board

Public Health Department,
Provincial Insurance House,
Bond Court,
LEEDS LS1 2TZ

Telephone: 30661

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I submit herewith the Annual Report for 1973, the first which I have presented as Medical Officer of Health and Principal School Medical Officer and the last which will be produced in the present form. Because of the short time available, it has been necessary to present a very abbreviated report based on provisional statistics and in an improvised format, but it contains the same basic information as its many predecessors.

Although both Members and Officers were heavily engaged during the year in the preparatory work for the parallel Local Government and National Health Service Reorganisations, the Local Health Authority not only maintained the momentum of its services, but pressed on with significant developments in them. One of the most notable examples was in the expansion of investigations into the field of environmental health calling for intensive work on the part of the Chief Public Health Inspector and his staff. Another major activity was the continuation of work on the coronary ambulance research project which by the end of the year was developed to a stage where the Committee was able to accept the specifications put forward by firms who had worked on the scheme.

In 1972, the Health Committee decided to provide a Local Authority Vasectomy Service under the powers afforded by the National Health Service (Family Planning) Amendment Act, 1972. Sufficient preparatory work was completed to ensure that the service could be started before the reorganisation of the National Health Service in 1974.

The basic community services in the medical, nursing and environmental fields were maintained and links with the other parts of the National Health Service were strengthened in spite of the many difficulties caused by the imminent reorganisation.

Health Centres

In the health centre programme Woodsley Health Centre was in full use by the middle of December and construction of Woodhouse Health Centre started in May. Work on the Holt Park Health Centre was carried forward to the tender stage, detailed design work was carried out on the Armley (Theaker Lane) and Armley (Tong Road) Health Centres and plans were agreed for the Hunslet Health Centre. Preliminary discussions took place on the accommodation and facilities to be provided at the Chapeltown, Meanwood and Whinmoor Health Centres, on which formal agreement had been reached by the Health Committee, Executive Council and doctors concerned. It was a great disappointment when successive financial restrictions by the Government severely limited the projects which could receive Department of Health and Social Security approval in the current financial year and cast grave doubts on the possibility of further progress in 1974/75.

Infectious Diseases

The number of notified cases of tuberculosis continued to fall to the lowest ever level of 167 and the fall in numbers of notified cases over the past twenty years is shown by the following figures:-

Average

1951-1955 558

1956-1960 437

1961-1965 320

1966-1970 229

There was also a substantial increase in the number of cases of dysentery and food poisoning although no specific outbreaks or casual agents appeared to be responsible for this.

Staff

On 25th March 1973, Professor D. B. Bradshaw retired as Medical Officer of Health although he will continue to serve as Deputy Medical Officer of Health until the reorganisation of the National Health Service in April 1974. Professor Bradshaw had served the Authority since 1948, first as Deputy Medical Officer of Health and since 1958 as Medical Officer of Health. He had, therefore, been concerned throughout the whole period since the introduction of the National Health Service with the development of community and preventive health services in the City. During his time the Local Authority Services were developed to their present comprehensive scale and many of the new projects, particularly in the field of education and training were amongst

the first in the country. He was the last Medical Officer of Health to hold the post of Professor of Public Health and Preventive Medicine in the University of Leeds and the links between the Health Department and the University Department proved invaluable. It would have been difficult to face the past year without his continued presence in his temporary role as Deputy and on his final retirement in the very near future the wishes of very many friends and colleagues will go with him.

Since there will be no official report for the period January to March 1974, I would also like to record thanks to colleagues who retire in this period. Mr. J. H. Wyatt, Chief Public Health Inspector, will retire on 31st March 1974, after nearly 48 years service with this Local Authority, having been Deputy Chief Public Health Inspector since 1957 and Chief Public Health Inspector since 1970. During this latter period the services for which he has been responsible have expanded substantially, both in size and in the content of the work and will form much of the basis for the work of the new Local Authority. Mr. Wyatt's contribution to the services of the City has extended across several departments and committees and many colleagues would wish to be associated with thanks for his past service and good wishes for his retirement.

Mrs. K. E. Whalley, Divisional Nursing Officer, who will also retire on 31st March 1974, joined the Department in 1957. From 1960, until the reorganisation of the nursing services in 1972, she held the post of Superintendent, Home Nursing Service, and was in charge of this section during a time when the full impact of the concept of community care on domiciliary nursing services was felt. She was also responsible for the organisation of the Authority's training scheme for the National Certificate in District Nursing from its inception in 1960 until the present time.

Finally, Dr. Joyce Marshall retired on 17th February 1974, after being Senior Medical Officer (Mental Health) for ten years. Her knowledge, experience and sympathy for the mentally handicapped and mentally ill and their families left a particular gap which it was impossible to fill. I would like once again to express thanks and good wishes to these colleagues.

Acknowledgements

I wish to record my thanks to the Chairman and Deputy Chairman and Members of the Health Committee for their continued support during this last year. Before the year began the Secretary of State felt it necessary to ask authorities to guard against the danger that the effectiveness of Local Health Services might suffer because of a lack of interest due to the pending

reorganisation. In fact, the Health Committee has not only maintained, but substantially strengthened its services during this final period.

I wish especially to thank all members of staff in the Health Department for the hard work which they have carried out, often under difficult conditions because of reorganisation work and always in the face of growing uncertainty about their personal future.

I am, Ladies and Gentlemen,
Your Obedient Servant,
G. E. Welch

VITAL STATISTICS

At the time of writing, final vital statistics for 1973 have not been received from the Office of Population Censuses and Surveys. Statistics given in the following paragraphs have been locally compiled and are provisional.

POPULATION

The Registrar General's estimate of the city at mid-1973 was 500,200 as compared with 498,790 at mid-1972.

BIRTHS

Nett live births occurring during 1973 and subsequently registered numbered 6,515 (3,299 males and 3,216 females). The corresponding birth-rate per 1,000 of the population was 13.1 as compared with 14.2 for 1972 and an average of 15.8 for the previous five years.

Excess of Births over Deaths

The excess of births over deaths or the "natural increase of the population" was 698 as compared with 733 for 1972 and an average of 1,728 for the previous five years.

Illegitimate Births

Of the 6,515 nett births, 1,030 or 15.8 per cent were illegitimate as compared with 1,032 or 14.5 per cent in 1972 and an average of 1,070 for the previous five years.

Stillbirths

The nett number of stillbirths occurring during 1973 and subsequently registered was 85. The corresponding stillbirth rate per 1,000 total births (live and still) was 12.9 as compared with 15.5 for the previous year.

DEATHS

Nett deaths occurring during 1973 numbered 5,817. The corresponding death-rate per 1,000 of the population was 11.7 as compared with 12.8 in 1972, and an average of 12.4 for the previous five years.

Causes of Death

The principal causes of death during 1973 are given below:-

Coronary disease	1 0	2.63	4.40	 1,586
Malignant neoplasms				 1,195
Cerebral haemorrhage				 812
Heart disease				 383
Pneumonia				 369
Other circulatory dis	eases			 235
Bronchitis				 312

The above group of diseases was responsible for 4,610 or 79.3 per cent of the total deaths as compared with 5,263 or 82.6 per cent in 1972.

Cremations

Out of a total of 5,817 Leeds deaths during 1973, the number of bodies disposed of by cremation was 3,280 or 56.4 per cent as compared with 3,703 or 58.1 per cent in 1972. The number of cremations represents a decrease of 423 on the figure for the previous year and an increase of 108 on the average figure for the previous five years.

Public Mortuary

The number of bodies received into the Public Mortuary during 1973 was 1,256 and the number of autopsies performed was 1,016. Arrangements were made by relatives or friends for the disposal of 1,227 bodies; by Welfare Services for 24 bodies; and a further 9 bodies were disposed of through other channels.

INFANT MORTALITY

The number of deaths of children under one year during 1973 was 148 as compared with 138 in 1972. The corresponding infant mortality rate was 23 as compared with 19 in 1972 and an average of 21 for the previous five years.

Neo-Natal Mortality

The number of deaths occurring in the first month of life was 94 as compared with 80 in 1972. The corresponding neo-natal mortality rate was 14 as compared with 11 in 1972.

Early Neo-Natal Mortality

The number of deaths occurring in the first week of life was 79, 14 more than in the previous year, the corresponding early neo-natal mortality rate being 12 as compared with 9 in 1972.

Peri-Natal Mortality

The term "peri-natal mortality" is used to measure infant mortality due to causes operating before, during and immediately after birth and includes still births and deaths of infants in the first week of life. The rate is calculated per thousand total births (live and still) and was 25 in 1973 as compared with 25 in 1972 and an average of 26 for the previous five years.

MATERNAL MORTALITY

The number of maternal deaths during 1973 was 2, as compared with a nil return in 1972. The corresponding maternal mortality rate per thousand total births (live and still) was 0.30 as compared with a nil rate in 1972, and an average of 0.21 for the previous five years.

VITAL STATISTICS

Relating to Mothers and Infants

add wit had from a fact and the analysis and any	1973	1972
LIVE BIRTHS	Un an Faller	TA TALL MA
Number	6,515	7,102
Rate per 1,000	13.1	14.2
ILLEGITIMATE LIVE BIRTHS PER CENT OF TOTAL LIVE BIRTHS	15.8	14.5
LIVE BIRTHS	13.0	14.5
STILLBIRTHS	Suborg fem	bria Boly
Number	85	112
Rate per 1,000 total births (live and still)	12.9	15.5
TOTAL BIRTHS (live and still)	6,600	7,214
INFANT MORTALITY	che danger	Seleti
Number of deaths under 1 year of age	148	138
Infant mortality rate per 1,000 live births	23	19
NEO-NATAL MORTALITY RATE	sud ayab bus	000 30
(First four weeks) per 1,000 live births	14	11
EARLY NEO-NATAL MORTALITY RATE	1973 an	and ma
(Deaths under 1 week per 1,000 live births)	12	9
PERI-NATAL MORTALITY RATE	SCHOOL SES	d Alger
(Stillbirths and deaths under 1 week - combined per 1,000 total births)	25	25
MATERNAL MORTALITY	westessnoo	pdy I
Number of Maternal deaths (ind. abortion)	2	138.15
Maternal mortality rate per 1,000 total births	0.30	Manual Property

NOTIFIABLE INFECTIOUS DISEASES

The total numbers of notifiable infectious diseases reported in Leeds during 1973 are found in the table on page 6. The object of notification has always been the control of infectious conditions within the community. Some of the control measures involve immediate action and the co-operation of doctors, nurses, public health inspectors and others is essential. To all those who have been involved I would wish to convey my thanks. I would particularly wish to record my appreciation of the help supplied by the staff of the Public Health Laboratory and also the staff of the Infectious Diseases Hospital at Seacroft.

Anthrax

A case of anthrax was notified during 1973. This is a rare disease in this country and is usually due, as was the case here, to contact with imported animal products. The patient was a worker in a factory handling bone meal. Samples of the bone meal were subsequently found to contain anthrax spores. Most imported animal products likely to contain anthrax spores are subject to a sterilizing treatment. There is, however, no statutory requirement for the treatment of bone meal and this case illustrates the dangers run by anyone handling untreated bone meal. Unfortunately, although the danger was known in the factory where the patient worked, he had not been vaccinated against anthrax. This patient was very ill for some days but following treatment in hospital, ultimately recovered. Diphtheria

During 1973 an 18 month old child was admitted to hospital with diphtheria. She had recently returned from Pakistan where the infection had evidently been acquired. Contacts of the patient were investigated and one of her sisters was found to be carrying the organism also. No further cases developed and this was certainly due first, to the prompt diagnosis and hospitalisation of the patient, and secondly, to the high level of immunity in all the contacts. The patient herself had unfortunately missed vaccination. The effectiveness of diphtheria immunisation and the need to maintain a high level of immunity within the community was dramatically illustrated by this incident. The patient required intensive treatment but ultimately made a full recovery.

Dysentery

The number of cases of dysentery notified during the year is a considerable increase on 1972. There was a rise in the number of notifications during the summer and this high level was maintained throughout the remainder of the year. Each notification was investigated but by and large they were

sporadic cases apparently unrelated to one another. Only a very small number of notifications were confirmed bacteriologically but this is in part due to the fact that samples were often obtained some time after treatment had commenced.

Food Poisoning

The number of cases of food poisoning also increased over 1972 and again investigation revealed that most instances were sporadic cases unrelated to one another.

Malaria

There were four cases of malaria, all in patients who had recently come from abroad. The importance of prophylactic drug therapy in travellers to malarial areas is not recognised as widely as it should. Many travellers who are careful to recognise the need for various vaccinations when travelling abroad neglect completely to arrange for anti-malarial protection. This is particularly amprising in view of the fact that some types of malaria, even with modern treatment, can be fatal.

Paratyphoid

A visitor from Ceylon was taken ill some six days after her arrival in Leeds and was found to be suffering from Paratyphoid A. This is an unusual infection in this country but it is not at all uncommon in Ceylon. She was successfully treated in hospital.

A family outbreak of Paratyphoid B infection occurred during the year. Two children, a brother and sister, became ill and subsequent investigation revealed that the parents were also carrying the infection. None of the family had been outside the country and, except for a recent day trip, had not been out of Leeds. Extensive investigations failed to reveal the source of this infection. Both children recovered after treatment.

Typhoid

Two cases of Typhoid occurred, one was in a one year old child normally resident in Egypt who, with his mother, was visiting relatives. He was ill on arrival and was shortly admitted to hospital where he made a successful recovery.

The second case was an eight year old boy who became ill shortly after returning from a holiday in Spain. He made a successful recovery in hospital and no other members of the family were affected.

(AFTER CORRECTION OF DIAGNOSIS DURING THE CALENDAR YEAR 1973)

Notifiable Disease	At all ages	all es	Under 1	er	1 and under year:	l and nder 5 years	5 and under 15 years	and nder 15 years	15 and under 25 years	and er 25	25 ar under year	5 and der 45 years	45 and under 65 years	nd 65	65 and upwards	and	Total cases removed to
100	W	(L.	W	ы	M	F	M	[H	N	[Le	M	[E.	E	[L	M	E	Hospital
Anthrax	.1	q.	1	,	1	1	1		1	•	•	1	,	9	•	1	1
Cholera	1	,	,	,	'	,		1	,	,	,	,	,	1	,	1	,
Diphtheria	1	1		'	,	1		,	,	•	-	-	,	,	1	1	1
Dysentery	492	475	47	38	156	1117	06	82	07	67	103	104	45	53	11	14	42
Encephalitis, acute	1	3	1	,	1	,		3	,	,	,	,	,	,	•	1	4
Food poisoning	106	120	9	5	25	12	12	80	19	21	23	26	7	19	14	29	16
Infective Hepatitis	87	71	2	,	6	5	29	22	19	19	21	21	5	3	2	1	65
Leprosy	1	,	1	'	'	,		,	,		1	,	1	,	'	1	
Leptospirosis	,	,	,		,	,	,	,	1	,	1	,	,	,	•	1	,
Malaria	4	•		,	1	,	2	,	1	•			1			,	3
Measles	265	216	36	19	127	110	97	86	7		1	1	,	,	1	1	7
Meningitis, acute	42	25	9	5	9	3	15	80	10	4	7	3	1	1	-	1	09
Ophthalmia neonatorum	3	2	3	2			•	'	,			-	,	,	,	1	re l
Paratyphoid fever	2	3	,	1	1	1	1	,	,	1	1	1	,	1	'	1	2
Poliomyelitis	,		•	,	1	,	1	•	1		1	,	,	,	'	'	170
Rubella	173	204	12	19	0/	99	75	76	14	16	2	10	,	1	,	1	3
Scarlet fever	190	174	3	2	77	31	132	131	7	7	3	3	1	1		1	17
Tetanus	•			,	1	,		-	,	,	,			,		,	-
Typhoid fever	2	,	1	1	1	1	1	1	,	,	1	1	1	1	1	1	2
Whooping cough	7	6	1	1	9	3	,	5	1	1	1	,	,	,	1	1	2
Smallpox	,	,	1	'	1	1	,	,	,			,		,	,	,	,

TUBERCULOSIS

Notifications

During the year 137 cases of respiratory tuberculosis (of which 8 were transfers from other areas) and 31 of non-respiratory were notified, making a total of 168 of which 8 were transfers. Compared with the previous year there was a decrease of 14 in the respiratory notifications and a decrease of 15 in the non-respiratory notifications. Compared with the average of the previous five years, there was a decrease of 45 in the respiratory notifications and a decrease of 1 in the non-respiratory notifications.

Of the total cases of respiratory tuberculosis 8.5 per cent were children under 15 years, 16.2 per cent were persons between 15 and 25 years and 75.3 per cent were in the remaining groups. The corresponding figures for 1972 were 8.5 per cent, 16.2 per cent and 75.3 per cent respectively. With regard to non-respiratory tuberculosis 16.1 per cent were children under 15 years. The corresponding figure for 1972 was 19.1 per cent.

Of the total cases, 79 were notified by the Chest Physician, 2 were notified by general medical practitioners, 79 came from hospitals and 8 were transfers from other areas.

The number of cases not heard of until time of death was 9 (6 respiratory and 3 non-respiratory) including 3 posthumous notifications, a decrease of 10.

Of 14 deaths assigned to tuberculosis, 5 cases were notified during life.

The following tables give details of tuberculosis received during the year.

RESPIRATORY

Age	-1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Males	-	100	7	16(2)	14	12(2)	17	14(1)	10	90(5)
Females	- 8	2	3	7(1)	8	8(1)	4	8	7(1)	47(3)
TOTAL	-	2	10	23(3)	22	20(3)	21	22(1)	17(1)	137(8)

The figures in brackets are "Transfers-In" and are included in the totals.

NON RESPIRATORY

Age	-1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Males	-	DO TAN	2	3	4	209 25	2	1	- Die	12
Females	-	2	1	3	5	3	3	-	2	19
TOTAL	-	2	3	6	9	3	5	1	2	31

Deaths

Deaths from all forms of tuberculosis during the year number 14 of which 9 were males and 5 females. In the previous year the total was 26 of which 16 were males and 10 females. Respiratory tuberculosis accounted for 11 and non-respiratory for 3.

The following tables give details of tuberculosis deaths during 1973:-

RESPIRATORY TUBERCULOSIS AGES AT DEATH

Age	-1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Males	-	-	-	-	-	-	1	2	4	7
Females	-	-	-	-	-	-	2	-	2	4
TOTAL	-	-	-	-	-	-	3	2	6	11

NON-RESPIRATORY TUBERCULOSIS AGES AT DEATH

Age	-1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+	Total
Males	-	-	-	-	-	- /	1	-	1	2
Females	-	-	-	-	-	-	1	-	-	1
TOTAL	-	-	-	-	-	-	2	-	1	3

TUBERCULOSIS SOCIAL WORK

2,578 interviews with patients and their relatives took place at the Chest Clinic in 1973, 235 more than last year. 534 applications were made to the Special Services Committee. Milk free of charge was supplied to an average of 144 patients during the year. Beds, bedsteads and mattresses, with or without bedding, were loaned to 25 patients; clothing was provided for 105 patients and their families.

35 patients were referred for help to Corporation departments, 92 to the Department of Employment for work or rehabilitation courses and 67 to the Department of Health and Social Security for cash allowances or grants in kind. 9 other voluntary bodies were approached during the year and all responded with practical and generous help for patients.

2 voluntary bodies in the city which continued tirelessly to give help to Chest Clinic patients are the Leeds Chest and Heart Association and the Leeds District Aid in Sickness Fund. The National Society for Cancer Relief continued its invaluable help to cancer sufferers with many grants in cash and kind. QUINT BARRIST

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The following tables give details of tuberculatin deaths during

RESPIRATORY TURRISTA

ACES AT DEATH

PERSONAL HEALTH SERVICES

MATERNAL AND CHILD HEALTH SERVICES

NURSING SERVICES

HOME NURSING

MIDWIFERY

HEALTH VISITING

VACCINATION AND IMMUNISATION

AMBULANCE SERVICE

PREVENTION, CARE AND AFTER-CARE

VENEREAL DISEASES

MEDICAL REQUISITES LOAN SCHEME

PRIORITY RE-HOUSING ON MEDICAL GROUNDS

CHIROPODY

Maternal Care

The Local Authority Centre plays a very small role in affording facilities to expectant and recently delivered women for ante-natal and post-natal care. The vast majority of these women continued to attend hospital clinics or their general practitioner and midwife for this supervision. The centres do provide facilities for ante-natal relaxation and health education classes, including mothercraft, as well as examinations for cervical cytology, priority dentistry by referral to the School Dental Service, and the distribution of welfare foods and dietary supplements.

The service of birth control advice and the provision of supplies is discharged on behalf of the Local Health Authority by the Family Planning Association. During the year two further centres were opened for the clinic-leased service, making a total of eleven centres in the City along with the domiciliary service which caters for 400 women per annum.

Statistical Summary

SERVICE	1973	1972
Ante-Natal Care	122 women	268 women
	298 attendances	1,013 attendances
Post-Natal Care	21 women	46 women
	40 attendances	80 attendances
Relaxation and Education	256 women	409 women
	976 attendances	1,568 attendances
Cervical Cytology	4,748 women	4,654 women
	3 positive	9 positive
Priority Dentistry	10 women	10 women
	6 completed	7 completed
National Dried Milk	46,817	45,399
Vitamin Drops	19,359	20,890
Vitamin Tablets	2,611	3,139

Care of Young Children

Medical Officers and Health Visitors, in the clinic and in the home, continued to give skilled advice and anticipatory guidance on child development in all its aspects. In addition to medical examinations and immunological protection procedures, particular attention was given to young children with congenital anomalies, deviations in developmental growth and those exhibiting emotional difficulties and behaviour problems.

At the end of October, 1974, child health facilities were available in the purpose-built Woodsley Road Health Centre in the Burley area of the City and owing to destruction by fire in May of the Woodhouse Child Health Centre, the sessions were transferred to the Meanwood Road School Clinic without lack of service continuity. At the end of the year, there were 29 child health centres in operation - 11 purpose-built, 9 adapted and 9 premises occupied on a sessional basis.

The number of pre-school children attending child health centres was:

- (a) Children born in 1973 4,379
- (b) Children born in 1972 4,764
- (c) Children born 1968/71 4,745

TOTAL (aged under 5 years) 13,888

These children made 60,673 attendances. In 1972, 14,952 children made 65,185 attendances.

Care of Premature Infants

Of the 413 live births notified of infants weighing 2,500 grams $(5\frac{1}{2})$ lbs) or less at birth, 397 were born in hospital and 16 were either born at home or in a nursing home; 11 of the latter group were transferred subsequently to hospital. The number of premature infants dying within 24 hours of birth was 34.

The work undertaken by the Special Care Unit, which is staffed by 5 full-time midwives, is summarised below:-

Facilities for Consultant Advice

Consultant opinion is available to departmental Medical Officers in the following specialties:-

- (a) Paediatric 29 pre-school children were referred in 1973. In 1972 the number was 27.
- (b) Deafness Diagnosis 38 pre-school children, suspected of deafness after screening tests for hearing were referred. In 1972 the number was 26.
- (c) Ophthalmic 299 pre-school children with eye defect were referred in 1973, compared with 151 in 1972.
- (d) Orthopaedic 87 pre-school children suffering from postural or orthopaedic defect were referred compared with 104 in 1972.

Special Clinics

- (a) <u>Ultra-Violet Radiation</u> 17 pre-school children made 72 attendances.
- (b) Remedial Exercises 21 pre-school children made 163 attendances
- The Senior Dental Officer reports that treatment was commenced for 129 preschool children and by the end of the year 101 of them had completed treatment. Of these, 123 had general anaesthesia for extractions. In 1972 the respective figures were 112, 89 and 85.

Congenital Malformations

Congenital abnormality was notified to the Medical Officer of Health in 153 live births and 16 still births, representing 2.6 per cent of all live and still births for the year. More than one defect was noted in 19 infants and by 31st December, 24 of the affected children had died. The male/female ratio was 92 to 77, and 127 out of 169 infants were delivered in hospital.

Classification, based on the recommendations of the Registrar General's Advisory Committee for the Eighth Revision of the International Classfication of Diseases was as follows:-

Central Nervous System	31	Uro-genital System	23
Eye and Ear	5	Limbs	51
Alimentary System	21	Other Skeletal	7
Heart and Great Vessels	17	Other Systems	11
Respiratory System	3	Other Malformations	17

The frequency of specific malformation is given below:-

Anencephalus	15	cases	or	2.3	per	1,000	live	and	still	births
Hydrocephalus	11	cases	or	1.7	per	1,000	live	and	still	births
Spina Bifida	10	cases	or	1.5	per	1,000	live	and	still	births
Cleft lip or palate	9	cases	or	1.4	per	1,000	live	and	still	births
Congenital Heart	15	cases	or	2.3	per	1,000	live	and	still	births
Hypospadias	15	cases	or	2.3	per	1,000	live	and	still	births
Talipes	24	cases	or	3.6	per	1,000	live	and	still	births
Naevus	4	cases	or	0.6	per	1,000	live	and	still	births
Mongolism	10	cases	or	1.5	per	1,000	live	and	still	births

Registered Nursing Homes

	Number	Number of Beds Provided				
One day Seminar on Alex	Homes	Maternity	Other	Total		
Registered during 1973	-	-	-			
Cancelled during 1973	1	27	-	27		
Registered at 31.12.73	6	51	52	103		

Nursing Agencies Act, 1957

During the year, two Nursing Agencies had the licence renewed and one Agency ceased to operate.

NURSING SERVICES

The management of all three sections of the Nursing Services - Midwifery, Home Nursing and Health Visiting has been carried out by the Area Nursing Officers, each of whom is responsible for one sixth of the city. This has resulted in better communication and greater co-operation within the service.

Statistics relating to visits and patient care are given separately for each service.

Student Placements and Training

A total of 630 students accompanied members of staff for a day or half day during the year. They included Medical Students, Diatetic Students, Student Teachers, Social Workers, Pupil Midwives and Health Visitor Students from other areas seeking city experience.

89 Student Nurses, 71 from Leeds General Infirmary and 18 from Leeds (St. James s) University Hospital spent 6 weeks in the community as part of their training for State Registration.

13 Student Nurses from Seacroft Hospital spent one week in the community as part of the integrated S.R.N., R.S.C.N. Course.

Health Education

A total of 122 talks on various subjects were given by the health visitors to parent clubs or church organisations.

Courses and In-Service Training

14 Midwives attended their statutory Refresher Course, 3 undertook training in Parentcraft. 9 Health Visitors and 7 District Nurses attended Refresher Courses. 4 District Nurses were trained as Practical Work Instructors and 5 Health Visitors qualified as Field Work Instructors and were awarded the Letter of Recognition from the Council for the Education and Training of Health Visitors.

1 District Nurse and 4 Health Visitors successfully completed Part I of the Diploma in Nursing and were accepted for Part II.

7 State Registered Nurses and 11 State Enrolled Nurses completed their District Nurse Training and were awarded the National Certificate.

The "In-Service Training Programme" involved each of the disciplines of the Community Nursing Services and meetings were held either jointly or individually with a minimum of one per month.

