

**RADIOLOGICAL ASSESSMENT OF
RADIOACTIVE WASTE DISPOSAL
FROM NON-NUCLEAR PREMISES
IN ANGLIAN REGION
VOLUME 3 - DATA ON
AUTHORISATIONS**

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SUMMARY

This report contains Volume 3 of the results of a study undertaken for the Anglian Region of the Environment Agency. The objective of the study was to undertake an assessment of the radiation doses to critical groups from authorised disposals and discharges of radioactive waste from premises other than nuclear sites within the Anglian Region.

The results of the study are presented in three volumes as follows:

- Volume 1 - Methodology for assessment of the radiological impact of authorised releases from non-nuclear premises;
- Volume 2 - Radiological assessment of authorised releases from non-nuclear premises in the Anglian Region; and
- Volume 3 - Compiled data on authorised discharges from non-nuclear premises in the Anglian Region.

The present report comprises Volume 3 and contains detailed data extracted from the discharge and disposal authorisations effective in the Anglian Region as of Summer 1998.

A methodology for assessment of the radiological assessment of the discharges and disposals is presented in Volume 1 and the detailed results of the assessments are presented in Volume 2.

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CONTENTS

SUMMARY

1. INTRODUCTION

2. COMPILATION OF DATA ON AUTHORISED DISPOSALS

APPENDIX A - LIST OF AUTHORISED PREMISES

APPENDIX B - COMPILED DATA ON AUTHORISATIONS

APPENDIX C - DATA ON SEWAGE TREATMENT PLANTS

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1. INTRODUCTION

This Report has been prepared by Alan Martin Associates for the Anglian Region of the Environment agency (EA) under Contract Ref. P0035/DOSE/CT. The objective of the work covered by the contract is to undertake an assessment of the radiation doses to critical groups from authorised disposals and discharges of radioactive waste from premises other than nuclear sites within the region.

The results of the study are presented in three volumes as follows:

- Volume 1 - Methodology for assessment of the radiological impact of authorised releases from non-nuclear premises;
- Volume 2 - Radiological assessment of authorised releases from non-nuclear premises in the Anglian Region; and
- Volume 3 - Compiled data on authorised discharges from non-nuclear premises in the Anglian Region.

The present report comprises Volume 3 and contains detailed data extracted from the discharge and disposal authorisations effective in the Anglian Region as of Summer 1998.

A methodology for assessment of the radiological assessment of the discharges and disposals is presented in Volume 2, and the detailed results of the assessments are presented in Volume 2.

2. COMPILATION OF DATA ON AUTHORISED DISPOSALS

The EA maintains a computerised database of registrations and authorisations under RSA 93 and the record may be searched by region, county, local authority, river catchment or by areas specified by National Grid Reference (GR) co-ordinates. This system allows identification of all premises within a defined study area holding authorisations for disposal. Detailed information on each of the identified premises may then be obtained from the files held in the Public Register, which is maintained at various EA regional offices. The information is mainly contained in the application form for authorisation (Form RSA3) and in the Certificate of Authorisation issued by the EA.

A complete list of authorised sites within the Anglian region, dated 30 April 1998, is shown in Appendix A. For the purposes of the present study a unique identification number was given to each of the non-nuclear sites. The current authorisation certificate for each site provided the annual disposal limit for each relevant radionuclide and any conditions specified for that disposal route. The current RSA 3 form, when available, provided further details of the site location and disposal arrangements. Actual disposals from each site were obtained from the annual report to the Environment Agency (emission inventories), where that was available.

The site information required for assessment purposes was compiled on data forms specific to each of the following disposal routes:

- liquid and gaseous disposal;
- disposal by incineration;
- disposal to landfill (within the region).

The data included details of the sewage discharge system, atmospheric discharge arrangements and distances to the nearest residence and point of public access.

Within the East Anglian region, as of Summer 1998, there were 103 sites authorised to dispose of radioactive wastes, of which the following disposal routes are used:

- 83 sites discharging to sewer involving 28 municipal Sewage Treatment Plants (STP), 10 private STPs and 6 sites discharging directly to an estuary or to the sea;
- 38 sites discharging to atmosphere (including xx sites with incinerators);
- 1 site discharging to landfill.

The present assessment does not include radioactive wastes which are transported out of the region for disposal.

The following authorised sites were not included in the present assessment as the relevant data was not at that time available:

- Mobil Oil;
- Agricultural and Food Research;
- Animal Health Trust.

The completed data forms for individual authorised premises are included as Appendix B. The information on authorised disposals to sewer has been analysed and the implied authorisation for each sewage plant is compiled in Appendix C.

APPENDIX A

LIST OF AUTHORISED SITES IN ANGLIAN REGION

(Hand-written numbers in left margin are reference numbers for study)

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RSA93 S.13 - Effective Anglian Region

