[Report 1962] / Medical Officer of Health, Bilston Borough.

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BOROUGH OF BILSTON

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year

1962

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Medical Officer of Health

FOR THE YEAR

1962

J .P. NEYLON, M.B., B.Ch., B.A.O., D.P.H., D.C.H., L.M.
Medical Officer of Health

Health Department
23, Wellington Road
Bilston

Tel. 41451

JOHN PRICE & SONS (PRINTERS) LTD., BILSTON

To the Mayor, Aldermen and Councillors of the Borough of Bilston.

MR. MAYOR, MADAM AND GENTLEMEN,

I present herewith my Annual Report for 1962.

FOREWORD

> "*And no one shall work for money,*
> *and no one shall work for fame,*
> *But each for the joy of the working,*
> *and each in his separate star,*
> *Shall draw the thing as he sees it for*
> *the God of Things as They are*"
>
> —"When Earth's Last Picture".
> Rudyard Kipling (1865–1936).

As the years pass by and as the National pattern of the Health Services becomes more clearly defined, so each succeeding Report, apart from the annual variations in figures, tends to become more and more like a transcript of its predecessors. While taking away from the satisfaction of preparing and from the interest of reading the report, this tendency has the virtue of simplifying the comparisons of the work done and the results achieved between the years.

Reference to Part II shows an increase in the Infant Mortality Rate over the previous year. As we are dealing with such small figures, great significance cannot be attached to this.

The Smallpox outbreak in January involved the Department in an excess of work which was more than compensated for by the fact that no cases occurred in Bilston. Other figures for infectious diseases, apart from those for whooping cough are at a pleasingly low level. The absence of Diphtheria and Acute Anterior Poliomyelitis is a most heartening feature.

Steady progress in slum clearance and erection of municipal dwellings was again maintained.

In the field of Environmental Health, continued vigilance on the part of the Public Health Inspectors ensured a high standard of meat inspection.

As always, this Report has been prepared in accordance with the various circulars and instructions received from the appropriate Ministers.

It only therefore remains for me to thank the Mayor, Aldermen and Councillors for their help and courtesy during 1962 and the Chief Officers and Staffs of other Corporation Departments for helpful co-operation. I must thank Mr. J. R. Tart the Chief Public Health Inspector, the Public Health Inspectors and the Clerical Staff of the Health Department for their help throughout the year, and in particular for their efforts in the compilation of this Report. In conclusion, I extend my most sincere thanks to Alderman N. Bayliss, J.P., C.C., Chairman of the Health Committee for his ever ready counsel and unfailing help during 1962.

I have the honour to be,

Your obedient servant,

J. P. Heylon.

Medical Officer of Health.

16th September, 1963.

PART I.

GENERAL PROVISION OF THE HEALTH SERVICES

"Better to hunt in fields, for health unbought,
Than fee the doctor for a nauseous draught,
The wise, for cure on exercise depend;
God never made His work, for man to mend".

—Epistles. To John Driden of Chesterton.
John Dryden (1631–1670).

A. SERVICES PROVIDED BY THE BOROUGH COUNCIL

HEALTH COMMITTEE AS AT 31ST DECEMBER, 1962.

Chairman: ALDERMAN N. BAYLISS, J.P., C.C.

Vice-Chairman: COUNCILLOR H. A. HUMPHRIES

THE MAYOR (EX-OFFICIO)

ALDERMAN MISS A. FELLOWS	COUNCILLOR W. FELLOWS
ALDERMAN O. H. JONES, J.P.	COUNCILLOR G. HARRIES JONES, B.A.
ALDERMAN J. V. LAVENDER	COUNCILLOR J. LARKIN
COUNCILLOR G. C. BOLD	COUNCILLOR A. W. PACE
COUNCILLOR R. CAMPBELL	COUNCILLOR J. WALTON
COUNCILLOR E. H. COPEMAN	COUNCILLOR A. E. WOOLLEY

STAFF OF THE PUBLIC HEALTH DEPARTMENT

Medical Officer of Health :
J. P. NEYLON, M.B., B.Ch., B.A.O. (N.U.I.), D.P.H. (Leeds), D.C.H. (R.C.P. and S.I.), L.M. (Rotunda)

Deputy Medical Officer of Health :
(Part Time)
W. BARRY, M.B., B.Ch., B.A.O. (N.U.I.)

Chief Public Health Inspector and Cleansing Superintendent :
J. R. TART, Cert. S.I.B., M.A.P.H.I.
Certificated Inspector of Meat and Other Foods

Senior Public Health Inspector :
T. C. MOSS, Cert. S.I.B., M.A.P.H.I.
Certificated Inspector of Meat and Other Foods

Additional Public Health Inspectors :
J. W. BARBER, Cert. S.I.B.
R. CHISHOLM, M.A.P.H.I.
Certificated Inspector of Meat and Other Foods
(Terminated 28.2.62)
R. D. STIRLING, M.A.P.H.I.
(Commenced 2.4.62)
W. A. BARTON, M.A.P.H.I.
Certificated Inspector of Meat and Other Foods
(Commenced 16.4.62)

Pupil Public Health Inspector :
B. HALES

Clerical Staff :

Health :
Miss R. P. SHEFFIELD
Miss J. A. NEWELL (Terminated 31.3.62)
Miss R. CARTER (Commenced 16.4.62)
G. ILLIDGE

Cleansing :
L. R. LITTLEWOOD (Part Time)

DUTIES OF THE SENIOR PUBLIC HEALTH OFFICERS

Medical Officer of Health

The duties are those laid down in the Public Health Acts of 1936 and 1961; the Local Government Act, 1933; The Housing Acts of 1957 and 1961; Factories Act, 1961; Food and Drugs Act, 1955; Clean Air Act, 1956, and the Orders and Regulations made thereunder, including in particular the Public Health Officers Regulations, 1959. Briefly these are:—

(1) To inform himself of all matters likely to affect the health of the Borough and to advise the Council in such matters.

(2) To inquire into the cause, origin and distribution of diseases.

(3) To inquire into the cause and circumstances of any outbreak of dangerous infectious disease and to take all necessary steps to prevent the extension thereof.

(4) To directly supervise the work of the Public Health Inspectors.

(5) If necessary, to inspect and examine any animal or any article, unfit for human food, and if diseased or unfit for it to be seized and dealt with.

(6) To inquire into any offensive trades carried out.

(7) To inspect or cause to be inspected all food preparing premises, and to take all necessary steps to prevent any dangers to health in such premises.

(8) To report to the Ministry of Health and other Ministries as required by them from time to time.

(9) To make an Annual Report on the work of the Public Health Department and the health of the district.

Chief Public Health Inspector

The duties of the Chief Public Health Inspector are as detailed in Article 27 of the Sanitary Officers (Outside London) Regulations, 1935, and the Acts referred to below :—

(1) To systematically inspect the district and to keep himself and the Medical Officer of Health informed of any nuisances that require abatement and of any other sanitary circumstances.

(2) To periodically inspect all food preparing premises and to inform the Medical Officer of Health of any action thought necessary.

(3) To act as officer of the Local Authority under the Prevention of Damage by Pests Act, 1949.

(4) To act as the Local Authority's inspector under the Shops' Act, 1951, and Pet Animals Act, 1951.

(5) To act as the Local Authority's Cleansing Superintendent; that is to supervise the collection and disposal of house and trade refuse.

(6) To furnish the Medical Officer of Health with a tabular statement, giving the inspections made by him during the year, the notices served and the results of the service of such notices.

Senior Additional Public Health Inspector

The Senior Public Health Inspector acts as deputy for the Chief Public Health Inspector during his absence through any cause.

B. GENERAL MEDICAL SERVICES

A high standard of medical practice is provided by the local medical practitioners acting under the National Health Service Act, 1946. Close co-operation and liaison are the outstanding features of the relationship existing between the local practitioners and the Health Department.

C. HOSPITAL SERVICES

The Birmingham Regional Hospital Board is responsible for providing Hospital and Specialist services for Bilston residents. The hospitals mainly used are The Royal Hospital, Wolverhampton; New Cross Hospital, Wednesfield; The Women's Hospital, Wolverhampton; Moxley Infectious Diseases, Bilston; The Midland Counties Eye Infirmary, Wolverhampton; Parkfields and Prestwood Sanatoria and Burton Road Hospital, Dudley. All are helpful and co-operative in their dealings with the Health Department.

D. SERVICES OF THE LOCAL HEALTH AUTHORITY

School Health

The Staffordshire County Council maintain a very efficient school Health Service in Bilston. With the growth and continued development of a comprehensive National Health Service each year there are fewer and fewer defects found among the school population. Three full-time School Nurses, three part-time School Medical Officers and one full-time Dental Officer are responsible for the running of this service in the Borough.

Maternal Health

Four full-time midwives deal with domiciliary midwifery. Ante natal clinics are held twice weekly under the supervision of an obstetrician from the Wolverhampton Hospital Group.

Child Health

Three full-time Health Visitors are employed. Infant Welfare Clinics are held twice weekly at the Centre Health Clinic, Bilston, and twice monthly at John Street Schools, Ettingshall.

District Nursing Service

The County Council employs 4 female and 1 male District Nurses in the area. There is an ever increasing demand for this excellent service.

Ambulance Service

The needs of the district in this respect are met by the County Service from the Darlaston depot.

Domestic Help Service

Like the District Nursing Service there is an increasing demand for this service.

Laboratory Facilities

General Practitioners and the Health Department make use of the facilities available.

Vaccination

Vaccination against Smallpox showed a very marked increase over that for previous years, due to the presence of some cases of this dreaded condition in the Midlands.

A comparison of the following tables for 1961 and 1962 shows the utmost value of a few cases of disease in stimulating the public desire for personal immunity—a much more effective factor than any intensive campaigns or attempts at Health Education.

	1961		1962	
	Males	*Females*	*Males*	*Females*
Initial Vaccination				
Under 15 years	47	62	397	388
15 years and over ..	8	2	287	409
Re-vaccination				
Under 15 years	–	1	35	46
15 years and over ..	7	1	968	734

Immunisation

The figures for the various immunological procedures performed within the Borough during 1962 are shown thus :—

Diphtheria	*Initial Treatment*	*Reinforcing Treatment*
Born 1962	34	–
Born 1961	189	–
Born 1960	26	1
Born 1959	5	–
Born 1958	5	–
Born 1953/57	5	86
Born 1948/52	2	–
Totals	266	87

Whooping Cough	
Born 1962	30
Born 1961	135
Born 1960	13
Born 1959	3
Born 1958	2
Born 1953/1957	4
Born 1948/1952	2
Totals	189

Poliomyelitis

Salk Vaccine	
1st and 2nd Injections—Born 1943/1960 ..	97
1st and 2nd injections—Born before 1943 ..	135
3rd injections —All ages	457
4th injections —All ages	5

Oral Vaccine	
3rd Doses—Born 1943/60	214
Born before 1943	78
Reinforcing Doses after 2 Salk Injections ..	2700
Reinforcing Doses after 3 Salk Injections ..	21

These are satisfactory figures.

Influenza Vaccination

For the third successive year the Corporation offered vaccination against Influenza to both members and employees. Approximately half the individuals concerned availed of the opportunity. The result each year has been a considerable reduction of absenteeism due to Influenza.

Mental Health

Sixty-eight mentally sub-normal children attended the Occupation Centre at 'Innisfallen', King Street, Bradley. Excellent work is being done in leading these children to a better pattern of social behaviour. Periodic medical examinations are carried out by the School Medical Officers.