A variety of subjects were covered. Visiting speakers spoke on their specialised subjects of the Handicapped Child; the Assessment and Placement of the Handicapped Child; Adoption; Urinary Infection in Children; Infant Feeding and Family Planning. In addition, lectures were given on Haemolytic Disease; the Pacemaker and the Electrocardiograph; the Prevention of Infection and the Changing Pattern of Infectious Diseases. Statutory workers spoke on their work in Probation; Education Welfare; Social Services and Hospital Liaison.

Joint sessions were held when the Director of Nursing Services spoke on 'The Progress of Reorganisation of the Health Service' and on the 'Annual Report, 1972'. The Chief Administrative Officer addressed staff on the subject of 'Financing the Health Department'.

It was with kind permission and courtesy of the Wharfedale Hospital Management Committee, the Regional Adviser in General Practice, the National Children's Bureau and the staff of the Nuffield Centre, University of Leeds, that the following talks respectively were attended:-

One day Seminar on Alcoholism at Scalebor Park Hospital; A series of lectures and films at Leeds University (St. James's) Hospital;

A talk on Poverty and Low Income Families;

A series of talks on the Reorganisation of the National Health Service.

The Night Nursing Auxiliaries joined the Day Nursing staff in a visit to St. Luke's Hospital, Sheffield for education on 'The Nursing of the Terminally Ill in the Community'.

These proved a valuable communication between hospital and community services.

HOME NURSING

We began the year with 82 full time and 5 part time members of staff giving a whole time equivalent of 85 in an establishment of 88. From 1st April we were granted an increase of 24 on the establishment to be phased in during the year and the six Bathing Attendants were regraded to Nursing Auxiliaries, thus the total establishment was increased to 118.

2 nurses joined the part time staff, 1 later transferring to full time work. Of the full time staff, 8 nurses left the service; 4 for family reasons; 1 to return to Ireland; 2 for health reasons and 1 to undertake health visitor training. Recruitment was good and by the end of the year we had 103 full time and 6 part time members of staff, giving a whole time equivalent of 106.86. Arrangements had been made for the full complement of 118 (whole time equivalent) staff to be in post by the end of March.

Attachment to group general practice continued, by the end of the year almost all the State Registered Nurses were working in attachment schemes.

Classification of Cases Treated

	1972	1973
Arthritis	18,870	20,726
Respiratory Condition	9,682	8,266
Cardiac Disease	11,045	10,140
Cerebral Catastrophies	22,321	21,078
Diabetes	22,063	26,002
Malignant	18,336	19,563
Lower Motor Neuron Disease	13,721	13,888
Other Medical Conditions	80,043	103,553
Enemas	4,695	5,475
Mental Illness	2,127	2,079
Tuberculosis	2,338	1,605
Influenza	221	157
Other Notifiable Diseases	234	39
Post Natal Complications	450	256
Miscarriages	40	37
Other Gynaecological Conditions	720	748
Surgical Discharges from Hospital	16,415	9,635
Treatments in Health Centres or Surgery	-	1,477
Ulcerated Legs	17,927	25,173
Other Dressings	36,468	51,371
Baths	38,080	47,188
Hospital Liaison	- 1-	408
Bereavement	re-state-r in	297
TOTAL TREATMENTS	315,796	369,161
TOTAL VISITS	276,870	275,469

The discrepancy between total treatments and visits is because some patients are treated for more than one condition.

Night Care Service

During the year the night care service has met the demand to relieve relatives who are caring for seriously ill patients in their own homes. A Nursing Auxiliary stays with the patient from 10.00 p.m. to 7.00 a.m. In addition the Night Sisters have visited patients where a Nursing Auxiliary has not been present in order to carry out treatments or give moral support to relatives who have preferred to care for their own sick without taking advantage of the night care service. Whenever Nursing Auxiliaries have been available we have extended the service to care for patients living alone who were ill and also those with chronic illness. Relatives of the chronically sick often become very tired because they suffer from frequently disturbed nights and although under the present terms of reference, regular help cannot be guaranteed to such cases, help has been given whenever the demand has lessened from the acutely ill patients.

Patients who have received the service have suffered from the following illnesses:-

-	-	-				
	C)	Ca	73	-	0	797
- 44	-	V-CL		منا	e	

- 48 Cerebro-vascular Accident
- 22 Congestive Heart Failure
- 20 Senility
- 9 Parkinson's Disease
- 8 Pneumonia
- 4 Arthritis
- 4 Fractures

2 Frailty

- 1 Cerebral Tumours
- 2 Angina
- 2 Coronary thrombosis
- 2 Bronchitis
- 2 Anaemia
- 1 Multiple Sclerosis
- 1 Arteriosclerosis

249 Patients have had help for 2,329 nights. Of these, 124 died; 83 were admitted to hospital; 15 recovered and the remainder were discharged from the service when relatives found that they could cope again.

Marie Curie Night Nursing Service

Again this service was very welcome and was used to complement the night care service. 51 patients were attended involving 258 nights. Of the patients cared for 35 died; 8 were admitted to hospital; 1 was admitted to Arden Lea Nursing Home; 1 transferred to relatives outside the Leeds area; 4 were transferred to the night care service and 2 are still being visited.

MIDWIFERY

The year began with 38 full time and 15 part time members of staff (8 on day duty and 7 on night duty). 2 full time Midwives transferred to part time work, 8 joined the service and 9 left, one was promoted to Nursing Officer. Of the part time staff, 1 Night Midwife and 4 Day Midwives

left the service, 3 joined the staff. One of the 3 Nursing Officers= left to get married. At the end of the year we had 34 full time, 9 part time day duty and 6 part time night duty midwives.

Attachment of Midwives to general practice was completed early in the year. The Midwives attend the ante-natal clinic held in the Doctor's premises and have contact with all expectant mothers in the practice. This is reflected in the increase in the number of mothers seen at the Clinic. The number of home confinements again dropped, to 597.

Training

6 Midwives were approved as Teaching Midwives by the Central Midwives Board, bringing the total to 29 by the end of the year (21 full time, 5 part time and the 3 Nursing Officers). Unfortunately, the midwives who left were Teaching Midwives and this laid a heavy training burden on the remaining Teachers until their less experienced colleagues could be brought up to the required standard for approval.

A total of 72 pupils undertook Community Training, 23 from the Leeds Maternity Hospital, 20 from St. James's University Hospital and 29 from St. Mary's Hospital.

Courses Attended

15 Midwives attended their Statutory Refresher Course, 3 attended a Parentcraft Course. One Nursing Officer successfully gained the Advanced Diploma in Midwifery.

Statutory Duties

The Authority fulfilled its function as the local supervisory authority.

255 Midwives notified their intention to practise in the City in 1973, 73
failed to re-notify for 1974. Comparative figures for the previous year are

250 with a loss of 83. 36 Midwives (including the 15 local authority

Midwives) attended a Refresher Course.

WORK UNDERTAKEN BY DOMICILIARY MIDWIVES

The following table gives a summary of the year's work with comparative figures for 1972:-

Work Undertaken	1972	1973
Bookings for home confinement	1,266	716
Bookings for planned early discharge	3,339	3,262
Ante-Natal Visits to patients homes	21,038	17,047
Attendances at Birth	946	597
Post-Natal Visits	39,209	33,851
Follow-up Hospital Clinic Defaulters	404	414
Patient attendances at Midwives Ante-Natal Clinics	10,614	12,537
Social Investigations in connection with:-	to Healts	alery paid
Application for hospital beds	284	Mary log
Planned early discharge	4,222	3,356
Work of the Special (Baby) Care Midwives:-	was or o	vidasivan melala ast
No. of babies born at home	9	TORNE BILL
No. discharged from hospital to care of midwife	609	631
Total number of visits made	7,669	7,330
Medical aid calls:-		S MOTOR DIS
Cases where a doctor was booked for Maternity Medical Service	419	231
Cases where no doctor was booked for Maternity Medical Service	3	abazzah ait

At the beginning of the year there were 63 full time Health Visitors and 17 part time Health Visitors, giving the whole time equivalent of 73. 17 full time members left the staff, 4 left health visiting for other work; 6 for family reasons; 1 left to work for another authority; 1 left for further study; 3 transferred to part time work; 2 were promoted to Nursing Officers.

9 joined the staff on completion of their training at the Leeds University Health Visitor Training School; 1 joined us from another authority and one Nursing Officer left management to return to field work. Of the part timers, 1 left for family reasons; 1 new member joined the staff and two ex-members of staff returned. We ended the year with 57 full time and 22 part time staff giving a total whole time equivalent of 69.80. The establishment is 83.

It is many years since we were so short of Health Visitors and in spite of the fact that throughout the country there has been an increase in the number of students trained, this shortage seems to be wide-spread. It is difficult to know the reason for this. Concern among Health Visitors engendered by the Briggs Report and later by the absence of reference to Health Visitors in the N.H.S. Reorganisation Act have contributed to a general uncertainty among Health Visitors as to the future of their profession. In addition the dissatisfaction felt with the comparatively poor salary paid to Health Visitors is reflected in the fact that four members of staff (with a total service of 10 years) have left to join other professions offering a much higher salary.

Inevitably the shortage of staff has led to a fall in the total number of visits although we have maintained a ratio of 3:5 visits per year to each child under the age of one year and an overall ration of 3:25 visits to children under the age of five years. In addition to home visits, babies and children are seen by the Health Visitors when they attend the Child Health Centres. The regular surveillance of the healthy child and the giving of advice on the prevention of ill health and the maintenance of good health are the most important aspects of health visiting.

The demands made upon the Health Visitor's time by visits to the elderly, the sick and the handicapped, all very necessary and desirable must always be weighed against the necessity to maintain a supportive and preventive service to the young child and his family.

Home Visiting

The following table gives details of the total visits made by the health visitors during 1971, 1972 and 1973:-

S. John Life 23021 Lana Januar Investment	1971	1972	19	73
Children 0 - 1: First Visit Total Visits in the	8,142	7,161	7,059	(659)
year	27,804	24,653	24,756	(1,021)
Children 1 - 5: First Visit Total Visits in the	29,453	29,250	26,295	(2,131)
year	89,532	85,439	83,475	(2,949)
Total Number of Children seen	37,595	36,411	33,254	(2,790)
Total Number of Visits paid	117,336	110,092	108,099	(3,970)
Persons aged 65 and over	5,876	8,011	7,857	(28)
Number included in the above line who were visited at the special request of a G.P. or hospital	1,672	2,317	1,861	iz son b
Mentally disordered persons	300	452	452	18molto
Number included in the above line who were visited at the special request of a G.P. or hospital	155	86	36	ideain ad
Persons discharged from Hospital (other than mental hospitals)	253	209	279	aV tended I
Number included in the above line who were visited at the special request of a G.P. or Hospital	172	99	98	ners la
Number of Tuberculosis households visited	1,149	1,938	2,086	(351)
Number of households visited on account of other infectious diseases	436	376	97	4V93 Vol
Persons visited: re-housing on Medical Grounds	581	568	420	e de la
Other adults	25,680	27,212	27,814	(2,873)
Children 5 - 15	3,497	4,502	4,604	(696)
Adoption visits	102	93	37	diges a
Other Special Visits	5,878	5,455	6,173	2005-192
Ineffectual visits	30,413	32,146	31,389	(223)
TOTAL (less "ineffectual"and "at request of")	161,705	158,908	157,918	(7,918)

(Figures in brackets are immigrants and are included in the totals)

The vaccination and immunisation computer scheme was extended to include all General Practitioners from January.

The two deaths from Smallpox in the London area made the United Kingdom an infected area. All intending travellers to other countries were requested to have possession of a valid international certificate of vaccination against smallpox. This decision resulted in a big demand for smallpox vaccination from people proceeding on holiday abroad. Extra sessions had to be organised for each day during this emergency and in April, May and June over 5,000 smallpox vaccinations were given by Public Health Staff at the Park Square clinic and over 4,000 by General Practitioners.

During the year outbreaks of Cholera were reported from Tunisia and Southern Italy. All intended travellers to these areas were advised to seek immunisation against Cholera. People returning from these parts of Europe who had not received protection against Cholera were kept under surveillance. 7,031 doses of vaccine were given including 1,024 by General Practitioners.

Inoculations for Travellers Going Overseas

The number and types of inoculations are shown below:-

	1973	1972	1971	1970
Smallpox Vaccinations	7,307	3,631	2,964	3,643
T.A.B.	1,429	1,974	1,874	2,124
Cholera	6,007	4,878	6,799	2,796
Tetanus	394	422	296	339
Typhus	19	17	20	1
Yellow Fever	1,232	1,158	1,228	1,343

Influenza Vaccination was again offered to most of the staff who came into contact with the general public. 206 doses were given.

Rubella

2,869 school girls received injections for protection against German Measles included in this total were 127 given by general practitioners.

Table 1 - Completed Primary Courses - Number of persons under age 16

T		Year	of Bir	th	THE ST	Others	1
Type of vaccine or dose	1973	1972	1971	1970	1966- 1969	under age 16	Total
1. Quadruple DTPP	-	-	-	-	-	-	-
2. Triple DTP	286	4,569	737	75	52	5	5,724
3. Diphtheria/Pertussis	-	-	-	-	-	-	-
4. Diphtheria/Tetanus	-	41	36	46	788	22	933
5. Diphtheria	-	-	-	-	11	-	11
6. Pertussis	-	-	-	-	-	-	_
7. Tetanus	-	-	1	3	29	246	279
8. Salk	-	-	-	-	-	_	_
9. Sabin	286	4,604	750	83	839	117	6,679
10. Measles	5	3,299	1,133	145	131	5	4,718
11. Lines 1+2+3+4+5(Diphtheria)	286	4,610	773	121	851	27	6,668
12. Lines 1+2+3+6(Whooping Cough)	286	4,569	737	75	52	. 5	5,724
13. Lines 1+2+4+7(Tetanus)	286	4,610	774	124	869	273	6,936
14. Lines 1+8+9(Polio)	286	4,604	750	83	839	117	6,679

Table 2 - Reinforcing Doses - Number of persons under age 16

		Year	of Bir	th		Others	
Type of vaccine or dose	1973	1972	1971	1970	1966- 1969	under age 16	Total
1. Quadruple DTPP	-	-	-	-	-	-	-
2. Triple DTP	-	-	-	-	317	19	336
3. Diphtheria/Pertussis	-	-	-	-	-	-	-
4. Diphtheria/Tetanus	-	100	2	1-1	3,925	90	4,017
5. Diphtheria	-	JAY.	135	- 0	61	4	65
6. Pertussis	-	-	-	-	-	-	-
7. Tetanus	-	-	-	1	119	649	769
8. Salk	-	150	-	-	alr-pag	- 4	-
9. Sabin	112-1		-		4,363	151	4,514
10. Lines 1+2+3+4+5(Diphtheria)	-	-	2	-	4,303	113	4,418
11. Lines 1+2+3+6(Whooping Cough)	-	-	-	-	317	19	336
12. Lines 1+2+4+7(Tetanus)	-	-	2	1	4,361	668	5,122
13. Lines 1+8+9 (Polio)	-		-	-	4,363	151	4,514

AMBULANCE SERVICE

During the year there was a decrease in the number of patients carried, and mileage. This was due entirely to the Industrial Action taken by the Ambulance Staff for the period 12th November, 1973 to 22nd December, 1973. It is therefore impossible to compare the patients carried, and the mileage figures for this year, with the previous year. It can however, be estimated that approximately 30,000 less patients were carried due entirely to the dispute.

STATISTICAL REPORT (1st January 1973 to 31st December 1973)

Table 1

CASES CARRIED

		Direct	t Service			F/1
(2)3-(19) 489 (6)1	Accident & Emergency	Normal	Re-payment	Total	Rail	Final Total
Stretcher Cases	18,887	64,034	2	82,923	8	82,931
Sitting Cases	1,192	174,355	146	175,693	14	175,707
TOTALS	20,079	238,389	148	258,616	22	258,638
Previous Year	19,258	262,795	2,377	284,430	19	284,449
Mortuary Cases	7 Land - Jahren	1,042	-	1,042	-	1,042
Total Removals	20,079	239,431	148	259,658	22	259,680
Previous Year	19,258	263,858	2,377	285,493	19	285,512

Table 2

MILEAGE

	Direct	Service	Rail	Total
	Section 27	Re-payment	Kall	Total
Ambulances	511,741	15	1,543	513,299
Sitting Case Vehicles	657,284	700	3,043	661,027
TOTALS	1,169,025	715	4,586	1,174,326

		1972	1973	Note
Emergency Cases	Stretcher	17,272	18,887	+ 1,615
11 11	Sitting	1,986	1,192	- 794
Normal Cases	Stretcher	71,322	64,034	- 7,288
11 11	Sitting	191,473	174,355	- 17,118
Repayment Cases		2,377	148	- 2,229
Rail Cases	Stretcher	7	8	+ 1
CHICATO AND	Sitting	12	14	+ 2
TOTALS	e Pelpuopro	284,449	258,638	dilbe (seed
Mileage		-pass	a Long antologic	
Ambulances		547,234	511,756	- 35,478
Sitting Case Vehi	cles	745,723	657,984	- 87,739
TOTALS	gorford too	1,292,957	1,169,740	TOTAL R TO. 18

MAJOR POINTS OF COMPARISON 1972-1973

		1972	1973	Note
Outpatients	Stretcher	40,776	38,142	- 2,634
n Salasan	Sitting	180,094	166,129	- 13,965
Mortuary Cases		1,063	1,042	- 21
Emergency Calls		21,337	22,854	+ 1,517
Fruitless Journeys	September 1	13,995	13,461	- 534
" Mileage		27,990	26,922	- 1,068
Miles per patient	Stretcher	6.18	6.11	07
" " "	Sitting	3.23	3.76	+ .53
Hast and Halo-	Combined	4.60	4.54	06

Staff

The established strength of the Service remained unaltered throughout the year. Great difficulty is still being encountered in the recruitment of suitable staff.

Vehicles

6 new Morris F.G. Ambulances and 1 Morris E.A. Ambulance were delivered during the year. Delivery was also taken of a new chiropody vehicle, and

4 new "London Type Taxis" for use as Sitting Case Cars. Orders were placed for 9 new Morris E.A. Ambulances, and 4 new Ford Transit Sitting Case Ambulances for delivery in the new year.

Central Control

Extensions and modifications were carried out to the Control Room, and a new switchboard installed. New buildings were erected for training and administrative purposes.

Coronary Care

Consideration has been given to the establishment of a Mobile Coronary Care Scheme, which would involve the use of Radio Telemetry. Following publicity, a local newspaper instituted a public subscription fund to cover the cost of purchasing equipment.

Training

The training of Ambulance Staff was greatly enhanced by the provision in March, of a Training Unit, comprising an office, projection and store room, and large classroom. 18 Ambulancemen attended 6 week courses at the West Riding Service Training School, and all passed their examinations.

3 Ambulancemen attended refresher courses. 1 Officer attended the Training School as an Instructor. 14 new entrants received 1 week's Induction Course. Other courses during the year included a First Aid Course for Corporation Staff, detachments for "In Hospital Training", and basic training in the evening for new entrants. 16 Officers and Supervisory Staff attended courses ranging from Middle Management, to Basic Supervisory, and over 200 people attended First Aid Courses sponsored by the Local Government Training Board, Student Nurses now spend 1 day of their Community Care Training at the Ambulance Headquarters.

Equipment

The high standard of equipment on Leeds Ambulance Service has been maintained. Delivery was taken during the year of 12 Scoop Stretchers, and 22 Entonox Sets.

Accidents

There were 95 accidents involving Ambulance Service Vehicles. A decrease of 10 over the previous year.

VENEREAL DISEASES - INFORMATION SUPPLIED BY
DR. J. A. H. HANCOCK, CONSULTANT VENEREOLOGIST AT
LEEDS GENERAL INFIRMARY

NEW CASES REGISTERED AT THE VENEREAL DISEASES CLINIC, THE GENERAL INFIRMARY AT LEEDS, 1973

	10	1973			1972	2	INCR	INCREASE/DECREASE	REASE
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Gonorrhoea	839	194	1,300	629	324	983	+180	+137	+317
Non-specific genital infection	1,064	214	1,278	. 922	116	1,038	+142	+ 98	+240
Syphilis - primary and secondary	5	3	8	7	1	8	- 2	+ 2	Nil
Syphilis - all other stages	9	6	15	6	9	15	- 3	+ 3	Nil
Urethritis with arthritis	3	1	3	11	1	12	- 8	- 1	6 -
Trichomoniasis	12	255	267	16	201	217	7 -	+ 54	+ 50
Candida	245	211	456	227	178	405	+ 18	+ 33	+ 51
Scabies	48	3	51	07	9 -	07	+ 8	+ 3	+ 11
Pediculosis	79	19	83	67	12	19	- 3	+ 7	7 +
Herpes simplex	88	26	114	7.1	12	83	+ 17	+ 14	+ 31
Warts	194	16	285	170	97	267	+ 24	9 -	+ 18
Molluscum	8	7	12	6	-	6	- 1	7 +	+ 3
Other Treponemal Diseases	2	1	3	11	1	12	6 -	Nil	6 -
Other conditions requiring treatment	327	71	398	279	09	339	+ 48	+ 11	+ 59
Other conditions NOT requiring treatment	962	632	1,594	938	519	1,457	+ 24	+113	+137
	100		700		10	8:	8		

MEDICAL REQUISITES LOAN SERVICE

The Local Health Authority supplies equipment for home care and after care of patients. This service is operated from the Central Office at Bond Court, and provides equipment, on a loan basis and free of charge, to sick or bedridden patients tended at home and to patients requiring special equipment or nursing requisites when discharged from hospital. Medical requisites are loaned on the basis of medical recommendation. During 1973, the majority of recommendations were made by district nurses and general practitioners.

A wide variety of equipment is held, ranging from articles such as air rings and bed pans to hospital beds and wheelchairs, although the latter are only loaned in cases of short term need. Patients requiring wheelchairs for longer periods are referred to the Artificial Limb and Appliance Centre. A comprehensive list of equipment is shown in the table which follows. The Disinfestation section continues to provide a delivery service for large items of equipment and also undertakes the cleansing of returned articles.

The number of loans made in 1973 reflects the continued increased demand on the service; 3,828 articles were loaned as compared with 3,363 in 1972, an increase of 14 per cent.

The following table shows the equipment loaned during 1973, with comparable figures for 1972, 1971 and 1970.

	to the state of	Numbe	r loaned	Longie
Article	1973	1972	1971	1970
Air rings	238	226	204	222
Back rests	358	289	278	295
Bed cradles	236	214	191	177
Bed pans	446	516	486	496
Commodes	765	621	480	432
Hospital and single beds	48	27	29	33
Hydraulic hoists	15	9	11	5
Mackintosh sheets	482	469	514	562
Mattresses	71	51	41	42
Stand pulleys	12	19	15	13
Urinals	304	249	282	296
Walking aids	573	450	375	315
Wheelchairs	114	92	51	54
Miscellaneous	166	131	99	114
TOTAL	3,828	3,363	3,056	3,056

MEDICAL PRIORITY REHOUSING

Advice to the Housing Department on applications for priority rehousing on medical grounds continued to take up an increasing amount of time and effort on the part of the staff of the Department.

The recommendation is based on a confidential report by the applicant's doctor, usually his General Practitioner. In 1973, 2,399 requests for medical priority were received. This can be compared with 2,311 in 1972 and 1,100 in 1962.

Requests were supported where it appeared that there was a medical condition resulting in a substantial disability which would be more easily managed in alternative accommodation or, where the present accommodation was contributing to the medical condition. Sometimes the information given by the doctor appeared to be inadequate as a basis for a recommendation and further reports were then requested from a Health Visitor or Public Health Inspector. The Health Visitor was often able to give additional information on the family or social circumstances not known to the doctor. The Public Health Inspector was able to report on the physical condition of the present accommodation. Three hundred and forty-one reports were obtained from Health Visitors and 259 from Public Health Inspectors. Four hundred and six (50%) were recommended when the request was from applicants occupying private accommodation. Three hundred and ninety-nine (49%) were recommended when the request was for transfer to alternative Local Authority accommodation. Of those recommended a majority (57%) are amongst the elderly (over 65 years of age), emphasising again that it is amongst this group that most handicap is to be found and it is this group that most frequently find themselves in unsuitable accommodation.

Public Health Intoperture the best hundred and and (202) was becomeded to

CHIROPODY

STAFF

	1972	1973
STAFF in post at the year end:		
Chief Chiropodist Senior Chiropodists Sessional Chiropodists	1 11 15	1 10 15
TOTAL WHOLE TIME EQUIVALENT	27 15	26 15

WORK SUMMARY 1973

	1972	1973
Applications received	1,857	2,109
No. of patients treated		
Pensioners	8,864	9,247
Physically and Mentally Handicapped	317	334
Expectant Mothers	6	5
TOTAL	9,187	9,586
No. of Treatments		
Clinics	31,658	32,863
Domiciliary	14,068	13,470
Residential Accommodation	3,599	3,436
TOTAL	49,325	49,769
No. of Patients awaiting Treatment		
Clinics	364	1,010
Domiciliary	231	439
Transport	113	175
TOTAL	708	1,624

TIATE

HORK SUMMARK 1973

ENVIRONMENTAL HEALTH

J. H. Wyatt, M.A.P.H.I., Chief Public Health Inspector

HOUSING

FOOD PREMISES

FOOD AND DRUGS SAMPLING

MILK SUPPLIES

MEAT INSPECTION

DISEASES OF ANIMALS

FACTORIES

OFFICES, SHOPS AND RAILWAY PREMISES

NOISE CONTROL

SMOKE CONTROL

DISINFESTATION, RODENT CONTROL AND DISINFECTION

GENERAL SANITATION

INSPECTORIAL STAFF

HTMANH MATERIAL THE

J. R. Myart, M.A.P.H.I., Chief Public Health Inspector

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POOD PREMISES

POOD AND DRUCE SAMPLING

MILK SUPPLIES

MEAN THEFTOTTOM

DISEASES OF ASTRALS

PACTORIES

GEFTCES. SHOPS AND MATIMAY PREMISES

MOTES CONTROL

SMOOT CONTROL

POTTOSYRIZIO CEA JUSTEON TARRON ENTRAPARENTARIO

CHURRAL SANTACTOR

IMEFECTORIAL STAFF

Number of Houses

The number of houses and flats in the City on 31st December, 1973, was 180,092, made up of 29,327 back-to-back houses and 150,765 through houses and flats. The number of permanent new houses and flats completed during the year was 2,575; and of these 978 were built by the Corporation. The Local Authority converted 5 houses into 11 flats; and 51 houses were also converted into 132 flats by private owners.

Slum Clearance

During the year 24 areas comprising 1,603 houses were officially represented to the City Council and the occupants of these totalled 3,964 persons.