	Operator Name	Operator Complete Address	Permiss	Local Authority/County
01	BEDFORD HOSPITAL NHS TRUST	SOUTH WING, KEMPSTON ROAD BEDFORD MK42 9DJ	AT3957	BEDFORDSHIRE
02	CHEMEX INTERNATIONAL PLC	74 SUNDERLAND ROAD SANDY BEDFORDSHIRE SG19 1QY	AY9103	BEDFORDSHIRE
03	CRANFIELD BIOTECHNOLOGY CENTRE	CRANFIELD UNIVERSITY CRANFIELD BEDFORD BEDFORDSHIRE MK43 0AL	AC2314	BEDFORDSHIRE
04	SOIL SURVEY AND LAND RESEARCH CENTRE	CRANFIELD UNIVERSITY, SILSOE BEDFORD MK45 4DT	AL4163	BEDFORDSHIRE
05	UNILEVER RESEARCH COLWORTH LABORATORY	COLWORTH HOUSE SHARNBROOK BEDFORD BEDFORDSHIRE MK44 1LQ	AT1920	BEDFORDSHIRE
06	EG AND G LTD	20 VINCENT AVENUE CROWN HILL MILTON KEYNES BUCKINGHAMSHIRE MK8 0AB	AE4628	BUCKINGHAMSHIRE
07	HOECHST MARION ROUSSEL LTD	WALTON MANOR, WALTON MILTON KEYNES MK7 7AJ	AW3252	BUCKINGHAMSHIRE
08	MILTON KEYNES GENERAL NHS TRUST	MILTON KEYNES GENERAL HOSPITAL, STANDING WAY, EAGLESTONE MILTON KEYNES MK6 5LD	BA2768	BUCKINGHAMSHIRE
09	PHARMACIA AND UPJOHN LTD	DAVY AVENUE, KNOWL HILL MILTON KEYNES BUCKINGHAMSHIRE MK5 8PH	AV4652	BUCKINGHAMSHIRE
10	THE OPEN UNIVERSITY	OPEN UNIVERSITY CAMPUS, WALTON HALL MILTON KEYNES MK7 6AA	AS8457	BUCKINGHAMSHIRE
11	ADDENBROOKES NHS TRUST HOSPITAL	ADDENBROOKES HOSPITAL, HILLS ROAD CAMBRIDGE CB2 2QQ	AY6767	CAMBRIDGESHIRE
12	ADVANCED TECHNOLOGIES (CAMBRIDGE) LTD	210 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CAMBRIDGESHIRE CB4 4WA	AX3932	CAMBRIDGESHIRE
13	AFFINITY SENSORS	SAXON WAY BAR HILL CAMBRIDGE CAMBRIDGESHIRE CB3 8SL	AV4920	CAMBRIDGESHIRE
14	AGREVO UK LTD	THE REDLANDS, OAKINGTON ROAD COTTENHAM CAMBRIDGE CAMBRIDGESHIRE CB4 4TW	AM6455	CAMBRIDGESHIRE
15	AI QUALITEK LTD	LONDON ROAD PAMPISFORD CAMBRIDGE CAMBRIDGESHIRE CB2 4EF	AY7941	CAMBRIDGESHIRE
16	AXIS GENETICS PLC	BABRAHAM CAMBRIDGE CB2 4AZ	AX5471	CAMBRIDGESHIRE
17	BRITISH GAS PLC	EASTERN DIVISION, NENE WEST AGI, FERRY LANE NEWTON WISBECH CAMBRIDGESHIRE PE13 ...	AJ0647	CAMBRIDGESHIRE
18	CAMBRIDGE ANTIBODY TECHNOLOGY LTD	THE SCIENCE PARK MELBOURN ROYSTON HERTFORDSHIRE SG8 6JJ	AQ0084	CAMBRIDGESHIRE
19	CAMBRIDGE ANTIBODY TECHNOLOGY LTD	THE SCIENCE PARK MELBOURN ROYSTON HERTFORDSHIRE SG8 6JJ	AX6826	CAMBRIDGESHIRE
20	CAMBRIDGE SCIENTIFIC INSTRUMENTS LTD	UNITS 7 AND 8, SEDGEWAY BUSINESS PARK, WITCHFORD ELY CAMBRIDGESHIRE CB6 2HY	AT3833	CAMBRIDGESHIRE
21	CANTAB PHARMACEUTICALS LTD	184 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4GN	AT4287	CAMBRIDGESHIRE
22	CHIROSCIENCE LTD	UNIT 252/254 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4WE	AY5167	CAMBRIDGESHIRE
23	DALGETY FOOD INGREDIENTS LTD	FOOD INGREDIENTS DEVELOPMENT CENTRE, BLOCK B, STATION ROAD CAMBRIDGE CB1 2JN	AZ2422	CAMBRIDGESHIRE
24	GENOME RESEARCH LTD	THE SANGER CENTRE, WELLCOME TRUST GENOME CAMPUS HINXTON SAFFRON WALDEN ESS...	AN2862	CAMBRIDGESHIRE
25	HEXAGEN TECHNOLOGY LTD	214 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CAMBRIDGESHIRE CB4 4WA	AW8564	CAMBRIDGESHIRE
26	HINCHINGBROOKE HEALTH CARE NHS TRUST	HINCHINGBROOKE HOSPITAL, HINCHINGBROOKE PARK HUNTINGDON CAMBRIDGESHIRE PE18...	AM8032	CAMBRIDGESHIRE
27	HINCHINGBROOKE HEALTH CARE NHS TRUST	HINCHINGBROOKE HOSPITAL, HINCHINGBROOKE PARK HUNTINGDON CAMBRIDGESHIRE PE18...	AZ8439	CAMBRIDGESHIRE
28	HORSERACING FORENSIC LABORATORY LTD	NEWMARKET ROAD, FORDHAM ELY CAMBRIDGESHIRE CB7 5WW	AX3878	CAMBRIDGESHIRE
29	HUNTINGDON LIFE SCIENCES LTD	WOOLLEY ROAD, ALCONBURY HUNTINGDON CAMBRIDGESHIRE PE18 6ES	AW9714	CAMBRIDGESHIRE
30	IMUTRAN LIMITED	DOUGLAS HOUSE, 18 TRUMPINGTON ROAD CAMBRIDGE CB2 2AH	BA2750	CAMBRIDGESHIRE
31	INSTITUTE OF TERRESTRIAL ECOLOGY	MONKS WOOD ABBOTS RIPTON HUNTINGDON CAMBRIDGESHIRE PE17 2LS	AG7634	CAMBRIDGESHIRE
32	INSTITUTE OF TERRESTRIAL ECOLOGY	MONKS WOOD ABBOTS RIPTON HUNTINGDON CAMBRIDGESHIRE PE17 2LS	AS2157	CAMBRIDGESHIRE
33	LCG CLINICAL LABORATORY UNIT	211 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4ZA	BA2638	CAMBRIDGESHIRE
34	MARSHALL OF CAMBRIDGE AEROSPACE LTD	THE AIRPORT CAMBRIDGE CB5 8RX	AZ4891	CAMBRIDGESHIRE
35	MEDICAL RESEARCH COUNCIL	MRC CENTRE, HILLS ROAD CAMBRIDGE CAMBRIDGESHIRE CB2 2QH	AE6128	CAMBRIDGESHIRE
36	MEDICAL RESEARCH COUNCIL	STRANGWAYS RESEARCH LABORATORY, WORTS CAUSEWAY CAMBRIDGE CAMBRIDGESHIRE...	AI4573	CAMBRIDGESHIRE
37	MEDICAL RESEARCH COUNCIL	MRC CENTRE, HILLS ROAD CAMBRIDGE CAMBRIDGESHIRE CB2 2QH	AZ2236	CAMBRIDGESHIRE
38	MRC DUNN NUTRITION CENTRE	DUNN NUTRITIONAL LABORATORY, DOWNHAMS LANE, MILTON ROAD CAMBRIDGE CB4 1XJ	AN4156	CAMBRIDGESHIRE
39	MRC HUMAN GENOME MAPPING PROJECT RESO...	HINXTON CAMBRIDGE CB10 1SB	AZ0896	CAMBRIDGESHIRE
40	NAPP RESEARCH CENTRE	UNITS 127 AND 137, CAMBRIDGE SCIENCE PARK, MILTON RD CAMBRIDGE CB4 4GW	AC8967	CAMBRIDGESHIRE
41	NIAB	HUNTINGDON ROAD CAMBRIDGE CAMBRIDGESHIRE CB3 0LE	AC9203	CAMBRIDGESHIRE
42	PAPWORTH HOSPITAL NHS TRUST	PAPWORTH EVERARD CAMBRIDGE CB3 8RE	AO3872	CAMBRIDGESHIRE