E. CARE OF THE ELDERLY

Changing age structure of the general population inevitably gives rise to greater problems in the care of the elderly. At present the care of the elderly is carried out by the appropriate Statutory Authorities and by various voluntary organisations, *e.g.*, 'The Senior Citizens Federation' and 'Meals on Wheels' Scheme. These latter organisations play a vital role in the care of the elderly. By and large the town's sons and daughters pay the filial respect and attention that they deserve to their old folk as indicated by the fact, that for the second year in succession it was found unnecessary to use Section 47 of the National Assistance Act, 1948, and its subsequent amendments for the compulsory removal of any aged persons or chronic sick to suitable accommodation.

En passant it must be remarked that excellent liaison exists between the local Health Department and the Geriatric Unit of Burton Road Hospital, Dudley, whose Medical Superintendent is always very helpful in matters concerning Bilston's elderly.

PART II.

SOCIAL AND STATISTICAL INFORMATION

"It is as natural to die as to be born; and to a little infant, perhaps the one is as painful as the other".

—Essays,2. Of Death.
Francis Bacon (1561—1626).

The densely populated, industrial town of Bilston is situated in the South Eastern corner of Staffordshire.

(1) Geographical situation: latitude 52.340 N., longitude 2,400 W.
(2) Elevation 400—525 feet.
(3) Area of Borough : 1,871 acres.
(4) Population :
  (a) Census 1961 33,077
  (b) Registrar General's Estimate for mid-year 1962 33,340
(5) Density of population per acre 18
(6) Number of inhabited houses at 31/12/62 9,132
(7) Rateable Value at 1/4/63 .. .. £1,495,722
(8) Product of 1d. rate 1962/63 .. .. £1,798
(9) The following figures are kindly supplied by the Manager of the Bilston Employment Exchange

Unemployment figures :	*Men*	*Women*
10.12.62 Wholly Unemployed ..	508	129
Short Time Workers ..	221	66

(10) The total number of factories in the town is 186.

TABLE I.

Brass Founders	4
Builders	4
Clothing Manufacturers ..	3
Coal Merchants	3
Engineering	78
Enamellers	3
Food Preparing Premises ..	18
Goods Transport	1
Glassware	1
Holloware	6
Iron and Steel	20
Laundry	1
Miscellaneous	13
Printers	3
Petrol Storage	1
Shoe Repairers	14
Stonemasons	2
Undertakers	1
Woodwork	9
Invalid Carriage Manufacturers..	1

Action taken under Part 1 and Part 8 of the Factories Act, 1961, is tabulated as follows :—

TABLE II

Part 1 of the Act.

Inspections for purposes as to health.

Premises	Number on Register	Number of		
		Inspections	Written Notices	Occupiers Prosecuted
Factories in which Sections 1, 2, 3, 4 and 6 are to be enforced by Local Authorities	17	4	–	–
Factories in which Section 7 only is enforced by the Local Authority	169	14	1	–
Other Premises in which Section 7 is enforced by Local Authority	8	–	–	–

TABLE III

Cases in which defects were found.

Particulars	Found	Remedied	Referred		Number of cases in which prosecutions were instituted
			To H.M. Inspector	By H.M. Inspector	
Want of cleanliness	–	–	–	–	–
Overcrowding ..	–	–	–	–	–
Unreasonable Temperature	–	–	–	–	–
Inadequate Ventilation	–	–	–	–	–
Ineffective drainage of floors	–	–	–	–	–
Sanitary Conveniences unsuitable or defective	3	3	–	3	–
Insufficient	1	1	–	1	–
Not separate for sexes	–	–	–	–	–
Other offences against the Act (Not including offences relating to outwork)	–	–	–	–	–

TABLE IV

Part 8 of the Act.

OUTWORK

(Sections 133 and 134).

Nature of Work	Section 133			Section 134		
	No. of outworkers in list required by Section 133 (1)(c)	No. of cases of default in sending lists to the Council	No. of prosecutions for failure to supply lists	No. of instances of work in unwholesome premises	Notices served	Prosecutions
Wearing Apparel (making, etc.)	1	–	–	–	–	–
Carding, etc. of Buttons, etc.	49	–	–	–	–	–
	50	–	–	–	–	–

Extracts from Vital Statistics

Extracts from Vital Statistics for the Borough during 1962 are given in the following pages, with comments in the appropriate places.

Births

Live Births	*Total*	*Males*	*Females*
Legitimate	605	307	298
Illegitimate	41	20	21
Total ..	646	327	319

An actual increase of 40 live births.

Live Birth Rate per 1,000 population : 19.38

Comparability factor for births : 0.89

Corrected live birth rate : 17.25

There is an increase from last year's figure of 16.14

Still Births

It is noted that there is a slight increase in the still birth rate from 16.56 per 1,000 total live and still births in 1961 to 25.64 in 1962. It will be seen from Table V that the Still Birth Rate for 1961 was the lowest on record for Bilston.

	Total	*Males*	*Females*
Legitimate	15	8	7
Illegitimate	2	2	–
	17	10	7

Still Birth Rate per 1,000 total live and still births : 25.64

TABLE V.

Year	*Still Birth Rate*
1962	25.64
1961	16.56
1960	26.27
1959	22.34
1958	34.77
1957	28.81
1956	27.69
1955	35.23
1954	26.36
1953	24.96

Still Birth Rate

Total Live and Still Births	*Total*	*Males*	*Females*
Legitimate	620	315	305
Illegitimate	43	22	21
Total ..	663	337	326
Infant Deaths			
Legitimate	19	8	11
Illegitimate	1	1	–
	20	9	11

Infant mortality rate per 1,000 live births—total : 30.96
Infant mortality rate per 1,000 live births—legitimate : 31.40
Infant mortality rate per 1,000 live births—illegitimate : 24.39

TABLE VI.

Bilston Infant Mortality Rates over recent years.

1961	19.87
1960	40.28
1959	29.79
1958	20.58
1957	26.17
1956	40.15
1955	27.82
1954	32.5
1953	41.6

A study of Table VI shows the remarkable fluctuations which have occurred in the Infant Mortality Rate over the years. In 1961 the lowest ever rate for Bilston was attained. It was even less than the National figure of 21.4 per 1,000 live births. Although the rate for 1962 is raised it is still far below that of 1960. The 1962 increase must not be regarded as alarming in view of the small series of figures with which we are dealing.

Stillbirth, Neo Natal and Perinatal Rates also show an increase over 1961.

TABLE VII.

INFANT DEATHS DURING 1962

Taken from Death Returns

Date of Death	*Age*	*Sex*	*Cause of Death*
3. 1.62	7 months	Female	1A) Cardiac Failure. B) Broncho Pneumonia.
14. 1.62	4 days	Male	1A) Hepatic Necrosis.
16. 1.62	3 weeks	Female	1A) Cirrhosis Liver. B) Congenital Absence of Gall Bladder. II) Haemorrhage into tissue of leg and small haemorrhage of brain.
24. 1.62	3 months	Male	1A) Broncho Pneumonia and Status Lymphaticus.
19. 3.62	6 hours	Male	1A) Foetal Anoxia. B) Ante Partum Haemorrhage.
1. 4.62	4 months	Female	1A) Right Sided Broncho Pneumonia and Acute Bronchitis. B) Gross Anaemia and Diarrhoea.
7. 4.62	3 hours	Male	1A) Cerebral Haemorrhage. B) Tentorial Tear. II) Prematurity.
11. 4.62	11 hours	Male	1A) Prematurity. B) Placental Insufficiency. C) Essential Hypertension and Pre-Eclamptic Toxaemia.
18. 4.62	6 hours	Female	1A) Prematurity. B) Caesarean Section. C) Severe Pre-Eclamptic Toxaemia.
22. 4.62	7 months	Female	1A) Broncho Pneumonia. II) Congestive Heart Disease.
4. 5.62	7 hours	Female	1A) Prematurity.
4. 5.62	14 hours	Female	1A) Prematurity.
22. 5.62	2 hours	Female	1A) Prematurity.
23. 5.62	16 hours	Female	1A) Prematurity.
26. 7.62	1 day	Male	1A) Atelectasis. II) Prematurity (Birth Weight 2 lbs. 6 ozs.)
8. 9.62	6 months	Male	1A) Broncho Pneumonia.
1.10.62	3 months	Male	1A) Spina Bifida.
1.11.62	2 hours	Female	1A) Atelectasis. B) Prematurity.
13.12.62	2 weeks	Male	1A) Hirschsprungs Disease. II) Colostomy.
22.12.62	6 months	Female	1A) Broncho Pneumonia. II) Mongolism.

Neo Natal Mortality Rate

Deaths of infants under 4 weeks of age per 1,000 live births : 20.12

Illegitimate live births per cent. of total live births : 6.35

Early Neo Natal Mortality Rate

Deaths of infants under 1 week of age per 1,000 total live births : 17.03

Peri Natal Mortality Rate

Stillbirths and Deaths under 1 week combined per 1,000 total live and still births : 42.23

Maternal Mortality (including Abortion)

Number of deaths : 2.

Rate per 1,000 total live and still births : 3.02

Two deaths of Bilston Residents ascribed to pregnancy, childbirth or abortion occurred in 1962.

One 36 year old married woman died in hospital from acute renal failure due to Septicaemia and Pelvic Peritonitis, due to a ruptured uterus from a self-induced attempt at abortion. She was five months pregnant and was already the mother of four children. The other maternal death was a 26 year old Jamaican girl who died in hospital from cardiac arrest following Caesarean Section. This, of course, was an unpreventable and unforeseeable death.

General Deaths

	Total	*Males*	*Females*
Deaths (all causes)	373	190	183
Crude Death Rate per 1,000 population :		11.19	
Comparability Factor for Deaths :		1.44	
Corrected Death Rate :		16.11	

TABLE VIII.

Deaths during 1962 by Age Groups

	Male		*Female*		*Total*	
	1962	1961	1962	1961	1962	1961
0— 4	9	8	15	5	24	13
5—14	2	2	–	1	2	3
15—24	3	3	3	1	6	4
25—44	10	16	11	9	21	25
45—64	72	72	33	23	105	95
65 and over ..	94	85	121	99	215	184
All Deaths	190	186	183	138	373	324

Deaths from Certain Causes

TABLE IX.

	1962	1961
Cardio Vascular Diseases	118	90
Vascular Lesions of the Nervous System ..	52	43
Cancer	60	89
Bronchitis	33	31
Influenza	7	12
Pneumonia	27	19
Pulmonary Tuberculosis	3	2

Causes of Death during 1962 in detail

TABLE X.