Clearance Area	Date of Representation	Number of Houses	Population
Farnley Crescent (Stonebridge Lane) Clearance Areas Nos. 1 and 2	8.01.73	24	41
Roseville Road (Arundel Place) Clearance Areas Nos. 1 and 2	8.01.73	60	133
Belle Vue Road (Belle Vue Street) Clearance Areas Nos. 1 and 2	19.02.73	78	216
Belle Vue Road (Belle Vue Street) Clearance Area No. 3	2.04.73	. 6	11
Armley (Cedar Road) Clearance Area	29.06.73	124	308
Bramley (Bath Lane) Clearance Areas Nos. 1, 2 and 3	29.06.73	108	295
Wortley (Western Road) Clearance Area	17.09.73	32	60
Armley (Beech Terrace) Clearance Area	17.09.73	27	56
Kirkstall Road (Wolseley Road Clearance Area	17.09.73	246	592
Blackman Lane (Well Close Terrace) Clearance Areas Nos. 1, 2 and 3	5.11.73	189	697
Whingate Road (South) Clearance Area No. 1	5.11.73	294	665
Beeston Hill (Wood Place) Clearance Area	5.11.73	41	72
Oldfield Lane (Colmore Street) Clearance Areas Nos. 1 and 2	5.11.73	139	297
Amberley Road (Malmesbury Street) Clearance Areas Nos. 1 and 2	10.12.73	39	91
Holbeck (Cross Ingram Road) Clearance Area No. 1	10.12.73	196	430
		1,603	3,964

The Secretary of State for the Environment has confirmed Orders in respect of 9 Areas comprising 800 unfit houses and 76 fit houses. The number of houses demolished in and adjoining clearance areas during the year was 1,616 made up of 1,313 unfit properties and 303 fit properties. The number of families rehoused by the Corporation was 1,274 and the number finding their own accommodation was 482.

14 Local Public Inquiries were held during the year in respect of 29 areas comprising 1,979 unfit houses and 211 additional properties not unfit.

11,008 enquiries regarding the position of houses and land in relation to the City Council's Slum Clearance Programme were answered.

At one public local inquiry during the year a plea for preservation and upgrading of the houses was made, supported by a signed petition on behalf of a number of the occupiers of the properties within the Compulsory Purchase Order. This plea was rejected by the Inspector of the Department of the Environment who conducted the inquiry. His comments on preservation and improvement are of interest and can be summarised as follows:-

The Inspector found that all the properties in the Clearance Areas were correctly represented as unfit houses mainly by reason of dampness, defects due to age and structure of these back-to-back houses, and the remoteness of water closets, which in many cases are shared. Having regard to the possibility of bringing them up to a reasonable standard, he thought that while this was feasible it would mean spending a lot of private and public money; this might be justified for houses which are not 80 or 90 years old, or back-to-back, or basically obsolescent in design. In those circumstances he was of the opinion that notwithstanding the almost unanimous wish of the people living in these houses to remain living in them, it was not desirable that they should do so in houses of this age and character.

A policy adopted by the Housing Committee and now acted upon requires, within a relatively short time of the representation of a Clearance Area, the setting up of a local information office. Normally established in a vacant local authority property situated within the clearance area, the information office which is staffed by a member of the Public Health Department and of the Housing Department is open each afternoon between 2 and 7 p.m. for a set period of time, usually of one weeks duration, and to which the local inhabitants may have recourse to

obtain the information they would normally have to seek at the more remote departmental offices.

In the main the questions usually posed to the officials are "where will I be going, and when".

Demolition Orders and Closing Orders

2 Demolition Orders and 6 Closing Orders were made on houses.

Certificates of Unfitness

Certificates of Unfitness were furnished in respect of 20 houses owned by the Corporation.

Well Maintained Payments

The number of well maintained payments awarded during the year was 325 including 210 partially well maintained in respect of the interior maintenance only, and 44 partially well maintained payments in respect of the exterior maintenance only.

Special supplementary payments eligible to owner occupiers were made in 417 cases, which raised these compensation payments for unfit houses up to market value. In these cases the question of additional well maintained payments could not, of course, arise. Department of the Environment Circular No. 54/73 dated 30th April 1973 drew to the attention of local authorities the Housing (Payments for Well Maintained Houses) Order 1973.

The purpose of this order was to amend the official multiplier from 8 relating to existing Rateable Values to 3% in relation to the new Rateable Values due to come into operation on the 1st April 1973. This will ensure an equality of payments under either system of calculation of the sum payable in respect of 'Good-Maintenance'.

Home Loss and/or Disturbance Payments

The Land Compensation Act, 1973 Part III provides, inter alia, where a person has been displaced from a dwelling since the 17th October 1972 in consequence of a Compulsory Purchase Order, Demolition, Closing or Clearance Order, subject to certain qualifying conditions being fulfilled, that person shall be entitled to a Home Loss and/or Disturbance Payment.

Generally, Home Loss Payments are payable to persons who are displaced from a dwelling which they have occupied as their main or only residence for at least 5 years. The payment is calculated on a basis of an official multiplier times the rateable value but in no case shall the payment be less than £150 or more than £1,500.

Disturbance Payments are payable to those who are displaced providing they do not qualify for Market Value Compensation, and that they were in lawful occupation of the property at the date of the first publication of 'Notice of the making of the Order' relating to that particular property.

In effect the payments authorised under this part of the Act will help alleviate monetary distress which may be suffered by persons to be displaced. Local authorities are also legally obliged to now offer alternative accommodation to those persons to be displaced in consequence of a Compulsory Purchase Order, Demolition, Closing or Clearance Order. Certificates of Disrepair

No applications for Certificates of Disrepair were received during the year.

IMPROVEMENT GRANTS

The policy of the City Council of encouraging full improvement grant work in preference to the lesser "Standard Grant" code has been maintained during the year under review.

It is pleasing to note that there has been a reversal of the downward trend apparent in the number of grants completed in 1972. The figures of 903 Discretionary Grants and 35 Standard Grants completed a total of 938 in 1973, when compared with the 567 completions in 1972, shows an increase of 371 during the year. This increase is in line with the national trend, but is also indicative of the urgency now apparent to the applicants of the need to complete Improvement Grant works in order to qualify for the 75% grant aid available in this 'Intermediate Area' before the 'cut-off' date on 23rd June, 1974 which has been specified in Department of Environment Circular 117/73 relating to the Housing (Amendment) Act, 1973.

It would, nevertheless, be true to say that but for a labour and also a materials shortage the number of completions would have been much greater.

In the event, with the numbers of applications which are still being received, there will be many instances where the works will not be completed by the 23rd June, 1974, and will therefore be disqualified from receipt of the 75% grant and will have to revert to the national 'norm' of 50%. Widespread publicity through the medium of the press and local radio, together with an informative letter to each and every owner of unimproved property within the 104 Improvement Grant areas has been used

in order to ensure the maximum dissemination of this fact.

The large increase in the number of applications for grant aid together with the continually escalating costs, requiring in many instances a reassessment of revised estimates, due mainly to the time lag between approval of the original estimate and the commencement of the works, has put an additional strain on an already overburdened Public Health Inspectorate.

The number of houses within the 104 Improvement Areas still requiring 'improving' and eligible for grant aid has fallen from the 3,000 indicated in 1972 to 2,000. This decrease is due in part to many of the 938 privately owned houses improved during the year being contained within the improvement areas. These together with the local authority owned houses improved and also a revised and increased estimate of the numbers of old age pensioners and the chronically ill, have aggregated to reduce by approximately 1,000 the numbers of houses still eligible for grant aid in the improvement areas.

Summary of Grants 1973

bullerscool introduces to sesse add settween the	Total for 1973	Total from 16.7.1953 to 31.12.1973
Preliminary Applications for Improvement Grant and/or Standard Grant received	2,941	23,779
Number of Applications for Improvement Grants and/or Standard Grants withdrawn	279	3,505
Number of Applications for Standard Grant refused	1	182
Number of Houses not suitable for Improvement Grant	381	3,082
Formal Applications for Standard Grant received	43	1,977
Formal Applications for Improvement Grant received	1,578	11,517
Formal Applications for Standard Grant approved by Local Authority	40	1,835
Formal Applications for Improvement Grant approved by Local Authority	1,419	10,680
Number of houses improved - Standard Grant	35	1,715
Number of houses improved - Improvement Grant	903	9,116

N.B. The statistics in this table refer only to improvements in privately owned housing. It should be noted that extensive improvement grant works have equally been undertaken in dwellings in municipal ownership.

The number of houses recorded as 'not suitable for improvement grant' increased from the total of 300 shown in 1972 to 381. This increase follows the upward trend apparent over the last few years and is often due to applications being made, for example for repair items only, or, for enlargements of kitchens where such kitchens are already of reasonable size.

'Conversion Grants' are dealt with by the Department of Architecture and Landscape although initial applications and approvals are channelled through the Health Department. Of a total of 138 such applications received 90 were recommended for grant aid. This work of conversion has the effect of putting new 'life' into otherwise deteriorating and over-large properties, which, when considered in the light of present day standards and the wish of the majority of house owners for smaller, more compact and more easily managed properties, would not find a ready sale on the property market. It also has the advantage of making additional self-contained units of housing available for occupation.

Houses in Multiple Occupation

278 visits were made to houses in multiple occupation and it was necessary in 4 instances to serve notices under Sections 15 and 19 of the Housing Act, 1961 requesting the provision of additional amenities and to prevent overcrowding.

Qualification Certificates

The Housing Act, 1969 provides the means of converting 'controlled tenancies' into 'regulated tenancies', with consequent eligibility for 'fair rents', subject to complying with the qualifying conditions, which were that the dwelling should:

- (i) possess all the standard amenities for the exclusive use of the occupants.
- (ii) be in good state of repair
- (iii) and be fit for human habitation

This eligibility for change was intended to provide an incentive to owners to upgrade perhaps older, somewhat substandard properties, and thereby to preserve potentially valuable 'housing stock' from deterioration, and give more wholesome living conditions to tenants and to provide such financial reward as would encourage good maintenance of those houses in the future.

The table which follows sets out the statistics for 1973 under this heading.

HOUSING FINANCE ACT, 1972 QUALIFICATION CERTIFICATES

20.00	Improvement Cases - Section 29 (1)	Total for 1973	Total from 25.8.69 to 31.12.73	
(1)	Number of applications for certificates	87	412	
(2)	Number of applications withdrawn	1	14	
(3)	Number of certificates of provisional approval issued	100	367	
(4)	Number of certificates issued	76	233	

	Standard amenities already provided Section 28 (1)	Total for 1973	Total from 25.8.69 to 31.12.73	
(5)	Number of applications for certificates	175	4,523	
(6)	Number of applications withdrawn	20	218	
(7)	Number of applications refused	8	1,190	
(8)	Number of certificates issued	257	2,475	

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FOOD PREMISES

5,636 visits were paid to premises in which foodstuffs intended for human consumption were prepared, stored or sold. 404 of these were to premises registered with the Local Authority under the provisions of Section 16 of the Food and Drugs Act, 1955, i.e. to premises used for the sale or manufacture or storage of sausages or potted, pressed, pickled or preserved food intended for sale. 2,916 visits were to places not registered under the Act, e.g. bakehouses, butchers' shops, provision merchants, etc. 1,474 visits were paid to cafes, restaurants, hotels and public houses. The general standard of hygiene was reasonably satisfactory.

Under the Food Hygiene (General) Regulations, 1970, 298 warning letters were issued pointing out contraventions of the Regulations or to require alterations to premises to bring them into line with modern standards. These letters and other action taken by public health inspectors have resulted in a large number of improvements to food premises of all types. For details, see the table entitled 'Registration'.

FOOD PREMISES SURVEY
FOOD HYGIENE (GENERAL) REGULATIONS - 1970

Category of Trade	Number of Premises
Butchers	432
Grocers	865
Bakers and Confectioners	302
Greengrocers and Wet Fish Shops	331
Fried Fish and Take Away Food Shops	260
Restaurants, Cafes, Canteens and Snack Bars	659
Food Factories	24
Ice-cream Factories	5
Wholesale Provision Merchants	9
TOTAL	2,887

76 visits were made to premises used for the manufacture or sale of ice-cream, 239 to fish-frying premises, 89 visits were made to other registered food preparing premises, such as those used for the manufacture of sausages or preparation of pork products, meat pies, jams, pickles and sauces.

Under the Food Hygiene (Markets, Stalls and Delivery Vehicles)
Regulations, 1966, 50 mobile shops and delivery vehicles were inspected
and 2 warning letters issued. In addition 792 visits were made to
market stalls.

REGISTRATION

Number of premises registered for the manufacture of ice-cream during 1973	enn pur
ice-cream during 1973	nionali:
Number of premises registered for the storage of	
ice-cream during 1973	-
Number of premises registered for the sale of	
ice-cream during 1973	11
Number of premises registered for the preparation or	
manufacture of sausages or potted, pressed, pickled or	14.59
preserved foods intended for sale	11
(3 fried fish shops, 8 manufacturers of sausages, potted	
meat, meat pies etc.)	NEINE L
Number of notifications of change of occupier received:-	
Too every sweet and	8
	3
Food preparing premises	3
Number of premises removed from register:-	
Ice-cream premises (manufacture)	-
Ice-cream premises (storage)	-
Ice-cream premises (sale)	6
P 1	5
rood preparing premises	1
Number of premises on the register on the 31st December 1973	
(a) Used for the manufacture of ice-cream	27
(b) Used for the sale of ice-cream	1,776
(c) Used for the storage of ice-cream intended for sale	12
(d) Used for the manufacture of sausages, or the	
	631
preparation of preserved foods	031

INVESTIGATION INTO PRESENCE OF RESISTANCE TO ANTIBIOTICS IN COLIFORM BACTERIA

Swabs from various types of meat and one swab from a working surface continued to be taken from butchers' shops weekly throughout the year. Details of the type of animal and cut of meat, whether home or foreign, fresh, chilled or frozen and a description of the working surface from which swabs were obtained were required.

A total of 260 such swabs were taken in the year from 52 butchers shops. The results of the swabbing are not yet available.

LEGAL PROCEEDINGS FOOD HYGIENE (GENERAL) REGULATIONS, 1970

The proprietors of two food premises were prosecuted for the dirty and unsatisfactory condition of their premises and the equipment contained therein.

Fines totalling £125 were imposed.

FOOD AND DRUGS SAMPLING

FOOD

45 formal samples and 633 informal samples were submitted to the City Analyst and of these 10 formal and 98 informal were found to be unsatisfactory.

DRUGS

28 informal samples of drugs were submitted for analysis, 2 of which were reported as unsatisfactory.

EXTRANEOUS MATTER AND MOULDS

605 complaints relating to unsatisfactory food were received, an increase of 24.5% on the previous year's figure of 485. The complaints may be sub-divided into three main groups:-

- 1. Mouldy or tainted food 264 Previous year 200
- 2. Extraneous Matter 302 Previous year 260
- 3. Food not of the nature or substance demanded 39 Previous year 25

Again, there was an increase in the number of complaints made by members of the public. The principal reasons for this are probably:-

- The increased cost of food, resulting in people wanting value for money.
- 2. The greater willingness of the public to complain about supermarkets than they were about proprietors of the now disappearing small local shops, whom they probably knew personally.
- 3. The increase in the use of pre-packed foods which necessitates the use of machinery, which may lead to the presence of extraneous matter in the food.
- 4. A more hygiene conscious public due partly to the publicity in the press, on the radio and on television, on such matters as date stamping, quality and labelling of food.

Much of the time of the Inspectorial Staff - which was reduced during the year owing to other departmental commitments - was spent in dealing with complaints. All cases are investigated, legal proceedings being instituted in respect of the more serious ones when the complainant agreed to give evidence in Court. The number of prosecutions taken was 40 compared to 19 during the previous year.

Examples of the type of food complaint received may be seen in the Table of Prosecutions.

TABLE OF PROSECUTIONS

	COMPLAINT	RESULT			
1.	Nail in sausage	Conditional discharge, £21.55 costs			
2.	Metal in can of minced beef	£35 fine & £21.55 costs			
3.	Wasp in ginger cake	£15 fine & £21.55 costs			
4.	Pork sausage deficient in meat content	£20 fine & £16.55 costs			
5.	Pork sausage and beefburgers deficient in meat content	£45 fine & £23.10 costs			
6.	Mould growth on cake	£25 fine & £33.50 costs			
7.	Mould growth on cake	£20 fine & £10 costs			
8.	Metal object in loaf	£10 fine & £16.50 costs			
9.	Dirty milk bottle	£10 fine & £21.55 costs			
10.	Coconut mallows "not of the quality demanded".	£10 fine & £23.05 costs			
11.	Beef sausage deficient in meat content	£25 fine & £21.55 costs			
12.	Uncut loaf tasting of diesel oil	£10 fine & £23.05 costs			
13.	Rodent dropping in pork pie	£30 fine & £23.05 costs			
14.	Mouldy steak and kidney pie	£25 fine & £16.50 costs			
15.	Metal wire in chocolate	£10 fine & £11.00 costs			
16.	Piece of cloth in bun roll	£50 fine & £5 costs			
17.	Sweets chewed by mice	£35 fine & £16.50 costs			
18.	Dirty milk bottle	£10 fine & £23.05 costs			
19.	Excess preservative in "Cocktail Viennas".	£25 fine & £25 costs			
20.	Mouldy beef pie	£35 fine & £16.50 costs			
21.	Mouldy loaf	£25 fine & £16.50 costs			
22.	Potted beef deficient in meat content	£60 fine & £17.55 costs			
23.	"Buttered" breadcake spread with margarine	Conditional discharge, £15.35 costs			
24.	Dirty milk bottle	£10 fine & £21.55 costs			
25.	Copper tack in loaf	£25 fine & £5 costs			
26.	Paper embedded in loaf	£25 fine & £11 costs			
27.	Maggot infested bacon	£50 fine & £11 costs			
28.	Watered beer	Conditional discharge, £29.50 costs			
29.	Fruit malt loaf stale	£20 fine & £11 costs			
30.	White loaf mouldy	Case adjourned into 1974			

TABLE OF PROSECUTIONS

	COMPLAINT	RESULT		
31.	Maggot in bacon	£20 fine & £11 costs		
32.	Paper in loaf	£10 fine & £11 costs		
33.	Chickens portions contain added water	Case adjourned into 1974		
34.	Fly in chicken and veg. pasty	£10 fine & £17.55 costs		
35.	Dirty milk bottle	£40 fine & £16.55 costs		
36.	Dirty milk bottle	£30 fine & £16.55 costs		
37.	Part of slicer blade embedded in loaf	£20 fine & £10 costs		
38.	Match in stuffing	Case adjourned into 1974		
39.	Boot stud in loaf	Case adjourned into 1974		
40.	Watered beer	£20 fine & £21.55 costs		

This is the last full year when the administrative control of the composition and labelling of food and drugs manufactured and sold within this Authority will be the duty of the local council. The Local Government Act, 1972, declares that the responsible Authority for the administration of those particular functions of the Food and Drugs Act shall be the new Food and Drugs Authority, i.e., the West Yorkshire Metropolitan County Council. After re-organisation the Leeds Metropolitan District Council will still be responsible for Food Hygiene and Safety, which includes the duty of dealing with complaints of food which contain extraneous matter or which is mouldy. This latter function is important as the receipt of such complaints may lead an Inspector to food manufacturing premises which are in an unhygienic state.

ICE CREAM

133 samples were taken and submitted to the City Analyst for examination by the Methylene Blue Test: 2 were found to be unsatisfactory and 2 very unsatisfactory; 21 contained B Coli Type 1. Follow-up investigations were carried out in those cases of failure. Necessary advice was given and further samples taken until satisfactory results were obtained.

MILK SUPPLIES

Sampling

CHEMICAL

A total of 495 samples of milk, comprising 431 ordinary and 64 Channel Island were submitted to the City Analyst for chemical analysis, a decrease of 657 on the previous year. Of these 203 were taken formally and 292 informally.

The reasons for this considerable decrease were -

- The virtual completion of a scheme whereby all milk consigned to the two Processing Dairies in the city is carried in tankers and not (with the exception of Channel Island milk) in churns, which consequently reduces the number of samples which have to be taken.
- Reduction in staff due to the promotion and transfer of one member of the Food and Dairies Division.
- Increasing activity in the task of preparation for the re-organisation of Local Government.
- 4. Time spent on the increased number of food complaints made by members of the public.

29 samples were reported to be unsatisfactory. Of these, 23 contained extraneous water but in all cases the amount was small and consequently those responsible were warned. Repeat samples were found to be satisfactory. A warning letter was sent to each of the six farmers who consigned milk containing antibiotics. None of them had committed this offence before and follow-up samples proved to be satisfactory.

BACTERIOLOGICAL

Of 643 samples of milk submitted to the Public Analyst for Bacteriological examination 2 "Untreated" farm bottled milks failed the Methylene Blue (Reduction) Test. The failures were drawn to the attention of the two farmers concerned and further samples proved to be satisfactory.

One bottle of pasteurised milk which failed the Methylene Blue (Reduction) Test passed the Phosphatase Test showing that it had been properly heat treated. The matter was drawn strongly to the attention of the Dairy Company.

METHYLENE BLUE (REDUCTION) TEST

Designation	Total	Result of Test			
	Samples Taken	Satisfactory		Unsatisfactory	
		No.	Per cent.	No.	Per cent
Pasteurised	450	449	99.78%	1	0.22%
Untreated	96	94	97.92%	2	2.08%

PHOSPHATASE TEST

Designation	Total	Istor on 31 o	Result of Test			
	Samples Taken	Satisfactory		Unsatisfactory		
		No.	Per cent.	No.	Per cent.	
Pasteurised	.450	450	100.00%	-	124	

TURBIDITY TEST

Total Designation Samples Taken	Result of Test						
	Samples	Sati	sfactory	Unsatisfactory			
	Taken	No.	Per cent.	No.	Per cent.		
Sterilised	90	90	100.00%	-	-		

COLONY COUNT

70, 9451	Total	of Test			
Designation	Samples Taken	Sati	sfactory	Unsatisfactory	
		No.	Per cent.	No.	Per cent
Ultra Heat treated	7	7	100.00%		100

BRUCELLOSIS

The position in relation to Brucellosis amongst dairy cattle whose milk is sold as "Untreated" farm bottled milk has improved considerably during the past few years. 15 farmers bottle "Untreated" milk for sale in Leeds. 5 farms are situated in the Leeds area and all are on the Ministry of Agriculture, Fisheries and Food Register of Accredited Brucellosis free herds. 10 farms are situated outside the boundary, 8 of which are registered and 2 of which are in the process of becoming registered.

Of 96 samples submitted to the Public Health Laboratory, 3 were found to be positive to the Milk Ring Test, which indicated that the milk may be infected.

The Cream Culture Test, which proves or disproves the presence of Brucella organisms, showed all three samples to be negative.

CREAM

144 samples taken from places of production and from retail shops were submitted to the City Analyst for examination. He reported that 31 failed the Methylene Blue Test and 2 of these failed the Phosphatase Test. Investigations were made to find the cause of failure with the producers and with the retailers and further samples were taken until satisfactory results were obtained.

DISTRIBUTORS OF MILK WITH DAIRY PREMISES

reports this ogen to stand am and are out	Dairies	Distributors of Milk
No. on the register on 31st December 1972	14	18
No. added to the register during the year	4 9 0 C 1 C 3 D F	ad may aller
No. removed from the register during the year	3	united lands
No. on register on 31st December 1973	11	15

DISTRIBUTORS OF BOTTLED AND CARTONED MILK ONLY

No. of distributors on register on 31st December 1972	741
No. added to register during the year	79
No. removed from the register during the year	29
No. of distributors of milk on the register on 31st December 1973	791
No. of shops from which bottled milk only is sold on 31st December 1973	858

LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATION) REGULATIONS, 1960

Territory State St	Number in force on 31st December				
Description	1971	1972	1973		
To use the designation "Untreated" 1. To sell by retail	87	91	90		
To use the designation "Pasteurised" 1. Pasteurisers' Licences 2. To sell by retail	2 613	2 675	2 734		
To use the designation "Sterilised" 1. Steriliser's Licence 2. To sell by retail	1 710	1 763	1 818		
To use the designation "Ultra Heat Treated" 1. To sell by retail	89	111	144		

MEAT INSPECTION

Animals Slaughtered

There was a notable increase in the numbers of pigs and sheep slaughtered at the Public Abattoir, namely some 33,000 sheep and 12,000 pigs. This can be attributed in the case of sheep in part to the general failure of root crops through climatic conditions and to price increases for animal feeding, rendering prolonged store feeding uneconomical. Further outbreaks of swine vesicular disease encouraged the pig farmer to send pigs for slaughter as soon as they had reached the desired weight in order to achieve a quick turnover of stock and lessen the risk of infection.

ANIMALS SLAUGHTERED AT THE PUBLIC ABATTOIR
AND PRIVATE SLAUGHTERHOUSE

Slaughterhouse	Year	Cattle ex. Cows	Cows	Calves	Sheep	Pigs	Total
Public Abattoir	1972 1973	24,920 22,043	6,208 5,974		123,452 156,282		
Marshall Street, Crossgates	1972 1973	348 341	- 1	100-101	1,911 1,800	821 807	3,080 2,948

Knacker's Yard	1972	1973
Horses slaughtered at the knacker's yard	SEL CONTRACTOR	-
Horses slaughtered at collieries	-	-
Horses slaughtered at farms and customers own premises	12	10
Horses carcases received	23	22

Licensing of Slaughtermen

Fourteen new licences to slaughter or stun animals under the Slaughter of Animals Act, 1958, were granted and 82 existing licences were renewed.

Whole and Part Carcases Condemned

1 783 B18	Cattle ex. Cows	Cows	Calves	Sheep and Lambs	Pigs
NUMBER KILLED NUMBER INSPECTED	22,043 22,043	5,974 5,974	925 925	156,282 156,282	96,813 96,813
ALL DISEASES EXCEPT TUBERCULOSIS & CYSTICERCOSIS		321	by red	Da of	3
Whole carcases condemned	4	10	66	626	50
Carcases of which some part or organ was condemned	3,981	1,887	12	18,684	14,719
Percentage of numbers inspected affected with other diseases than Tuberculosis & Cysticercosis	17.58%	31.75%	8.43%	12.35%	15.26%

Whole and Part Carcases Condemned

Characteristic Tourist Contraction	Cattle ex. Cows	Cows	Calves	Sheep and Lambs	Pigs
TUBERCULOSIS ONLY	after and	TOTAL S	VE SH NO	Wallet -	SVIET IN
Whole carcases condemned	taker pobl	23274	100	Profites on	STATE OF
Carcases of which some part or organ was condemned	Markly 1942	nolyk Francis	esculation and	sidifica po	reduce a
Percentage of numbers inspected affected with Tuberculosis	dera est	10 10 10 10 10 10 10 10 10 10 10 10 10 1	Dist.	to make 0	o fanoquio
CYSTICERCOSIS	a language de				
Carcases of which some part or organ was condemned	11	1	one team	55	aslayeves
Carcases submitted to treatment by	undrorse.	12,420	Rolling	RPE P	A TOPPORTO
Generalised and totally condemned	5	-	alve t	The section of	Cyatalogaca

Complete Carcases Condemned

Disease	Beasts	Calves	Sheep	Pigs	
Anaemia	201 1 102 61326	19ey - 10. I	align P	00/04/0	
Ascites		-	1	-	
Erysipelas	-	-	-	2	
Extensive Bruising	1	m"od + ob o	diam'r si	1	
Extensive Injury			3	-	
Gangrene	season but are away	The second	1	-	
Ill-bled	4	981 - 1924	7	2	
Immaturity	-	42	-	-	
Jaundice	and the same	5	1	1	
Joint-ill	20.00	1	56 "-	-	
Moribund	-	2	22	12	
Multiple Tumours	physical and collect	America Inc.	2	die	
Oedema	3	- 20	37	6	
Oedema/Emaciation	5	5	528	14	
Peritonitis	nod bon - won in	2	50 mm (+ 0.0	-	
Pleurisy/Peritonitis	122,000	-	1	-	
Pyaemia	1	9	1390073-10	1	
Septic Peritonitis	20 1111-1111	0250 - 100	6	4	
Septic Pleurisy	-	-	6	-	
Septic Pneumonia	-	-	6	-	
Suppuration	-	-	5	6	

The principal causes for condemnation of parts of carcases or organs were respectively:-

beasts - bruising, injury, interstitial myositis, oedema (localised), presterual calcification, suppuration (localised)

calves - injury

sheep - arthritis, bruising, blood splash, injury, oedema (localised), pleurisy, suppuration (localised)

pigs - arthritis, bruising, blood splash, erythema, injury, pleurisy, urticaria, suppuration (localised).