41	PARKE-DAVIS NEUROSCIENCE RESEARCH CENT.	CAMBRIDGE UNIVERSITY FORVIE SITE, ROBINSON WAY CAMBRIDGE CB2 2QB	AR8943	CAMBRIDGESHIRE
42	PARKE-DAVIS NEUROSCIENCE RESEARCH CENT.	CAMBRIDGE UNIVERSITY FORVIE SITE, ROBINSON WAY CAMBRIDGE CB2 2QB	AY9740	CAMBRIDGESHIRE
43	PEPTIDE THERAPEUTICS LTD ✓	324 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4WG	AZ3143	CAMBRIDGESHIRE
44	PETERBOROUGH HOSPITALS NHS TRUST ✓	PETERBOROUGH DISTRICT HOSPITAL, THORPE ROAD PETERBOROUGH CAMBRIDGESHIRE PE...	AV4245	CAMBRIDGESHIRE
45	PLANT BREEDING INTERNATIONAL ✓	MARIS LANE, TRUMPINGTON CAMBRIDGE CB2 2LQ	AO0849	CAMBRIDGESHIRE
46	QUADRANT HOLDINGS CAMBRIDGE LTD ✓	MARIS LANE CAMBRIDGE CAMBRIDGESHIRE CB2 2JB	AA6327	CAMBRIDGESHIRE
47	SCL BIOSCIENCE SERVICES LTD	211 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4ZA	AG8010	CAMBRIDGESHIRE
48	SCL BIOSCIENCE SERVICES LTD ✓	211 CAMBRIDGE SCIENCE PARK, MILTON ROAD CAMBRIDGE CB4 4ZA	AX9132	CAMBRIDGESHIRE
49	THE BABRAHAM INSTITUTE ✓	BABRAHAM HALL BABRAHAM CAMBRIDGE CB2 4AT	AO3694	CAMBRIDGESHIRE
50	THOROUGHbred BREEDERS ASSOCIATION ✓	EQUINE FERTILITY UNIT, WOODDITTON ROAD NEWMARKET SUFFOLK CB8 9BH	AD8075	CAMBRIDGESHIRE
51	UNIVERSITY OF CAMBRIDGE ✓	WASTE STORE, HIGH CROSS, MADINGLEY ROAD CAMBRIDGE CAMBRIDGESHIRE CB3 0HB	AG4289	CAMBRIDGESHIRE
52	UNIVERSITY OF CAMBRIDGE ✓	ADDENBROOKES HOSPITAL SITE, HILLS ROAD CAMBRIDGE CAMBRIDGESHIRE CB2 2QQ	AW3589	CAMBRIDGESHIRE
53	UNIVERSITY OF CAMBRIDGE ✓	CENTRAL SITE PREMISES CAMBRIDGE CB2 3DY	BA3748	CAMBRIDGESHIRE
54	UNIVERSITY OF CAMBRIDGE ✓	WEST SITES CAMBRIDGE CB3 0ES	AW3619	CAMBRIDGESHIRE
55	UNIVERSITY OF CAMBRIDGE ✓	DEPARTMENT OF ZOOLOGY MADINGLEY CAMBRIDGE CAMBRIDGESHIRE CB3 8AQ	AM7664	CAMBRIDGESHIRE
56	WOLFSON BRAIN IMAGING CENTRE ✓	ADDENBROOKE S NHS TRUST, HILLS ROAD CAMBRIDGE CB2 2QQ	AR6126	CAMBRIDGESHIRE
57	AGREVO UK LTD ✓	CHESTERFORD PARK LITTLE CHESTERFORD SAFFRON WALDEN ESSEX CB10 1XL	AV8712	ESSEX
58	AGREVO UK LTD	CHESTERFORD PARK LITTLE CHESTERFORD SAFFRON WALDEN ESSEX CB10 1XL	AO4321	ESSEX
59	BASILDON AND THURROCK GENERAL HOSPITAL ✓	BASILDON HOSPITAL, NETHER MAYNE BASILDON ESSEX SS16 5NL	AT1202	ESSEX
60	CARLESS REFINING AND MARKETING LTD ✓	REFINERY ROAD HARWICH ESSEX CO12 4QG	AE7228	ESSEX
61	ESSEX RIVERS HEALTHCARE NHS TRUST ✓	COLCHESTER GENERAL HOSPITAL, TURNER ROAD COLCHESTER CO4 5JL	AR1701	ESSEX
62	ESSEX RIVERS HEALTHCARE NHS TRUST ✓	ESSEX COUNTY HOSPITAL, LEXDEN ROAD COLCHESTER CO3 3NB	AR1710	ESSEX
63	HUNTING DRAE LTD	ATOMIC WEAPONS ESTABLISHMENT, FOULNESS SOUTHEND-ON-SEA ESSEX SS3 9XE	AI2759	ESSEX
64	MAGNOX ELECTRIC PLC	BRADWELL NUCLEAR POWER STATION, GASEOUS DISPOSAL AUTHORISATION, BRADWELL ON...	AB0804	ESSEX
65	MAGNOX ELECTRIC PLC	BRADWELL NUCLEAR POWER STATION, LIQUID DISPOSAL AUTHORISATION REVISION, BRADW...	AB0812	ESSEX
66	MAGNOX ELECTRIC PLC	BRADWELL NUCLEAR POWER STATION BRADWELL ON SEA SOUTHMINSTER ESSEX CM0 7HP	AB4442	ESSEX
67	MAGNOX ELECTRIC PLC	DISTRICT SURVEY LABORATORY (PEAKS), WATERSIDE ROAD, BRADWELL ON SEA SOUTHMIN...	AX8430	ESSEX
68	MAGNOX ELECTRIC PLC	BRADWELL POWER STATION, BRADWELL ON SEA SOUTHMINSTER ESSEX CM0 7HP	AE8194	ESSEX
69	MAGNOX ELECTRIC PLC	BRADWELL NUCLEAR POWER STATION BRADWELL ON SEA SOUTHMINSTER ESSEX CM0 7HP	AP8005	ESSEX
70	MID ESSEX HOSPITALS NHS TRUST ✓	BROOMFIELD HOSPITAL, COURT ROAD CHELMSFORD CM1 5ET	AR8218	ESSEX
71	MOBIL OIL CO LTD ✓	CORYTON REFINERY, THE MANORWAY CORYTON STANFORD-LE-HOPE ESSEX SS17 9LL	AC8169	ESSEX
72	MOD	ATOMIC WEAPONS ESTABLISHMENT, FOULNESS SOUTHEND-ON-SEA SS3 9XE	AI8617	ESSEX
73	NICHOLS INSTITUTE DIAGNOSTICS LTD ✓	WHITE HOUSE, HIGH STREET NEWPORT SAFFRON WALDEN ESSEX CB11 3PQ	AF9854	ESSEX
74	RHONE POULENC AGRICULTURE LTD ✓	ALDHAMS FARM, DEAD LANE LAWFORD MANNINGTREE ESSEX CO11 2NF	AH8816	ESSEX
75	SHELL UK LTD DOWNSTREAM OIL ✓	SHELL HAVEN REFINERY STANFORD-LE-HOPE ESSEX SS17 9LD	AQ8026	ESSEX
76	SOUTHEND HEALTH CARE NHS TRUST ✓	SOUTHEND HOSPITAL, PRITTEWELL CHASE WESTCLIFF-ON-SEA ESSEX SS0 0RY	AT9548	ESSEX
77	UNIVERSITY OF ESSEX ✓	WIVENHOE PARK COLCHESTER ESSEX CO4 3SQ	AM4428	ESSEX
78	CONOCO LTD ✓	HUMBER REFINERY, SOUTH KILLINGHOLME GRIMSBY SOUTH HUMBERSIDE DN40 3DW	AW7258	HUMBERSIDE
79	LINDSEY OIL REFINERY LTD ✓	NORTH KILLINGHOLME IMMINGHAM GRIMSBY SOUTH HUMBERSIDE DN40 3LW	AZ0357	HUMBERSIDE
80	MILLENNIUM INORGANIC CHEMICALS ✓	LAPORTE ROAD IMMINGHAM GRIMSBY SOUTH HUMBERSIDE DN40 2PR	AE8207	HUMBERSIDE
81	MILLENNIUM INORGANIC CHEMICALS	PO BOX 28 GRIMSBY NORTH HUMBERSIDE DN37 8DP	AE8215	HUMBERSIDE
82	NORTH EAST LINCOLNSHIRE NHS TRUST ✓	GRIMSBY HOSPITAL, SCARTH ROAD GRIMSBY SOUTH HUMBERSIDE DN33 2BA	AZ2112	HUMBERSIDE
83	CONOCO (UK) LTD ✓	PICKERILL DUNES VALVE PIT, THEDDLETHORPE GAS TERMINAL, THEDDLETHORPE MABLETHO...	AV3567	LINCOLNSHIRE
84	CONOCO (UK) LTD ✓	PICKERILL DUNES VALVE PIT, THEDDLETHORPE GAS TERMINAL, THEDDLETHORPE MABLETHO...	AW9471	LINCOLNSHIRE
85	GRANTHAM AND DISTRICT HOSPITAL NHS TRUST ✓	101 MANTHORPE ROAD GRANTHAM LINCOLNSHIRE NG31 8DG	AR2058	LINCOLNSHIRE