Cause of Death	*Males*	*Females*	*Total*
Tuberculosis Respiratory ..	2	1	3
Tuberculosis Other	–	–	–
Syphilitic Diseases	–	–	–
Diphtheria	–	–	–
Whooping Cough	–	–	–
Meningococcal Infections	–	–	–
Acute Poliomyelitis	–	–	–
Measles	–	–	–
Other Infective and Parasitic Diseases	1	–	1
Malignant Neoplasm (Stomach) ..	8	4	12
Malignant Neoplasm (Uterus) ..	–	3	3
Malignant Neoplasm (Breast) ..	–	7	7
Malignant Neoplasm (Lung Bronchus)	9	1	10
Other Malignant and Lymphatic Neoplasms	14	14	28
Leukaemia, Aleukaemia	–	1	1
Diabetes	–	3	3
Vascular Lesions of Nervous System	24	28	52
Coronary Disease, Angina ..	32	20	52
Hypertension with Heart Disease	–	2	2
Other Heart Disease	17	34	51
Other Circulatory Diseases ..	5	8	13
Influenza	5	2	7
Pneumonia	17	10	27
Bronchitis	21	12	33
Other Diseases of Respiratory System	–	1	1
Ulcer of Stomach and Duodenum	4	2	6
Gastritis, Enteritis and Diarrhoea	–	–	–
Nephritis and Nephrosis ..	–	1	1
Hyperplasia of Prostate	1	–	1
Pregnancy, Childbirth, Abortion	–	2	2
Congenital Malformation ..	3	1	4
Other defined or ill-defined diseases	14	19	33
Motor Vehicle Accidents	4	2	6
All Other Accidents	9	4	13
Suicide	–	1	1
Homicide and Operation of War	–	–	–
TOTAL ..	190	183	373

There is an increase of all deaths over 1961 by 49. This increase is more or less counter-balanced by the increase in births. Deaths from all forms of Tuberculosis remain the same at 3. It is satisfactory to note that for the fourth successive year there were no deaths attributable to Acute Infectious Disease.

Deaths from Malignant Diseases show a slight fall for the second successive year—a fact not in keeping with the National experience.

Deaths from Cardio-Vascular Disease have bounded up by 39.

PART III.

EPIDEMIOLOGY

"A plague is a formidable enemy, and is armed with terrors that every man is not sufficiently fortified to resist or prepared to stand the shock against".

—'A Journal of the Plague Year' p. 237, 1.11.
Daniel Defoe. (1660?—1731).

Tuberculosis

It is most gratifying to report that notifications of Pulmonary Tuberculosis have dropped by half from the previous year, only 17 notifications having been received. This is the lowest yet recorded for any year in Bilston. The deaths which occurred from this condition were 'old' cases which had been notified years before. There was a slight increase in notifications of the Non-Pulmonary variety, but as these are in the main non-infectious it is of little significance.

Just under 25% of the notifications occurred among Indian and Pakistani immigrants.

TABLE 1.

Tuberculosis Notifications

Year	*Pulmonary*	*Non-Pulmonary*
1951	54	7
1952	44	3
1953	53	4
1954	57	8
1955	43	1
1956	28	Nil
1957	29	2
1958	22	Nil
1959	27	3
1960	19	1
1961	34	1
1962	17	4

Study of the above shows despite occasional fluctuations the marked downward trend in the incidence of Tuberculosis.

Measles

Only 18 cases of measles were notified during 1962, in marked contrast to the 720 cases of 1961, demonstrating once again the well authenticated cyclical periodicity of measles epidemics. Two cases were admitted to hospital and there were no fatalities.

Scarlet Fever

Seven cases—a reduction of two from the previous year, were notified. One case was admitted to hospital.

Diphtheria

For the fifth successive year no cases of this one-time dread disease occurred in Bilston. This is entirely due to the immunisations carried out by General Practitioners and Local Health Authority personnel.

Whooping Cough

Twenty-one cases of whooping cough—an increase of 15 over the record low figure of 1961—were notified. This is deplorable in this day and age when the disease can be so easily prevented by 3 simple injections. The blame must be laid fairly and squarely upon the apathy of parents who fail to bring their infants for immunisation to either Clinic or Doctor's Surgery.

Acute Anterior Poliomyelitis

One notification was received but was not confirmed subsequently.

Pneumonia

Notifications were received in respect of 6 cases.

Meningococcal Infection

There were no cases notified.

Dysentery and Food Poisoning

Once again 14 cases of Dysentery were notified but on bacteriological examination only 1 was confirmed.

Venereal Diseases

The figures supplied through the courtesy of Dr. Agate, Consultant Venereologist, Wolverhampton Hospital Group, for Bilston residents during 1962, are as follows :—

Total 1962	84
Syphilis	8
Gonorrhoea	20
Non-Venereal	56
Coloured	
Syphilis	5
Gonorrhoea	16
Non-Venereal	17
Whites	
Syphilis	3
Gonorrhoea	4
Non-Venereal	39

It is heartening to note a reduction in the incidence of Syphilis, Gonorrhoea and Non-Venereal conditions.

Scabies

As in 1961 there were no cases of scabies notified.

TABLE 2

Infectious Diseases notified 1962

Disease	Total cases notified	Total cases confirmed	Cases admitted to hospital	Deaths
Scarlet Fever	7	7	1	–
Whooping Cough	21	21	5	–
Acute Anterior Poliomyelitis	1	–	1	–
Measles	18	18	–	–
Diphtheria	–	–	–	–
Dysentery	14	1	–	–
Meningococcal Infection	–	–	–	–
Pneumonia	6	6	3	27
Smallpox	–	–	–	–
Acute Encephalitis	–	–	–	–
Enteric or Typhoid Fever	–	–	–	–
Fever	–	–	–	–
Paratyphoid	–	–	–	–
Erysipelas	–	–	–	–
Food Poisoning	1	–	–	–
Tuberculosis—Respiratory	17	17	6	3
Tuberculosis—Meninges C.N.S.	–	–	–	–
Tuberculosis—Other	4	4	3	–
Puerperal Pyrexia	–	–	–	–
Ophthalmia Neonatorum	1	1	–	–
Total	90	75	19	30
Total cases confirmed during 1960			131	
Total cases confirmed during 1961			797	

TABLE 3

Infectious Diseases—Confirmed. In Wards. 1962

DISEASE	New Town		High Town		Town Hall		Ettingshall		Bradley		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Scarlet Fever	–	–	–	–	2	–	–	–	1	4	3	4
Whooping Cough	1	5	–	1	5	2	–	2	4	1	10	11
Poliomyelitis	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	–	–	–	1	–	–	–	–	–	–	–	1
Meningococcal Infection	–	–	–	–	–	–	–	–	–	–	–	–
Pneumonia	–	–	–	1	2	–	–	–	1	2	3	3
Measles	–	1	1	2	2	2	2	3	2	3	7	11
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–
Food Poisoning	–	–	–	–	–	–	–	–	–	–	–	–
Puerperal Pyrexia	–	–	–	–	–	–	–	–	–	–	–	–
Ophthalmia Neonatorum	–	1	–	–	–	–	–	–	–	–	–	1
TOTALS	1	7	1	5	11	4	2	5	8	10	23	31

TABLE 4

Pulmonary and Non-Pulmonary Tuberculosis Cases notified during 1960 — 1962

	1960		1961		1962		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 1 year ..	–	–	–	–	–	–	–	–
1— 4	–	–	–	–	1	–	1	–
5—14	1	–	2	1	2	1	5	2
15—24	3	2	–	4	1	2	4	8
25—44	4	4	10	8	6	6	20	18
45—64	5	–	8	1	2	–	15	1
65 and over ..	1	–	1	–	–	–	2	–
Age unknown ..	–	–	–	–	–	–	–	–
	14	6	21	14	12	9	47	29

TABLE 5

Deaths from Pulmonary and Non-Pulmonary Tuberculosis during 1960—1962

	1960		1961		1962		TOTAL	
	Male	Female	Male	Female	Male	Female	Male	Female
Under 1 year	—	—	—	—	—	—	—	—
1— 4	—	—	—	—	—	—	—	—
5—14	—	—	—	—	—	—	—	—
15—24	—	—	—	—	—	—	—	—
25—44	—	1	2	—	1	—	3	1
45—64	2	—	1	—	1	1	4	1
65 and over	—	—	—	—	—	—	–	–
	2	1	3	—	2	1	7	2

TABLE 6

Tuberculosis Statistics—Number on Register at 31st December, 1962

		Males	*Females*	*Total*
Pulmonary	Under 1 year	—	—	—
	1 to 5 years	1	—	1
	6 to 15 years	12	11	23
	16 to 25 years	16	27	43
	26 to 45 years	85	101	186
	46 to 65 years	78	21	99
	Over 65 years	16	5	21
	Ages unknown	3	3	6
	Total all ages	211	168	379
Non-Pulmonary	Under 1 year	–	–	–
	1 to 5 years	–	–	–
	6 to 15 years	2	3	5
	16 to 25 years	3	1	4
	26 to 45 years	3	9	12
	46 to 65 years	–	1	1
	Over 65 years	1	–	1
	Total all ages	9	14	23
	Pulmonary all ages	211	168	379
	Non-Pulmonary all ages	9	14	23
	GRAND TOTAL	220	182	402

TABLE 7

Pulmonary Tuberculosis in Wards

1954—62

Year	New Town		High Town		Town Hall		Ettingshall		Bradley		Total	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1954	4	5	3	2	9	7	8	5	5	9	29	28
1955	3	5	7	–	4	11	3	3	8	4	25	23
1956	3	2	1	–	5	5	1	1	4	4	14	12
1957	7	4	2	1	1	6	3	3	2	–	15	14
1958	4	3	2	–	1	3	2	2	4	1	13	9
1959	3	–	2	1	9	4	2	2	5	3	21	10
1960	1	–	3	–	7	1	1	3	6	2	18	6
1961	2	3	4	2	13	3	1	4	–	2	20	14
1962	–	–	1	–	2	4	5	–	2	3	10	7

TABLE 8

Tuberculosis Notifications

YEAR	PULMONARY		NON-PULMONARY		TOTAL	
	Male	Female	Male	Female	Male	Female
1951	33	21	5	2	38	23
1952	17	27	1	2	18	29
1953	32	21	1	3	33	24
1954	29	28	5	3	34	31
1955	25	23	1	–	26	23
1956	14	12	–	–	14	12
1957	21	16	2	1	23	17
1958	13	12	–	–	13	12
1959	21	10	3	–	24	10
1960	18	6	–	1	18	7
1961	20	14	1	–	21	14
1962	10	8	2	2	12	10

Including Inward Transfers.

Smallpox

Although no case of Smallpox occurred in Bilston we were associated with some of the cases which presented themselves in the United Kingdom during late December, 1961, and early January, 1962, especially the West Bromwich case.

This involved a 33 year old Pakistani, Mohammed Siddique AKTAR, who arrived at London Airport at 2.30 p.m. on the 19th December, 1961, by Pakistan Airlines Flight No. 707 (Karachi—Teheran—Beirut—Rome—London). He remained in London that night and on the 20th December he caught the 12.10 p.m. train from Paddington to Snow Hill Station, Birmingham. He stayed in West Bromwich during the nights of the 20th December to the 23rd inclusive, in Dudley from the 24th to 26th and returned to West Bromwich, where he spent the night of the 27th and most of the next day until he was admitted to Moxley Infectious Diseases Hospital from a Tipton General Practitioner's Surgery, at approximately 9.45 p.m. as a suspected case of Smallpox. During his travels in the Midlands he attended a film show organized by the Eastern Film Society, held in the Regal Cinema, Darlaston.

The first intimation that we in Bilston had of the importation of Smallpox, was a telephone call from a Tipton General Practitioner on the evening of Thursday, 28th December, requesting that his wife and family be re-vaccinated, as he had just examined a suspected case in his surgery. On the following day we acceded to his request—he himself having been vaccinated at Moxley Hospital at the time of admission of the patient. On Friday, 29th December, the staff of the Health Department were also re-vaccinated. This was possibly a superfluous precaution, as all members had been re-vaccinated in April, 1961, and each year for the preceding three years.