Disposal of Condemned Meat

Condemned carcase meat and offals are disposed of to various firms, under the supervision of public health inspectors, for sterilisation and conversion into meat meal and agricultural fertiliser. The condemned meat and offals are removed in locked containers marked "Unfit for human consumption". This complies with the provisions of the Meat Sterilisation Regulations, 1969.

Cysticercus, Bovis and Ovis

Inspection continued as required by the Meat Inspection Regulations, 1963, and Amendment Regulations, 1966. 16 cases of cysticercus bovis were found and refrigeration was necessary in 5 instances. In other cases the cysts were not viable and the carcases were released after detailed inspection. 55 cases of cysticercus ovis were found, although this parasite is regarded as rare in this area. As mentioned previously, there was a considerable increase in the numbers of sheep slaughtered, many of which were drawn from far afield, and it is probable, therefore, that the infected sheep were not from within the county. In each case the heart only was infected and this was rejected for human consumption.

Trichinosis

Daily microscopical examination is made of specimens of pig musculature from the diaphragm for trichinosis. In addition the collection of specimens of musculature from sows and boars, for the Ministry of Agriculture, Fisheries and Food, was continued. This follows a request from the Ministry's Divisional Veterinary Officer for assistance in a country-wide investigation into the incidence of 'trichina spiralis'.

Brucellosis

Scheme of the Ministry of Agriculture, Fisheries and Food and also under their compulsory eradication scheme to promote Brucella free herds; the first area became established and operative in November, 1973, and is situate in North Lancashire and North West of the West Riding. The number slaughtered compares with 99 in 1972. The carcases and organs were dealt with according to the Ministry Circular FSH 63/68 in that the udders and uteri were destroyed and the meat if otherwise sound was passed as fit for human consumption. Two of the carcases were rejected for human consumption because of generalised oedema and emaciation.

Tuberculosis

4 reactors were slaughtered during the year but were found free of any lesions.

Food Rejected as Diseased, Unsound or Otherwise Unfit for Consumption The weight of food destroyed was 469,025 lbs. as compared with 591,567 lbs. in the previous year.

add and housel	1973	3	197	2	1971	L	1970)
Beef	11,092	1bs.	11,521	lbs.	12,665	1bs.	25,220	1bs.
Vea1	2,243	"	2,391	"	3,556	"	5,425	"
Mutton	26,992	"	14,187	"	9,347	"	16,137	"
Pork	17,590	"	16,706	"	10,495	"	8,644	11
Offals	176,055	"	168,578	"	138,076	"	122,873	"
Bacon & Ham	8,248	"	3,697	"	5,282	"	4,186	11
Rabbits	18	"	717	"	1,079	11	1,248	11
Poultry	2,876	"	3,537	"	2,506	.11	1,475	11
Game	-		-		316	11	41	- 11
Fish	1,589	"	18,830	"	2,356	11	2,244	***
Shellfish	607	11	154	"	819	11	184	11
Vegetables	49,318	"	125,024	"	54,988	OH 03	48,053	O.O.
Fruit	70,683	11	90,300		46,191	11110	39,082	11
Tinned Goods	73,802	"	112,083	"	88,952	11	87,063	- 11
Frozen Foods	27,912	"	23,842	"	11,014	"	14,478	"
	469,025	"	591,567	"	387,642	"	376,353	11

Fruit and Vegetables

There was a considerable decrease in the amount condemned as compared with 1972, viz., some 19,617 lbs. of fruit and 75,706 lbs. of vegetables. There was no glut of vegetables on the wholesale market such as occurred during the previous season.

Imported apples and pears, particularly Cape South African, arrived in much better condition, as did melons, which may be attributed to normal working at the docks and better climatic conditions during harvesting.

Rabbits

Again, as in 1972, there was a considerable decrease in the quantity of frozen rabbits destroyed for unsoundness. These are imported from China and Poland and packing techniques and storage have notably improved. English rabbits are available but in small numbers.

Fish

1,589 lbs. of fish were destroyed for unsoundness in 1973. Frozen fish blocks continue to be in great demand for the fish frying trade. They are of convenient size and shape for cutting into smaller pieces and are ideal for the trade. There is also an increasing demand for the new varieties of fish, such as snapper, zebra, sunshine palla, crocker, etc., particularly among the immigrant population.

Shellfish.

Nine samples of mussels were taken for bacteriological examination, the samples originating from layings in Lincolnshire. I sample was found to be unsatisfactory and representations were made to the Local Authority concerned.

Poultry Inspection

There are no poultry processing premises in the City, the condemnation of 2,876 lbs. being due to decomposition caused by refrigeration breakdown. No birds were condemned for disease. The amount consumed reflects the changing dietetic habits of the populace, because of economics chickens are replacing butchers meat on the table. Large numbers of chickens are imported into the City from Eire.

The Imported Food Regulations, 1968

The contents of 57 containers or part containers imported into the country were examined during the year. The contents included beef, bacon, chickens, tomatoes, frozen vegetables and canned goods from Eire, and

onions and oranges from Spain. All were in good condition.

Frozen Foods

27,912 lbs. were rejected as unfit during the year, principally due to refrigeration failures in frozen food cabinets installed in retail shops and supermarkets.

DISEASES OF ANIMALS

Swine Fever - Anthrax - Foot and Mouth Disease

No case of these diseases occurred in Leeds during 1973.

Fowl Pest

No cases of fowl pest occurred in Leeds during 1973.

The Poultry Pens, Fittings and Receptacles (Disinfection) Order, 1952 The Poultry Premises and Vehicles (Disinfection) Order, 1956 The Live Poultry (Movement Records) Order, 1952

Five visits were paid to inspect premises, vehicles and equipments and to check movement records. Conditions were satisfactory.

Diseases of Animals Act, 1950 (Second Schedule)

99 bovine animals were imported from Ireland for slaughter, a decrease on the previous year of 167. 191 Irish store cattle were also imported to farmers in the City, a decrease of 323.

Diseases of Animals (Waste Foods) Order, 1957

Two applications were received for a licence to operate a swill boiling plant. An inspection was made of the plant to ensure that swill could be properly boiled and kept separate from raw swill before being used for pig food as is required under the terms of the Order. In these cases licences were issued. Ten licensed operators were removed from the register and the number now stands at 26.

FACTORIES AND WORKPLACES

At the end of the year the Register for the City included 2,376 factories where mechanical power is used and 11 factories where mechanical power is not used. This shows a decrease of 27 power factories and the same number of non-power factories compared with those registered at the end of 1972. Inspections of power factories during the year totalled 349 and of non-power 5. In 70 cases defects were found, 5 involving the absence of Abstracts of the Act in premises which should have been registered under the provisions of the Factories Act 1961. In non-power factories 2 workrooms which had been found during late 1972 to be lacking in effective and suitable means of ventilation were provided with such means.

The number of instances where sanitary accommodation was found to be either insufficient or unsuitable was 65. Of these 8 cases were referred to the department by H.M. Factory Inspectorate. 21 written notices were issued in connection with the above matters.

The report for 1972 recorded that legal proceedings were pending at the end of the year in respect of an absence of screening to an externally situated sanitary convenience. The case had to be withdrawn at the hearing before the Stipendiary Magistrate due to the summons being issued under the incorrect Regulation. The company were not represented and the case was adjourned "SINE DIE". The necessary screening was provided without further recourse to the court. There were III other cases remedied in respect of unsuitable sanitary accommodation and these include those which were outstanding from the previous year.

There were 89 bake houses in the City registered as factories. Other bake houses, however, exist in the City which are not registrable under the Factories Act, being operated by self-employed persons only. There are no basement bake houses with a certificate of suitability within the City.

Works of Building and Engineering Construction

The Table of Inspection refers to 44 inspections made at 36 sites where Section 7 of the Act (the provision of sanitary accommodation) is enforced by the Council. Such sites include all types of building and engineering construction, including road works and alterations to local authority sewer and sewage disposal works. 17 such works were brought to the Departments's attention as a result of notification being received

under the provisions of The Construction (Health and Welfare)
Regulations 1966 from contractors who are required to notify the Local
Authority in writing where more than 25 persons are employed on a site,
so that proper ambulance arrangements can be made. In every case sites
were visited to ensure that the sanitary accommodation provided was
satisfactory.

Outwork

56 notifications of outworkers employed in the City were received in February and 50 in August. The August list showed 245 outworkers under 6 classifications. In no instance was it found that work was being carried on in unwholesome premises.

Workplaces

24 visits were made to workplaces not subject to either the provisions of the Factories Act 1961 or the Offices, Shops and Railway Premises Act 1963. Such premises were visited either during routine inspection or were found during the continuing inspection of all premises where persons may be employed.

General

354 inspections of factories were made during the year, together with 44 visits to other premises, i.e. works of building and engineering construction, subject to the provisions of the Factories Act. In addition visits were made in connection with 998 plans submitted for the construction of new or the alteration of existing Factory premises which, in certain cases, included Offices and Shops premises. A number of other visits were made to deal with structural defects or drainage, complaints of nuisance from vibration and noise, and for the examination of boiler plant or other industrial furnaces.

Two abatement notices were served the previous year on a firm in respect of accumulations of trade waste, namely leather trimmings, at a factory occupied by them, and at factory premises previously vacated by them. No steps were taken by the firm to satisfactorily abate the nuisance, and legal proceedings were instituted in both cases.

In the case of the vacated factory premises, the proceedings were withdrawn after the premises were compulsorily purchased by the local authority. The accumulation was subsequently removed.

In the second case, proceedings were taken before a Stipendiary
Magistrate. Nuisance was proved and the Magistrate issued a nuisance order
to remove the refuse forthwith and to prevent a recurrence of the nuisance.
After the service of the nuisance order, steps were taken by the company
to remove the waste material and also provide satisfactory storage
facilities for waste leather trimmings prior to removal on a regular basis
from their premises.

INSPECTIONS FOR PURPOSES OF PROVISIONS AS TO HEALTH (INCLUDING INSPECTIONS MADE BY PUBLIC HEALTH INSPECTORS)

apen to he is the second	Number		Number of		
Premises	on Register	Inspections	Written Notices	Occupiers Prosecuted	
(i) Factories in which Sections 1,2,3,4 and 6 are to be enforced by Local Authority	11	5	0 84	entries entre parties	
(ii) Factories not included in (i) in which Section 7 is enforced by the Local Authority	2,376	349	21	opalista opalista obrahus on-studen	
(iii) Other premises in which Section 7 is enforced by the Local Authority					
(excluding out-workers premises)	36	44	_	uptains and	
TOTALS	2,423	398	21	2201200	

CASES IN WHICH DEFECTS WERE FOUND

Corectal establishments ()	Number were	r of case found	No.of cases in which		
Particulars			Referred		prosecutions
Fort Results Depot 2 Y	Found	Remedied	To H.M. Inspector		were instituted
Want of cleanliness (S.1) Overcrowding (S.2)	-	-	-	-	
Unreasonable temperature (S.3)	-	-	_	30,50	
Inadequate ventilation (S.4)	Toroll	2	_	38,990	
Ineffective drainage of floors (S.6) Sanitary Conveniences (S.7)	-	-	-	-	-
(a) Insufficient (b) Unsuitable or	6	3	100	-	16 102
defective (c) Not separate for	59	109	-	7	
sexes Other offences against the Act (not including offences	-	2	-	1	-
relating to Outwork)	5	1	5	-	-
TOTALS	70	117	5	8	-

OUTWORK
Sections 133 and 134

(inspect	MA PELINA	Section 133		5	Section 1	34
Nature of Work	workers in August list required by		No of prosecutions for failure to supply lists			Prosecut- ions
Making,	OTSERVENT HEA	SECTION OF THE PERSON OF THE P	topics reaching	bencin be	BALICHEO	
cleaning,	10 TO 1-114		110	BESS	acust keep keep	
washing, altering,	adough a second	1 700				
ornamenting,	21124		The state of		61250979	
finishing and	visolo (BB ut)	TWEET BEATH	308			
repairing of				-		- 5 (5)
wearing			anaza			3 3 7 7 7
appare1	214	-	7		-	-
Making or	1 1 1 1 1 1 1 1		a la	And Parkland		A Cus
repairing of	miss Park	SEATON SEASON	or 100 2 101	Section 2	to hide wi	(a) hira
umbrellas,		La resultante de la constante		JapoJ gda	yd boro	198
sun-shades,	12 04	916			1,5130	STUAL
parasols or parts thereof	1		_	althe all so	100	100 CHI
pares energe			17 19	beezoles	11 192	loge Tr
Making of				423200	la lasel	363
curtains and				1		
furniture						
hangings	1	CHE POST CENT	E of the s	-	120	A CONTRACTOR
The weaving						
of any						
textile						
fabric	27	-	10-10-1	-	-	-
Other -			The state of		1 5 10	
Shoes	1	-	-	-	-	-
Wig knotting	1	-	-	-	-	-

TABLE "A" - Registration and General Inspections

absence of teres	Number of premises registered during the year	Total number of registered premises at end of year	Number of registered premises receiving a general inspection during the year
Offices	140	2,417	284
Retail Shops	165	2,997	433
Wholesale Shops, Warehouses	36	430	76
Catering establishments open to the public, canteens	36	460	73
Fuel Storage Depots	co Marrie di la	1	Couppel lawars lo my
TOTALS	377	6,305	866

TABLE "B" - Number of visits of all kinds by Inspectors to Registered Premises

2,146

TABLE "C" - Analysis of persons employed in Registered Premises by workplace

Class of Workplace	Number of persons employed
Offices	41,865
Retail Shops	18,857
Wholesale departments, warehouses	5,354
Catering establishments open to public	6,788
Canteens	675
Fuel Storage Depots	19
Total	73,558
Total Males	34,568
Total Females	38,990

TABLE "D" - Exemptions

No applications for exemptions were received during the year, and there are therefore no exemptions operating in the area.

TABLE "E" - Prosecutions

Number	of	prosecutions	instituted	3
Number	of	convictions		2
Number	of	prosecutions	withdrawn	1

TABLE "F" - Inspectors

	Inspectors appointed under 52 (1) or (5) of the Act	10
	other staff employed for their time on work in	
	ion with the Act	3

Summary of Contraventions Found

Number of General Inspections - 866

Contravention	Found	Remedied
Cleanliness	atv to bed	and in many
Walls not kept in a clean state	45	94
Ceiling not kept in a clean state	30	67
Floors not kept in a clean state	3	15
Steps not kept in a clean state	-	3
Accumulation of dirt and/or refuse	og to store	11
Fittings and fixtures not kept in a clean state	- mile-man	2
Overcrowding		
Rooms unsuitable for use as workrooms due to	TON TO UTA	
lack of space	3	5
Rooms overcrowded	1	5
Temperature		aquita ille
Reasonable temperature not maintained	2	4
Method of heating injurious or offensive to	a Installed Id	The Birth
persons	-	7
Absence of accessible/effective means to enable		
persons to warm themselves	1	2
Absence of thermometer	135	111
Ventilation		
Absence of effective and suitable means of		
ventilation	79	113
Lighting		
Means of artificial lighting not sufficient	-	
and suitable	8	4
Means of artificial lighting not properly	5	4
maintained	16	23
Absence of lighting Window not kept clean	10	2

	Found	Remedied
Sanitary Accommodation	0) 26111	aning fast
Absence of intervening space with means of	on asanti	shing fact.
effective ventilation to the external air	on tolars	Managar Register
to the sanitary convenience	9	14
The intervening space in connection with the	mind sea a	A STATE STATE OF
sanitary conveniences unprovided with	OR BUTHAN	To some
effective means of ventilation to the		a Surnana
external air	28	25
Sanitary conveniences insufficiently enclosed to	- Francisco	100000000000000000000000000000000000000
Absorber of switchland	-	1 1115
Absence of suitable doors to the sanitary conveniences		3 Charles
	1	and the same
Absence of door fastenings to the sanitary conveniences	2	John and de
Absence of marking to show sex of user to the	4	3
sanitary conveniences	8	17
Urinals insufficiently screened		1
Absence of suitable and effective means for the	-	1
disposal of sanitary dressings	-	2
Sanitary conveniences not kept clean	19	· 21
Means of artificial lighting not properly	But annu	- Pag - 1 700
maintained in the sanitary conveniences	17	25
Sanitary conveniences not maintained in a proper	minimien.	My deducted on
condition	54	104
Sanitary conveniences unprovided with means of	Danivorg	1 1025221
effective ventilation to the external air	20	25
Insufficient sanitary conveniences	-	1
Absence of conveniently accessible sanitary		
conveniences	1	6
Absence of separate sanitary conveniences for use of males and females	a stilled in	30 000-0
	5	
Sanitary conveniences not provided with effective means of lighting	10	24
Existing sanitary conveniences not kept separate	10	24
for the use of sexes	1	OHE STREET
Absence of door to intervening space of sanitary	- zgod door	no ton al.
convenience	3	3
Absence of mechanical extract ventilation	1	1
Sanitary convenience and intervening space in		en mytel m
connection thereto not separately ventilated to	eustvob	diado Noni
the external air	9	2
Washing Facilities	8885	Britis andreas
washing racificies		bid resi
Absence of clean running hot water or warm water	5.20 mm	100
to washing facilities	24	60
Absence of soap to the washing facilities	1	18
Absence of clean towels or other suitable means	2	10
of drying to washing facilities	3	19
Means of artificial lighting not properly	11914 103	12
maintained in the washing accommodation	7	13
Washing accommodation not kept clean Washing accommodation not kept in an orderly	,	22
condition	1	6
Washing accommodation not kept clean and in an	a mideric	to norman
		The second secon

Contravention	Found	Remedied
Washing Facilities (Continued)		of wanting
Washing facilities not kept clean	1	9
Washing facilities not properly maintained	6	15
Washing accommodation unprovided with means of		to min at
ventilation to the external air	11	15
Absence of marking to show sex of user to the		2
washing accommodation Washing accommodation not conveniently accessible	A 20 STREET	-
Insufficient washing facilities	- 1	2
Absence of conveniently accessible washing		The same of
facilities	2	5
Absence of separate washing facilities for use		ono Inn man
of males and females	6	5
Washing facilities unprovided with effective means of lighting	3	3
Existing washing facilities not kept separate	02 32 32	,
for the use of the sexes employed	-	1
Drinking Water	ne 8 105 c h	A Seculiar
Absence of adequate supply of drinking water	2	Topo and
	Be the Zuch	
Floors, Passages and Stairs	and the same	To the state of
Not properly maintained	69	127
Not kept free from obstruction	35 70	61 81
Staircase unprovided with substantial handrail Open sides of staircase insufficiently guarded	7	10
Floor opening not sufficiently fenced	- 13 B 1 E 2 H B	2
Insufficient headroom	3	-
Dangerous Machines	21	in the browning
Absence of suitable guard	57	48
Insecure guard		3
Defective guard	I in the	8
Hoists and Lifts	THE NAME OF	the south
Lift motor room door not kept locked	5	6
Examination of Lifts prescribed form (F.54) not		The Lorenza
kept readily available	25	25
Enclosures Slack chain devices	pono ins	nias vandan
Safe working load (marking)	a cappyon	H H Z L H H L L
Cut-out switches	24.0	-
First Aid	Relati	and the
Absence of first aid box or cupboard to the	Louis San	To a man
prescribed standard	68	55
First aid box or cupboard not to prescribed	15:01,010	
standard for number of persons employed	66	71
Information for Employees	la	TA TO UNE
Absence of abstract	197	183
Clothing Accommodation	mul yaban	to be beginn
Absence of suitable and sufficient clothing		10.121111100
accommodation	2	5

Contravention	Laborate Laborate State of the	Found	Remedied
Sitting Facilities in Shops	Trivation for a		
Absence of sitting facilities			901
Eating Facilities in Shops		lelb bea n	equipart .
Absence of eating facilities		wind all all	2
Dangerous Fixtures or Fittings	Lo consultation	110	Amputaci
Insecure shelving Frayed electric wiring	enstant - solii	pridrus-, in al sol	granusta d
	TOTALS	1,194	1,661

ACCIDENT RETURN - YEAR ENDED 31.12.73

Persons Injured	Total	Workplace where accident occurred	Total
Men Women	114 90	1. (Office) 2. (Retail Shop)	44
Boys	10	3. (Wholesale Shop/Warehouse)	77 54
Girls	8	4. (Catering Establishment) 5. (Canteen)	35 12
	222		222
	_		=

· CAUSATION CODE

Code		Total
11.	Machinery - Non power driven or relevant part in motion	-
13.	Power driven or relevant part in motion	8
14.	Power and non power driven. Relevant part at rest	4
31.	Transport - Vehicle in motion not moved by power	3
33.	Vehicle in motion moved by power	5
34.	Vehicle stationary	7
41.	Fire and Explosion	2
43.	Electrical	1
45.	Hand Tools	. 8
51.	Falls of persons - on or from fixed stairs	20
52.	on or from ladders or step ladders	7
53.	other falls from one level to another	8
54.	falls on same level	32
61.	Stepping on or striking against object or person	18
62.	Handling goods	74
63.	Struck by falling object	11
64.	Not otherwise specified	14
	Total	222

NATURE OF INJURY CODE

Code			Total
10.	Fractures and dislocations		32
11.	Sprains and strains		78
12.	Internal injury		1
13.	Amputation		2
14.	Open wounds and surface injury		34
15.	Bruising, crushing and concussion		59
16.	Foreign body in orifice - includes eye		1
17.	Burns		9
18.	Poisoning - includes gassing etc.		1
19.	Multiple injuries of a different nature		-
20.	Other injuries not definable		5
		Total	222
			=

NOISE CONTROL

During the year 114 complaints were received in respect of alleged nuisance from 99 sources of noise. Investigation and abatement of noise involved 796 visits to complainants and premises from which the noise emanated. Visits were made at all hours of the day and night dependent upon the nature and time of the alleged nuisance. The following table indicates the nature and source of noise which gave rise to complaint:-

No Mark pro-	No of complaints	Source of complaints	Not justified	Justified	Notices served	Abated
Domestic	39	35	26	9	1	8
Commercial	28	23	5	18	2	11
Industrial	47	41	20	21	2	21
TOTALS	114	99	51	48	5	40

In 21 cases the noise complained of had been the subject of previous complaint during this or the previous year which had recurred from the same noise source or the same premises. The 40 cases shown to be abated include 4 which were outstanding from 1972.

As in previous years complaints of nuisance from dwellings affecting other dwellings were in respect of noise from neighbour activity, barking dogs, do it yourself activities and in one case a central heating appliance.

Upon investigation 9 cases were found to be justified, and in one of these cases it was found necessary to serve a notice under the nuisance provisions of the Public Health Act, 1936, to secure abatement.

The majority of the 18 justified cases involving commercial premises were in respect of amplified music from club premises being excessive in loudness so as to be a nuisance to the occupiers of adjoining or nearby dwellings. One complaint received on the last day of the year was in respect of noise from an electricity generator installed externally as an emergency power supply to commercial premises adversely affecting the occupier of adjacent commercial (catering) premises.

Of the 41 cases classified as Industrial, 12 were in respect of works of Building and Engineering Construction being mainly concerned with the use of unmuffled pneumatic tools. The remaining 29 cases involved noise produced by various industrial processes including plant and machinery, ventilation fans, boiler plant, panel beating and presses. The 21 cases shown in the table to be abated include 2 cases outstanding from 1972.

Examples of Noise Abatement

A steel stockholding firm erected a new building, some 200 feet from dwellings, and installed a decoiling plant capable of cutting steel plate of up to 12.5 m.m. in thickness. Operation of this plant during the night hours resulted in complaints being received of nuisance from noise. On investigation noise levels of 14dB(A) above night time ambient level of 42dB(A) were recorded. An abatement notice under the provisions of Section 93 of the Public Health Act, 1936, and Section 1 of the Noise Abatement Act, 1960, was served on the offending company. This resulted in the cessation of operation of the decoiling plant between the hours of 7.00 p.m. and 7.00 a.m. The firm sought consultants' advice.

The building containing the decoiling plant is some 400 feet in length, 80 feet wide and 50 feet in height to the ridge. The walls of the building are constructed to a height of 10 feet in 11 inch cavity brickwork. Above this to eaves level the walls are double skin steelwork infilled with expanded polystyrene and in addition the wall facing the dwellings had a further inner leaf of asbestolux panels from floor to ceiling. There are no openings in this particular wall. The roof is constructed of two layers of sheet steel infilled with expanded polystyrene every sixth strip being perspex to provide natural light. Planning permission was given for this development subject to a condition that "no nuisance to arise due to noise".

The Acoustic Consultants proposals included the construction of a sound reducing enclosure to totally house the cut-up line of decoiler, side trimmer, scrap chopper, guillotine and piler sections. The enclosure is formed of 4 inch thickness double skinned 16swg steel panels infilled with fibrous noise absorber. Double glazed observation windows and sound reducing personnel doors are provided to the enclosure.

Prior to construction of this enclosure H.M.Inspector of Factories was consulted regarding the working environment.

After completion of works it was found that noise produced by the operation of this plant was not discernible above the ambient noise level.

Noise Levels in Places of Public Entertainment

During the year the Anti-Pollution Sub-Committee of the City Council requested noise levels to be taken in places of public entertainment. Reports were submitted and considered, together with reports and evidence given by Mr. R. W. Fearn, Principal Lecturer in Environmental Physics at the Department of Architectural Studies, Leeds Polytechnic, on pop music and

hearing damage. The Sub-Committee decided that action should be taken, so far as the Corporation have power, to restrict noise levels in places of entertainment.

The Council have powers by virtue of Section 227 of the Leeds Corporation (Consolidation) Act 1905 to issue licences for public music and dancing in premises in the City and to impose conditions on the granting of such licences.