75	LINCOLN AND LOUTH NHS TRUST ✓	ST GEORGE S HOSPITAL, LONG LEYS ROAD LINCOLN LN1 1EF	AM8474	LINCOLNSHIRE
76	LINCOLN AND LOUTH NHS TRUST ✓	COUNTY HOSPITAL, GREETWELL ROAD LINCOLN LN2 5QY	AU0678	LINCOLNSHIRE
77	PILGRIM HEALTH NHS TRUST ✓	PILGRIM HOSPITAL, SIDSEY ROAD BOSTON LINCOLNSHIRE PE21 9QS	AP7245	LINCOLNSHIRE
78	BRITISH SUGAR PLC ✓	BRITISH SUGAR TECHNICAL CENTRE, NORWICH RESEARCH PARK COLNEY NORWICH NORFOLK...	AE0142	NORFOLK
79	INSTITUTE OF FOOD RESEARCH ✓	NORWICH LABORATORY, NORWICH RESEARCH PARK, COLNEY LANE NORWICH NR4 7UA	AE4130	NORFOLK
80	JOHN INNES CENTRE ✓	NORWICH RESEARCH PARK COLNEY NORWICH NR4 7UH	AS5946	NORFOLK
81	KING S LYNN AND WISBECH HOSPITALS NHS TR... ✓	QUEEN ELIZABETH HOSPITAL, GAYTON ROAD KING S LYNN NORFOLK PE30 4ET	AX2430	NORFOLK
82	MAFF ✓	FOOD SCIENCE LABORATORY, COLNEY LANE NORWICH NR4 7UQ	AB5628	NORFOLK
83	NORFOLK AND NORWICH HEALTH CARE NHS TR... ✓	NORFOLK AND NORWICH HOSPITAL, BRUNSWICK ROAD NORWICH NR1 3SR	AU4789	NORFOLK
84	SHELL UK EXPLORATION AND PRODUCTION ✓	GAS TERMINAL, PASTON ROAD, BACTON NORWICH NR12 0JE	AL1261	NORFOLK
85	UNIVERSITY OF EAST ANGLIA ✓	EARLHAM, NORWICH NR4 7TJ	AS8694	NORFOLK
86	KETTERING GENERAL HOSPITAL NHS TRUST ✓	KETTERING GENERAL HOSPITAL, ROTHWELL ROAD KETTERING NORTHAMPTONSHIRE NN16 8UZ	AT2659	NORTHAMPTONS...
87	MALLINCKRODT MEDICAL UK LTD ✓	11 NORTH PORTWAY CLOSE, ROUND SPINNEY NORTHAMPTON NN3 8RQ	AR3259	NORTHAMPTONS...
88	NORTHAMPTON GENERAL HOSPITAL NHS TRUST ✓	CLIFTONVILLE NORTHAMPTON NORTHAMPTONSHIRE NN1 5BD	AW9552	NORTHAMPTONS...
89	SURELITE LTD ✓	PRIORS HAW ROAD CORBY NORTHAMPTONSHIRE NN17 5JG	AE0274	NORTHAMPTONS...
90	WOODLAND HOSPITAL ✓	ROTHWELL ROAD KETTERING NORTHAMPTONSHIRE NN16 8XF	BA2008	NORTHAMPTONS...
91	AGRICULTURAL AND FOOD RESEARCH COUNCIL ✓	BROOMS BARN HIGHAM BURY ST. EDMUNDS SUFFOLK IP28 6NP	AH8158	SUFFOLK
92	ANIMAL HEALTH TRUST ✓	BALATON LODGE SNAILWELL ROAD, NEWMARKET SUFFOLK CB8 7DW	AD0147	SUFFOLK
93	ANIMAL HEALTH TRUST ✓	LANWADES PARK, KENTFORD NEWMARKET SUFFOLK CB8 7UU	AZ8447	SUFFOLK
94	CENTRE FOR ENVIRONMENT, FISHERIES AND AQ... ✓	LOWESTOFT LABORATORY, PAKFIELD ROAD LOWESTOFT SUFFOLK NR33 0HT	AJ6823	SUFFOLK
95	GREENWOOD ELLIS AND PARTNERS ✓	REYNOLDS HOUSE, 166 HIGH STREET NEWMARKET SUFFOLK CB8 9AH	AC3582	SUFFOLK
96	HUNTINGDON LIFE SCIENCES LTD ✓	EYE SUFFOLK IP23 7PX	AY1838	SUFFOLK
97	MAGNOX-ELECTRIC PLC ✓	SIZEWELL A POWER STATION, LEISTON SUFFOLK IP16 4UE	AA3585	SUFFOLK
98	MAGNOX-ELECTRIC PLC ✓	DISTRICT SURVEY LABORATORY, LOWER S LANE, LEISTON SUFFOLK	AJ7994	SUFFOLK
99	MAGNOX-ELECTRIC PLC ✓	SIZEWELL A NUCLEAR POWER STATION, LEISTON SUFFOLK IP16 4UE	AA8178	SUFFOLK
100	MAGNOX-ELECTRIC PLC ✓	SIZEWELL A POWER STATION, LEISTON SUFFOLK IP16 4UE	AE6842	SUFFOLK
101	MAGNOX-ELECTRIC PLC ✓	SIZEWELL A POWER STATION, AUTHORIZATION TO DISCHARGE GASES, LEISTON SUFFOLK	AE7538	SUFFOLK
102	MAGNOX-ELECTRIC PLC ✓	SIZEWELL C SITE, LEISTON SUFFOLK IP16	AH5027	SUFFOLK
103	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B SITE, LEISTON SUFFOLK IP16 4UR	AB6680	SUFFOLK
104	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AX4490	SUFFOLK
105	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AS3848	SUFFOLK
106	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AS3820	SUFFOLK
107	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AS3455	SUFFOLK
108	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AL0648	SUFFOLK
109	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AJ3930	SUFFOLK
110	NUCLEAR-ELECTRIC LTD ✓	SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UR	AJ3921	SUFFOLK
111	NUCLEAR-ELECTRIC LTD ✓	GEG SITE, SIZEWELL B POWER STATION, LEISTON SUFFOLK IP16 4UE	AF6834	SUFFOLK
112	ROSSDALE AND PARTNERS ✓	BEAUFORT COTTAGE, LABORATORIES, HIGH STREET NEWMARKET SUFFOLK CB8 8JS	AL0419	SUFFOLK
113	ROSSDALE AND PARTNERS ✓	BEAUFORT COTTAGE DIAGNOSTIC CENTRE, COTTON END STABLES, EXNING NEWMARKET SU...	AS4273	SUFFOLK
114	SUFFOLK COLLEGE ✓	ROPE WALK IPSWICH SUFFOLK IP4 1LT	AE0100	SUFFOLK
115	THE IPSWICH HOSPITAL NHS TRUST ✓	THE IPSWICH HOSPITAL, HEATH ROAD IPSWICH IP4 5PD	AP3126	SUFFOLK
116	VCH LTD ✓	UNIT 5, HIGHBURY ROAD BRANDON SUFFOLK IP27 0ND	AV7589	SUFFOLK
117	WARDLE STOREYS PLC ✓	STOREYS INDUSTRIAL PRODUCTS LTD, BRANTHAM WORKS, BRANTHAM MANNINGTREE ESSEX...	AL2136	SUFFOLK
118	WEST SUFFOLK HOSPITALS NHS TRUST ✓	WEST SUFFOLK HOSPITAL, HARDWICK LANE BURY ST. EDMUNDS SUFFOLK IP33 2QZ	AW0725	SUFFOLK
119	WHITE ROSE ENVIRONMENTAL ✓	THE IPSWICH HOSPITAL, HEATH ROAD IPSWICH IP4 5PD	BA2776	SUFFOLK

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APPENDIX B

COMPILED DATA ON AUTHORISED PREMISES

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ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Canfield Biotechnology Centre*
and location: *Canfield University, Canfield*

Site ref: 03 BED
Grid ref: ? (*approx. SP9542*)

1. Discharge to sewer

Flow from premises (per month):

Name of sewage works: *Own STP*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3 / C-14	48		0		
(total)					
Other except alpha (total)	288		0		

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

No RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Dol Drury and land*
and location: *Garfield University,*
Silsoe

Site ref: 04 BED
Grid ref: ~~SP~~ 081 353
TL

(153)

1. Discharge to sewer

Flow from premises (per month): ?

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
C-14	240	0.6	0.3	0.3	47.5

2. Discharge to atmosphere

Stack height: *Vent system of building*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
C-14	600	-	-	-	0.4

3. Comments: *RS A3 incomplete*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Bedford Hospital,*
and location: *Bedford*

Site ref: 01 BED
Grid ref: TL 047 489 (153)

1. Discharge to sewer

Flow from premises (per month): *7,500 m³*

Name of sewage works: *Bedford STW, Cardington*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>288,000</i>	<i>110,000</i>	<i>130,000</i>		
<i>Tl-201</i>	<i>7,200</i>	<i>66</i>	<i>89</i>		
<i>Ga-67</i>	<i>3,600</i>	<i>110</i>	<i>92</i>		
<i>I-123</i>	<i>2,400</i>	<i>0</i>	<i>0</i>		
<i>I-131</i>	<i>1,800</i>	<i>0</i>	<i>670</i>		
<i>In-111</i>	<i>1,776</i>	<i>0</i>	<i>0</i>		
<i>Cs-51</i>	<i>840</i>	<i>0</i>	<i>0</i>		
<i>I-125</i>	<i>36</i>	<i>0</i>	<i>0</i>		
<i>Co-57</i>	<i>12</i>	<i>0.07</i>	<i>0.37</i>		
<i>Other except alpha (total)</i>	<i>1,200</i>	<i>0.1</i>	<i>0.56</i>		

2. Discharge to atmosphere

Stack height: *Building air vent.*

Distance and bearing to nearest residence: ?

Distance and bearing to nearest point of public access: ?

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>25,000</i>	<i>3,100</i>	<i>2,800</i>		
<i>Rb-81/Kr-81m generator</i>	<i>250,000</i>	<i>nil</i>	<i>nil</i>		

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Chemex International*
and location: *Sandy, Bado.*

Site ref: *02 BED*
Grid ref: *? (approx T2 17 49)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *?*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14 / H-3</i>	<i>300</i>	<i>1.1 *</i>	<i>0.9 *</i>	<i>0.7 *</i>	<i>4.2 *</i>
<i>(total)</i>					

2. Discharge to atmosphere

Stack height: *None*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** listed as C-14*

No RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Unilever Research*

Site ref: *05 BED*

and location: *Sharnbrook, Bedford*

Grid ref:

~~*498 260*~~

SP98 60 (153)

1. Discharge to sewer

Flow from premises (per month): *18,000 m³*

Name of sewage works: *Premises own STW**

} *see separate sheet for STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>2,400</i>	<i>52.5</i>	<i>42.6</i>	<i>50.2</i>	
<i>C-14</i>	<i>2,400</i>	<i>39.6</i>	<i>75.3</i>	<i>81.6</i>	
<i>Cr-51</i>	<i>1,200</i>		<i>0</i>	<i>0.014</i>	
<i>P-32</i>	<i>1,200</i>	<i>0.5</i>	<i>3.7</i>	<i>2.3</i>	
<i>P-33</i>	<i>1,200</i>	<i>1.0</i>	<i>0</i>	<i>9.9</i>	
<i>I-125</i>	<i>1,200</i>	<i>28.9</i>	<i>30.9</i>	<i>48.2</i>	
<i>Fa-59</i>	<i>1,200</i>		<i>0</i>		
<i>Y-90</i>	<i>1,200</i>		<i>0</i>		
<i>In-111</i>	<i>1,200</i>		<i>0</i>		
<i>S-35</i>	<i>1,080</i>	<i>-</i>	<i>3.7</i>	<i>18.6</i>	
<i>Ca-45</i>	<i>900</i>		<i>0</i>		
<i>Ru-103</i>	<i>720</i>		<i>0</i>		
<i>Cl-36</i>	<i>444</i>		<i>0</i>		
<i>Mn-54</i>	<i>444</i>		<i>0</i>		

2. Discharge to atmosphere

Stack height: *25m (?)***

Distance and bearing to nearest residence: *1,500 m*

Distance and bearing to nearest point of public access: *500m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14</i>	<i>60,000</i>	<i>530</i>	<i>609</i>	<i>2.4</i>	
<i>H-3</i>	<i>60,000</i>	<i>-</i>		<i>3.4</i>	

3. Comments:

* *Discharges to Sharn Brook and then Great Ouse (STW discharge point ~~498 260~~ SP98 60)*

See notes for use of sludge.