When the case was definitely confirmed by laboratory tests (as this was a case of Smallpox modified by vaccination it was extremely difficult to make a firm clinical diagnosis) an appeal was delivered by hand to the various Indian houses in Bilston. I am indebted to Mr. Sharma for the Hindustani translation. As a result of this appeal 161 Indians and Pakistanis were vaccinated or re-vaccinated. These were really only remote contacts, but as it was impossible to ascertain who sat in the vicinity of the infected man at the Cinema, it was considered advisable to vaccinate or re-vaccinate all.

These 161 persons had to be kept under daily surveillance for the traditional 21 day period. This tremendous task involved Health Department staff in 2,287 visits. Many of these visits had to be made in the evenings, as most of those under observation were working during the day. This clearly demonstrates the necessity for flexibility in the working hours of a Health Department—a fact frequently stressed by both the Chief Public Health Inspector and myself.

Vaccination was also offered to the staff of the local undertaker, Mr. F. Collins, as these people together with General Practitioners, Public Health, Hospital and Ambulance personnel are the most likely to come into contact with either 'known' or 'missed' cases of Smallpox. Others vaccinated were the staffs and employees of Bilston Corporation; Bilston Clinic; local branches of Ministry of Pensions and National Insurance; National Assistance Board; Police Force; Messrs. Proberts, Coal Merchants; Bilston Laundry; some General Practitioners; two Medical Officers of Health for nearby areas; one School Medical Officer and one Dentist. Mass vaccination was not encouraged.

The Department was also involved in a considerable amount of extra work dealing with miscellaneous 'suspicious' cases notified mainly by General Practitioners but also by Police, teachers and by relatives. Many were seen in consultation with the Practitioners concerned. All were subjected to a careful clinical examination and kept under observation for the requisite periods. The majority of these cases was either Influenza or Chicken Pox. A typical example is the following. A local General Practitioner telephoned one evening to say that he had just seen a seven year old girl, who had a raised temperature and a peculiar spotted rash on the upper and inner aspects of both thighs and whose Grandmother worked at Moxley Hospital. Mr. Tart and I visited immediately and after careful assessment decided that it was not a likely case of early modified Smallpox. However, we vaccinated the family contacts, *i.e.*, parents, younger brother, aunt and grandfather. The grandmother, who worked as a part time cleaner at Moxley Hospital, but who had no contact with the Smallpox ward, had been successfully re-vaccinated within the past 14 days. The parents were advised to remain off work for two days. The Town Clerk approached their employers, who proved very co-operative and agreed to make up the wages for the lost two days. The child was discharged after two days observation, a firm clinical diagnosis of Upper Respiratory Infection associated with Influenza having been then made.

No matter how trivial many of the 'suspicious' cases may appear, such co-operation from General Practitioners, Police, teachers, and private citizens is very welcome.

PART IV

HOUSING

"After me cometh a Builder.
Tell him, I too have known".

—"The Palace"
Rudyard Kipling. 1865—1936.

During the year under review good progress was made in clearing and redeveloping slum areas. The following areas comprising a total of 131 houses were represented for clearance.

SCHEDULE

AREA 108	
JOHN STREET	3, 5, 7, 9, 11, 13, 1 bk. 3, 3 bk. 3, 5 bk. 13, 7 bk. 13, 15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39.
GEORGE STREET	79, 81, 83, 25 bk. 83, 27 bk. 83, 85, 87, 89.
AREA 109	
JOHN STREET	43, 45, 47, 49, 51, 53, 55, 57, 59, 61, 63, 65, 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89, 91, 93, 95, 97, 99, 101, 103, 1 bk. 103, 105, 107, 3 bk. 107, 109, 111, 1 bk. 111, 3 bk. 111, 113, 115, 117, 119, 121, 123, 125, 127, 129, 131, 1 bk. 131, 116, 118.
GEORGE STREET	1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 27, 29, 31, 33, 35, 37, 41, 43, 45, 47, 49, 22 Flat 1, 22 Flat 2, 24, 26, 28.
PUMP STREET	2, 4, 6, 8, 10, 12.
VICTORIA STREET	1, 3, 5, 7, 9, 11, 13, 2.
MATTHEW STREET	1, 3, 5, 7, 9, 11.

Ministerial confirmation in respect of the following areas was received.

AREA 107

WOLVERHAMPTON STREET	149, 151, 153, 155, 157, 159.

Ministerial confirmation is still awaited for Areas 91 to 106 which were represented in 1961. These areas contain a total of 127 houses.

One hundred and eight municipal houses were erected and 101 unfit houses were closed or demolished during the year.

Applicants for municipal houses are at present being rehoused in the ratio of 2 : 1 from Slum Clearance and from the 'Points' List.

Houses closed or demolished since the War

	Year	*Total*
War to	1947	50
	1948	46
	1949	21
	1950	30
	1951	108
	1952	93
	1953	120
	1954	64
	1955	54
	1956	94
	1957	191
	1958	183
	1959	126
	1960	90
	1961	63
	1962	101
		1,434

PART V

SANITARY CIRCUMSTANCES OF THE AREA

"Forget six counties overhung with smoke,
Forget the snorting steam and piston stroke,
Forget the spreading of the hideous town;
Think rather of the pack-horse on the down,
And dream of London, small and white and clean,
The clear Thames bordered by its gardens green".

—"The Earthly Paradise
Prologue. The Wanderers". I.i.

William Morris. 1834—1896.

Water

The Wolverhampton Corporation Water Undertaking is responsible for the Bilston water supply following the Wolverhampton Water Order, 1958. Mr. W. C. Johnson, M.I.C.E., the Wolverhampton Water Engineer, has very kindly supplied the following information.

ANNUAL REPORT ON THE WATER SUPPLY

The following information is in respect of the area administered by the Bilston Borough Council, for the year ended 31st December, 1962.

CONTENTS

1. INTRODUCTION

1.1 General Review

In the year 1962 the major part of the transition has taken place towards a water examination policy based on the full scale recommended for public supplies by The World Health Organisation in their publication "International Standards for Drinking Water".

Bacteriological examination is now up to the required standard, apart from two stations where it is not yet possible to take both raw and treated water at the same time. Routine biological examination is now carried out on the full scale appropriate to the size of the Undertaking and routine radiological examination commenced in the last quarter of the year. Only the full chemical analysis of the sources of supply now remains to be incorporated into the new scheme of water examination. These full chemical analyses have not been carried out since 1960, pending the reorganisation of equipment and staff necessitated by the change-over to the new schedule. The reorganisation is now complete and full chemical analyses are planned for 1963.

The increased scope and volume of water examination work is apparent from table 1.3 below.

1.2 Number of Samples Examined in 1962

Bacteriological		
Water before and during treatment	851	
Water leaving works	699	
Water in distribution system	414	
Miscellaneous samples	306	
TOTAL	—	2270
Chemical		
Cosford—sanitary analyses..	176	
Distribution system—mineral analyses	254	
Stableford—quarterly mineral analyses	10	
Full Chemical analyses (new works)	2	
Miscellaneous samples	135	
TOTAL	—	577

Biological

Cosford and Tettenhall—algal counts	181	
Distribution system—examinations	125	
Miscellaneous samples	17	
TOTAL	—	323

Radiological

Cosford—River Worfe raw water	16	
Tettenhall—reservoir water	16	
Rain water	24	
Boreholes	19	
Miscellaneous samples	1	
TOTAL	—	76
GRAND TOTAL		3246

1.3 Number of Samples—Annual Comparison

Year ending	31.3.59	31.3.60	31.3.61	31.3.62	31.12.62
Bacteriological ..	1705	2048	1882	2082	2270
Chemical	201	125	140	379	577
Biological	–	–	–	101	323
Radiological	–	–	–	–	76
TOTAL	1906	2173	2022	2562	3246

2. BACTERIOLOGICAL EXAMINATIONS

2.1 Sampling Scheme

The sampling scheme was continued on the same general lines as in previous years but with increased frequency in certain cases. All waters going into supply are now sampled twice weekly, except for Rindleford. Where adequate contact time exists for sterilisation, the raw water is sampled weekly; in other cases it is sampled twice weekly. Exceptions are Bratch, where it is not yet possible to sample the raw water, and Rindleford, where treatment is suspended one day a week until after the sample has been taken.

All reservoirs, tanks, re-pumping stations and mains (mostly end-hydrants) are sampled on a 3-weekly rota.

2.2 **Quality of Water**

Apart from one spurious count of *Klebsiella Aerogenes* from Cosford, the only samples of water leaving the works in which coliform organisms were found were from Tettenhall. In each case the organism was *Escherichia Coli* type I. The same organism was found in two reservoir samples. Of the five mains samples containing coliform organisms, one contained *E. Coli* I and four *Citrobacter Freundii* type I. These results are regarded as conforming to a satisfactory standard of quality.

In one sample of raw water from Dimmingsdale boreholes, *Escherichia paracoli* was found; and from Stableford boreholes two samples contained *E. Coli* type II and one *Klebsiella Cloacae*. The quality of the River Worfe raw water was not significantly different from former years.

Of the 300 samples from new mains, 83 per cent were passed as satisfactory, the same proportion as last year.

The full table of results appears in the following section 2.3.

2.3 Results of Bacteriological Examinations

Source of Supply	No. of Samples Taken	No. of Samples containing 0	1–2	3–10	Over 10
		coliform organisms per 100 ml			
(1) Water going into distribution from Works					
Cosford Works	102	101	0	0	1
Tettenhall Works	201	197	3	0	1
Dimmingsdale Works ..	79	79	0	0	0
Hilton Works	99	99	0	0	0
Bratch Works	77	77	0	0	0
Tom Hill Works	78	78	0	0	0
Rindleford Works (untreated)	49	49	0	0	0
Neachley Works	14	14	0	0	0
Total	699	694	3	0	2
(2) Water from Distribution System					
Reservoirs :					
Tettenhall	32	30	1	1	0
Goldthorn Hill	14	14	0	0	0
Bushbury Hill	16	16	0	0	0
Coton Road	34	33	1	0	0
Woodcross	15	15	0	0	0
Hermitage	31	31	0	0	0
Hundred Hill	16	16	0	0	0
Elevated Tanks :					
Essington	16	16	0	0	0
Bishops Wood	9	9	0	0	0
Gough Road, Coseley ..	16	16	0	0	0
Re-pumping Stations :					
Goldthorn Hill	16	16	0	0	0
Sandbeds	16	16	0	0	0
Millfields	16	16	0	0	0
Linthouses	3	3	0	0	0
Salop Street, Bridgnorth	16	16	0	0	0
Kiddemore Green ..	8	8	0	0	0
Mains					
Hydrants	135	130	2	1	2
Domestic Taps	5	5	0	0	0
Total	414	406	4	2	2

Source of Supply	No. of Samples Taken	No. of Samples containing 0	1–2	3–10	Over 10
		coliform organisms per 100 ml.			
(3) Water Before and During Treatment					
Cosford :					
River Worfe raw water ..	47		See below		
Settled water	47	46	1	0	0
Filtered water	47	46	1	0	0
Well water	52	52	0	0	0
Tettenhall :					
No. 1 Borehole	53	53	0	0	0
No. 2 Borehole	52	52	0	0	0
Dimmingsdale :					
No. 1 Borehole	47	47	0	0	0
No. 2 Borehole	45	44	1	0	0
No. 3 Borehole	51	51	0	0	0
Hilton :					
No. 1 Borehole	20	20	0	0	0
No. 2 Borehole	80	80	0	0	0
Stableford :					
No. 1 Borehole	41	41	0	0	0
No. 2 Borehole	31	30	1	0	0
No. 3 Borehole	39	37	2	0	0
No. 4 Borehole	50	50	0	0	0
Tom Hill :					
Borehole	76	76	0	0	0
Copley :					
Trial Borehole	33	33	0	0	0
Main Borehole	18	18	0	0	0
Neachley :					
No. 1 Borehole	12	12	0	0	0
No. 2 Borehole	10	10	0	0	0
Total	851				

COSFORD — RIVER WORFE RAW WATER

	Organisms per 100 ml. Median	Average
Presumptive Coliform Organisms ..	750	1390
Escherichia Coli Type I	375	770

(4) Miscellaneous Samples

New and Repaired Mains	300
Sundry	6
Total	306

3. CHEMICAL EXAMINATIONS

3.1 Sampling Scheme

Samples from Cosford Works are taken weekly from the raw river water; water after settling but before filtration; water after filtration; and finished water going into supply; and submitted to sanitary analysis. The results provide valuable information on the river water quality, the performance of the treatment plant and the sanitary quality of the finished water.