A recommendation was made by the Anti-Pollution Sub-Committee to the Licensing and Fire Brigade Committee who resolved:-

"That the following be included as a condition of licences for public music and dancing, with effect from the 1st January, 1974, (together with a Right of Entry for Public Health Inspectors and their equipment for the purposes of enforcement):
Condition 7

"At no time shall the noise level in any part of the premises, as measured with a precision sound level meter on the slow setting at at point not less than two metres from any loud speaker or other source of amplified noise, exceed 96dB(A)."

Representation was made to the Sub-Committee when it was suggested that difficulty would be encountered by live groups to comply with the condition and that live groups generally appear at large halls.

The Sub-Committee recommended to the Licensing Committee the inclusion of an additional clause, which will allow loud speakers to be moved away from the audience or vice versa, but not increase the noise level limit. The additional condition is as follows:-

General Condition 10

"Where live performances take place Condition 7 (this is the Noise Limit Condition) shall apply measured at the nearest point of access to any loudspeakers by members of the public, accept that no loudspeaker shall be within two metres of that point".

It is felt that this additional clause will assist live groups in complying with the noise level limit. The Sub-Committee was not prepared to make further concessions as the overriding consideration is the prevention of damage to hearing.

The Anti-Pollution Sub-Committee also recommended that the Metropolitan District Licensing Authority, when established, consider as a further condition of licence to be operative from the 1st January, 1975,

that "No loudspeaker or other source of amplified noise shall be situated within two metres of any part of the premises to which the public have access".

These conditions have resulted in strong reaction from certain club proprietors, live group performers and members of the public and press, whilst it has been considered favourably by other sections of the public and press and some sections of the world of music. Interest in such control has been shown by enquiries received by Members of Parliament, Department of the Environment and elected members and officers of other local authorities.

NEW CONTROLS

In January, 1973 circular 10/73 was published by the Department of the Environment. This circular details the Government's commitment to enhance the quality of the surroundings in which people live, including the consideration of not only containing, but also where possible, of reducing the impact of noise. It sets out, with particular reference to noise from roads, aircraft and industry, principles and specific criteria on which local planning authorities should base their own policies.

The circular deals both with the bringing of noise to people and with the bringing of people to noise, i.e. with the siting of new development expected to give rise to noise and the siting of houses, schools, etc. which may suffer from noise. The circular is directed primarily at the control of development. The principles set out will, however, have an important bearing on the plan-making activities of planning authorities: a great deal can be done by positive planning to reduce the risk of intrusion of noisy development and to meet existing problems. The possibility of relocating existing sources of noise which are unsuitably sited must not be overlooked where redevelopment is to take place or resources allow. Noise will often be a factor in the evaluation of alternatives, both in considering the major issues in structure plans and in working out the more detailed proposals in local plans.

The Department of the Environment has published Design Bulletin 26 "New housing and Road Traffic Noise, a design guide for architects", which is used and consulted where new housing development is proposed. Surveys of existing noise levels are carried out and advice on such development is also produced by the Department.

Advice is also given to planners and developers on the likely effect of noise from new machinery and plant installed in proximity dwellings, and appropriate planning conditions are imposed where considered necessary.

The Circular states in the section dealing with noise from roads that there should be a strong presumption against permitting residential development in areas which are or are expected to become subject to excessive noise. Judgment on the effects of noise on people is of course a largely subjective matter. On the evidence available to them the Secretaries of State consider that the strong presumption should certainly apply where noise levels are in excess of 70dB(A) on L10 (18 hour) scale. The Noise Advisory Council have stressed that this level constitutes the limit of the acceptable rather than a standard of what is desirable. Further research is being undertaken into the question of people's reaction to traffic noise at high levels. In the meantime wherever an authority can, without sacrificing other important planning objectives, adopt as their noise criteria a substantially lower value on the L10 scale than 70dB(A) they should do so.

The Department is of the opinion that lower levels of noise should be the criterion, say 65dB(A) measured at one metre from the affected facade. It is felt that whilst noise levels within the building are catered for, no account is taken of the effect of noise on persons enjoying the use of their gardens.

The Land Compensation Act, 1973

The Land Compensation Act, 1973, which received the Royal Assent on the 23rd May, 1973 is divided into five parts, two of which concern noise. These are

- (a) Part I which deals with compensation payable to occupiers of land for depreciation caused by the use of public works. The physical factors which must be taken into consideration when assessing the extent of such depreciation are noise, vibration, smell, fume, smoke and artificial lighting and the discharge on to the land in respect of which the claim is made of any solid or liquid substance.
- (b) Part II of the Act which deals with the mitigation of injurious effect of public works and in particular the insulation against noise. Section 20 of the Act provides for regulations concerning the sound proofing of buildings affected by public works. These are the Noise Insulation Regulations, 1973, which relate to the problems of highway noise and came into operation on the 1st September, 1973.

The Noise Insulation Regulations, 1973

These regulations became operative on 1st September, 1973.

Broadly the Regulations allow

- (i) A discretion on the part of the Highway Authority to provide noise insulation for dwellings seriously affected by noise where a new or improved road was first used between 16th October, 1969 and 17th October, 1972.
- (ii) A similar discretion on the part of the Highway Authority for roads improved or otherwise altered subsequent to 17th October, 1972.
- (iii) A mandatory requirement for the Highway Authority to provide noise insulation in dwellings affected by works of construction of highways or by new roads or additional carriageways to existing roads, etc. brought into use on or after 17th October, 1972.

The general administration of the Act and Regulations in relation to highway noise requires the Highway Authority to identify those dwellings which will be eligible for noise insulation either as a result of the noise of construction or because they will be affected by high noise levels after the highway is first used (the noise level to be taken into account being that predicted 15 years after the date of opening). It has been suggested that once the Highway Authority has identified the eligible properties the Public Health Department should be responsible for the administration of the Noise Insulation Regulations.

The Regulations refer to the "relevant date" as being the date on which a highway or additional carriageway was first open to public traffic or, in the case of an altered highway, the date on which it was first opened to public traffic after the completion of the alteration.

The "relevant noise level" means the level of noise expressed as a level of L10 (18 hour) in dB(A) caused or expected to be caused by traffic using or likely to use any highway - actual or predicted.

Specified level means a noise level of L10 (18 hour) of 68dB(A).

The 'relevant noise level" is the level at which noise insulation will be available.

There are powers in the Regulations to insulate adjoining properties where facades are connected, i.e. a logical run of houses in one terrace.

Insulation will be available wherever the noise levels are predicted over a 15 year period or calculated over a 15 year period from the first date of opening to exceed 68dB(A) on the L10 (18 hour) index.

There is a duty to insulate those houses adjacent to new highways or altered highways opening after the 16th October, 1972.

There is a discretionary power:-

- (a) where new highways or altered carriageways come into operation between 16th October, 1969 and the 16th October, 1972.
- (b) where the highway has been altered in height or location other than the new carriageway or to insulate even with new highways or new carriageways before the full effect of the Regulations is felt.

There is a discretionary power to insulate against construction noise in connection with roads even where ultimately noise levels will not exceed 68dB(A). When insulation works are offered against construction noise it must be accepted within two months of the offer being made.

Noise level preferably is to be calculated by predicition over 15 years or if it is not possible to calculate by prediction it has to be monitored over the existing new road and it is calculated by means of a formula given in the Regulations.

The department are obtaining the necessary monitoring equipment and qualified staff to deal with the new approach to the control of noise.

SMOKE CONTROL

Atmospheric Pollution Records

The measurement of levels of atmospheric pollution at various sites in the City continued throughout the year. However, as indicated in the report for 1972, the Anti-Pollution Committee decided that new sites should be established and that six new volumetric instruments to obtained for this purpose.

After discussion with Warren Spring Laboratory, it was decided to discontinue the use of instruments at two of the existing sites and to re-establish these together with the six new instruments at entirely new locations.

The addresses of the sites are now as follows:-

```
No. 3 Templenewsam
                                   No. 30 Leafield Clinic
No. 4 Market Buildings
                                          King Lane
No. 18 Blenheim
                                   No. 31 Bramley Child Health
No. 24 Kirkstall Road
                                          Centre, Townend House,
No. 25 Potternewton Lane
                                          Bramley
No. 26 Stanley Road
                                  No. 32 Holbeck Child Health
                                                                   ) Commenced
No. 27 Park Square
                                          Centre
                                                                     3/4/73
No. 19 Hyde Terrace
                                          St. Nicholas, Jack Lane
  (ceased January, 1973)
                                   No. 33 Middleton Estate Office,
No. 21 Y.W.C.A.
                                          235 Sissons Road
  (ceased February, 1973)
                                   No. 34 Child Health Centre,
No. 28 Beckett Park
                                          Armley, Theaker Lane
  (commenced 12th January, 1973)
                                   No. 35 Child Health Centre,
No. 29 Seacroft Hospital
                                          Holbeck, Nineveh Road
  (commenced 15th February 1973)
```

The tables which follow show the recorded level of smoke and sulphur dioxide at site nos. 3, 4, 18, 24, 25, 26 and 27 as compared with 1972 and the recorded level of smoke and sulphur dioxide at the new site nos. 28, 29, 30, 31, 32, 33, 34 and 35.

Of these levels, the most interesting are No. 18 (not in smoke control area until 1st October, 1974), No. 29 (area to west of hospital not in smoke control area until 1st November, 1974), No. 32 (not in smoke control area until 1st July, 1975), No. 34 (not in smoke control area until 1st October, 1974) and No. 35 (not in smoke control area until 1st November, 1975). Similarly, No. 24 is not in a smoke control area and it is unlikely to be included until 1ate 1974 or 1975.

The tables as produced show that for smoke, the lowest average daily reading during the period of nine months was Moortown with 22 microgrammes per cubic metre and the highest Market Buildings (twelve months) with 60 microgrammes per cubic metre.

Operative

For sulphur dioxide, the lowest was Moortown 82 and the highest Blenheim at 165.

The readings for sites not yet in smoke control areas (Nos. 18, 24, 29, 32, 34 and 35) show averages of 51, 54, 33, 44, 34 and 35 respectively for smoke and 165, 154, 49, 111, 115 and 108 for sulphur dioxide.

It is interesting to record that in 1963, Market Buildings had an average of 255 microgrammes per cubic metre for smoke and in the same year Blenheim had an average of 345 for sulphur dioxide.

Smoke Control Areas

During the year the following seven smoke control orders were made affecting 16,998 domestic premises and 3696 acres:-

					Made on
City o	f Leeds	No.	113	West Hunslet (Tempest Road) 1973	10. 1.73
City o	f Leeds	No.	114	Wortley (Leysholme) 1973	21. 2.73
City o	f Leeds	No.	115	Osmondthorpe (Crossgates) 1973	4. 4.73
City o	f Leeds	No.	116	Richmond Hill (Pontefract Lane)1973	19. 9.73
City o	f Leeds	No.	117	Woodhouse (Woodhouse Street) 1973	19. 9.73
City o	f Leeds	No.	118	Castleton (Armley Road) 1973	31.10.73
				East Hunslet (Low Road) 1973	12.12.73

Eight smoke control orders became operative during the year as follows:-

					- Production
City	of	Leeds	No.	96 Gipton (Gipton North) 1971	1. 6.73
City	of	Leeds	No.	97 Gipton (Gipton South) 1971	1. 6.73
City	of	Leeds	No.	104 Halton (Templenewsam) 1972	1. 7.73
City	of	Leeds	No.	105 Halton (Austhorpe) 1972	1. 7.73
City	of	Leeds	No.	106 Burmantofts (Torre) 1972	1.10.73
City	of	Leeds	No.	107 Seacroft (Parklands) 1972	1.11.73
City	of	Leeds	No.	110 Roundhay (Shadwell) 1972	1.11.73
City	of	Leeds	No.	111 Burley (Burley Lodge) 1972	1.11.73

These latter orders increased the number of domestic premises in smoke control areas by 16,790 and the acreage by 6398 so that at the end of the year 122,917 houses and 31,088 acres were covered by operative orders.

Thus approximately 68% of the houses in the City and 76% of the acreage of the City were covered by operative orders.

Five orders were confirmed by the Department of the Environment but only one (No. 111 previously mentioned) became operative during the year.

Industrial Smoke

Fuel Supplies

Towards the latter part of the year, an overtime ban by members of the National Union of Mineworkers resulted in reduced output of coal from mines. In addition, an oil embargo was imposed by the Arab oil producing states

resulting in reduced imports of crude oil. These two factors resulted in industrial and commercial users of these fuels being unable to obtain normal fuel supplies for heating and process work, and at the end of December, the Government introduced a three day working week for industry, which together with the already existing restricted use of electricity by commerce, was an attempt to conserve national fuel supplies, especially at power stations.

Installation of New Furnaces

The Department was notified of the installation of 85 new furnaces, nineteen of which were fired with liquid or gaseous fuels at a rate equivalent to or in excess of 1½ million Btu's/hour, or solid fuel at the rate of 100 lbs. or more per hour.

Information was forwarded by the Central Electricity Generating Board of their intention to convert one existing boiler to burn pulverised fuel at their Whitehall Road training establishment. Negotiations with the Central Electricity Generating Board regarding this matter were still continuing at the end of the year.

Of the 19 installations mentioned above 1 was to burn 3,500 seconds viscosity oil and 4 to burn 35 seconds viscosity oil. 12 furnaces were to be fired by gas and 2 by coal through automatic chain grate stokers.

The remaining 66 installations were of a rating which was subject to Building Regulation Control, being high rating appliances. 41 of these "fireplaces" were fired with 35 seconds viscosity oil, and 23 by gas. 2 of the installations were incinerators having no supplementary fuel.

The use of low sulphur fuels such as light oil and gas continues to be favoured and the one plant burning 3500 seconds viscosity oil was of much greater capacity.

The plant previously reported for the pre-drying of sewage sludge and the burning of residual solids in a rotary furnace was commissioned during the year.

Incinerators for the disposal of trade waste continue to be discouraged, however approval was given for two such incinerators to be installed.

There were no applications received during the year for prior approval of boiler plant or arrestment plant to be fitted to coal fired boiler plant.

The two cold blast cupolas previously reported, each capable of melting 10 tons of metal per hour together with their arrestment plant, received approval for installation from the Local Authority and at the

present time are under construction. A foundry using the last remaining cold blast cupola fitted with dry spark arrestment plant, has now ceased operation and the premises closed down.

Height of Chimneys

Heights of chimneys were determined having regard to all relevant matters and using the guidance given in the Government memorandum on chimney heights. The heights of nineteen chimneys were assessed which were subject to Section 6 of the Clean Air Act, 1968, of which 17 chimney heights were acceptable as submitted, but in 2 cases it was necessary to require an increase in height.

Heights of chimneys to serve 66 other "fireplaces" were determined in accordance with the provisions of the Leeds Corporation Act, 1956 and the Building Regulations 1972.

Smoke Observations

There were 318 smoke observations taken of emissions from chimneys serving industrial furnaces which required 23 notices to be served in respect of contraventions of the Dark Smoke (Permitted Periods) Regulations, 1958, in accordance with the requirements of the Act. Occupiers of premises in which the plant was installed were immediately advised of the contraventions and inspections made of the furnaces to establish the cause. Other visits were made to premises to advise and instruct operators on correct methods of firing. 331 other visits were made to inspect boiler plant, either to consider their suitability for exemption from Smoke Control Orders or to record details of the plant installed. Such inspections were generally made whilst visiting the premises in connection with duties under the Factories Act, 1961 or the Offices, Shops and Railway Premises Act, 1963.

No proceedings were instituted for any contraventions of the Dark Smoke (Permitted Periods) Regulations 1958.

In most cases, the emissions of smoke were due to the maladjustment of boiler plant, and/or the use of unsuitable fuel, the correct type and grade of fuel not always being available. In some instances, National Coal Board Engineers in association with Inspectors of the Department, visited boilerhouses to give advice or adjust plant to abate nuisance.

179 observations were taken in respect of smoke discharged, otherwise than from chimneys. The observations included emissions of dark smoke from Industrial or trade premises. 36 notices were served after advising the occupier of the premises of the contraventions. Following the service of notice, legal proceedings were taken against four firms under the

provisions of Section 1 of the Clean Air Act, 1968. In three cases the defendants pleaded guilty and the other case was proven and the defendant found guilty in his absence. Fines totalling £130 were imposed, together with a total of £50 advocates fees. In one of the cases a supplementary prosecution was taken by Leeds City Police under Section 140 of the Highways Act, 1959 for a fire burning within 50 feet of the centre of a public highway and affecting that highway. The case was proved and a fine of £10 imposed.

Smoke Nuisances

Other observations were concerned with smoke produced from the burning of waste on open land. In some cases it is difficult for inspectors to establish the person responsible for the nuisance. It is part of the routine duties of Inspectors to look for such uncontrolled "bonfires". In two cases warning notices were sent to the occupiers of the land, informing them that an offence had been committed and no further nuisance was caused. Proceedings were instituted due to smoke of such density causing nuisance due to the burning of a motor vehicle in a scrap yard. The defendant pleaded guilty to the offence and was fined £35. This case was considered by the Magistrates together with one for an emission of dark smoke mentioned above.

The same scrap dealer was also prosecuted by the Treasury Solicitors acting for the Department of the Environment - Alkali Inspectorate, details of which are set out in the Section of the report on Alkali &c Works.

Alkali &c Works

As in previous years there were occasional complaints about emissions from premises registered with, and under the jurisdiction of H.M. Alkali & Clean Air Inspectors. In all cases these complaints were formally reported for any action which needed to be taken. As reported last year, Kirkstall Power Station, which is under the dual control of H.M. Alkali Inspector and the Local Authority, was from time to time visited. Towards the end of the year, modifications were carried out to the propane burners to minimise the emission of smoke from the lighting up of these oil fired boilers. This procedure had previously given rise to emissions of smoke about which complaints were received.

During the year legal proceedings were instituted by the Treasury Solicitors acting for the Department of the Environment - Alkali Inspectorate when the prosecution relied on the evidence by an inspector of this department to prove the offence of emissions of dark smoke caused by the burning of scrap cable on two occasions.

The defendant pleaded guilty but in mitigation the defence said that the occupier was not in attendance at the work, and to the offences being caused by itinerant scrap dealers using the yard to burn cable in order to increase price from £8 per cwt. to over £25 per cwt. Fines of £40 for emitting smoke on the first occasion and not using "best practicable means" and £35 for not being registered under the Alkali Works Regulation Act 1906. A fine of £60 was imposed for the second offence of emitting smoke and failure to use "best practicable means". Costs of £20 were imposed.

Negotiations continued with the Department of the Environment on the application made last year for an Order under Section 11 of the Clean Air Act 1968 for seven works in the City to be transferred from the control of H.M. Alkali & Clean Air Inspectorate to the Local Authority in respect of processes which involve fuel combustion.

Railways

Middleton Light Railway continues to operate using coal fired engines, but no complaints were received about smoke nuisance from the running of these engines.

Exemption for the Purpose of Investigation and Research

Exemption for the Leeds University chimney under the provisions of the Clean Air Act 1956 and 1968 was again renewed for another year, subject to conditions. The records on the use of the coal fired plant were examined by Inspectors of the Department during the year in accordance with conditions imposed by the Local Authority. At no time during the year was this plant used specifically for the making of smoke in connection with research on air pollution.

POLLUTION FROM MOTOR VEHICLES

A survey on pollution from motor vehicles was carried out by the Department in June, July and August to ascertain levels of lead in the air of city streets, vehicular tunnels, an underground service road and public and private basement car parks. A total of 34 sites were surveyed to monitor pollution under different traffic flow conditions. The survey was carried out at different times of day in order to assess pollutant levels at peak and off peak traffic flow periods.

The Department of Fuel and Combustion Science of Leeds University were invited to participate in the survey and they monitored for oxides of nitrogen and carbon monoxide at certain of the sites.

Following this survey in the summer months a further survey is being carried out during winter over 24 hour periods both outdoor and inside premises adjacent to the outdoor sampling points. For this survey 6 sites from the original 34 sites were chosen as being representative of traffic and site conditions. The University once more will be taking part.

Motor Vehicle Pollution in Kirkgate General Market

Inspectors of the Department carried out a survey on pollution in Kirkgate General Market in February paying particular reference to pollution from motor vehicles.

As a result of the survey a report was submitted to the March meeting of the Anti-Pollution Sub-Committee where it was resolved that this report be forwarded to the Municipal Enterprises Committee with a recommendation that the Market bye-laws be updated as quickly as possible with a view to banning the use of motor vehicles in the Market whenever it is open to the public.

The Municipal Enterprises Committee at their March meeting resolved that vehicular access be restricted between the hours of 10.30 a.m. and 5.30 p.m. each day from Monday to Saturday following consideration of the report.

By the end of the year work was in hand to enforce these restrictions by arranging for the erection of removable/lockable bollards, and the fixing of prohibition notices.

CITY OF LEEDS - SMOKE CONTROL AREAS

TOTALS	No. 119 East Hunslet (Low Road) 1973	No. 118 Castleton (Armley Road) 1973	No. 117 Woodhouse (Woodhouse Street 1973	No. 116 Richmond Hill (Pontefract Lane) 1973	No. 115 Osmondthorpe (Crossgates) 1973	No. 114 Wortley (Leysholme) 1973	No. 113 West Hunslet (Tempest Road) 1973	Nos. 1 to 112	388	Smoke Control Orders	A SYSSE CONCENTRACTOR
149,780	3,536	4,229	1,613	1,748	789	2,094	2,989	132,782	Dong	est Ic	
7,908	118	121	88	255	40	158	99	7,029	Onnie	et Cta	Classes
1,258	42	27	12	28	1	21	1	1,127	Indus	Ext.	of Buildings
2,621	55	48	33	50	11	27	29	2,368	Och	e.	ngs
161,567	_	4,425	1,746	2,081	840	2,300	3,118	143,306	20	Car	VCS DELLE
36,534	788	508	227	1,629	91	282	171	32,838	Area	of	Acreage
	12.12.73	31.10.73	19. 9.73	19. 9.73	4. 4.73	21. 2.73	10. 1.73		Made	Order	Date
		1	7. 2.74	7. 2.74	28. 8.73	13. 8.73	13. 7.73		Confirmed	Order	Date
	1. /./5	1.10.74		1.10.74	1.11.74	1. 7.74	1. 7.7		Confirmed Operation	Order in	Date

SMOKE FILTER APPARATUS
SMOKE IN MICROGRAMMES PER CUBIC METRE OF AIR

			AVERAGE	GE DAILY	3	CONCENTRATION	TION			HIGHEST		2	CONCENTRATION	NOI	
1973				Sit	0	er					Site	e Number	35		
		3	4	18	24	25	26	27	3	7	18	24	25	26	27
January	abes	72	118	74	104	69	89	93	332	321	167	284	219	252	249
February		34	19	09	48	26	777	36	148	170	179	135	82	157	128
March		56	86	56	71	53	99	65	380	413	397	242	352	389	241
April		16	33	56	38	17	21	24	07	74	95	63	07	41	67
May		18	07	39	34	20	23	28	09	68	93	62	777	69	55
June		14	31	21	29	1.5	1.5	21	31	51	37	55	31	34	97
July		16	36	28	30	18	19	28	36	69	54	87	949	47	65
August		21	41	28	34	22	23	33	74	34	69	103	65	65	85
September		30	54	97	51	34	36	51	109	191	145	155	119	134	182
October		39	69	19	63	42	43	65	159	268	144	224	221	186	261
November		55	93	55	81	57	77	82	272	448	223	272	251	381	341
December		37	62	54	61	95	55	62	168	262	178	220	199	200	232

Templenewsam

Market Buildings

18 Blenheim

Kirkstall Road

24

25 Potternewton Lane 26 Stanley Road

anous foruman and

27 Park Square

SMOKE FILTER APPARATUS

SMOKE IN MICROGRAMMES PER CUBIC METRE OF AIR

1973				Site Number	umber								Number			umber
19/3	30	200			Number	22	3/	25	300	700	30	Site	Number		٥	-
	28	67.	30	31	32	33	34	35	282	67.	30	31	32		33	3 34
January	59		*		-912-	1237		201	227					1		
February	20	28					200	8	74	94	8000	-	255			
March	46	58	Sub						235	195	8					
April	23	18	9	21	27	17	21	25	106	47	30	58	64	54	1	44
May	16	23	13	22	23	18	22	23	41	53	30	53	52	40		55
June	12	16	12	22	22	17	18	23	29	28	26	47	34	39		43
July	14	25	14	23	26	21	19	26	44	56	41	72	49	56	100	52
August	18	27	17	35	28	27	26	31	66	79	47	159	101	94		79
September	28	42	26	37	46	35	39	48	106	134	98	125	144	134	100	126
October	33	56	33	53	71	49	61	74	242	189	185	268	258	261	200	275
November	53	62	42	64	93	66	80	98	324	358	232	300	384	319		357
December	45	46	30	41	56	44	51	58	204	186	177	180	199	160		227