** *Authorisation states via pipe cupboard to atmosphere*

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name: Hoechst Marion Roussel Ltd Site ref: 07 BVC
and location: Welton, Milton Keynes Grid ref: SP 890 365

1. Discharge to sewer

Flow from premises (per month): 500 m³
Name of sewage works: Cotton Valley

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996 *	1995 *	1994
H-3, C-14	60,000		770	2,300	90
(total)					
S-35	3,000		0	-	-
T-125	3,000		54	20	15
Other except alpha (total)	600		0	-	-

2. Discharge to atmosphere

Stack height: N/A
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

* Part year only ?

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Milton Keynes General NHS* Site ref: *OS BVC*
and location: *Milton Keynes General Hosp. Sugarstone, Milton Keynes* Grid ref: *SP 8685 3720*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Cotton Valley*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994 *
<i>Tc-99m</i>	<i>30,000</i>		<i>2,100</i>		<i>1,250</i>
<i>Cs-137</i>	<i>888</i>		<i>36</i>		<i>149</i>
<i>I-125</i>	<i>600</i>		<i>13</i>		<i>19</i>
<i>Ce-137, Co-58</i>	<i>14.4</i>		<i>2.3</i>		<i>2.1</i>
<i>(total)</i>					
<i>Other except alpha (total)</i>	<i>12</i>		<i>-</i>		<i>-</i>

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

** Past year only?*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Pharmacia & Upjohn Ltd*
and location: *Knowlhill, Milton Keynes*

Site ref: *09 BUC*
Grid ref: *? (approx. SP 8733)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Cotton Valley*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>4.4</i>		<i>0.31</i>		

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Open University*
and location: *Salton Hall, Milton Keynes*

Site ref: *10 BVC*
Grid ref: *SP 8836 / SP 8837*

1. Discharge to sewer

Flow from premises (per month): *6,000 m³*
Name of sewage works: *Salton Valley*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>120,000</i>		<i>1,060 *</i>		
<i>(total)</i>					
<i>Other except</i>	<i>1,920</i>		<i>0.9</i>		
<i>alpha (total)</i>					
<i>Beta (total)</i>	<i>12</i>		<i>-</i>		

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

** Consists of 1,000 MBq H-3 plus 60 MBq C-14.*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Addenbrookes NHS Trust* Site ref: *11 CAM*
and location: *Hills Road, Cambridge* Grid ref: *TL 466 552*

1. Discharge to sewer

Flow from premises (per month): *29,000 m³*

Name of sewage works: *Millon STW, Cambridge*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	18,000	463	749		
Ga-67	31,200	3,010	4,446		
Sr-89	2,400	—	150		
Tc-99m	960,000	476,000	471,100		
In-111	14,400	1,480	1,339		
In-113m	12,000	—	0		
I-131	540,000	227,000	187,900		
C-14	1,800	114	79		
P-32/P-33	9,600	160	253		
(in total)	—	—	—		
S-35	3,600	352	392		
Ca-45	120	—	0		
Cr-51	8,400	1,990	1,534		
V-90	2,400	—	0		
Any other	18,000	1360	265		

*except alpha
(+beta)*

2. Discharge to atmosphere

Stack height: *20 m (hospital building)*

Distance and bearing to nearest residence: *75 m*

Distance and bearing to nearest point of public access: *20 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Tc-99m	250	77.6	67.8		

3. Comments: *See other sheet for incinerator on site.*

ASSESSMENT DATA: DISPOSAL BY INCINERATION

Site name *Addenbrookes NHS Trust* Site ref: *14 CAM*
 and location: *Hills Road, Cambridge* Grid ref: *TL 466 552*

Type of incinerator: *Incinerator with afterburner and wet scrubber*

Stack height: *80 m*

Distance and bearing to nearest residence: *200 m*

Distance and bearing to nearest point of public access: *100 m*

Distance and bearing to nearest agricultural land: *?*

Nuclide	Authorised disposal per year (MBq)	Actual disposal per year (MBq)				Estimated release per year (MBq)
		1997	1996	1995	1994	
<i>H-3</i>	<i>4,800</i>	<i>62</i>	<i>19</i>			<i>4,800</i>
<i>C-14</i>	<i>1,320</i>	<i>44</i>	<i>39</i>			<i>1,320</i>
<i>P-32, P-33</i>	<i>2,520</i>	<i>40</i>	<i>0</i>			<i>2,520</i>
<i>(total)</i>						
<i>S-35</i>	<i>3,240</i>	<i>119</i>	<i>0</i>			<i>3,240</i>
<i>Cr-51</i>	<i>1,200</i>	<i>74</i>	<i>-</i>			<i>1,200</i>
<i>Ti-111</i>	<i>1,440</i>	<i>84</i>	<i>-</i>			<i>1,440</i>
<i>I-125</i>	<i>8,400</i>	<i>1,180</i>	<i>1,583</i>			<i>8,400</i>
<i>I-131</i>	<i>600</i>	<i>59</i>	<i>46</i>			<i>600</i>
<i>Other except alpha (total)</i>	<i>900</i>	<i>1</i>	<i>-</i>			<i>900</i>

Partition factors: *100% to atmosphere for all nuclides*

Comments: *Above disposal limits refer to organic liquids plus solids. Site also has authorisation for disposal via University of Cambridge to Milton landfill*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Advanced Technologies* Site ref: *12 CAM*
and location: *Milton Road, Cambridge* Grid ref: *TL 466 613*

1. Discharge to sewer

Flow from premises (per month): *97.5 m³*

Name of sewage works: *Milton SW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>S-35</i>	<i>2400</i>	<i>76</i>	<i>121</i>	<i>180</i>	
<i>P-32</i>	<i>2400</i>	<i>128</i>	<i>422</i>	<i>188</i>	
<i>C-14</i>	<i>444</i>	<i>2.78</i>	<i>89</i>	<i>23</i>	
<i>I-125</i>	<i>111</i>	<i>-</i>	<i>-</i>	<i>-</i>	
<i>H-3</i>	<i>60</i>	<i>9.26</i>	<i>17.3</i>	<i>-</i>	
<i>P-33</i>	<i>1200</i>	<i>34</i>	<i>-</i>		

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

~~*11.5 2371.2 / P33 1*~~

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Affinity Sensors*
and location: *Bar Hill, Cambridge*

Site ref: *13 CAM*
Grid ref: *? (approx. T4 38 64)*

1. Discharge to sewer

Flow from premises (per month): *20 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>720</i>	<i>4</i>	<i>70</i>		
<i>C-14</i>	<i>72</i>	<i>2</i>	<i>0</i>		

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

3. Comments: No RSA 3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *AI Qualitek Ltd*
and location: *Panpistford, Cambridge*

Site ref: *15 CAM*
Grid ref: *T2 488 480*

1. Discharge to sewer

Flow from premises (per month):

N/A

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

authorised only for transfer of solid waste

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Axis Genetics*
and location: *Babraham, Cambridge*

Site ref: *16 CAM*
Grid ref: *? (approx TL 51 50)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Milton STW (piped from Babraham)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997*	1996	1995	1994
<i>I-125</i>	<i>120</i>	<i>0</i>	<i>-</i>	<i>-</i>	
<i>Cs-137</i>	<i>180</i>	<i>10.8</i>	<i>-</i>	<i>-</i>	
<i>H-3</i>	<i>240</i>	<i>11.2</i>	<i>-</i>	<i>-</i>	
<i>P-32/P-33</i>	<i>720</i>	<i>0</i>	<i>0.45</i>	<i>74.0</i>	
<i>(in total)</i>	<i>-</i>				
<i>S-35</i>	<i>180</i>	<i>44.6</i>	<i>49.1</i>	<i>21.2</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** Partial year only*
no RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *British Gas*
and location: *Newton, Wisbech*

Site ref: 17 CAM
Grid ref: TF 456 139

1. Discharge to sewer

Flow from premises (per month): N/A

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *Authorised only for transfer of solid wastes*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Cambridge Antibody Tech*
and location: *Melbourn, Royston*

Site ref: *18 CAM*
Grid ref: *TL 392 455*

1. Discharge to sewer

Flow from premises (per month): *130 m³*

Name of sewage works: *Melbourn STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>S-35</i>	<i>888</i>	<i>-</i>	<i>0</i>	<i>0</i>	
<i>P-32</i>	<i>444</i>	<i>-</i>	<i>0</i>	<i>0</i>	
<i>I-125</i>	<i>120</i>	<i>12.7</i>	<i>20.3</i>	<i>1.9</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Cambridge Scientific*
and location: *Ditchford, Sh*

Site ref: *19 CAM*
Grid ref: *TK 499 795*

1. Discharge to sewer

Flow from premises (per month): *N/A*

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *Authorised only for transfer of wastes*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Cartab Pharmaceuticals*
and location: *Milton Road,*
Cambridge