Samples are also taken weekly from the distribution system, on the same rota as that for the distribution bacteriological samples, for mineral analysis. The objects are to provide an up-to-date knowledge of the mineral analysis of water in distribution; to determine the extent of variation in mineral composition from time to time and from district to district; to discover the proportion of water from various sources in a mixed supply; and to answer numerous enquiries from consumers for details of the mineral analysis, particularly hardness, in their particular districts.

Mineral analysis of Stableford borehole water is carried out quarterly. Among the miscellaneous analyses were a number from the new boreholes at Neachley, and many in connection with waste detection.

Full chemical analyses of the individual sources of supply were not performed in 1962.

3.2 Cosford Works—Sanitary Analyses

3.2.1. General Notes

The complete analysis comprises the following tests :— Turbidity, pH, colour, electrical conductivity, nitrate, nitrite, free and saline nitrogen, albuminoid nitrogen, oxygen absorbed from potassium permanganate in three hours at 37°C.

Of the above tests, only those are reported in the following table (section 3.2.2) that convey information concerning the plant performance or the seasonal variation in sanitary quality. The other tests (ph, colour, conductivity and nitrite) are of less general interest but the results are always available on application.

Treatment consists of pre-chlorination, coagulation with aluminium sulphate, settlement, rapid gravity filtration, super-chlorination of the mixed filtered and well water, followed by terminal de-chlorination to an automatically controlled free chlorine residual. The delivery main samples therefore contain river-derived water and well water, in roughly equal proportions.

Results follow in sections 3.2.2.

3.2.2. **Cosford Works—Results of Sanitary Analyses**

Monthly averages, in milligrams per litre unless otherwise stated.

Source of Sample	Month	No. of Samples	Turbidity units	Nitrate N	Free & Saline N	Albu-minoid N	Oxygen Absorbed from KMn04
River Worfe raw water	Jan.	1	32	6.5	0.34	0.31	5.10
	Feb.	2	24	7.5	0.17	0.19	3.15
	Mar.	4	14	9.0	0.11	0.14	2.40
	Apr.	3	21	6.0	0.09	0.25	3.35
	May	5	17	4.8	0.029	0.23	3.50
	June	4	12	5.2	0.045	0.22	2.70
	July	4	12	5.0	0.057	0.25	2.70
	Aug.	5	16	3.8	0.035	0.26	3.65
	Sept.	4	20	4.4	0.060	0.23	4.45
	Oct.	4	15	5.4	0.023	0.13	3.00
	Nov.	5	12	5.9	0.09	0.15	3.16
	Dec.	3	22	5.9	0.30	0.21	4.25
Settled water before filtration	Jan.	1	15	6.5	0.35	0.20	2.90
	Feb.	2	15	10.0	0.20	0.13	2.20
	Mar.	4	13	9.0	0.13	0.12	1.80
	Apr.	3	10	7.2	0.040	0.16	2.30
	May	5	5.1	4.7	0.028	0.17	1.65
	June	4	5.1	5.0	0.023	0.14	1.70
	July	4	3.7	4.6	0.034	0.13	1.60
	Aug.	5	4.1	3.8	0.020	0.15	1.90
	Sept.	4	6.4	4.5	0.042	0.15	2.15
	Oct.	4	7.3	5.3	0.012	0.10	2.00
	Nov.	5	9.2	5.8	0.12	0.11	2.30
	Dec.	3	15	6.1	0.33	0.14	2.50
Water after filtration	Jan.	1	1.0	6.5	0.35	0.14	2.45
	Feb.	2	2.2	7.0	0.18	0.12	1.25
	Mar.	4	1.8	8.5	0.12	0.060	1.10
	Apr.	3	1.2	6.5	0.034	0.11	1.40
	May	5	0.9	4.1	0.022	0.12	1.20
	June	4	0.7	4.5	0.010	0.11	0.85
	July	4	0.8	4.6	0.027	0.09	1.10
	Aug.	5	–	3.8	0.020	0.10	1.35
	Sept.	4	1.0	4.3	0.047	0.11	1.50
	Oct.	4	0.9	5.1	0.008	0.07	1.35
	Nov.	5	1.0	5.6	0.11	0.08	1.45
	Dec.	3	1.1	6.1	0.31	0.11	1.50
Water going into supply	Jan.	1	0.5	8.5	0.062	0.060	1.55
	Feb.	2	0.5	6.0	0.019	0.012	0.65
	Mar.	4	1.2	7.5	0.016	0.053	0.55
	Apr.	3	1.1	7.3	0.025	0.053	0.70
	May	5	0.7	3.8	0.017	0.054	0.65
	June	4	0.5	4.2	0.009	0.062	0.50
	July	4	0.4	4.3	0.008	0.044	0.55
	Aug.	5	–	3.8	0.005	0.038	0.65
	Sept.	4	0.5	3.8	0.006	0.032	0.70
	Oct.	4	0.4	5.1	0.002	0.032	0.70
	Nov.	5	0.5	5.0	0.007	0.029	0.65
	Dec.	3	0.7	5.2	0.005	0.031	0.65

3.3 Distribution System—mineral analyses

3.3.1 General Notes

The complete analysis comprises the following tests :— pH, electrical conductivity, total hardness, calcium, magnesium, sodium, potassium, alkalinity (carbonate hardness) and chloride. The anion balance, expressed in milli-equivalents, is recorded as sulphate plus nitrate.

Of the above tests, those of most general interest to consumers are total hardness and chloride, and only these appear in the table in section 3.3.3, which gives the ranges of values for parts of each administrative area. Full details for any particular area may be obtained on application.

In addition to hardness and chloride, sodium and alkalinity have been reported in table 3.3.2, which gives the maximum and minimum values of these four constituents for each of the reservoirs, tanks, and re-pumping stations supplying water from mixed or variable sources. Other service reservoirs and other installations not included are Hermitage Reservoirs, Hundred Hill Reservoir and Salop Street (Bridgnorth) re-pumping station, all of which supply only Rindleford water.

Only the extreme values are shown in the tables, since it is these rather than averages, that are of interest to consumers.

Results follow in tables 3.3.2 and 3.3.3.

3.3.2 Distribution System—Mineral Analyses—Reservoirs, etc.

Maximum and minimum results for total hardness, sodium, alkalinity (*i.e.*, carbonate hardness) and chlorine. Results in mg. per litre.

Source of Sample	Number of Samples	Total Hardness		Sodium (as Na)		Alkalinity (as CaC03)		Chloride (as Cl)	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Tettenhall									
No. 1 Reservoir ..	21	224	386	16	98	151	171	32	256
No. 2 Reservoir ..	19	223	376	15	91	151	168	30	235
Bushbury Hill									
Reservoir	12	229	358	14	73	160	173	30	194
Woodcross Reservoir ..	10	256	300	13	33	187	193	33	86
Coton Road									
No. 1 Reservoir ..	8	214	274	10	16	134	184	22	27
No. 2 Reservoir ..	8	169	238	10	16	104	157	24	26
Goldthorn Hill									
No. 2 Reservoir ..	5	254	274	18	25	190	193	46	59
Re-pumping Station ..	9	252	317	12	47	179	194	25	121
Sandbeds									
Re-pumping Station ..	11	257	283	16	32	175	200	44	70
Millfields									
Re-pumping Station ..	11	142	232	11	17	110	160	25	34
Kiddemore Green									
Re-pumping Station ..	2	366	367	75	91	160	161	219	228
Bishops Wood									
Tank	4	273	334	25	54	177	199	54	163
Essington									
Tank	12	236	363	14	80	160	169	31	214
Gough Road									
Tank	9	150	232	11	16	118	144	25	35

3.3.3 Distribution System—Mineral Analysis by Districts

Ranges of Hardness and Chloride in those parts of the various local authority areas supplied by the Wolverhampton Corporation Water Undertaking.

District	HARDNESS		CHLORIDE (as Cl) mg. per litre
	mg. per litre	Degrees	
BILSTON, Borough			
Millfields, Bradley, Moxley ..	180 — 220	13 — 15	20 — 40
Remainder of area	250 — 300	17 — 21	40 — 80
BRIDGNORTH, Borough			
Bridgnorth town	360 — 420	25 — 30	400 — 500
BRIDGNORTH, Rural District			
R.A.F. Station, Bridgnorth ..	360 — 420	25 — 30	400 — 500
Wooton	20 — 30	1 — 2	10
Remainder of supply area ..	250 — 280	17 — 20	45 — 75
CANNOCK, Rural District			
Wheaton Aston, Bishops Wood, Essington, Lapley, Stretton, Brewood	220 — 380	15 — 27	40 — 250
Featherstone, Shareshill	190 — 220	13 — 15	150 — 200
COSELEY, Urban District			
Ettingshall, Daisy Bank ..	180 — 220	13 — 15	20 — 40
Remainder of supply area ..	250 — 300	17 — 21	20 — 80
DARLASTON, Urban District			
Bentley	250 — 300	17 — 21	40 — 80
SEDGLEY, Urban District			
Goldthorn Park	250 — 300	17 — 21	20 — 80
SEISDON, Rural District			
Seisdon, Trysull, Wombourn, Swindon	90 — 110	6 — 8	20 — 35
Orton	220 — 250	15 — 17	20 — 30
Lower Penn, Pattingham ..	260 — 280	18 — 20	18 — 30
Codsall, Oaken, Bilbrook, Wrottesley	220 — 380	15 — 27	40 — 250
Himley	150 — 180	10 — 13	20 — 30
SHIFNAL, Rural District			
Albrighton, Donington	250 — 280	17 — 20	40 — 50
TETTENHALL, Urban District			
Tettenhall, Compton	220 — 380	15 — 27	20 — 250
WALSALL, County Borough			
Small area adjoining Darlaston	250 — 300	17 — 21	40 — 80
WEDNESFIELD, Urban District			
Wednesfield	190 — 380	13 — 27	20 — 250
WILLENHALL, Urban District			
Willenhall	250 — 300	17 — 21	40 — 80
WOLVERHAMPTON, C'ty B'ough			
Merridale, Oxbarn, Penn, Blakenhall, Parkfield and Bushbury Wards	250 — 300	17 — 21	20 — 80
Remainder of area	220 — 380	15 — 27	20 — 250

4. BIOLOGICAL EXAMINATIONS

4.1 Sampling Scheme

Weekly samples are taken from the raw river water and the water leaving Cosford Works, and from the two open reservoirs at Tettenhall, and examined quantitatively for algae. The results show the seasonal variation in both number and species, and the efficacy of the treatment process at Cosford. Results for Tettenhall Reservoirs show to what extent re-infestation by algae takes place in treated water in these open service reservoirs, which during summer months are dosed with copper sulphate as an algicide.