29

Seacroft

32

St. Nicholas

35 Holbeck

33 Middleton

30 Moortown

SULPHUR DIOXIDE VOLUMETRIC APPARATUS SULPHUR DIOXIDE IN MICROGRAMMES PER CUBIC METRE OF AIR

Site Numbers Site Sign Sign Sign Sign Sign Sign Sign Sign			AVERAGE	0	DAILY CON	CONCENTRATION	ATION			HIGHEST	656	DAILY CON	CONCENTRATION	ATION	
4 18 24 25 26 27 3 4 18 24 25 26 27 3 4 18 24 25 26 27 31 4 18 24 25 26 27 31 54 640 636 637 640 636 581 674 172 171 159 80 107 157 227 311 278 374 161 280 186 206 166 116 139 200 359 377 393 367 389 280 104 130 118 61 102 103 241 279 279 279 280 104 130 104 100 170 268 319 31 280 31 104 131 104 100 170 268 319 31 30 31 108 132 <t< th=""><th>1973</th><th></th><th></th><th>Sit</th><th></th><th>er</th><th></th><th></th><th></th><th></th><th>Sit</th><th>e Numb</th><th>er</th><th></th><th></th></t<>	1973			Sit		er					Sit	e Numb	er		
139 271 268 253 200 202 278 409 637 640 635 581 674 ary 97 172 171 159 80 107 157 277 311 278 374 161 280 119 186 206 166 116 139 200 359 377 393 367 385 286 60 104 130 116 139 200 359 377 393 367 385 286 70 30 118 61 102 103 241 229 275 299 129 280 80 104 105 106 241 229 276 289 120 280 271 289 272 289 272 280 272 280 272 280 272 280 273 273 274 289 80 114 <th></th> <th>3</th> <th>7</th> <th>18</th> <th>24</th> <th>25</th> <th>26</th> <th>27</th> <th>3</th> <th>77</th> <th>18</th> <th>24</th> <th>25</th> <th>26</th> <th>27</th>		3	7	18	24	25	26	27	3	77	18	24	25	26	27
ary 97 172 171 159 80 107 157 227 311 278 374 401 161 280 119 186 206 166 116 116 130 200 359 377 393 367 335 286 70 104 130 118 61 70 115 123 273 273 279 289 129 280 70 82 147 158 73 104 100 170 268 519 514 259 270 299 170 180 8 71 88 143 118 404 297 247 259 8 135 189 101 106 222 138 240 297 247 259 8 14 16 18 10 10 10 222 138 241 401 297 241	anuary	139	271	268	253	200	202	278	607	637	079	636	581	929	628
119 186 206 166 116 139 200 359 377 393 367 335 286 60 104 130 118 61 76 115 135 253 273 273 299 129 230 70 82 147 158 73 104 100 170 268 519 514 250 291 80 116 114 72 90 91 110 382 224 322 201 339 81 71 58 135 107 88 143 118 204 291 331 82 80 137 106 89 101 106 222 138 321 201 393 82 80 114 105 105 105 105 105 203 303 341 401 291 396 82 118 <td< td=""><td>ebruary</td><td>76</td><td>172</td><td>171</td><td>159</td><td>80</td><td>107</td><td>157</td><td>227</td><td>311</td><td>278</td><td>374</td><td>191</td><td>280</td><td>235</td></td<>	ebruary	76	172	171	159	80	107	157	227	311	278	374	191	280	235
60 104 130 118 61 76 115 135 253 275 299 129 230 72 97 137 119 61 102 109 241 229 270 299 122 293 70 82 147 158 73 104 100 170 268 519 514 256 371 8 71 58 145 125 90 91 110 88 143 404 250 371 8 71 58 137 106 89 101 106 222 138 321 290 247 259 8 104 169 105 105 105 105 222 138 321 290 247 259 9 114 169 184 127 127 199 283 465 433 426 204 291 37	arch	119	186	206	166	116	139	200	359	377	393	367	335	286	428
72 97 137 119 61 102 104 241 229 270 299 122 293 st 70 82 147 158 73 104 100 170 268 519 514 256 371 st 71 58 116 114 72 90 91 110 382 224 322 201 339 sember 82 135 139 93 107 88 143 118 278 404 297 502 ber 90 114 169 189 101 106 222 138 321 290 247 259 mber 90 114 169 165 165 165 188 465 431 401 297 398 mber 18 16 127 127 199 216 433 426 350 376 41 <	pri1	09	104	130	118	19	92	115	135	253	275	299	129	230	194
st 10 15 73 104 100 170 268 519 514 256 371 st 11 114 72 90 91 110 382 224 322 201 339 st 71 58 135 139 93 107 88 143 118 278 404 297 309 ber 82 137 106 89 101 106 222 138 321 290 247 259 mber 90 114 169 167 167 187 188 313 465 433 426 350 376 mber 85 106 158 117 139 216 188 333 266 204 241	ay	72	6	137	119	19	102	109	241	229	270	299	122	293	225
st 71 58 116 114 72 90 91 110 382 224 322 201 339 ember 82 135 139 93 107 88 143 118 278 404 297 502 ber 90 114 169 189 97 105 145 223 303 341 401 297 398 nber 108 184 127 127 199 283 465 433 426 350 376 nber 85 106 158 147 98 117 139 216 188 333 266 204 241	nne	70	82	147	158	73	104	100	170	268	519	514	256	371	326
ber 82 135 139 93 107 88 143 118 278 404 297 502 c 82 137 106 89 101 106 222 138 321 290 247 259 c 90 114 169 189 97 105 145 223 303 341 401 297 398 er 118 169 203 184 127 127 199 283 465 433 426 350 376 er 85 106 158 147 98 117 139 216 188 333 266 204 241	uly	59	06	116	114	72	06	16	110	382	224	322	201	339	246
r 82 80 137 106 89 101 106 222 138 321 290 247 259 90 114 169 189 97 105 145 223 303 341 401 297 398 118 169 203 184 127 127 199 283 465 433 426 350 376 85 106 158 147 98 117 139 216 188 333 266 204 241	ugust	71	58	135	139	93	107	88	143	118	278	707	297	502	187
90 114 169 189 97 105 145 223 303 341 401 297 398 118 169 203 184 127 127 199 283 465 433 426 350 376 85 106 158 147 98 117 139 216 188 333 266 204 241	eptember	82	80	3	106	89	101	901	222	138	321	290	247	259	345
118 169 203 184 127 127 199 283 465 433 426 350 376 85 106 158 147 98 117 139 216 188 333 266 204 241	ctober	06	114	169	189	46	105	145	223	303	341	401	297	398	307
85 106 158 147 98 117 139 216 188 333 266 204 241	ovember	118	169	203	184	127	127	199	283	465	433	426	350	376	607
	ecember	85	106	158	147	86	117	139	216	188	333	266	204	241	268

Templenewsam 25 Potternewton Lane

4 Market Buildings 26 Stanley Road

18 Blenheim

Park Square

27

24 Kirkstall Road

SULPHUR DIOXIDE VOLUMETRIC APPARATUS
SULPHUR DIOXIDE IN MICROGRAMMES PER CUBIC METRE OF AIR

				mley	34 Armley				Bramley	31 Br			Park	Beckett Pa	28 Beck	
-						-		1	1	1			1			
218	215	232	231	212	271	73	234	111	109	110	108	97	80	41	111	December
363	398	440	377	398	446	305	452	148	152	153	158	127	121	81	143	November
237	349	338	264	239	296	151	229	136	145	141	130	117	104	63	100	October
183	386	262	206	218	246	100	147	105	122	125	111	100	89	46	54	September
177	231	242	230	224	180	103	168	94	111	135	99	94	80	300	67	August
148	213	194	194	182	219	77	271	85	96	113	95	87	64	30	107	July
300	434	279	316	242	190	177	507	95	107	118	100	87	69	41	122	June
169	446	193	240	170	122	79	249	93	108	100	94	88	65	35	95	May
205	169	150	183	126	150	222	155	103	89	78	103	67	64	60	65	April
	181			10.0		199	407	25.0				88	THE SALE	60	131	March
	121			05,8		131	238			20110				39	94	February
	To leave	ST CO	c fa	200			381	7					1		204	January
35	34	33	32	31	30	29	28	35	34	33	32	31	30	29	28	
			Number	Site N	100000000000000000000000000000000000000					THE STATE OF	Number	Site 1	1	277.24		
	N	TRATIC	DAILY CONCENTRATION		HIGHEST	H		100	N	TRATIC	DAILY CONCENTRATION	DAILY	AVERAGE	AVI		

30 Moortown

33 Middleton

DEPOSIT GAUGES RECORDS, 1943 - 1973 ENGLISH TONS PER SQUARE MILE PER ANNUM

ey City Centre Hunslet Temple Armley St. James's Newsam Park Hospital Hospital 271.82	-				217	SIALIUNS			
43 186.93 389.03 277.14 # 114.80	ar	-	Centr	SI	Temple	Armley	. James!	Burley	Roundhay
45 17.5.37 379.03 271.82 171.43	107	0 70	- 10	71 0	TA T	Larr	75	Fark	
44 * 175.37 * 374.50 * 277.14 * 114.80	7	000		11.0					-
4.5 * 151.29 * 288.44 * 262.11 * 139.27 - 4.6 * 146.50 326.26 * 267.10 * 166.64 * 176.12 * 87.27 4.6 * 146.50 326.26 * 205.10 * 164.12 * 137.56 * 183.13 4.8 * 162.78 338.02 213.49 * 149.12 * 687.56 * 112.20 4.8 * 162.78 411.91 225.68 164.28 414.14 220.55 50 * 228.04 400.39 126.34 370.85 * 184.90 5.2 * 155.08 199.43 126.34 370.85 * 184.90 5.2 * 155.08 * 199.43 126.34 370.85 * 184.90 5.2 * 159.28 * 199.43 126.34 370.85 * 184.90 5.2 * 159.28 * 199.43 126.34 370.85 * 184.90 5.2 * 159.28 * 109.44 * 100.97 284.91 117.16 * 189.04 5. * 125.46 * 140.30 * 140.	777	175.3	374.	77.1		,		,	
46 * 146.50 326.26 * 267.10 * 166.64 \$ 176.12 \$ 87.27 47 x 121.94 328.76 * 209.66 149.12 * 367.06 * 183.13 48 162.78 338.70 * 213.46 * 141.44 220.58 49 181.24 411.91 225.68 144.14 220.58 51 * 228.04 403.37 229.99 162.32 532.86 * 199.00 51 * 228.04 403.37 229.99 162.32 532.86 * 199.00 52 * 135.08 356.34 * 183.17 117.59 400.56 * 184.39 53 * 159.28 199.43 120.47 296.30 117.16 * 184.39 54 * 184.21 * 245.99 * 109.14 * 109.14 * 206.39 55 * 115.74 * 245.99 * 109.14 * 206.30 * 117.16 * 117.16 55 * 115.74 * 245.99 * 109.14 * 249.96 * 1184.39 54 * 115.74	45	151.2	288.	262.1				1	-
47 x 121.94 288.76 * 209.66 149.12 * 367.06 * 183.13 48 162.78 338.02 213.49 * 134.68 327.56 211.20 50 195.36 318.24 414.14 205.58 211.20 51 4019.36 338.57 107.62 494.91 205.88 51 x 228.04 403.97 229.99 162.32 532.86 ‡ 199.00 52 x 135.08 348.84 x 147.62 494.91 205.88 53 x 228.04 356.58 117.59 400.56 184.39 54 x	95	146.5	-	267.1	166.6	176.1	87.		'
48 162.78 338.02 213.49 * 134.68 327.56 211.20 49 181.24 411.91 225.68 164.28 414.14 220.55 50 195.36 378.57 206.31 147.62 444.91 205.88 51 * 228.04 403.99 126.32 532.86 * 184.90 52 * 135.00 356.58 * 199.43 126.34 370.85 * 184.39 53 * 184.21 354.14 * 245.99 126.34 370.85 * 184.39 54 * 184.21 354.14 * 245.99 * 109.14 383.11 208.49 55 * 115.74 288.50 * 356.44 * 100.97 284.95 * 184.93 56 * 115.75 286.58 * 440.80 * 440.30 236.49 * 189.04 55 * 115.75 265.82 * 440.80 * 440.30 * 249.96 * 189.04 56 * 115.75 265.82 * 440.80 * 249.64 * 249.96 * 189.03 <	47	121.9	-	209.	9.1	367.0	183.	,	-
49 181.24 411.91 225.68 164.28 414.14 220.55 50 195.36 378.57 206.31 147.62 494.91 205.88 51 * 228.04 403.97 229.99 162.32 532.86 ‡ 199.00 52 * 135.00 356.38 199.43 126.34 370.85 * 184.39 52 * 159.28 348.84 * 183.17 117.59 400.56 * 184.39 54 * 184.21 * 288.50 * 359.44 * 109.14 296.30 117.16 * 55 * 115.74 * 288.50 * 359.44 * 100.97 284.95 188.00 56 * 115.75 * 264.27 * 440.80 * 440.80 * 140.90 * 188.00 57 * 115.75 * 264.57 * 140.30 * 239.06 * 189.03 58 * 115.75 * 265.78 * 440.80 * 145.18 * 269.04 * 229.30 50 * 115.75 * 266.89 * 266.04 * 269.04 * 269.04 </td <td>187</td> <td>62.7</td> <td>-</td> <td>13.</td> <td>134.6</td> <td>27.5</td> <td>-</td> <td></td> <td>'</td>	187	62.7	-	13.	134.6	27.5	-		'
50 195.36 378.57 206.31 147.62 494.91 205.88 51 * 228.04 403.97 220.99 162.32 532.86 ‡ 199.00 52 * 135.00 356.58 * 199.43 126.34 400.56 * 184.39 53 * 148.21 * 175.59 400.56 * 184.39 * 184.39 54 * 184.21 * 248.84 * 183.17 117.59 400.56 * 184.39 55 * 115.74 * 288.30 * 116.83 * 120.44 284.95 * 188.00 56 * 129.81 * 264.27 * 385.63 * 140.30 239.06 188.00 57 * 125.46 * 264.27 * 385.63 * 140.30 249.96 * 189.04 58 * 115.75 * 264.27 * 385.63 * 140.30 * 249.96 * 189.03 59 * 115.75 * 265.82 * 440.80 * 386.4 * 212.94 * 189.04 50 * 149.89 * 258.78 * 246.57 * 145.18 * 269.90	67	81.2		25.	64.2	4.1	0.5	630.62	1
51 * 228.04 403.97 229.99 162.32 532.86 ‡ 199.00 52 * 135.00 356.58 199.43 126.34 370.85 * 184.39 53 159.28 348.84 * 183.17 117.59 400.56 * 184.39 54 * 115.74 288.50 ‡ 316.83 * 120.47 296.30 117.16 * 55 * 129.81 287.22 ‡ 359.44 ‡ 100.97 284.95 188.00 56 * 129.81 287.22 ‡ 359.44 ‡ 100.97 284.95 188.00 57 * 125.46 264.27 385.63 * 140.30 239.06 188.00 58 * 115.75 265.82 * 440.80 ‡ 98.64 249.96 * 189.03 59 * 115.75 265.82 * 440.80 ‡ 98.64 249.96 * 189.03 50 * 115.75 265.82 * 440.80 ‡ 98.64 249.96 * 189.03 51 * 149.89 285.78 * 260.89 † 145.18 <	50	95.3	-	06.	47.6	6.	5	5	1
52 * 135.00 356.58 199.43 126.34 370.85 * 184.39 53 159.28 348.84 * 183.17 117.59 400.56 182.72 54 184.21 354.14 × 245.99 * 109.14 383.11 208.49 55 * 115.74 288.50 * 316.83 * 120.47 296.30 117.16 * 56 * 129.81 287.22 * 359.44 * 100.97 239.06 188.00 57 * 125.46 264.22 * 440.80 * 98.64 249.96 * 189.03 58 * 115.75 265.82 * 440.80 * 98.64 249.96 * 189.03 59 * 149.89 268.78 * 260.89 145.18 * 269.04 229.87 60 * 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 * 149.89 258.78 * 260.89 145.18 * 269.04 229.87 62 * 189.94 * 289.20 * 246.52 * 160.49	51	228.0	-	29.	62.3	8	199.	714.33	-
53 159.28 348.84 * 183.17 117.59 400.56 182.72 54 184.21 354.14 x 245.99 # 109.14 383.11 208.49 55 * 115.74 288.50 # 316.83 * 120.47 296.30 117.16 * 56 * 129.81 287.22 # 359.44 # 100.97 284.95 195.15 * 57 * 129.81 286.22 # 440.80 # 98.64 249.96 * 189.03 * 58 * 115.75 265.82 * 440.80 # 98.64 249.96 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 189.00 * 240.96 * 189.00 * 189.00 * 220.87 * 189.00 * 220.87 * 189.00 * 189.00 * 189.00 * 240.00 * 217.91 * 220.87 * 189.00 * 189.00 * 220.88 * 220.00 * 220.00 * 220.00 * 220.00 * 220.00 * 220.00 * 220.00 * 220.00 * 220.00 <	52	135.0		.66	26.3	00	184.	6.0	'
54 184.21 354.14 x 245.99 # 109.14 383.11 208.49 55 * 115.74 288.50 # 316.83 * 120.47 296.30 117.16 * 56 * 129.81 287.22 # 359.44 # 100.97 284.95 195.15 195.15 57 * 125.46 264.27 385.63 * 140.30 239.06 188.00 58 * 115.75 265.82 * 440.80 # 98.64 249.96 * 189.03 59 149.89 265.82 * 440.80 # 98.64 249.96 * 189.03 60 149.89 258.78 * 226.22 * 168.77 * 217.91 # 206.29 52 # 189.94 289.20 * 246.52 * 168.77 * 217.91 # 206.29 62 # 189.94 289.20 * 246.52 * 140.43 * 252.88 * 232.04 63 # 150.89 333.45 * 246.22 * 146.87 * 248.41 * 256.88 64 # 150.89 333.49 251.83 <td>53</td> <td>9.2</td> <td>-</td> <td>183.</td> <td>17.5</td> <td>5.</td> <td>2.7</td> <td>16.5</td> <td>1</td>	53	9.2	-	183.	17.5	5.	2.7	16.5	1
55 * 115.74 288.50 † 316.83 * 120.47 296.30 117.16 * 56 * 129.81 287.22 † 359.44 † 100.97 284.95 195.15 * 57 125.46 264.27 385.63 * 140.30 239.06 188.00 * 58 115.75 265.82 * 440.80 † 98.64 249.96 * 212.94 * 59 134.67 243.59 + 254.57 * 131.86 236.84 * 189.03 * 189.04 212.94 * 60 149.89 258.78 * 260.89 145.18 * 269.04 212.94 * 61 149.89 258.78 * 260.89 145.18 * 269.04 * 212.94 * 62 149.99 258.78 * 260.89 145.18 * 269.04 * 212.94 * 63 148.08 258.28 * 246.52 * 146.73 * 275.96 * * * * *	54	4.2		245.	09.1	7	8.4	53.	,
56 * 129.81 287.22 ‡ 359.44 ‡ 100.97 284.95 195.15 57 125.46 264.27 385.63 * 140.30 239.06 188.00 58 115.75 265.82 * 440.80 ‡ 98.64 249.96 122.94 * 189.03 59 115.75 265.82 * 440.80 ‡ 98.64 249.96 212.94 * 189.00 59 134.67 243.59 † 266.89 145.18 * 269.04 229.87 60 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 148.08 303.75 * 226.22 192.16 * 259.04 229.87 62 ‡ 189.94 289.20 * 246.52 * 168.77 * 217.91 ‡ 206.27 63 ‡ 150.89 333.45 238.91 ‡ 140.43 275.96 308.79 64 ‡ 146.29 333.45 251.83 ‡ 160.96 * 248.41 * 224.62 65 ‡ 146.29 333.40 268.64 <td< td=""><td>55</td><td>115.7</td><td>-</td><td>316.</td><td>20.4</td><td>3</td><td>7.1</td><td>272.</td><td>1</td></td<>	55	115.7	-	316.	20.4	3	7.1	272.	1
57 125.46 264.27 385.63 * 140.30 239.06 188.00 58 115.75 265.82 * 440.80 † 98.64 249.96 212.94 * 59 134.67 265.82 * 440.80 † 98.64 249.96 * 189.03 60 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 148.08 303.75 * 260.22 192.16 252.88 222.08 62 † 189.94 289.20 * 246.52 * 168.77 * 217.91 † 206.27 63 210.29 334.60 254.28 † 140.43 275.96 216.63 64 * 150.89 333.45 238.91 184.45 2248.41 * 224.62 65 † 146.29 333.79 254.28 † 140.43 * 248.41 * 224.62 66 † 146.29 333.79 268.64 * 146.87 * 248.41 * 244.84 67 * 143.09 * 276.31 * 196.75 * 160.61 *	99	129.8	-	359.	6.00	6.	5.1	19.6	,
58 * 115.75 265.82 * 440.80 ‡ 98.64 249.96 * 212.94 * 189.03 59 134.67 243.59 + 254.57 * 131.86 * 269.04 * 2189.03 * 189.03 60 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 148.08 303.75 * 226.22 192.16 252.88 232.04 62 ‡ 189.94 289.20 * 246.52 * 168.77 * 217.91 ‡ 206.27 63 210.29 384.60 254.28 ‡ 140.43 275.96 275.96 64 * 150.89 333.45 258.91 ‡ 140.43 275.96 216.63 65 ‡ 146.29 333.45 251.83 ‡ 160.96 * 248.41 * 224.62 66 † 146.29 333.79 251.83 † 160.96 * 248.41 * 235.95 66 † 146.29 333.79 258.64 * 146.87 260.43 * 250.43 66 † 130.33 * 246.21 * 196.75<	57	25.4	-	85.	40.3	0	8.0	68.7	1
59 134.67 243.59 + 254.57 * 131.86 236.84 * 189.03 60 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 149.89 258.78 * 260.22 192.16 252.88 232.04 62 * 189.94 289.20 * 246.52 * 168.77 * 217.91 * 206.27 63 * 150.89 333.45 254.28 * 140.43 275.96 308.79 64 * 150.89 333.45 238.91 * 140.43 275.96 308.79 65 * 146.29 * 333.45 238.91 * 140.43 238.58 216.63 65 * 146.29 * 333.79 251.83 * 146.87 260.43 * 224.62 66 * 143.09 * 276.31 * 203.40 * 165.60 279.11 * 214.84 68 * 130.33 * 246.21 * 196.75 * 160.61 * 236.05 * 154.06 70 * 88.09 262.03 348.07 4 92.03 * 182.05<	58	115.7	-	440.	98.6	6.	2.9	204.	8 74.87
60 149.89 258.78 * 260.89 145.18 * 269.04 229.87 61 148.08 303.75 * 226.22 192.16 252.88 232.04 62 ‡ 189.94 289.20 * 246.52 192.16 252.88 232.04 63 \$ 189.94 289.20 * 246.52 * 168.77 * 217.91 ‡ 206.27 64 * 150.89 333.45 254.28 ‡ 140.43 275.96 308.79 64 * 150.89 333.45 254.28 ‡ 140.45 238.58 216.63 65 ‡ 146.29 333.45 251.83 ‡ 160.96 * 248.41 * 224.62 66 † 169.51 * 338.60 268.64 * 146.87 260.43 * 235.95 67 * 143.09 * 276.31 203.40 165.60 279.11 * 244.65 68 ‡ 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 69 ‡ 159.07 262.03 348.07 + 92.03 * 182.05	69	34.6	-	254.	131.8	00	189.0	261.97	111
61 148.08 303.75 * 226.22 192.16 252.88 232.04 62 ‡ 189.94 289.20 * 246.52 * 168.77 * 217.91 ‡ 206.27 63 \$ 210.29 384.60 254.28 ‡ 140.43 275.96 308.79 64 * 150.89 333.45 238.91 ‡ 140.45 238.58 216.63 64 * 150.89 333.45 238.91 ‡ 140.45 238.58 216.63 65 ‡ 146.29 333.79 251.83 ‡ 160.96 * 248.41 * 224.62 66 ‡ 169.51 * 338.60 268.64 * 146.87 260.43 * 235.95 67 * 143.09 * 276.31 203.40 165.60 279.11 * 214.84 68 ‡ 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 70 ‡ 88.09 262.03 316.07 * 154.07 * 182.05 \$ 86.06 71 * 85.60 201.10 \$ 200.80 201.40 170.60	09	8.65		260.	45.1	269.0	9.8	14.	29.0
62 # 189.94 289.20 * 246.52 * 168.77 * 217.91 # 206.27 63 210.29 384.60 254.28 # 140.43 275.96 308.79 64 * 150.89 333.45 238.91 # 140.45 238.58 216.63 64 * 150.89 333.45 238.91 # 140.45 238.58 216.63 65 # 146.29 * 338.60 258.64 * 146.87 260.43 * 224.62 66 # 143.09 * 276.31 203.40 # 165.60 279.11 * 214.84 67 * 143.09 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 68 # 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 70 # 88.09 262.03 348.07 * 92.03 * 182.05 \$ 86.06 71 * 85.60 206.70 # 200.80 201.40 170.60 171.60 72 152.10 206.50 197.90 159.60 170.60	19	148.0		226.	92.1	252.88	2.0	351.27	9.0
63 210.29 384.60 254.28 \$\frac{1}{4}\text{0.43}\$ 275.96 308.79 64 * 150.89 333.45 238.91 184.45 238.58 216.63 65 \$\frac{1}{4}\text{6.29}\$ \$33.45 251.83 \$\frac{1}{1}\text{160.96}\$ \$\frac{248.41}{2}\text{1}\$ \$\frac{224.62}{2}\text{160.50}\$ 66 \$\frac{1}{1}\text{6.29}\$ \$\frac{2}{333.79}\$ \$\frac{251.83}{2}\text{160.96}\$ \$\frac{248.41}{2}\text{1}\$ \$\frac{224.62}{2}\text{160.50}\$ 66 \$\frac{1}{1}\text{6.95}\$ \$\frac{2}{2}\text{6.03}\$ \$\frac{2}{1}\text{6.04}\$ \$\frac{246.21}{2}\text{160.61}\$ \$\frac{246.21}{2}\text{160.61}\$ \$\frac{2}{2}\text{1.84}\$ 69 \$\frac{2}{1}\text{159.07}\$ \$\frac{2}{2}\text{6.05}\$ \$\frac{2}{2}\text{1.00}\$ \$\frac{2}{2}\text{1.00}\$ 70 \$\frac{2}{2}\text{8.00}\$ \$\frac{2}{2}\text{1.00}\$ \$\frac{2}{2}\text{1.00}\$ \$\frac{2}{2}\text{1.00}\$ \$\frac{2}{2}\text{1.00}\$ 72 \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ 72 \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ 72 \$\frac{2}{2}\text{1.0}\$ \$\frac{2}\text{1.0}\$ \$\frac{2}{2}\text{1.0}\$ \$	62	189.9	-	246.	68.7	217.9	206.2	86.	
64 * 150.89 333.45 238.91 184.45 238.58 216.63 65 # 146.29 333.79 251.83 # 160.96 * 248.41 * 224.62 66 169.51 * 338.60 268.64 * 146.87 260.43 * 235.95 67 * 143.09 * 276.31 203.40 165.60 279.11 * 214.84 68 # 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 69 # 159.07 274.05 316.07 * 154.07 247.04 * 154.06 70 # 88.09 262.03 348.07 + 92.03 * 182.05 \$ 86.06 71 × 85.60 201.10 350.40 185.70 183.30 171.60 * 176.20 72 152.10 206.70 # 200.80 201.40 170.60 170.60 171.60 * 172.00	63	10.2		54.	4.	5.9	8	0	5.2
65 # 146.29 333.79 251.83 # 160.96 * 248.41 * 224.62 66 # 146.29 * 338.60 268.64 * 146.87 260.43 * 235.95 67 * 143.09 * 276.31 203.40 165.60 279.11 * 214.84 68 # 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 69 # 159.07 274.05 316.07 * 154.07 247.04 * 154.06 70 # 88.09 262.03 348.07 + 92.03 * 182.05 \$ 86.06 71 x 85.60 201.10 350.40 185.70 183.30 176.20 72 152.10 206.70 # 200.80 201.40 170.60 171.60 * 73 95.30 159.00 260.50 197.90 159.60 170.60 170.60	1 49	50.8		38.	84.4	8.5	9	1.6	53.2
66 169.51 * 338.60 268.64 * 146.87 260.43 * 235.95 67 * 143.09 * 276.31 203.40 165.60 279.11 * 214.84 68 † 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 70 † 88.09 262.03 316.07 * 154.07 * 182.05 \$ 86.06 71 x 85.60 201.10 350.40 185.70 183.30 176.20 72 152.10 206.70 † 200.80 201.40 170.60 171.60 73 95.30 158.00 260.50 197.90 159.60 172.00	65	46.2	333.	51.	6.	248.4	224.	307.73	
67 * 143.09 * 276.31 203.40 165.60 279.11 * 214.84 68 # 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ 50.84 69 # 159.07 274.05 316.07 * 154.07 247.04 * 154.06 70 # 88.09 262.03 348.07 + 92.03 * 182.05 \$ 86.06 71 x 85.60 201.10 350.40 185.70 183.30 176.20 72 152.10 206.70 # 200.80 201.40 159.60 171.60 * 73 95.30 158.00 260.50 197.90 159.60 122.00	99	69.5	338.	68.	8.95	4.09	235.9	247.70	6.99
68 t 130.33 * 246.21 * 196.75 * 160.61 * 236.05 \$ \$ 50.84 \$ 59.07	1 29	43.0	276.	03.	65.	79.1	214.	272.75	156.81
69 # 159.07 274.05 316.07 * 154.07 247.04 * 154.06 70 # 88.09 262.03 348.07 + 92.03 * 182.05 \$ 86.06 71 x 85.60 201.10 350.40 185.70 183.30 176.20 72 152.10 206.70 # 200.80 201.40 170.60 171.60 * 73 95.30 158.00 260.50 197.90 159.60 172.00	9	0.3	246.	196.7	160.6	236.0	50.	95.0	18.6
70 t 88.09 262.03 348.07 + 92.03 * 182.05 \$ 86.06	9	0.6		16.0	154.	47.0	154.0	50.0	3.0
71 x 85.60 201.10 350.40 185.70 183.30 176.20 72 152.10 206.70 ± 200.80 201.40 170.60 171.60 * 73 95.30 158.00 260.50 197.90 159.40 170.00	-	8.0		48.0	92.0	182.0	86.0	207.00	N
72 152.10 206.70 ± 200.80 201.40 170.60 171.60 172.00 159.40 172.00	-	5		50.	3	83.3	76.	180.50	14.6
73 95.30 158.00 260.50 197.90 159.40 1	1	52.1	206.70	200.	-	70.	71.	* 187.10	
77 00.007 00.007	73	5.3	158.00	260.50	197.90		22	6	96.30
	& 5 month	of ho							

DISINFESTATION, RODENT CONTROL AND DISINFECTION

The work carried out in and from the Centre may be classified under the following headings:-

- 1 Disinfestation
 - (a) Personal
 - (b) Structural
- 2 Rodent Control
- 3 Disinfection
- 4 Other Duties

1(a) DISINFESTATION (Personal)

The personal disinfestation service at the Centre deals with the control of the parasites of man including the cleansing of heads of pediculus capitis (head lice) and the cleansing of bodies of pediculus corporis (body lice), phthirus pubis (pubis lice), and sarcoptes scabiei (scabies or itch mite).