Site ref: *20 CAM*
Grid ref: *TL 468 616*

1. Discharge to sewer

Flow from premises (per month): *250 m³*

Name of sewage works: *Cambridge SW, Conley Road (Assume 1)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Ct-51</i>	<i>13,300</i>	<i>4 202</i>	<i>2819</i>	<i>2638</i>	
<i>C-14 / H-3</i>	<i>8,880</i>	<i>916*</i>	<i>1031*</i>	<i>918*</i>	
<i>(total)</i>					
<i>S-35</i>	<i>4,440</i>	<i>248</i>	<i>365</i>	<i>793</i>	
<i>P-32</i>	<i>1 800</i>	<i>281</i>	<i>216</i>	<i>173</i>	
<i>P-33</i>	<i>1,800</i>	<i>0</i>	<i>0</i>	<i>16</i>	
<i>I-125</i>	<i>444</i>	<i>0</i>	<i>0</i>	<i>-</i>	
<i>Other except</i>	<i>444</i>	<i>0</i>	<i>0</i>	<i>-</i>	
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** Tritium only discharged*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Chiroscience Ltd*
and location: *Milton Road,*
Cambridge

Site ref: *21 CAM*
Grid ref: *TH 464 620*

1. Discharge to sewer

Flow from premises (per month): *71 m³*

Name of sewage works: *Milton STW, Cambridge*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>1920</i>	<i>170</i>	<i>166</i>	<i>161</i>	
<i>C-14</i>	<i>480</i>		<i>-</i>	<i>-</i>	
<i>S-35</i>	<i>420</i>	<i>33</i>	<i>31</i>	<i>12</i>	
<i>P-32</i>	<i>216</i>	<i>0.9</i>	<i>0.27</i>	<i>-</i>	
<i>P-33</i>	<i>108</i>	<i>-</i>	<i>-</i>	<i>-</i>	
<i>C-14</i>	<i>72</i>	<i>0</i>	<i>0</i>	<i>7.0</i>	
<i>I-125</i>	<i>6</i>	<i>1.1</i>	<i>-</i>	<i>-</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Dalgety Food Ltd*
and location: *Station Road,*
Cambridge

Site ref: *22 CAM*
Grid ref: *TL 461 571*

1. Discharge to sewer

Flow from premises (per month): *480 m³*

Name of sewage works: *Conway Road STW, Cambridge*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14</i>	<i>444</i>		<i>0</i>	<i>0</i>	
<i>H-3</i>	<i>444</i>		<i>0</i>	<i>0</i>	
<i>P-32</i>	<i>111</i>		<i>0</i>	<i>0</i>	
<i>S-35</i>	<i>111</i>		<i>0</i>	<i>0</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Genoma Research Ltd.* Site ref: *23 CAM*
and location: *Hinarton, Suffolk* Grid ref: *TL 498 450*
Walden

1. Discharge to sewer

Flow from premises (per month): *360 m³*

Name of sewage works: *Great Chesterford*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>P-32</i>	<i>5,280</i>	<i>3,260</i>	<i>2,580</i>	<i>2,250</i>	
<i>S-35</i>	<i>4,080</i>	<i>137</i>	<i>136</i>	<i>110</i>	
<i>P-33</i>	<i>2,640</i>	<i>4</i>	<i>0</i>	<i>0</i>	

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Hexagon Technology* Site ref: *24 CAM*
and location: *Milton Road,* Grid ref: *TL 466 617*
Cambridge

1. Discharge to sewer

Flow from premises (per month): *125 m³*

Name of sewage works: *Cambridge STW, Cowley Road*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
P-32	<i>2,400</i>	<i>2.2</i>			
P-33	<i>600</i>	<i>0</i>			
S-35	<i>600</i>	<i>0</i>			
Other except alpha (total)	<i>600</i>	<i>0</i>			

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Hinchbrooke Health* Site ref: *25 CAM*
and location: *Hinchbrooke Hospital, Huntingdon* Grid ref: *TL 226 720* (153)

1. Discharge to sewer

Flow from premises (per month): *5,600 m³*
Name of sewage works: *Huntingdon STW, Godmanchester*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>360,000</i>	<i>101,000</i>	<i>98,390</i>		
<i>I-131</i>	<i>3600</i>	<i>-</i>	<i>0</i>		
<i>P-32</i>	<i>1200</i>	<i>-</i>	<i>-</i>		
<i>I-125</i>	<i>60</i>	<i>1.5</i>	<i>1.9</i>		
<i>Other except alpha (total)</i>	<i>4800</i>	<i>8</i>	<i>5</i>		

2. Discharge to atmosphere

Stack height: *(roof vent)*
Distance and bearing to nearest residence: *?*
Distance and bearing to nearest point of public access: *?*
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>10</i>	<i>2.3</i>	<i>2.3</i>		

3. Comments: *Inhibitor closed*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Honseraing Forensic Lab.*
and location: *Fordham, Ely*

Site ref: *26 CAM*
Grid ref: *Tu 633 687*

1. Discharge to sewer

Flow from premises (per month): *200 m³*

Name of sewage works: *Newmarket STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>600</i>	<i>12</i>			
<i>(total)</i>					
<i>S-35, P-32</i>	<i>600</i>	<i>0</i>			
<i>P-33 (total)</i>					
<i>I-125</i>	<i>12</i>	<i>0.5</i>			

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Huntingdon Life Sciences* Site ref: *27 CAM*
and location: *Alconbury, Huntingdon* Grid ref: *TL 188 743*

1. Discharge to sewer

Flow from premises (per month): *9,000 m³*
Name of sewage works: *Own sewage treatment works ** } *see separate sheet*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>120,000</i>	<i>23,800</i>			
<i>(total)</i>					
<i>Other exempt alpha (total)</i>	<i>4,800</i>	<i>0.1</i>			

2. Discharge to atmosphere

Stack height: *?* (*building vent through absorption traps?*)
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>10,000</i>	<i>1,098 **</i>			
<i>(total)</i>					

3. Comments: * *Discharges to Cock Brook, leading to*
Matchams Brook at perimeter of site.
See separate sheet for incinerator
*** not clear whether this includes incinerator.*

ASSESSMENT DATA: DISPOSAL BY INCINERATION

Site name *Huntingdon Life Sciences* Site ref: *27 CAM*
and location: *Abconbury, Huntingdon* Grid ref: *TL 188 743 (142)*

Type of incinerator: *R. Jenkins System type C550P with afterburner*

Stack height: *30m*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land

Nuclide	Authorised disposal per year (MBq)*	Actual disposal per year (MBq)				Estimated release per year (MBq)
		1997	1996	1995	1994	
<i>C-14, H-3</i>	<i>484,200</i>					<i>484,200</i>
<i>(total)</i>						
<i>Other except</i>	<i>156</i>					<i>156</i>
<i>alpha (total)</i>						
<i>S-35</i>	<i>2,400</i>					<i>2,400</i>

Partition factors: *100% to atmosphere for all nuclides*

Comments: ** Includes organic liquids and solids*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Imutran Ltd*
and location: *Trumpington Road,*
Cambridge

Site ref: *28 CAM*
Grid ref: *TL452 564*

1. Discharge to sewer

Flow from premises (per month): *50 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>S-35</i>	<i>888</i>	<i>-</i>	<i>19</i>		
<i>H-3</i>	<i>888</i>	<i>-</i>	<i>28</i>		
<i>C-51</i>	<i>888</i>	<i>352</i>	<i>228</i>	<i>298</i>	
<i>T-125</i>	<i>888</i>	<i>50</i>	<i>14</i>	<i>63</i>	
<i>P-32</i>	<i>888</i>	<i>556</i>	<i>485</i>	<i>307</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Invt. Terrestrial Ecology*
and location: *Abbots Ripton,*
Huntingdon

Site ref: *29 CAM*
Grid ref: *TL 201 798*

1. Discharge to sewer

Flow from premises (per month): *300 m³*

Name of sewage works:

*own sewage treatment plant **

*see separate
sheet for
SIP*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>24</i>				
<i>C-14</i>	<i>6</i>				
<i>H-3</i>	<i>2.4</i>				

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** Discharges to Ewingwood Stream at TL 201 798*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *LGC Clinical Lab.*
and location: *Milton Road,*
Cambridge

Site ref: *30 CAM*
Grid ref: *TL 462 618*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Milton Road STW (assumed)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>480</i>				
<i>Co-57</i>	<i>4.8</i>				

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

No RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Marshall of Cambridge*
and location: *Airport, Cambridge*

Site ref: *31 CAM*
Grid ref: *(TL 49 59)*

1. Discharge to sewer

Flow from premises (per month): *N/A*
Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *Transfer only*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *MRC*
and location: *Hills Road,*
Cambridge

Site ref: *32 CAM*
Grid ref: *TL 467 553*

1. Discharge to sewer

Flow from premises (per month): *N/A*

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

Authorisation revoked - see site ref. 34 CAM

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *MRC Stangeways Res. Lab.* Site ref: *33 CAM*
and location: *Worts Causeway,* Grid ref: *?* (*approx TL 45 59*)
Cambridge

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Cambridge SW (assumed)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>6,000</i>	<i>199</i>	<i>32</i>	<i>20</i>	
<i>Other except</i>	<i>20,400</i>	<i>846</i>	<i>685</i>	<i>913</i>	
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

No RSA3 found.