Weekly samples are also taken from the distribution system, mainly from hydrants, on an eight-week rota, and subjected to qualitative examinations with a view to detecting and eliminating biological infestations before they give rise to consumers' complaints. Several instances of biological infestation were in fact dealt with as a result of these examinations.

In addition, a number of miscellaneous examinations were carried out.

4.2 Cosford and Tettenhall—Algal Counts

4.2.1 General Notes

The counts, expressed in number of cells per ml., are analysed into four main classes, as follows :

CHLOROPHYCEAE	—	Those flagellate forms possessing chlorophyll, and all green algae.
BACILLARIOPHYCEAE	—	The diatoms.
XANTHOPHYTA	—	The yellow, yellow-brown and yellow-green algae, plus the PERIDINAE.
MYXOPHYCEAE	—	The blue-green algae.

BIOLOGICAL EXAMINATION

4.2 **Cosford and Tettenhall**—Algal Counts.

4.2.2 **RESULTS**

Average numbers of cells per ml.

	Jan.	Feb.	Mar	Apl.	May	June	July	Aug	Sep.	Oct.	Nov	Dec.
Cosford — River Worfe												
Number of samples ..	2	4	4	4	4	5	4	5	4	4	5	3
Chlorophyceae.. ..	507	500	520	360	360	416	1051	1922	447	61	29	43
Bacillariophyceae ..	507	1940	2300	4450	1928	2226	647	3164	625	116	160	128
Xanthophyta	213	1080	260	180	400	32	58	209	28	20	11	10
Myxophyceae	53	0	0	0	20	0	0	96	39	6	2	0
Total	1280	3520	3080	4990	2708	2674	1756	5391	1139	203	202	171
Cosford – Delivery Main												
Number of samples ..	0	0	0	0	4	5	4	5	4	4	5	3
Chlorophyceae ..					7	4	6	5	3	0.3	0.3	0.5
Bacillariophyceae ..					9.5	3	1	2	2	0.7	0.9	0.1
Xanthophyta					0	0	0.5	1	1	0.2	0.4	0.7
Myxophyceae					1.5	0	0.5	3	6	0.1	0.1	0.1
Total					18	7	8	11	12	1.3	1.7	1.4
Tettenhall No. 1 Reservoir												
Number of samples ..	2	4	4	4	4	4	4	5	4	4	5	3
Chlorophyceae.. ..	1	3.5	8	5	5	4	5	4	3	1.0	2.1	0.7
Bacillariophyceae ..	13	13	25	14	8	5	7	7	3.5	1.6	5.2	3.0
Xanthophyta	1	2	3	1	1	0	0.5	1	0.5	0.7	0.7	0.5
Myxophyceae	1	0	0	0	0	1	0.5	1	1.5	0.1	0.1	0.2
Total	16	18	36	20	14	10	13	13	8	3.4	8.1	4.4
Tettenhall No. 2 Reservoir												
Number of samples ..	2	4	4	4	4	4	4	5	4	4	5	3
Chlorophyceae.. ..	10	13	14	17	24	16	10.5	15	12	2.2	3.5	1.6
Bacillariophyceae ..	12	13	16	8	7	11	6	8	8	3.8	4.6	2.0
Xanthophyta	3	4	3	1	0.5	0.5	0	1	0.5	0.8	0.7	0.6
Myxophyceae	1	0	0	0.5	0	0	0.5	1	1.5	0.3	0.1	0
Total	26	30	33	26	31	27	17	25	22	7.1	8.9	4.2

4.3 Distribution System—Examinations

4.3.1 General Notes

The number of samples from the river and plant at Cosford, and from the reservoirs, does not include the quantitative samples listed in section 4.2.2.

4.3.2 Results

Organisms	Number of samples containing Organisms				
	Cosford Plant	Works River	Reservoirs	Pumps & Tanks	Mains
Algae					
Chlorophyceae (green)	8	8	14	14	48
Bacillariophyceae (Diatoms) ..	7	7	13	10	40
Xanthophyta (yellow)	5	3	5	6	28
Myxophyceae (blue-green) ..	1	3	2	2	4
Fungi	–	2	–	–	3
Bryophyta (mosses)	–	2	–	–	–
Pteridophyta (ferns)	–	–	1	–	–
Gymno- and Angiospermae (Tissue of flowering plants) ..	–	5	6	9	24
Protozoa					
Mastigophora (flagellates) ..	–	2	3	7	25
Rhizopoda (amoebae)	1	3	2	3	3
Ciliophora (ciliates)	–	2	1	1	3
Encysted Forms	2	–	2	2	7
Porifera (sponges)	1	–	–	–	1
Coelenterata (hydra spp.) ..	–	1	–	–	–
Platyhelminthes (flat worms)					
Turbellaria	–	1	–	–	–
Nematoda (thread worms) ..	2	–	–	1	9
Rotifera	–	3	2	3	10
Annelida					
Oligochaetae (worms)	–	5	–	–	–
Hirudinea (leeches)	–	2	–	–	–
Crustacea					
Organism	2	4	–	–	4
Fragments	–	1	1	–	2
Insecta					
Larvae	–	4	–	–	–
Adult	–	1	–	–	–
Fragments	–	–	1	–	3
Arachnida					
Acari (water mites)	–	1	–	–	–
Mollusca	1	1	–	–	–
Number of samples examined ..	9	10	21	23	71

5. RADIOLOGICAL EXAMINATIONS

5.1 Sampling Scheme

Routine testing for beta-radioactivity commenced in September, 1962.

Daily samples are taken from the water supplies exposed to the atmosphere, namely, the River Worfe at Cosford and the two reservoirs at Tettenhall. The daily samples are bulked and the composite samples examined weekly. Rain water, collected in the rain gauge at Cosford, is also examined. The borehole supplies are also examined on a quarterly basis, but insufficient results have been obtained as yet to calculate averages.

The examination is for total beta-radioactivity, measured by a counter calibrated with potassium chloride. Allowance is made for activity due to natural potassium in the sample, and the difference represents activity due partly to other naturally occurring radioactive elements and partly to radioactive fallout from the atmosphere.

In the case of rain water, all the activity is due to fallout but in borehole waters it is due predominantly to naturally occurring radioactive elements.

Results are given in pico-curies per litre.
(1 pico-curie = 1 micro-micro-curie = 10–12 curie).

5.2 Results

Monthly averages of beta-radioactivity in pico-curies per litre.

Month	COSFORD River Worfe		TETTENHALL Reservoirs		RAINFALL
	Total	Other than Potassium	Total	Other than Potassium	Total
September	18	14	10	6	890
October	13	10	9	5	700
November	20	16	10	6	680
December	20	15	12	8	970
Average September–December	18	14	10	6	810

Of the activity other than potassium, all but approximately 2 pico-curies per litre may be attributed to fall-out. The whole of the rain water activity is due to fall-out.

In the river and reservoir samples, the level of beta-radioactivity is within the tolerance limits set by the Medical Research Council.

Sewage

I am indebted to Mr. A. F. B. Sidwick, the Borough Engineer and Surveyor for the following report.

The sewage disposal works are situated at the Lunt Road, Bilston and deal with the flow of sewage from the whole of the Borough, together with 1,663 acres of the northern part of the Coseley Urban District and also parts of the adjoining areas of Wolverhampton, Willenhall and Darlaston, a total of 3,588 acres.

The system of disposal is precipitation followed by continuous filteration ; the sludge from the tanks gravitates to a well from which it is pumped to lagoons.

The Disposal works were first constructed in 1905. The works were extended in 1924 and again in 1929 to provide additional capacity for the reception and treatment of sewage from a part of the Coseley Urban District which now contains approximately 6,590 houses with numerous industrial and other premises.

All major units of the works are heavily overloaded and schemes for improvements and extensions have been under consideration by the Council.

Discussions have taken place with the Willenhall Urban District Council on proposals for (a) independent schemes for improving the Bilston and Willenhall Sewage Disposal Works, (b) a combined treatment works at Willenhall and (c) a 'modified combined' scheme at Willenhall to deal with so much sewage of Bilston as is in excess of the capacity of the Corporation's existing disposal works.

The Corporation have agreed to adopt the proposed 'modified combined' scheme and discussions are proceeding with the County Council with a view to submitting the scheme to the Ministry for approval.

Drains and Water Closets

1,090 choked drains and water closets were cleansed by the Health Department Staff.

In accordance with the Public Health Officers' Regulations, 1959, Article 25(20) (S.R.&O.) 1959, No. 962, the following tabular statement has been submitted by the Chief Public Health Inspector.

(*a*) INSPECTIONS *Nature of Inspection*	*1st Inspections*	*Re-Inspections*	*Total*
Dwelling Houses			
Inspections—Routine	194	132	326
Complaints	377	401	778
Dirty Condition	24	18	42
Rent Act, 1957	2	6	8
Disinfected	4	–	4
Disinfested	68	–	68
Rodent Control	211	520	731
Infectious Disease	1985	38	2023
Disinfestation—Visits	90	14	104
Removals	163	–	163
Slum Clearance	138	9	147
Inspections—Miscellaneous	206	25	231
Overcrowding	23	–	23
Waste Water Closets	1	1	2
Other Premises			
Houses let in lodgings	16	7	23
Tents, Vans, Sheds, Sites	36	13	49
Factories—Mechanical Power	12	2	14
No Power	2	2	4
Workplaces—Ordinary	–	–	–
Outworkers	1	–	1
Slaughterhouses—Inspected	15	8	23
Meat Inspection	591	3	594
Public Conveniences	2	–	2
Visits to Canals	–	–	–
Stables	–	–	–
Premises re Fowl, Swine, etc.	3	1	4
Premises re Offensive Accumulation	13	7	20
Drains—Inspected	132	58	190
Colour Tested	24	1	25
Water Tested	2	–	2
Grenade Tested	5	1	6
Smoke Tested	1	–	1
Sewers—Inspected	7	5	12
Street Gullies	31	–	31
Smoke Observations	10	2	12
Visits to Plant, etc.	4	1	5
Water Samples—Chemical	–	–	–
Smoke Measurement	96	–	96
Pet Animals Act, 1951	18	–	18
Cleansing Visits	2	–	2
Miscellaneous Visits	356	37	393
Rodent Control	43	115	158
Disinfested	6	–	6

	1*st* Inspections	2*nd* Inspections	*Total*
Food Hygiene Regulations			
Cafes, Restaurants and Kitchens	17	18	35
Works Canteens and Kitchens ..	4	–	4
School Canteens	1	–	1
Fried Fish Shops	10	6	16
Market—Food Stalls	28	–	28
Visits	11	1	12
Shops—Meat	38	5	43
Food	129	23	152
Others	3	–	3
Mobile	34	–	34
Other Food Stalls and Carts ..	4	3	7
Public Houses	5	2	7
Bakehouses	5	4	9
Ice Cream—Retailers	13	1	14
Manufacturers ..	10	1	11
Samples	64	–	64