Traditionally the treatment of head lice has been carried out at the Clinic using a preparation containing the organochlorine insecticide Gamma Benzine Hexachloride. This was a good louse killer but unfortunately was not a good ovicide and therefore although the adult and nymphal stages were destroyed after a treatment had been carried out, the "nits" or eggs of the louse were still viable and therefore had to be physically removed from the head.

During 1973 a pilot scheme was undertaken using a preparation based on an organophosphorus insecticide known as Malathion. This insecticide has the great advantage in that one application will kill not only the adult and nymphal stages of the louse but also the egg. Another added advantage is that it is not uncommon to find that one application confers a residual protection of up to 1 month.

Initial results are extremely promising.

In order that the cleansing may be carried out efficiently there is a clinic containing five washbasins, sprays and hairdryers, three bathrooms, each with a bath and shower, together with the necessary insecticides, acaricides, antiseptic creams and lotions.

This section has a staff of seven: - a Sister in charge, two S.R.N. visitors who visit the homes of affected persons, two male clinic assistants and two female clinic assistants.

An ambulance is available for the transport of patients.

Details of the work carried out by this section in 1973 are shown in Tables 1 and 2.

TABLE 1

	TMENT OF VERMINOUS PERSONS Pediculus Corporis			School Age	Others	Total
	No. of persons treated		 	7	385	392
(b)	Pediculus Capitis			LIPSER (0	
	No. of homes visited		 	ramb -an	bolt- 9	954
	No. of persons treated		 	1,334	367	1,70
(c)	Phthirus Pubis			No.	Hatt &	
	No. of homes visited		 	-	-	1
	No. of persons treated		 	1	30	3:
(d)	Scabies					
	No. of homes visited		 	-	-	480
	No. of persons treated		 	419	739	1,15
	No. of contacts treated		 	221	624	84.
	No. of re-infections	• •	 	S (BSI'm)	9	1200
(e)	Fleas			o ada y	Jeogland	
	No. of persons treated		 	38	126	1 16

TABLE 2

(a)	Pediculus Corporis			School Age	Others	Total
	No. of persons treated		 	tel :- ::	1	1320 1
(b)	Pediculus Capitis			19.30	a triang	0 30
	No. of persons treated		 	5	1	
(c)	Phthirus Pubis			0 4 32 38	Samo ton	SHEVE
	No. of persons treated		 	-	-	
(d)	Scabies					
	No. of persons treated		 	11	32	4:
	No. of contacts treated	•••	•••	2	21	2
(e)	Fleas			dasbass	and a dis	u doe
	No. of persons treated		 	2	3	13799

1(b) DISINFESTATION (Structural)

Disinfestation in relation to insect pests plays a large part at the Centre.

The problem of the prevention of extension of verminous conditions in rehousing from slum houses to Council owned properties not only concerns itself with the bed bug, but also extends to the furniture bettle. Bed bugs are exterminated by the application of a synthetic insecticide to the structures and the treatment of bedding by low pressure steam before the tenant is rehoused. To prevent infestation of new Council Properties by anobium punctatum (furniture beetle), all timber effects showing signs of active infestation are first treated at the Centre by methyl bromide fumigation before being transferred to the new house. Other insect pests controlled in Housing Department properties include the clover mite, cockroaches, crickets, silverfish, spider beetle, flies from tips and sewage works, wasps and their nests, plaster beetles, fleas, lice, mites etc.

The widely used insecticide D. D. T. has now been phased out of use by the Department. This was the first of the synthetic insecticides and has proved to be of great value in the control of most insects of public health significance. Initially, its long active life and stable qualities were regarded as being a great breakthrough in pest control. It was later proved however that far from this being the case these very qualities were so pronounced as to make its use both undesirable and dangerous. It has been demonstrated that many animals, including man have quantities of D.D.T. stored in their body fat. Its place, as a general insecticide has been taken by B.H.C. and a newly developed Carbamate insecticide known as Ficam 80 is proving successful against cockroaches and pharaoh's ants.

The eradication of fungal conditions, whether merulius lacrymans (dry rot) or coniophora (wet rot) is also undertaken.

The services of this section have been extended to other Corporation

Departments, industry, hospitals, the general public and other Local

Authorities situated within a reasonable distance from Leeds. The

section is staffed by a Technical Assistant, a Charge Hand and seven Operators.

The vehicles necessary are a tractor for the moving of the M. B. chambers, a furniture van, two vans for the transport of verminous articles and four vans for the transport of men and spraying equipment.

Table 3 gives details of the work carried out by this section during 1973.

TABLE 3

	DISINFESTATION											
١.	Work carried out at request of Housing Department											
		Bed Bugs	Wood Worm	Others	Total							
(a)	Rehousing	Jestites	063 b	a bounds	128 30							
	No. of visits of inspection No. of dwellings disinfested by	7079-0T	bae-m	2 21-20	1,275							
	insecticide No. of articles disinfested by	452	16	7700	468							
	No. of articles disinfested by	3,718	mise only	polici po	3,718							
	М.В	2 COL - 10	362	pagge-to	362							
(b)	General	The second	A 133 11	STORE STORE	2 1 1							
	No. of visits of inspection No. of dwellings disinfested by		1000-	3200 - 10	499							
	insecticide No. of articles disinfested by	94	153	Ø 1,112	1,359							
	steam	556	-	1,234	1,790							
	M.B	==2.0	51		51							
3.	Work carried out for other sources	erimin.	.00	a coping t	dalas							
	City	13850	12500	1 0 0 0 0 0	22 12							
	No. of visits of inspection No. of dwellings disinfested by	100 -10	-	-	334							
	insecticide No. of articles disinfested by	54	8	0 1,142	1,204							
	steam	456	-	16,687	17,143							
	M.B	yhen- A	63	2	65							
	Outside Authorities	a Julean	208 30	load of	10 mai							
	No. of dwellings disinfested by insecticide	18	3	8	29							
	No. of articles disinfested by steam	61	-	124	185							

2. RODENT CONTROL

Inspections and treatments

This section deals with the control of rats and mice within the City. Complaints of rats will be investigated and dealt with on any premises within Leeds. Mouse treatments will only be undertaken in those premises which deal with the manufacture, storage, preparation or sale of food. The departmental service does not extend to the treatment of mouse infestations in dwellings except those occupied by elderly or infirm persons. However, a free advisory service is available to the occupier of any premises where a mouse infestation exists.

In 1973 the occupiers of 392 premises which did not warrant departmental service were advised as to the best method of treatment. 15,397 inspections and visits were made in connection with servicing rodent infested premises. It is not possible to estimate the number of rodents killed by poison bait, but during the year 4,229 dead rodents were collected and destroyed. Other pests also dealt with by this section are pigeons (of which 1,567 were killed in 1973), cats, rabbits, squirrels, moles, foxes etc.

Staffing consists of a Technical Assistant, a Charge Hand and twelve Operators. Three vehicles are required for the sewer baiting operators and 5 vehicles for the use of surface operators.

Table 4 shows the numbers of new complaints received by the section.

The miscellaneous figures refer to complaints of squirrels, rabbits, moles, sparrows, foxes, etc.

TABLE 4

of a success bearing)	1972	1973
Rats	1,021	1,140
Mice	751	846
Pigeons	55	36
Miscellaneous	27	59

Table 5 analyses complaints about rats and mice.

TABLE 5

		Rats						Mice				
nit moderne	В	PD	LA	LAH	Total	В	PD	LA	LAH	Total		
January	20	69	3	21	113	7	14	6	8	35		
February	15	40	1	13	69	4	6	2	6	18		
March	16	47	20	6	89	12	13	2	10	37		
April	15	53	3	15	86	8	15	2	12	37		
May	19	68	5	20	112	6	23	4	17	50		
June	27	47	8	24	106	7	19	-	3	29		
July	15	62	2	18	97	6	15	2	10	33		
August	15	39	2	13	69	5	14	4	7	30		
September	21	43	2	23	89	3	24	6	6	39		
October	26	56	6	13	101	8	28	8	13	57		
November	27	55	1	22	105	13	30	8	12	63		
December	26	52	1	15	94	7	7	3	9	26		
TOTALS	242	641	54	203	1,140	86	208	16	113	454		

B = Business Premises

P.D. = Private Dwellings

L.A. = Local Authority Premises and Land

L.A.H. = Local Authority Houses

Sewer Baiting

In addition to surface infestations two teams are employed in baiting sewer manholes in accordance with the recommendations of the Ministry of Agriculture, Fisheries and Food. In 1973, 13,304 sewer manholes were test baited and 161 were found to be infested and subsequently poison baited. There are 417 manholes in the centre of the City which were poison baited without prior test baiting due to the difficulties experienced with the density of traffic. The number of infested manholes in 1972 was 1,707, therefore even allowing for a high degree of infestation within the City Centre it will be seen that there has been a considerable reduction in the number of infested manholes. This shows a drop in the number of infested manholes of 1,546 which is due to the separation of the sewer network into self-contained systems which prevents re-infestations.

General

Grey squirrel complaints are increasing, due no doubt to the encouragement of misguided householders. Representatives of the Department are required to spend an increasing amount of time in eradication of this pest which if gaining entry into dwelling houses may cause extensive damage to the property as well as a great deal of consternation to the occupier.

In response to the need for a new rodenticide to combat anti-coagulantresistant rodents a new chronic poison has been developed. This breakthrough
has been long awaited for although in Leeds there is no problem with resistant
rats, resistant mice have been a long standing worry. The new rodenticide
known as Calciferol induces an excess of dietary Vitamin D in the rodents
thus giving rise to fatally high blood calcium levels.

Anti-coagulant rodenticides such as Warfarin act by inducing a Vitamin K deficiency which leads directly to the well known failure of blood clotting that occurs in Warfarin poisoned animals. It is intended that the new formulation should be a combination of Calciferol and Warfarin so that death is caused by the effect of too much Vitamin D and too little Vitamin K. The main practical advantage of the combined formulation is that it is toxic to anti-coagulant resistant as well as to non-resistant rats and mice. A possible theoretical advantage is that the use of a single formulation containing two ingredients that act through different physiological mechanisms may reduce the chance that resistance will develop to either ingredient.

DISINFECTION

The Disinfection Section is concerned with the preventive measures necessary to prevent the spread of infectious disease. The Departmental service is called in for treatment in hospital wards, operating theatres, intensive care units, cubicles etc., institutions, schools and private homes. The bactericides used on site are formaldehyde in fine aerosol form, black and white fluids, chlorinated phenols etc. The Centre is equipped with a high pressure disinfector to deal with infected articles.

Work done in this field is tabulated in Table 6.

277	4 4		E	-
	дι	ΚΕ.	HC .	m

No.	of	homes visited		 	445
No.	of	articles disinfect	ed	 	1,944
No.	of	rooms disinfected		 	152
No.	of	miles involved		 	1,284

Closely allied to this section are four other services. One deals with drain tracing, testing, and clearing under the direction of the Public Health Inspectors. 28,109 miles were involved in such work. Another is the Medical Loan Scheme whereby medical requisites on loan are delivered to patients, collected and returned to the Centre for disinfection before re-issue. The third is the Incontinent Loan Scheme which distributes draw sheets, collects soiled sheets and delivers to the contracting laundry. Welfare Foods and Clinic Stores are delivered to the various clinics throughout the City and, owing to the difficulty of disposal of placentas, the service co-operates with the Midwifery Section in the collection of afterbirths for disposal at a Refuse Destructor.

Table 7 illustrates the work done and mileage involved for the work of these sections.

TABLE 7

(a)	Public Sewers
	Miles involved in the cleansing of Public Sewers 28,109
(b)	Medical Loan Scheme - Home Nursing
	No. of homes visited 2,912
	No. of articles delivered 4,346
	No. of miles involved 9.157
	Medical Loan Scheme - Chest Clinic
	No. of homes visited 35
	No. of articles delivered 137
	No. of miles involved 156
(c)	Incontinent Loan Scheme
	No. of visits paid 21,962
	No. of miles involved 28,329
	Average No. of patients per day 8
	No. of placentas collected and destroyed 511
(d)	Welfare Foods and Clinic Stores
	Miles run for Babies' Welcomes and Day Nurseries 14,150

A large drying chamber is available for articles which have been flooded due to burst pipes etc. and in 1973 the number of wet articles dried was 30.

4. OTHER DUTIES

Staffing consists of a Technical Assistant, a Charge Hand Steam Operator and three Steam Operators, three Disinfection Operators, five Drainage Operators, four Drivers and one Carboliser/Cleaner.

Transport and manpower is provided by the Centre as and when required for the purpose of transferring furniture and effects from place to place on behalf of the Health Department.

The necessary clerical support is provided by four clerks, one employed in a secretarial capacity, one as an accounts clerk, one in Rodent Control Section and one clerk/telephonist. The staffing is completed by a cleaner/cook.

There is also a small but comprehensive museum which illustrates the work of the Centre.

The final, although by no means least important, function of the Centre is the lectures given to students by the Supervisory Public Health Inspector in charge. In 1973, 56 half day lectures were given to students from the Leeds Polytechnic in relation to courses in Institutional Management, Home Economics, Teacher Training, Catering, Nursery Nurses, Pre-nursing and Cleansing Science. Students from the Local Authority include Health Visitors, Midwives, S.R.N.s and S.E.N.s. In addition to the half day lectures, courses of instruction are given to 4th year Medical Students and Student Public Health Inspectors.

Refresher courses in the work of the Centre are given from time to time to staff of the Social Services Department, Housing Department and Works Department. These sessions are useful not only to the departments concerned, but help to increase co-operation when inter-departmental problems are to be solved.

861 students received training at the Centre during 1973.

GENERAL SANITATION

District Inspection and Investigation of Complaints

8,840 houses were surveyed and examined and 8,906 re-inspections made. 1,236 statutory notices were served in relation to public health matters and 6,868 nuisances and housing defects remedied.

Drainage and Closet Accommodation

1,350 public sewers affecting 3,929 houses or other premises were cleansed. Works of repair or maintenance were carried out to 89 defective public sewers and the cost recovered from the owners of the premises.

In 395 cases it was necessary to serve statutory notices under Section 39 of the Public Health Act, 1936. The drains of 22 houses were repaired or renewed by the Department in default and the cost recovered.

111 statutory notices were served under Section 17 of the Public Health Act, 1961, requiring the removal of stoppages from drains within 48 hours; 43 were cleansed by the Department in default and the cost recovered.

The Department cleansed or repaired 1,644 drains serving Housing Department and other Corporation-owned properties.

121 Statutory Notices were served under Section 45 of the Public Health Act, 1936, in connection with defective closet accommodation. In 8 instances the work was carried out by the Department in the owners' default.

Examination of Plans

The arrangement whereby certain plans of new buildings or alterations to existing buildings submitted for planning and bye-law approval are referred to the Health Department for observation and comment continued. 2,902 plans for factories, offices, shops, food premises, etc., and plans in connection with application for improvement grants were examined and comments made regarding necessary amendments.

Common Lodging Houses

The 5 common lodging houses in the City, 3 run by voluntary organisations, one in private ownership, and the other in Corporation ownership were subject to routine inspection and a total of 145 visits of inspection were made during the year.

The modifications to the lay-out of Shaftesbury House, municipally owned, which were necessitated by certain requirements of the Fire Officer created a ventilation problem to some internal corridors. The fitment of fire check doors, which are required to be kept closed at all times, prevented the natural flow of through ventilation to those corridors. Arrangements have been put in hand to overcome this problem, and it is anticipated, subject to the approval of the Fire Officer, that a mechanical exhaust system will be provided.

The voluntary organisations continue to give in their traditional manner, their assistance and co-operation in the field of Social Service. For example, a male near recluse found living in a pig sty was, after cleansing, received into the Salvation Army Hostel at Stafford Street. He is now happily settled in his new abode and the company of his fellow-men.

The approved extensions and refurnishment of the Salvation Army Hostel, Lisbon Street, were commenced during the year. In its initial stages the works comprise, on the ground floor, of the enlargement of the existing dining room and day room, for a new kitchen and also for a new boiler room housing 2 oil fired boilers. The first floor alterations will provide for a sanitary block containing 27 water closets and 19 urinals, also for an enlarged dormitory, for a new storeroom and a new kitchen for the deputy keeper's flat.

The 'Grove Hostel', the only privately-owned old type Common Lodging House in the City has been subject to intensive day and night visits by the Public Health Inspectors. It is pleasing to report that this intensification of visits has resulted in an improvement in both the management control and also of the cleanliness of this ageing structure to such extent that it has been possible to recommend to the Licensing and Fire Brigade Committee that annual registration should again be adopted in place of the short term registrations previously operating.

Canal Boats

A total of 17 visits of inspection were made during the year. No contraventions were noted.

Phasing out of the old type barge boat continues and it is expected that the employment of 'freight-pushers' will progressively increase. It is anticipated by the operating companies that a joint venture, whereby

laden barges will be carried 'pick-a-back' on a mother ship from the continent will be put into operation. To this end trial runs with continental barges have already taken place on the inland waterways.

Progressively, dredging of the 'cuts', and strengthening of the canal banks have been taken place to deal with an expected increase in traffic volume. The electrification of lock gates operating on an automatic system and controlled by closed circuit television are being considered in an effort to help speed the movement of traffic.

Pet Animals Act, 1951

7 licences were granted to persons keeping pet shops and 38 licences were renewed. All licensed pet shops were inspected to ensure that the conditions of licence were complied with.

Animal Boarding Establishment Act, 1963

One licence was granted to the new tenants (partners) of existing kennels which had been sold. Twelve licences were renewed, making a total of 13 boarding establishments for dogs and cats in the City.

Riding Establishment Acts, 1964/70

5 riding establishments were re-licenced in the City following a report from a veterinary surgeon that the premises were satisfactory and that the horses were fit for work.

Rag Flock and Other Filling Materials Act, 1951

One licence was renewed for the only premises in the City used for the manufacture of rag flock. One licence was granted for premises where rag flock is stored. There are 57 registered premises where filling materials are used.

Two formal samples of filling materials were taken and satisfactorily passed the prescribed cleanliness tests.

Pharmacy and Poisons Act, 1933

The number of entries on the statutory list of sellers of Part II Poisons on the 30th April, 1973, (the last day in the administrative year for the purposes of the Act) was 107.

Fertilisers and Feeding Stuffs Act, 1926

Twelve informal and one formal sample of fertilisers were taken, six of which were reported to be outside the permitted limits of variation. The variations from the permitted limits were small or were not to the

prejudice of the purchaser. One case, however, was such that the matter has been reported to the Town Clerk with a recommendation that legal proceedings be instituted.

Offensive Trades

38 visits of inspection were paid to premises where offensive trades are carried on.

Hairdressers and Barbers

534 persons carrying on the trade of hairdresser or barber and their premises were on the register at 31st December, 1972. 30 visits of inspection were paid to these premises registered under the provisions of Section 244 of the Leeds Corporation Act, 1956.

Sampling of Swimming Bath Waters

122 samples of public or school swimming bath water were submitted to the Public Health Laboratory Service for bacteriological examination. In addition, 83 samples were submitted to the City Analyst for chemical examination. Copies of reports of samples were forwarded to the Director of Baths and Wash-houses or the Director of Education for information and action if necessary.

Sewage Disposal

(Report of Mr. A. E. Naylor, City Engineer)

The sewerage of the city is generally reasonably adequate except in Wortley, Colton and Wykebeck Area.

In the Wortley Area two restrictions on the development which have been applied pending construction of the necessary relief works have been removed in certain parts of the area following the completion of the Wortley Valley Relief Sewer - Stage 1 and the Farnley Valley Balancing Reservoir.

Work has continued on the Wortley Valley Relief Sewer - Stage II and Millshaw/Wortley Beck Culvert - Stages I and II and this scheme is now nearing completion. Holbeck Culvert and Millshaw Beck Culvert - Stage IV have been completed during the year. Millshaw Beck Culvert - Stage VI has been designed and submitted to the Department of the Environment for a loan sanction.

Work commenced on the Wykebeck Valley Relief Sewer and design work is proceeding in respect of the Cross Gates branch of this sewer and the sewers to serve the Colton area.

The scheme for the modernisation of the Knostrop Water Pollution Control Works is proceeding. The scheme for the replacement of the old pumps is continuing satisfactory but can only proceed slowly in order to ensure that basic pumping functions continue to be maintained.

During the year the pumping of sludge to the lagoon has continued, but the new Sludge Heat Treatment Pressing and Incineration Plant has been undergoing commissioning trials during the year. This plant is of the first of its type in the country and is likely to be of considerable technical interest which will attract visitors from other parts of the world.

The construction of the Partial Treatment Activated Sludge Plant to treat a flow of 15 m.g.d. to the Low Level Works is now complete. These units have been commissioned in 1973. The reconstruction of the low level bacteria bed channels and rebuilding of the distributors is continuing.

Contract for the construction of the new High Level Inlet Works has been awarded, but the construction has been interrupted due to bankruptcy of the Contractors. The work has now been resumed by another Contractor. Design work of the high level primary sedimentation tanks is completed and the scheme has been submitted to the Department of the Environment for loan sanction.

Restrictions on capital expenditure imposed by the Government are likely to affect the progress of new schemes during the year 1974/5.

Under Local Government Reorganisation, control of the sewerage and sewage disposal functions will pass to the Regional Water Authority on the 1st April, 1974, with the sewerage function being carried out by the District Council under arrangements to be entered into between the Authority and the Council under the Water Act, 1973.

The final effluent discharged to the River Aire from Knostrop has not yet reached the standard required by the River Authority. The new Activated Sludge plant which deals with half the sewage, and which will improve the effluent substantially, was still being evaluated at

the end of the year. Sludge treatment and disposal continue to be a severe problem and the sludge treatment plant is expected to be operating in 1974. The analysis of the final effluent was:

	mg/1
Suspended Solids	51
Permanganate Value	21
Biochemical Oxygen Demand	35

The effluent from the Rodley Works continued to be unsatisfactory despite the extensive use of grass land. Sludge treatment and disposal was a problem during the year and major reconstruction is needed if these Works are to operate efficiently.

The analysis of the final effluent was:

	mg/1
Suspended Solids	45
Permanganate Value	13
Biochemical Oxygen Demand	26

Public Cleansing

(Report of Mr. J. Hinchcliffe, Principal Cleansing Officer)

Particulars of refuse collection and disposal during 1973 are as follows:-

Hous	ehold refuse collected:-	Tons
(a)	dealt with at destructor	30,100
(b)	disposed of at tips and for agricultural purposes	95,000
	er of tons of cesspool contents discharged Corporation sewers	24,017

The number of dustbins provided and delivered to dwelling houses was 10,700.

Water Sampling

365 samples of drinking water were taken by the Department for bacteriological examination. Of these 340 were taken from the Corporation's main supply and 25 from springs. 13 samples of town's water were unsatisfactory but subsequent samples from the same domestic taps proved satisfactory. Seven samples from springs were unsatisfactory.

WATER SUPPLY

(Report by Mr. J. R. Roberts, General Manager and Engineer, Waterworks Department)

The water was bacteriologically satisfactory throughout the year, but there were occasions when the water from the Yorkshire Derwent Supply had a high iron content with consequent discolouration and turbidity.