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *MRC Centre*
and location: *Hills Road,*
Cambridge

Site ref: *34 CAM*
Grid ref: *TL 467 553*

1. Discharge to sewer

Flow from premises (per month): *1,500 m³*
Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>48,000</i>				
<i>P-32</i>	<i>12,000</i>				
<i>S-35</i>	<i>12,000</i>				
<i>C-14</i>	<i>12,000</i>				
<i>I-125</i>	<i>9,000</i>				
<i>Cs-51</i>	<i>1,200</i>				
<i>Cl-36</i>	<i>1,200</i>				
<i>Ca-45</i>	<i>1,200</i>				
<i>P-33</i>	<i>480</i>				
<i>Other except alpha (total)</i>	<i>6,000</i>				

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name MRC Dunn Nutrition Centre
and location: Milton Road
Cambridge

Site ref: 35 CAM
Grid ref: ? (approx TL 46 62)

1. Discharge to sewer

Flow from premises (per month): ?

Name of sewage works: Cambridge SWO (sewered)

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	9,600	0	—		
C-14	480	4.8	0		
I-125	480	23	25.4		
Other except alpha (total)	240	0.1	0.3		

2. Discharge to atmosphere

Stack height: N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

No RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *MRC Human Genome*
and location: *Hinxton, Cambridge*

Site ref: *36 CAM*
Grid ref: ~~*F-489-580*~~
Probably T4 4945

1. Discharge to sewer

Flow from premises (per month): *2,500 m³*

Name of sewage works: *Great Chesterford, Cambridge*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>P-32</i>	<i>6,660</i>		<i>8.5 *</i>		
<i>P-33</i>	<i>4,440</i>		<i>0.3</i>		
<i>S-35</i>	<i>4,440</i>		<i>0</i>		

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** year of discharge not recorded*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name Napp Research Centre Site ref: 37 CAM
and location: Milton Road, Cambridge Grid ref: ? (approx TL 46 62)

1. Discharge to sewer

Flow from premises (per month): ?

Name of sewage works: Cambridge STW (assumed)

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<u>Amyscept</u>	<u>2,400</u>	<u>228</u>	<u>126</u>		
<u>alpha (total)</u>					

2. Discharge to atmosphere

Stack height: N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

no RSA3 found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name **NIAB**
and location: **Huntingdon Road,**
Cambridge

Site ref: **38 CAM**
Grid ref: **? (approx TC 45 59)**

1. Discharge to sewer

Flow from premises (per month): **?**

Name of sewage works: **Cambridge STW (assumed)**

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Any except alpha (total)	852	152 *	29.3 *		

2. Discharge to atmosphere

Stack height: **N / A**
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: **linked as P-32, P-33, S-35**

RSA3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Papworth Hospital*
and location: *Papworth Zoned,
Cambridge*

Site ref: *39 CAM*
Grid ref: *TL 288 628* (153)

1. Discharge to sewer

Flow from premises (per month): *3,300 m³*

Name of sewage works: *Papworth STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>300,000</i>	<i>185,000</i>	<i>188</i>	<i>177,600</i>	
<i>Tl-201</i>	<i>9,600</i>	<i>199</i>	<i>0</i>	<i>-</i>	
<i>Ga-67</i>	<i>7,200</i>	<i>-</i>	<i>0</i>	<i>-</i>	
<i>In-111</i>	<i>1,800</i>	<i>58</i>	<i>23.6</i>	<i>30.6</i>	
<i>I-125</i>	<i>720</i>	<i>-</i>	<i>0</i>		
<i>Other except alpha (total)</i>	<i>4,800</i>	<i>3.9</i>	<i>0</i>	<i>2</i>	

2. Discharge to atmosphere

Stack height: *3m (building extraction system)[±]*

Distance and bearing to nearest residence: *30m*

Distance and bearing to nearest point of public access: *2m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>40</i>	<i>1.2</i>	<i>1.4</i>	<i>1.6</i>	

3. Comments: *± Patient exhalation*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Parke-Davis Neuroscience* Site ref: *40 CAM*
and location: *Hills Road, Cambridge* Grid ref: *TL 465 552*
(Addenbrookes Hospital)

1. Discharge to sewer

Flow from premises (per month): *29,000 m³ (from hospital)*
Name of sewage works: *Cambridge STW (assumed)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>10,500</i>		<i>1171</i>	<i>1290</i>	
<i>P-32</i>	<i>3,540</i>		<i>45</i>	<i>156</i>	
<i>S-35</i>	<i>1,764</i>		<i>467</i>	<i>289</i>	
<i>I-125</i>	<i>888</i>		<i>353</i>	<i>310</i>	
<i>C-14</i>	<i>420</i>		<i>11</i>	<i>1.9</i>	
<i>Ca-45</i>	<i>420</i>		<i>0</i>	<i>0</i>	
<i>P-33</i>	<i>360</i>		<i>0</i>	<i>0</i>	

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Poole Davis Neuroscience* Site ref: *41 CAM*
and location: *Cambridge Univ., Forvie* Grid ref: *Tu 466 548*
Site, Robinson Way, Camb.

1. Discharge to sewer

Flow from premises (per month): *400 m³*

Name of sewage works: *Cambridge STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>10,500</i>	<i>347</i>			
<i>P-32</i>	<i>3,540</i>	<i>9.2</i>			
<i>Ca-45</i>	<i>2,100</i>	<i>2.77</i>			
<i>S-35</i>	<i>1,764</i>	<i>202</i>			
<i>I-125</i>	<i>1,332</i>	<i>4.95</i>			
<i>C-14</i>	<i>420</i>	<i>0</i>			
<i>P-33</i>	<i>360</i>	<i>4.8</i>			

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Peptide Therapeutics Ltd* Site ref: *42 CAM*
and location: *Milton Road, Cambridge* Grid ref: *Tu 462 618*

1. Discharge to sewer

Flow from premises (per month): *100 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>8,880</i>	<i>144</i>			
<i>P-33</i>	<i>8,880</i>	<i>214</i>			
<i>C-14</i>	<i>4,440</i>	<i>0</i>			
<i>S-35</i>	<i>4,440</i>	<i>26</i>			
<i>P-32</i>	<i>4,440</i>	<i>13</i>			
<i>C-51</i>	<i>4,440</i>	<i>0</i>			
<i>I-125</i>	<i>4,440</i>	<i>25</i>			

2. Discharge to atmosphere

Stack height: *20 m*

Distance and bearing to nearest residence: *500 m*

Distance and bearing to nearest point of public access: *20 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>450</i>	<i>0</i>			

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Peterborough Hospital*
and location: *Thorp Road,*
Peterborough

Site ref: *43 CAM*
Grid ref: *TL 175 988*

1. Discharge to sewer

Flow from premises (per month): *6,500 m³*

Name of sewage works: *Flagfen, Peterborough*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>360,000</i>			<i>153,800</i>	<i>153,000</i>
<i>I-131</i>	<i>24,000</i>			-	-
<i>P-32</i>	<i>4,800</i>			-	-
<i>I-123</i>	<i>3,600</i>			<i>111</i>	-
<i>I-125</i>	<i>480</i>			<i>302</i>	<i>148</i>
<i>Other except</i>	<i>3,600</i>			<i>103</i>	<i>16</i>
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *Tc-99m aerial discharges not authorised.*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Plant breeding Institute* Site ref: *44 CAM*
and location: *Tumpington, Cambridge* Grid ref: *? (approx 445 550)*

1. Discharge to sewer

Flow from premises (per month): *1,500 m³*
Name of sewage works: *Cambridge STW (unrecorded)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
P-32	2 400	642	910	865	
P-33	1 200	173	33	9	
S-35	1 200	0	0	7	

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

RSA 3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Quadrant Holdings* Site ref: *45 CAM*
and location: *Maris Lane, Trumpington* Grid ref: *TL 443 545*
Cambridge

1. Discharge to sewer

Flow from premises (per month): *1,960 m³*

Name of sewage works: *Cambridge STW, Cowley Road*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>7,200</i>				
<i>(total)</i>					
<i>I-125</i>	<i>4,800</i>				
<i>Other except</i>	<i>12,000</i>				
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *SCH Bioscience*
and location: *Milton Road,*
Cambridge

Site ref: *46 CAM*
Grid ref: *7 (approx TL 465 620)*

1. Discharge to sewer

Flow from premises (per month): *120 m³*
Name of sewage works: *Cambridge STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-125</i>	<i>480</i>	<i>190</i>	<i>182</i>	<i>238</i>	
<i>Cd-57</i>	<i>4.8</i>	<i>3.0</i>	<i>3.0</i>	<i>2.4</i>	