(*b*) NOTICES

Informal Notices Issued	200
Informal Notices Complied	204
Statutory Notices—Section 92–93	
Public Health Act, 1936—Issued	9
Complied ..	9

(c) IMPROVEMENTS MADE AS A RESULT OF THE SERVICE OF INFORMAL OR STATUTORY NOTICES

Dwelling Houses	*By Notice*	*Without Notice*	*Total*
Internal Rooms			
New Windows Provided ..	1	3	4
Old Windows Repaired ..	24	–	24
Window Cords Renewed ..	10	–	10
Dampness in Walls Remedied ..	2	1	3
Plaster of Walls Repaired ..	8	7	15
Plaster of Ceilings Repaired ..	4	5	9
Floors Repaired	4	2	6
Old Fireplaces Repaired ..	–	2	2
Doors Repaired	3	–	3
New Fireplaces Provided ..	1	–	1
Staircases			
Steps Provided or Repaired ..	1	–	1
Plaster or Ceilings Repaired ..	–	–	–
Sculleries and Wash Houses			
Windows Repaired	–	–	–
Window Cords Renewed ..	–	–	–
New Sinks Provided	1	–	1
Water Service Pipes Repaired ..	–	–	–
Waste Pipes Repaired or Renewed	1	–	1
Waste Pipes Trapped	–	–	–
Floors Repaired	1	–	1
Doors Repaired	–	–	–
Roofs Repaired	–	–	–
New Windows Provided ..	–	–	–
Ventilation Improved	–	–	–
Plaster of Walls Repaired ..	1	–	1
Plaster of Ceilings Repaired ..	–	1	1
Cellars			
Floors Repaired	–	–	–
Drainage Provided	–	–	–
Doors Repaired	–	–	–
External			
Roofs Repaired	34	17	51
Eaves Spouts Repaired or Provided	16	4	20
Down Spouts Repaired or Provided	4	3	7
Down Spouts Disconnected from Drain	–	–	–

	By Notice	Without Notice	Total
External *Cont.*			
Walls Repaired and/or Repointed	7	10	17
Chimney Stacks Repaired and/or Repointed	10	13	23
Doors Repaired	2	2	4
Steps Repaired	–	–	–
New Chimney Pot Provided ..	–	–	–
Under Floor Ventilation ..	–	–	–
General			
Yards Paved	–	–	–
Yard Paving or Surfaces Repaired	5	1	6
Yard Drainage Installed ..	2	–	2
Water Supply Restored	–	–	–
Outbuildings			
Coal Stores			
Roofs Repaired	1	–	1
Doors Repaired	–	–	–
Water Closets			
Roofs Repaired	1	–	1
Eaves Spouts Provided and/or Repaired	–	–	–
Walls Repaired or Repointed ..	2	–	2
Doors Repaired	–	–	–
New Cistern Fixed or Repaired	16	2	18
New Pedestals and Seat Repaired or Provided	9	4	13
Soil Pipes Repaired	3	2	5
Water Supply Provided, Pipes Repaired	7	2	9
New Water Closet Provided ..	1	–	1
Water Supply Renewed	3	1	4
Drains			
Repaired or Relaid	22	6	28
Cleansed	14	9	23
Inspection Chambers Built or Repaired	6	4	10
Self Cleansing Gullies Provided	1	–	1
New Inspection Chamber Covers Provided	–	–	–
New Drains Laid	–	–	–
Disconnected from Sewer ..	1	–	1
Ventilated	–	1	1

	By Notice	*Without Notice*	*Total*
Ashbins			
Renewals	–	546	546
Provided for New Houses ..	–	73	73
Bin Sales	–	30	30
Infested Premises			
Freed from Vermin	–	–	–
Offensive Accumulations			
Removed	2	2	4
Animals so kept as a Nuisance			
Nuisance Abated	–	3	3
Smoke Observation			
Nuisance Abated	1	–	1
Additions to Plant or Improvements	–	–	–
Slaughterhouses			
Lighting/Ventilation Improved	2	–	2
Walls Repaired/Rendered Impervious	2	–	2
Cleansed/Limewashed	2	–	2
Tents, Vans, Sheds and Sites			
Sites Improved	–	1	1
Factories—Mechanical Power			
Noise Abatement	–	1	1
Conveniences Cleansed and/or Limewashed	–	1	1
Factories—No Power			
Conveniences Cleansed and/or Limewashed	–	1	1
Conveniences, Other Improvements	–	1	1
Food Shops			
Improvements under Food Hygiene Regulations	4	16	20
Outside Display Improved ..	–	–	–
Wash Hand Basins Provided ..	–	–	–
Redecoration	–	–	–
Clean Towels, Soap, etc., Provided	–	–	–
Hot Water Provided	–	–	–

	By Notice	*Without Notice*	*Total*
Food Shops *Cont.*			
Sink Provided	–	–	–
First Aid Equipment Provided	–	–	–
Counter Re-covered or Renewed	–	–	–
Internal Display Improved ..	–	–	–
Shops			
Improvements under Shops Acts	2	–	2
Fried Fish Shops			
Other Improvements	–	3	3
Accumulations Removed ..	–	1	1
Other Food Premises			
Cleansed—Limewashed	1	1	2
Structural Improvements ..	4	–	4
Hot and/or Cold Water Provided or Improved	1	1	2
Drainage Provided or Improved	–	–	–
Wash Hand Basins Fitted ..	–	–	–
Sinks Provided	–	–	–
Nailbrushes Provided	–	–	–
Ventilation Improved	–	–	–
Counter Display Improved ..	–	–	–
First Aid Dressings Provided ..	–	–	–
Other Improvements	2	1	3
New Sanitary Acc. Provided ..	–	–	–
Food Vans, Carts and Stalls			
Covering and Screening of Back and Sides Provided or Improved	1	–	1
Other Improvements	2	2	4

Disinfestation

68 houses and 6 other premises were disinfested. Treatment was by fumigant smoke or insecticide sprays.

In addition there were 163 removals, the tenant's effects and furniture being treated by HCN gas and the bedding sterilised in the steam disinfector.

Rodent Control

The total number of complaints received during the year was 234—21 less than last year. 889 visits were made for the treatment of premises, besides the regular treatments carried out on waste land, brook courses, etc.

CLEANSING

The Cleansing Superintendent, Mr. J. R. Tart, M.A.P.H.I., reports as follows :—

REFUSE COLLECTION AND DISPOSAL

PERIOD 1ST APRIL, 1962, TO 31ST MARCH, 1963

Collection of house refuse was satisfactorily carried out during the year under review and only in the extremely cold weather and immediately following Bank Holidays did the collection frequency fall significantly below the weekly level. For this I must thank all the men and not least the vehicle maintenance staff for maintaining an important service at a standard that many neighbouring towns may envy.

Two replacement vehicles were put into service in July. These vehicles are fitted with 25 cu. yd. capacity bodies and replace obsolescent vehicles of 12 cu. yd. size. The greater capacity of these vehicles is necessitated by the increasing bulk and lightness of house refuse in this 'ready wrapped and packaged age', and permits of fewer journeys to the disposal point.

In April the Bonus Incentive Scheme was reviewed after six years operation during which its value proved most obvious. It had been found to be a real incentive to greater output, and by showing a positive return in the wage packet for greater effort, the previous wastage and turnover of personnel has been eliminated. However, national wage awards had over the years lessened the value of the bonus in relation to the basic wage. As a result of the review this ratio was restored and drivers were included for the first time in the scheme.

TABLE 1

Vehicle Description	Date Purchased	Total Mileage	Mileage 1962–1963	Galls. Fuel Used	M.P.G.
SRE 770 S.D. 12 cu. yd. Side Loader	July, 1949	52,378	2,033	573	3.55
URE 962 S.D. 12 cu. yd. Side Loader	October, 1950	52,101	2,318	594	3.90
XRE 939 S.D. 16 cu. yd. 'Fore & Aft' Rear Loader	July, 1952	44,309	2,560	761	3.36
980 ARF Karrier 7 cu. yd. Side Loader	January, 1954	36,163	3,529	412	8.57
8443 RE Karrier 18 cu. yd. 'Dual Tip' Rear Loader	February, 1960	14,630	4,175	639	6.53
488 EBF Karrier 25 cu. yd. 'Dual Tip' Rear Loader	June, 1962	3,461	3,101	420	7.38
761 EBF Karrier 25 cu. yd. 'Dual Tip' Rear Loader	July, 1962	3,377	3,168	442	7.17

TABLE 2

HOUSE REFUSE—DRY

Receptacles Emptied	Loads Removed	Estimated Tonnage
523,964	2,831	7,469

TABLE 3

MISCELLANEOUS REFUSE REMOVED

Trade Refuse	Waste Paper	Total
Tons	Tons	Tons
163	75	238

Salvage

Collection figures are given below :—

TABLE 4

MATERIALS	1962–63			1961–62		
	Weight		Value	Weight		Value
	Tons	Cwts.	£	Tons	Cwts.	£
Paper	74	16	621	75	14	709
Scrap Metal	–	–	–	–	–	8
	74	16	621	75	14	717

Disposal

The trial composting scheme was abandoned as a means of disposal and Dudley Street was reopened and the fill was completed during the year. A considerable area of level land is now available for use as playing fields, where once was a large hole, through which meandered a foul smelling brook. More important perhaps, some hundreds of thousands of refuse were safely disposed of.

TABLE 5

DUDLEY STREET TIP

	Cleansing Department		Tradespeople and Others		TOTAL	
	Loads	Tons	Loads	Tons	Loads	Tons
House Refuse—Dry ..	2831	7469	Nil	Nil	2831	7469
Trade Refuse	139	163	152	76	291	239
TOTALS ..	2970	7632	152	76	3122	7708

Total refuse disposed of was 7,708 tons as compared with 7,529 tons last year.

Operational Statistics

Area (statute acres)	1,871 acres
Population at 30th June, 1962 (Registrar General's Estimate)	33,340 persons
Total refuse collected (tons)	7,707 tons
Weight (cwts.) per 1,000 population per day (365 days to year) ..	12.66 cwts.
Number of premises from which refuse is collected	11,040
Premises from which collection is made at least once weekly	99% of total
Average haul (miles) by collection vehicle to disposal point (single journey)	2 miles
Kerbside collection, if practised, expressed as estimated percentage of total collection	Nil
Total refuse disposed of	7,708 tons
Method of disposal—Controlled tipping	100%

Analysis of income and tonnage :—

	Income	*Tonnage*
	£	Tons
Scrap Metal	–	–
Waste Paper	621	75
	621	75
Trade Refuse	310	163

Caravans and Moveable Dwellings

49 visits were made to various sites in the Borough for the inspection of caravans occupied by gypsies and other wanderers.