SUMMARY OF BACTERIOLOGICAL EXAMINATIONS

Raw Water Arriving at	Eco	cup	Headingley		
Filtration Works	No. of Samples	Average Count	No. of Samples	Average Count	
Probable No. of coliform organisms in 100 ml. of water	221	105	354	234	
Probable No. of E. Coli in 100 ml. of water	221	74	354	-160	
Anaerobes in 40 ml. of water (Wilson & Blair's test)	51	3	51	6	
Agar Plate Count (48 hours at 37°C) colonies per ml.	50	75	51	43	

Percentage	of	samples	free	from	coliform	organisms	 	99.6%

Samples taken from service reservoirs and consumers' premises (Excluding samples taken by Health Department Staff)

in well, t	Samples free	Samples contagorisms or	ining coliform r E. Coli
No. of Samples Examined	from coliform organisms	In numbers not exceeding limits laid down in M.O.H. & S.S. Report No. 71 (1969)	In numbers exceeding limits laid down in Report No. 71 (1969)
1,115	97.6%	1.5%	0.9%

ECCUP FILTRATION WORKS

LEEDS CORPORATION WATERWORKS

SUMMARY OF CHEMICAL ANALYSES OF THE PUBLIC WATER SUPPLY FOR THE YEAR ENDED 31ST DECEMBER, 1973

Arena zgaska možiškim dog a bozasa sežvinico	Parts per million except where otherwise stated			
Martinia Minimi	Average	Maximum	Minimum	
Turbidity (Silica Scale)	*Less than 2	4	Less than 2	
Colour (Hazen Units)	*Less than 5	22	Less than 5	
рн	*8.0	9.1	6.7	
Free Carbon Dioxide	1.0	5.2	Ni1	
Alkalinity (Carbonate Hardness) (in terms of CaCO ₃)	19.5	28	13	
Total Hardness (in terms of		20	10000	
CaCO ₃)	54.5	66	49	
Non-carbonate (Permanent) Hardness (in terms of	25	30 00000	(a) seasobesti	
CaCO ₃)	35	44	25	
Oxygen absorbed from permanganate in 4 hours at 27°C	0.81	1.7	0.2	
Ammoniacal Nitrogen (in terms of N)	0.010	0.028	0.002	
Albuminoid Nitrogen (in terms of N)	0.034	0.081	0.016	
Nitrite Nitrogen (in terms of N)	Ni1	Ni1	Ni1	
Nitrate Nitrogen (in terms of N)	0.52	0.70	0.40	
Chlorine present as Chloride (in terms of Cl)	20.3	28	15	
Silica (in terms of SiO2)	7.1	8.0	5.6	
Iron Compounds (in terms of Fe)	Faint trace	0.10	Ni1	
Manganese Compounds (in	0.043	0.25	N/41	
terms of Mn)	117	133	Ni1	
Total Solids (dried at 180°C)	117	133	27	
Electrical Conductivity at 20°C (Micromhos per cm ³)	*163	190	145	
Residual Chlorine (on reaching consumer)	Trace	0.7	Nil	

LEEDS CORPORATION WATERWORKS

SUMMARY OF CHEMICAL ANALYSES OF THE PUBLIC WATER SUPPLY FOR THE YEAR ENDED 31ST DECEMBER, 1973

	Parts per million except where otherwise stated		
	Average	Maximum	Minimum
Turbidity (Silica Scale)	*Less than 2	3	Less than 2
Colour (Hazen Units)	* 9	25	Less than 5
рн	* 7.25	8.5	6.6
Free Carbon Dioxide	2.1	6.0	1.2
Alkalinity (Carbonate Hardness) (in terms of CaCO ₃)	26	32	23
Total Hardness (in terms of CaCO ₃)	58.5	64	53
Non-carbonate (Permanent) Hardness (in terms of	(20	marcus y 22	e dana-more
CaCO ₃)	32.5	41	28
Oxygen absorbed from permanganate in 4 hours at 27°C	1.34	2.45	0.30
Ammoniacal Nitrogen (in terms of N)	0.005	0.023	0.002
Albuminoid Nitrogen (in terms of N)	0.037	0.068	0.016
Nitrite Nitrogen (in terms of N)	Ni1	Ni1	Ni1
Nitrate Nitrogen (in terms of N)	0.54	0.75	0.45
Chlorine present as Chloride (in terms of Cl)	21.3	25	18
Silica (in terms of SiO ₂)	6.9	8.4	5.6
Iron compounds (in terms of Fe)	Less than 0.01	0.2	Ni1
Manganese compounds (in terms of Mn)	0.02	0.04	Ni1
Total Solids (dried at 180°C)	110	127	96
Electrical Conductivity ₃ at 20°C (Micromhos per cm)	* 157	180	140
Residual Chlorine (on reaching consumer)	Trace	Trace	Ni1

^{*} Daily determinations

YORKSHIRE DERWENT SUPPLY

LEEDS CORPORATION WATERWORKS

SUMMARY OF CHEMICAL ANALYSES OF THE PUBLIC WATER SUPPLY FOR THE YEAR ENDED 31ST DECEMBER, 1973

andmust be absolute farlends.	Parts per mi otherw	llion excep vise stated	t where
of book to minim eganica fall.	Average	Maximum	Minimum
Turbidity (Silica Scale)	Less than 2	9	Less than 2
Colour (Hazen Units)	5	42	Less than 5
рн	8.65	9.2	8.0
Free Carbon Dioxide	Ni1	0.8	Ni1
Alkalinity (Carbonate Hardness) (in terms of CaCO ₃)	24	31	15
Total Hardness (in terms of CaCO ₃)	87.5	96	68
Non-carbonate (Permanent) Hardness (in terms of CaCO ₃)	63.5	70	46
Oxygen absorbed from permanganate in 4 hours at 27°C	0.80	2.3	0.2
Ammoniacal Nitrogen (in terms of N)	0.056	0.137	0.005
Albuminoid Nitrogen (in terms of N)	0.040	0.106	0.010
Nitrite Nitrogen (in terms of N)	Trace	0.01	Ni1
Nitrate Nitrogen (in terms of N)	1.74	3.2	1.0
Chlorine present as Chloride (in terms of Cl)	35.7	41	28
Silica (in terms of SiO2)	6.9	8	5
Iron compounds (in terms of Fe)	0.05	1.0	Nil
Manganese compounds (in terms of Mn)	0.01	0.11	Nil
Total Solids (dried at 180°C)	231	312	163
Electrical Conductivity ₃ at 20°C (Micromhos per cm°)	322	400	240
Residual Chlorine (on reaching consumer)	0.08	0.45	Nil

Plumbo Solvency

Lime is added (before filtration at Headingley Filtration Works and after filtration at Eccup Filtration Works) with the object of producing a water which is not plumbo solvent.

Regular determinations of pH and alkalinity are made on samples of water taken at various points in the distribution system and the determination of lead is included in the chemical analysis of samples which have been drawn through lead pipes. The average amount of lead in 41 samples so drawn was 0.018 p.p.m. and the maximum was 0.08 p.p.m.

Lead determinations were also carried out on 7 samples taken from consumers' premises after overnight standing in lead pipes. The average amount of lead found in these samples was 0.06 p.p.m. and the maximum 0.10 p.p.m.

Action in respect of any form of contamination

There were no incidents during 1973 requiring special action.

Population Supplied (Figures relate to City of Leeds Only) at 31st March, 1973

- (i) Number of dwellinghouses 179,130
- (ii) Direct to dwellings 498,790
- (iii) By stand pipe Nil

Fluoridation

No determinations of fluoride were made during 1973.

DEPOSIT OF POISONOUS WASTE ACT 1972

A. Number of Notifications Received

Waste produced (Part 1) 100
Waste deposited (Part 2) 101
Number of "Season Tickets" 24

B. Waste Deposited

	Volu:	Quantity	
	Semi-Solid	Liquid	Deposited
Outside L.A. Area	91 tons 7 cwt.	121,129 gals.	752½ tons.
Within L.A. Area	808 tons 4 cwt. + 229 sacks	7 00 <u>1</u> 0 10 10 11	808 tons 4 cwt. + 229 sacks

- C. Waste Deposited within City of Leeds
 - 775 tons of chemically inert sludge. (Calcium hydroxide, ferric hydroxide, water and nickel hydroxide).

The waste was permitted to be deposited at the private tip situate of Lowfields Road, Leeds, 11, after a site visit and considering a joint report of the Yorkshire River Authority and the Institute of Geological Services which stated that the use of the tip has not been shown to produce polluting leachates draining to a water course. Continued use of the site is recommended for as long as that condition remains.

- 32 tons of waste asbestos lagging deposited at Skelton Grange,
 Power Station, Ashfields.
- 3. 1 ton 4 cwt. waste asbestos deposited on Halton Dene Tip.
- 4. 229 sacks of solid and liquid biological specimens. Disposed of by incineration at Ministry of Agriculture, Fisheries and Food, Weetwood.

This authority is notified as a matter of form otherwise no control is possible by this authority in respect of Crown Premises. Nevertheless the Ministry have been advised that the incinerator and chimney were not installed with local authority knowledge or approval and should complaints of smoke or smell be received we would reserve the right to take up the matter with the Ministry of Agriculture, Fisheries and Food.

INSPECTORIAL STAFF

At the beginning of the year there was 1 vacancy for a public health inspector. During the year 1 inspector was appointed to a supervisory post and 4 inspectors resigned, 2 having obtained positions with other authorities and 2 going into private enterprise.

However 1 pupil public health inspector qualified and was appointed public health inspector to fill an existing vacancy so that on an establishment of 68 inspectors there were 5 vacancies at the end of the year.

19 pupil public health inspectors attended training courses at the Leeds Polytechnic.

CITY ANALYST'S LABORATORY

This is the 46th and last Annual Report on the work of the Municipal Laboratory which was established in 1928. The Public Analyst's service will become a County function following Local Government Reorganisation on 1st April, 1974.

The laboratory ended on a high note the total number of samples analysed during the year being a record 14,884; the previous highest figure was 12,540 samples in 1972. The increase was mainly in respect of environmental pollution samples. There was also a substantial increase in work carried out for H.M.Coroners, the number of deaths investigated (243) being more than in any previous year. Unfortunately, this account of the year's work has had to be somewhat condensed in the interests of speedy production.

Once again I gratefully acknowledge the hard work and loyal support of my Deputy, Mr. L. A. Perkin, and all members of the staff. I am also grateful to the Public Health Inspectorate for their valued assistance and co-operation.

The following is a summary of the samples submitted during 1973:-

Food and drug samples	1,335
Milk for Bacteriological examination	629
Ice-Cream for Bacteriological examination	134
Cream for Bacteriological examination	144
Fertilisers & Feeding Stuffs	13

SAMPLES SUBMITTED BY PUBLIC HEALTH DEPARTMENT

ATMOSPHERIC POLLUTION

Samples for determination of Radioactivity

Rain Gauges	121		
Daily Smoke & Sulphur Dioxide determinations	9,957	10,078	
Miscellaneous samples		452	12,836

51

SAMPLES SUBMITTED BY OTHER CORPORATION DEPART	TMENTS	
City Architect's Department	6	
Central Purchasing Department	1	
City Coroner	720	
City Engineer's Department	7	
Education Department	22	
Housing Department	11	
Trading Standards Department	31	
Waterworks Department	12	
Works Department	5	815
SAMPLES SUBMITTED FROM OTHER SOURCES		
H.M. Coroners for Craven District, Claro,		
Wakefield and York	244	
Bradford Corporation	13	
Keighley Corporation	2	a to raiging
Knaresborough Rural District Council	3	
Morley Corporation	5	
Richmond Rural District Council	5	
Ripon & Pateley Bridge Rural District Counci	1 3	
Rothwell Urban District Council	95	
Selby Rural District Council	1	
Tadcaster Rural District Council	2	
Wakefield Corporation	282	
West Riding County Council	1	
Airedale Hospital Management Committee	20	
Leeds Group A Hospital Management Committee	18	
Leeds Group B Hospital Management Committee	7	
St. Mary's Hospital	3	
United Leeds Hospitals	5	
Leeds University Medical School	15	
York Waterworks	2	
Thorp Arch Prison	2	
Private samples	50.5	1,233
		14,884

Food and Drugs

1,335 samples were analysed of which 280 were found to be adulterated or otherwise unsatisfactory (an adulteration rate of 21.0 per cent compared with 11.2 per cent in 1972 and 11.3 per cent in 1971).

Milk

The number of samples submitted was 513 compared with 1,174 in 1972. The average composition is shown in the following Table, the corresponding figures for the last 2 years being given for comparison:-

1973 1972 1971 Minimum legal Number of samples 513 1,174 1,411 requirement Solids-not-fat 8.68% 8.78% 8.72% 8.50% Fat 3.92% 3.89% 3.80% 3.00% Total Solids 12.60% 12.67% 12.52% 11.50%

AVERAGE COMPOSITION OF MILK

The adulteration rate (8.8 per cent) showed a marked increase compared with the 3.9 per cent in 1972, but this was mainly due to a substantial reduction in routine sampling with no corresponding reduction in the number of complaint samples.

Of the 45 unsatisfactory samples 23 contained added water, 1 was fat deficient, 6 contained penicillin residues, 2 were sour and 13 contained extraneous matter or were in dirty bottles.

63 samples were sold as Channel Island Milk for which a higher price is charged and which is required to contain not less than 4 per cent fat (instead of the usual 3 per cent). All proved satisfactory their average fat content being 5.0 per cent.

FOOD OTHER THAN MILK

231 of the 796 samples proved unsatisfactory (29.0 per cent) compared with 22.8 per cent in 1972. 120 of the unsatisfactory samples originated as complaints from members of the public and 111 were brought to light as a result of routine sampling. Complaints from consumers were divided evenly between 'foreign bodies' in food and deterioration (rancidity, sourness, fermentation or mould growth) due to overlong storage. As an

example of the latter may be quoted a packet of <u>Butter</u> where analysis supported the complaint of rancidity. The butter was intended to be sold within 3 weeks of packeting, but a Code mark on the carton indicated that it was more than 9 months old - yet another example of the desirability of open date marking.

The unusually high proportion of routine samples which proved to be unsatisfactory was largely due to contraventions of the Labelling of Food Regulations, 1970, which came into force on the 1st January, 1973. The new Regulations impose stricter and more informative labelling for many foods. For example, more prepacked foods are now required to list the ingredients, special attention must be drawn to the presence of preservatives, artificial colouring matter and other "chemicals" in food; claims for vitamins, minerals, tonic, slimming and diabetic properties are controlled; there are restrictions on the use of the works "milk", "butter" and 'bream". Manufacturers and retailers had been given three years in which to digest and implement the new requirements, but nevertheless many prepacked foods (particularly in the first quarter of the year) were incompletely or incorrectly labelled.

Meat Products received almost as many adverse reports (100) as all other foods put together. This situation has existed for several years and provides an excellent example of a comment in the introduction to the standard legal text book Bell & O'Keefe's Sale of Food and Drugs - "The expensive attracts adulterations as a magnet draws iron filings".

18 samples, mainly <u>Sausages</u> and <u>Meat Pies</u> contained less than the legally required meat content. A can of imported <u>Stewed Steak</u> proved unusual in several respects - the contents consisted of a homogeneous paste bearing no resemblance to stewed steak, the meat content was only 82 per cent compared with the legally required minimum of 95 per cent, and finally the meat contained the preservatives sodium nitrite and sodium nitrate which are only permitted in bacon, ham and pickled meat.

Two samples of <u>Corned Beef</u> consisted of no more than 80 per cent of corned beef with at least 20 per cent of added water, the presence of the latter being masked by the inclusion of agar as a gelling agent. The firms concerned agreed to alter the labels to read "Corned Beef in Jelly". Later in the year one of the revised labels was adversely criticised because the words "With Jelly" were in such small print compared with 'Corned Beef' that the label was considered misleading.

Three Take-away Meals described as Beef Curry, Farmhouse Stew and Chicken Supreme contained no meat at all (the Law requires meat products sold under these descriptions to contain not less than 35 per cent of meat); they had been made with textured soya protein (sometimes referred to as synthetic meat). 5 Steak Pies had been filled with 'reformed meat' as distinct from pieces of steak. The last Annual Report described how this Authority had successfully prosecuted a leading manufacturer for this offence. Towards the end of 1973 another major manufacturer was successfully prosecuted in the South of England and discussions are currently being held between Enforcement Authorities and meat product manufacturers which should shortly bring this deception to an end.

Three Oven Ready Frozen Chickens and two Chicken Portions were reported against for the presence of added water introduced by the injection of sodium polyphosphate solution. The processing of intensively reared poultry generally includes a "spin-chilling" operation which results in an uptake of water that adds 5-8 per cent to the carcase weight. The legality of adding water in this way has never been challenged, but it could be held that the addition was "an unavoidable consequence of the process of preparation". (Food & Drugs Act, 1955 Section 3 (3)), on the grounds that spin-chilling is of value in improving the bacteriological quality of the poultry. No adverse reports have therefore been made on chickens containing this amount of added water. It is however becoming increasingly common to make a further addition of water by injecting the birds with sodium polyphosphate solution. The injection is made after evisceration using a "gun" with two multihole injection needles which are inserted into the chicken one on either side of the breast-bone. The polyphosphate solution is then injected into the flesh at a pressure of 80 lbs per square inch. It takes about 3 seconds to inject one bird and adds 5-7 per cent to the weight of the dressed carcase. The net result of the two processes described above is that the chicken flesh contains up to 20 per cent of added water (equivalent to about 12 per cent in the carcase as sold). The consumer would thus appear to be paying a high price for the extra succulence which polyphosphate injection is claimed to achieve. Legal proceedings have been instituted by this Authority which should establish the legality or otherwise of injecting polyphosphates without making the treatment known to the purchaser by means of adequate labelling.

Finally to end this unhappy tale of meat products must be mentioned two samples of Vienna Sausage from the same manufacturer, which contained respectively 1,700 and 2,500 p.p.m. of Sodium Nitrate preservative against a maximum permitted level of 400 p.p.m. "At one time there was no limit to the quantity of sodium nitrate which might be added to cured meat, but in recent years it has been recognised that this practice can result in the formation within the meat of substances known as nitrosamines. These compounds produce cancer when administered to monkeys and other experimental animals and hence in 1971 the U.K. and other countries introduced restrictions on the amount of sodium nitrate which may be added to cured meats. Of the many samples tested since then these were the first not to comply with the legal limit. Proceedings were instituted in respect of the second sample a fine of £25 plus £25 costs being imposed.

Fish Fillets supplied to an industrial canteen as haddock were proved by the technique of disc electrophoresis to be cod. Four samples of Beer contained added water. Legal proceedings in respect of two of the samples (mild beer and bitter beer from the same public house) resulted in a conditional discharge with £28 costs; a prosecution in respect of Mild Beer which contained 11 per cent of added water brought a Fine of £20 with £21 costs. The year would not have been complete without the usual case of a "Buttered" Teacake which proved to have been spread with margarine.

Pesticide Residues

The Nationally organised Pesticide Residue Survey was not in operation in 1973, but 16 samples of fresh fruit and vegetables and 18 other randomly selected foods were subjected to detailed analysis for such residues. Traces were present in 17 (i.e. exactly half the samples), but the actual amounts were extremely low and give no grounds for alarm.

BHC was the most frequently occurring residue (present in 12 samples), followed by Dieldrin (3) and DDT (2). For several years until 1970, DDT was much the most common residue to be found in food but as a result of Government restrictions on its use DDT residues are now found much less frequently.

DRUGS

Of the 26 samples submitted 4 were reported against for minor irregularities.

Bacteriological Examinations MILK

629 samples were submitted to the statutory tests, the results being shown in the Table below. The Methylene Blue Test measures the keeping quality of the milk and the Phosphatase Test the efficiency of pasteurisation. The Turbidity Test (which is only carried out on Sterilised Milk) and the Colony Count Test (only carried out on UHT milk), show whether or not such milks have been sufficiently heated.

	N	Numl	Domantage			
Designation	Number examined	Methylene Blue Test	Phosphatase Test	Turbidity Test	Colony Count Test	Percentage unsatisfactor
Pasteurised	439	1	5	-	-	1.4
Sterilised	88	-	-	-	-	-
U.H.T.	7	-	-	-	-	-
Untreated	95	4	-	-	E4.5 ()-	4.2
Total	629	5	5	-	- 17.	1.6

It is unusual for Pasteurised milks to fail the Phosphatase Test. 5 samples which did so were submitted over a short period and the failure was traced to a leak in the pasteurising plant.

As a matter of routine all samples of untreated (farm-bottled) milk were examined for the presence of antibiotics but none were detected.

CREAM

There are no legally prescribed bacteriological tests for fresh cream such as exist for milk, but there is a recognised method of examination as a result of which samples are graded as either satisfactory, fairly satisfactory or unsatisfactory. Of the 144 samples examined 98 proved satisfactory 13 were fairly satisfactory and 33 were unsatisfactory.

ICE-CREAM

134 samples were examined by the Methylene Blue Test with the results shown in the Table below:-

Grade	Time taken to reduce Methylene Blue at 37°C	Number	Percentage	Quality
1	4½ hours or more	109	81.3	Good
2	2½-4 hours	15	11.2	Satisfactory
3	½-2 hours	4	3.0	Unsatisfactory
4	Ni1	6	4.5	Very unsatisfactory
		134	100.0	plays. Land

Radioactivity

There have been no large-scale atmospheric tests of nuclear weapons since 1962 and in the eleven years since then radioactive "fall-out" has steadily lessened. The comparative figures for 1963 and 1973 are shown below. The results for rainwater are expressed in terms of the number of picocuries of activity falling per day on each square metre of ground. In drinking water the figures refer to the number of picocuries per litre.

	TOTAL BETA	A ACTIVITY
YEAR RAINWATER Picocuries per metre per day		DRINKING WATER
	Picocuries per metre per day	Picocuries per litre
1963	934	19.1
1973	8	3.0

Atmospheric Pollution

The sites for the daily determination of Smoke & Sulphur Dioxide in the atmosphere were reorganised at the beginning of the year in order to give a more even cover for all parts of the City. Seven sites remained unchanged the location of two was altered and six new sites were established. The results are shown in the Table below, the comparative figures for 1972 being included where appropriate.

nofrantassa To bedrau		KE ams per metre	SULPHUR DIOXIDE Micrograms per cubic metre		
STATION	Daily a	nverage	Daily a	Daily average	
	1973	1972	1973	1972	
Armley	34	-	115	-	
Beckett's Park	31	-	108	-	
Blenheim	51	71	165	188	
Bramley	35	-	96	-	
Holbeck	45	-	108	-	
Kirkstall Road	54	64	154	158	
Market Buildings	60	72	127	150	
Middleton	33	-	119	-	
Moortown	22	the second of	82	-	
Park Square	49	58	144	170	
Potternewton Lane	35	45	97	116	
Seacroft Hospital	33		49	-	
Stanley Road	46	55	115	127	
St. Nicholas	44	-	111	-	
Templenewsam	34	44	88	123	

The measurement of pollution using standard deposit gauges was continued at the same 8 sites as in previous years. The temporary gauge at Sayner Lane (a site where there have been complaints of particularly heavy pollution) was also continued. The results shown in the Table below indicate some changes at individual sites but for the City as a whole the average deposition showed little change.

STATION	DEPOSIT GAUGES Average monthly deposits in tons per sq. mile		
	1973	1972	
Armley Park	13.3	14.2	
Burley Park	15.9	17.0	
Headingley	9.5	12.7	
Hunslet	23.7	20.1	
Market Buildings	19.8	17.2	
Roundhay	8.8	9.9	
St. James's Hospital	11.1	14.3	
Temple Newsam	16.5	16.8	
Sayner Lane (Temporary)	114.2	119.5	
Average of all permanent sites	14.8	15.3	

Miscellaneous Samples Submitted by the Public Health Department (452)

The substantial increase in the number of samples under this heading was mainly attributable to the decision to build up data on various forms of pollution by lead. 89 samples of air were analysed for lead content. In the first survey concentrations of lead taken at times of peak traffic-flow were compared with samples taken at the same sites during off-peak periods. Towards the end of the year a number of 24 hour measurements were made in order to establish the average concentration throughout the day. During the second survey where possible samples were also taken inside premises adjacent to out-door sampling sites. The results were reassuring and the only high levels of lead obtained were at sites where vehicle exhaust fumes can only slowly disperse (e.g. enclosed car-parks and the tunnel portion of the inner ring-road). Individuals are only likely to be exposed to such conditions for short periods and the highest level found (18.5 µgs of lead per cubic metre of air in the tunnel approaching Westgate exit of the inner ring-road) was still far below the threshhold limit adopted by H.M. Inspector of Factories for 8 hours industrial exposure 5 days a week (150 µg per cubic metre).

Following the death of a young Asian child due to lead poisoning an investigation was made into the likely source of the lead. Samples of tap-water, paint-scrapings, household dust and garden soil were analysed and indicated old and flaking lead paint as the most likely source. The enquiry also revealed that some Asian families were applying a cosmetic known as Surma to their children's eyes. Three samples of this black powder were submitted and proved to be pure lead sulphide. Its use is therefore greatly to be depracated.

The recognition that lead dust can be conveyed into the home by workers in the lead industry led to a programme to evaluate this hazard in Leeds. Homes of lead workers with young children were selected for sampling and controls were carried out in homes which were similar except that the father had no connection with the lead industry. Higher levels of lead were found in the household dust of workers in the industry (average 2,061 p.p.m.) than in the control homes (average 821 p.p.m.). The blood-lead levels of children in the two groups of houses are being investigated by the Department of Chemical Pathology at the Leeds General Infirmary.

A member of the public telephoned the Health Department because he was concerned at seeing so many people picking blackberries at the side of a moderately busy suburban road and feared the fruit might become contaminated with lead from the exhausts of passing cars. Analysis proved the lead content of the blackberries to be no more than 0.4 p.p.m. - well below the limit of 2.0 p.p.m. prescribed by the Lead in Food Regulations. Blackberry leaves gathered at the same time contained 11 p.p.m. of lead, the higher level doubtless being due to the much greater surface area and lower weight of the leaves.

Samples Submitted by Other Corporation Departments

95 samples were submitted by 8 Departments (Architect's, Central Purchasing, Education, Engineer's, Housing, Trading Standards, Waterworks and Works). Several toys from the Trading Standards Department failed to comply with the requirements of the Toys (Safety) Regulations, the worst being orange-coloured playbricks containing 286,000 p.p.m. of lead and 42,600 p.p.m. of soluble chromium (the legal limits are 5,000 p.p.m. of lead and 250 p.p.m. of soluble chromium).

Forensic Analysis

For the Leeds City Coroner 720 specimens were analysed relating to 180 deaths. H.M. Coroners for Craven District, Claro District, Wakefield and York submitted a total of 244 specimens in relation to 63 deaths.

Of the total of 243 deaths 57 were proved to be due to overdoses of drugs, 6 carbon monoxide poisoning and one to the accidental inhalation of methyl bromide vapour. One analysis was for the purpose of identifying the inflammable liquid which a person had poured over his body and ignited. In 65 cases drugs and poisons were eliminated as a possible source of death. The remaining investigations involved the determination of blood-alcohol levels following 113 fatal accidents. In 39 of these the alcohol level was in excess of the legal limit of 8 mgs per cent thus indicating the likelihood that the effect of drink was a significant factor in the accident - in an appreciable proportion of the positive cases the level was over 200 mgs per cent.

423 drivers submitted samples of blood (or urine) following positive breathalyser tests. The table below shows the number of samples and the distribution of alcohol content in each of the 5 years since the introduction of the Breathalyser:-

	1973	1972	1971	1970	1969	Total 1969-1973
Number of specimens	423	544	412	202	213	1,794
Number below 80 mgs per cent	122	172	119	54	67	534
Number above 200 mgs per cent	42	52	33	24	34	185
Number above 300 mgs per cent	1	3	2	1	2	9
Lowest level in any sample	Ni1	Ni1	3	Ni1	Ni1	Ni1
Highest level in any sample	339	344	322	345	334	344

The distribution shows suprisingly little change from year to year - about 30 per cent of the samples submitted contain less than the legal limit of 80 mgs of alcohol per 100 mls of blood, and at the other extreme about 10 per cent of the samples contain more than 200 mgs per cent. The highest level each year is also relatively constant and suggests that about 340 mgs per cent is the limit above which it becomes physically impossible for even a hardened drinker to drive.

Samples Submitted from Other Sources

11 other Local Authorities, 5 Hospital Management Committees, The Medical School (Department of Experimental Pathology and Cancer Research), H.M. Prison and York Water Company were responsible for a total of 484 samples. Private individuals submitted 505, the majority of these being the blood-alcohol samples referred to in the previous paragraph.

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