ATMOSPHERIC POLLUTION

DEPOSIT GAUGES

The analysis showed the total solids to be :—

January	Park Site	45.34 tons per square mile
	Dudley Street Site ..	42.56 „ „ „ „
February	Park Site	14.15 „ „ „ „
	Dudley Street Site ..	20.20 „ „ „ „
March	Park Site	23.70 „ „ „ „
	Dudley Street Site ..	32.98 „ „ „ „
April	Park Site	17.57 „ „ „ „
	Dudley Street Site ..	24.87 „ „ „ „
May	Park Site	33.79 „ „ „ „
	Dudley Street Site ..	40.27 „ „ „ „
June	Park Site	36.30 „ „ „ „
	Dudley Street Site ..	19.18 „ „ „ „
July	Park Site	29.22 „ „ „ „
	Dudley Street Site ..	Contaminated Sample
August	Park Site	13.20 tons per square mile
	Dudley Street Site ..	48.32 „ „ „ „
September	Park Site	27.09 „ „ „ „
	Dudley Street Site ..	39.02 „ „ „ „
October	Park Site	13.04 „ „ „ „
	Dudley Street Site ..	7.07 „ „ „ „
November	Park Site	13.34 „ „ „ „
	Dudley Street Site ..	19.67 „ „ „ „
December	Park Site	16.18 „ „ „ „
	Dudley Street Site ..	26.71 „ „ „ „

VOLUMETRIC RECORDER

This instrument records the daily mean concentrations of smoke and sulphur dioxide in the atmosphere. The results were as follows :—

Month		*SMOKE* micrograms/cu.m.	*SO_2* Micrograms/cu.m.	*RATIO* SMOKE/SO_2
January	Average	231	60	3.85
	Highest	978	209	
February	Average	160	82	1.95
	Highest	341	190	
March	Average	232	161	1.44
	Highest	597	448	
April	Average	141	111	1.27
	Highest	401	142	
May	Average	99	93	1.06
	Highest	267	290	
June	Average	40	71	0.56
	Highest	82	138	
July	Average	49	74	0.66
	Highest	82	114	
August	Average	38	64	0.59
	Highest	94	130	
September	Average	75	86	0.87
	Highest	140	154	
October	Average	113	108	0.99
	Highest	318	270	
November	Average	219	140	1.56
	Highest	656	289	
December	Average	*	*	*
	Highest	1064	523	

* Denotes insufficient number of results to give an accurate monthly average. The severe weather caused the instrument to freeze on several occasions.

LEAD PEROXIDE CYLINDERS

Mgs. of SO_3 per day collected by 100 sq. cm. of Batch 'G' PbO_2

Station	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Library	2.86	2.04	3.02	2.30	1.44	0.97	1.08	0.74	1.18	2.17	3.45	3.41
Park	3.15	2.39	2.80	2.16	1.50	1.20	1.04	1.12	1.24	2.00	3.03	3.31
Wellington Road ..	2.54	1.96	2.28	1.60	1.01	0.72	0.63	0.54	0.85	1.35	2.22	2.67
Ettingshall Road ..	2.52	2.34	3.19	2.06	1.09	0.68	0.77	0.42	0.74	1.21	2.48	2.66
Vicarage, Bradley ..	2.93	1.63	3.19	2.28	1.49	0.83	0.90	0.64	0.98	1.92	3.50	3.47
Moxley Hospital ..	2.76	2.06	2.93	2.33	1.49	0.95	1.11	0.82	1.18	2.03	3.64	3.28
Fire Station	No Result	No Result	No Result	No Result	No Result	No Result	No Result	0.30	2.29	5.91	6.46	7.31
Lunt Road Depot ..	3.02	2.93	2.85	2.90	1.78	1.30	1.39	1.08	1.72	3.02	4.70	4.61
Freeman Place ..	2.66	2.25	3.75	1.76	1.04	1.04	0.77	0.49	0.92	1.62	3.40	3.07
Centre Health Clinic..	3.52	2.69	3.06	2.52	1.58	1.09	1.12	0.86	1.41	2.21	2.68	3.57
Tomhill Waterworks..	0.93	0.87	1.15	0.81	0.48	0.58	0.50	0.24	0.32	0.82	1.04	1.18

CARCASES AND OFFAL INSPECTED AND CONDEMNED IN WHOLE OR PART

	Cattle Excluding Cows	Cows	Calves	Sheep and Lambs	Pigs	Horses
Number killed	420	3	8	1,562	24,551	—
Number inspected ..	420	3	8	1,562	24,551	—
All diseases except Tuberculosis and Cysticerci: Whole carcases condemned	—	—	—	—	9	—
Carcases of which some part or organ was condemned	58	—	—	81	5,880	—
Percentage of the number inspected affected with disease other than tuberculosis and cysticerci ..	13.81	—	—	5.19	23.95	—
Tuberculosis only: Whole carcases condemned	—	—	—	—	—	—
Carcases of which some part or organ was condemned	—	—	—	—	1,400	—
Percentage of the number inspected affected with tuberculosis	—	—	—	—	5.70	—
Cysticerci : Carcases of which some part or organ was condemned	—	—	—	—	—	—
Carcases submitted to treatment by refrigeration	—	—	—	—	—	—
Generalised and Totally condemned	—	—	—	—	—	—

WEIGHT OF CARCASE MEAT AND OFFAL CONDEMNED

DISEASE	Carcase and Organs T. C. Lbs.	Heads and Collars T. C. Lbs.	Lungs T. C. Lbs.	Hearts T. C. Lbs.	Livers T. C. Lbs.	Stoma Inte T. C
Abscesses		4 4	10		1 59	
Actino Bacillosis		14				
Arthritis						
Ascarides Lumbricoides ..					1 5 57	
Blood Splash						
Bruising		12				
Cavernous Angioma ..					12	
Congestion			73			
Cirrhosis					5 96	
Contamination						
Distomatosis					1 0	
Echinococci			22		3 91½	
Emphysema						
Erythema						
Fatty Degeneration ..					24	
Haematoma						
Hernia						
Hydronephrosis						
Imperfectly Bled	1 82					
Infarcts						
Melanosis						
Nephritis						
Oedema						
Ossification						
Pericarditis				4 45		
Peritonitis					1 13 55	1
Petechiae						
Pigmentation						
Pleurisy			1 7 16			
Pleurisy (Septic)						
Pneumonia			2 2 13			
Pyaemia	2 106					
Rash						
Retention Cysts						
Strongyli			97			
Tenuicollis Cysts ..					16	
Torsion						
Toxaemia	90					
Tuberculosis		6 15 77	68		1 3	1
Tumour		12				
Ulceration						
Urticaria						
Pathological Emaciation ..	2 102					
	8 44	7 0 7	3 11 75	4 45	3 12 77½	1

neys Lbs.	Spleens T. C. Lbs.	Omentum T. C. Lbs.	Peritoneums T. C. Lbs.	Parts of Carcases T. C. Lbs.	TOTALS Tons	Cwts.	Lbs.
	½			3 3		9	48½
							14
				1 28		1	28
					1	5	57
				4			4
				2 27		2	39
							12
	9						82
						5	96
				2			2
						1	0
						4	1½
							12
				12			12
							24
	6½						6½
							20
15							15
						1	82
1½	68						69½
				12			12
6							6
				6			6
				3			3
						4	45
	3 100¾		1 32	10 51½	3	1	40¼
11							11
	½						½
					1	7	16
				9			9
					2	2	13
						2	106
				1 6		1	6
15¼							15¼
							97
		2					18
	½						½
							90
	3			62	7	13	106
							12
				2			2
				28			28
						2	102
48¾	4 76¾	2	1 32	19 31½	17	12	25½

CARCASES AND ORGANS

Pyaemia	2
Ill-Bled	2
Toxaemia	1
Pathological Emaciation	4
	9

MISCELLANEOUS FOODS CONDEMNED IN SHOPS, CANTEENS, ETC.

Food	*Tons*	*Cwts.*	*Lbs.*	*Reason for Condemnation*
Cheese (Packets)			½	Decomposition.
Cheese (Bulk)			7	,,
Ham			5	,,
Meat			32	,,
Margarine			1	Contaminated.
Demerara Sugar			2	,,
Pork			22	Bruising.
Tinned Goods		4	83	Blown/Decomposition/Mouldetc.
,, ,, ...		1	110	Damaged/Leaking.
,, ,, ...			6	Liquifaction of Gelatine.
Frozen Foods			79½	Decomposition.
		8	12	
Fresh Meat	17	12	25½	See Table.
	18	–	37½	

Food Preparing Premises

99 inspections have been made of food preparing premises.

Food Sampling

The sampling of milk and food under the Food and Drugs Act, 1955, is undertaken by the County Council who are the Food and Drugs Authority under the Act, Dr. G. Ramage, the County Medical Officer of Health has kindly supplied the following details of samples taken throughout the year.

Milk	T.T.	9	
	T.T. (Pasteurised)	5	
	Pasteurised	2	
	Sterilised	3	
		19	*All genuine.*

General Foods

Number of samples taken ..	66
Number of samples genuine ..	64
Number of samples adulterated	2

Classification

Eastons Syrup B.P.
White Petroleum Jelly
Cream of Magnesium B.P.
Liquid Extract of Cascara Sagrada
Confection of Senna B.P.
Tablets of Cascara Sagrada B.P.
Bakewell Tarts Mixture
Kidney Soup
Cooked Spaghetti with Tomato Cheese Sauce
Buttermint Drops
Honey Spice Cake Mix
Flaked Beef Suet
Instant Coffee
Lime Juice
Ice Lollies
Cockles
Braised Steak in Gravy
Evaporated Milk
Cheese Spread with Lobster
Demarara Sugar
Damsons in Syrup
Butter Teacakes
Baked Beans in Tomato Sauce
Savoury Thins
Pure Pork
Potted Salmon with Butter
Fruit Shortcake Biscuits
Pork in Natural Juice
Sweetened Coconut
Orange Juice
Christmas Iced Cake
Sild in Tomato
Pasteurised Processed Gruyere Cheese
Dressed Crab
Instant Apple Flakes
Cooking Fat
Corned Pork Roll
Custard Powder
Luncheon Meat
Horseradish Sauce
Pepper Flavoured Compound
Coconut Rings
Crisps
Lard (2 samples)
Ice Cream
Crushed Orange Treat
Pork Sausage containing preservative (2 samples)
Blackcurrant Health Drink
Christmas Pudding (2 samples)
Almond Marzipan
Prunes in Syrup
Stewed Steak

Butter	Cream of Chicken Soup
Strawberries	Corned Beef (2 samples)
Butterscotch Cookies	Cut Mixed Peel
Ground Mixed Spice	Olive Oil and Raspberry Vinegar
Boneless Chicken in Jelly	Back and Kidney Pills

Particulars of Adulterated Samples

22 C/L—Lime Juice—Formal

Contained 0.4 milligrams per fluid ounce of Vitamin "C" instead of the 8 milligrams claimed.	*Old Stock. Noted for further sampling.*

55 C/N—Butter Teacakes—Formal

Bore description "over half the fat used is butter" whereas proportion of butter in fat was only 36.4%.	*Cautioned.*

Food Preparing Premises

Food shops and food preparing premises in Bilston can be classified as follows :—

Grocers, greengrocers and general shops	205
Food shops with catering establishments attached ..	13
Other catering establishments (including works' canteens and premises of the schools meals service)	47
Fried Fish Shops	18
Butchers' Shops	35
Fish Shops	5
	323

Food and Drugs Act, 1955

Food Hygiene Regulations

A total of 440 food premises were visited. 40 improvements were effected, and a number of improvements of a structural nature are in progress.

Ice Cream

There are 145 premises registered for the sale of ice-cream in the Borough of which 13 were inspected during the year.

A total of 64 samples were taken and submitted to the Public Health Laboratory, Stafford, the results being as follows :—

Grade 1	55
Grade 2	3
Grade 3	0
Grade 4	6

In addition, seven bacteriological samples of ingredients were taken, all of which proved to be satisfactory.