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *The Babraham Institute* Site ref: *47 CAM*
and location: *Babraham, Cambridge* Grid ref: *TN 511 506* (154)

1. Discharge to sewer

Flow from premises (per month): *7,500 m³*
Name of sewage works: *Own sewage treatment plant ** } *see separate sheet for S.W.P.*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>4,440</i>	<i>216</i>	<i>612</i>	<i>297</i>	
<i>(total)</i>					
<i>Other except alpha (total)</i>	<i>8,880</i>	<i>1035</i>	<i>1,615**</i>	<i>2,077**</i>	

2. Discharge to atmosphere

Stack height: *N/A (see separate sheet for incinerator)*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** Discharges to ground (R. Cam catchment)*
*** Mainly Cr-51, P-32, S-35*

ASSESSMENT DATA: DISPOSAL BY INCINERATION

Site name *The Babraham Institute* Site ref: *47 CAM*
and location: *Babraham, Cambridge* Grid ref: *TL 511 506 (154)*

Type of incinerator: *Evans Universal 4B automatic with afterburner with dry scrubber*

Stack height: *13m*

Distance and bearing to nearest residence: *400 m*

Distance and bearing to nearest point of public access: *50 m*

Distance and bearing to nearest agricultural land

Nuclide	Authorised disposal per year (MBq)	Actual disposal per year (MBq)				Estimated release per year (MBq)
		1997	1996	1995	1994	
<i>H-3, C-14</i>	<i>6,000</i>					<i>6,000</i>
<i>(total)</i>						
<i>I-125</i>	<i>4,440</i>					<i>4,440</i>
<i>P-32</i>	<i>2,400</i>					<i>2,400</i>
<i>S-35</i>	<i>2,400</i>					<i>2,400</i>
<i>Cr-51</i>	<i>1,200</i>					<i>1,200</i>
<i>Other except alpha (total)</i>	<i>1,320</i>					<i>1,320</i>

Partition factors: *100% to atmosphere for all nuclides*

Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Thoroughbred Breeders* Site ref: *48 CAM (?)*
and location: *Newmarket, Suffolk* Grid ref: *? (approx TL 64 64)*

1. Discharge to sewer

Flow from premises (per month): *N/A*
Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *LSA3 not found*
Authorisation for transfer only.

ASSESSMENT DATA: DISPOSAL TO LANDFILL

Site name U. of Cambridge
and location: Waste Store, Madingley
Road Cambridge

Site ref: 49 CAM
Grid ref: ? (approx. TL 425 592)

Landfill name Milton Landfill
and location: near Cambridge

Grid ref: TL 467 625

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised disposal per year (MBq)	Actual disposal per year (MBq)			
		1997	1996	1995	1994
H-3, C-14	7,200	2060	3656	5435	3227
(total)					
Other except alpha (<100 days)	19,200	1,689	1,746	1,675	2,670
Other except alpha (>100 days)	1,848	185	240	214	38

Comments:

Includes organic liquids and solid wastes from central Waste Store - not certain whether wastes from other operators go to same landfill. See file for DOE letter re radiological impact of landfill (51 CAM).

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *V. of Cambridge*
and location: *Waste Store, Madingley*
Road, Cambridge

Site ref: *49 CAM*
Grid ref: *: (approx. TL 425 592*

1. Discharge to sewer

Flow from premises (per month):

Name of sewage works:

N/A

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

See separate sheet for disposal to landfill

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *U. of Cambridge*
and location: *Addenbrookes Hospital*
Hills Road, Cambridge

Site ref: *50 CAM*
Grid ref: *TL 466 552*

1. Discharge to sewer

Flow from premises (per month): *3,716 m³* (*main site + Farnie site*)

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>30,000</i>	<i>3308</i>	<i>1222</i>	<i>1519</i>	
<i>C-14</i>	<i>900</i>	<i>339</i>	<i>78</i>	<i>51</i>	
<i>Other except alpha (total)</i>	<i>93,600</i>	<i>16241</i>	<i>16830</i>	<i>21793</i>	

2. Discharge to atmosphere

Stack height: *20 m*

Distance and bearing to nearest residence: *75 m*

Distance and bearing to nearest point of public access: *20 m*

Distance and bearing to nearest agricultural land: *?*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>3,700</i>	<i>-</i>	<i>-</i>		

3. Comments: *Includes departments at Addenbrookes Hospital and the university Farnie Site*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *U. of Cambridge*

Site ref: *51 CAM*

and location: *Central Site Premises,
Cambridge*

Grid ref: *(various)**

1. Discharge to sewer

Flow from premises (per month): *36,974 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	<i>1,200,000</i>	<i>25.606</i>	<i>41.187</i>	<i>13.966</i>	<i>13.181</i>
S-35	<i>48,000</i>	<i>5.608</i>	<i>6.440</i>	<i>7.076</i>	<i>7.040</i>
I-125	<i>18,000</i>	<i>115</i>	<i>168</i>	<i>492</i>	<i>426</i>
C-14	<i>4,800</i>	<i>759</i>	<i>440</i>	<i>461</i>	<i>480</i>
<i>Other except alpha (total)</i>	<i>102,000</i>	<i>14.165</i>	<i>12.902</i>	<i>17.007</i>	<i>13.580</i>

2. Discharge to atmosphere

Stack height: *30 m ***

Distance and bearing to nearest residence: *80 m*

Distance and bearing to nearest point of public access: *30 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>29,600</i>	<i>-</i>	<i>0</i>	<i>-</i>	<i>16</i>
<i>Xe-133</i>	<i>10,000</i>	<i>9.2</i>	<i>0</i>	<i>3,470</i>	<i>4,830</i>

3. Comments:

** Isotopes listed in authorisation*

*** not clear which isotopes discharges to atmosphere*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *V. of Cambridge*
and location: *West Sites, Cambridge*

Site ref: *52 CAM*
Grid ref: *(various)**

1. Discharge to sewer

Flow from premises (per month): *5,390 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>6,660</i>	<i>899</i>	<i>756</i>	<i>135</i>	
<i>C-14</i>	<i>888</i>	<i>-</i>	<i>-</i>	<i>-</i>	
<i>Other except alpha (total)</i>	<i>13,200</i>	<i>1430</i>	<i>1488</i>	<i>314</i>	

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** See listed premises*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *U. of Cambridge*
and location: *Dept. of Zoology,*
Madingley, Cambridge

Site ref: *53 CAM*
Grid ref: *TL 397 605*

1. Discharge to sewer

Flow from premises (per month): *100 m³*

Name of sewage works: *Wtons Drive, Holworth, Cambridge*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>360</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>(total)</i>					
<i>Other except</i>	<i>28.8</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0.6 *</i>
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: ** I-125 only*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Wolfson Brain Imaging* Site ref: *54 CAM*
and location: *Addenbrookes NHS Trust,* Grid ref: *TL 466 552*
Hills Road, Cambridge

1. Discharge to sewer

Flow from premises (per month): *30,000 m³*

Name of sewage works: *Milton STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>F-18</i> **	<i>43,200</i>		<i>0</i>		
<i>V-48</i>	<i>4.8</i>		<i>0</i>		

2. Discharge to atmosphere

Stack height: *33m* *

Distance and bearing to nearest residence: *400m*

Distance and bearing to nearest point of public access: *50m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>O-15</i>	<i>240</i>		<i>0</i>		

3. Comments: * Cyclotron facility discharge stack - vent to delay tank producing time delay of 34 mins. before discharge to stack (O-15 half-life 2 mins.) See note for assessment of dose.

** LL-01 D.in: F-18 110 mins: V-48 16 days

ASSESSMENT DATA: DISPOSAL BY INCINERATION

Site name *Agnews UK*
and location: *Chesterford, Suffolk*

Site ref: 55 ESS
Grid ref: TL 534 422 (154)

Type of incinerator: Horizontal GG14

Stack height: 12 m

Distance and bearing to nearest residence: 60 m

Distance and bearing to nearest point of public access: 180 m

Distance and bearing to nearest agricultural land

[illegible]

Partition factors: 100% to atmosphere for all nuclides

Comments: Discharge records for 1994 only - not certain whether refer to actual disposal or discharge to air.

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name Basildon & Thurrock Hospital Site ref: 56 ESS
and location: Basildon, Essex Grid ref: TQ 701 872

(178)

1. Discharge to sewer

Flow from premises (per month): $12,665 \text{ m}^3$

Name of sewage works: Basildon STP

[illegible]

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Coalers Refining*
and location: *Hannich, Essex*

Site ref: *57 ESS*

Grid ref:

TM 2232 SE - 622800 NS
TM 2232 SE - 232100 EW
(169)

1. Discharge to sewer

Flow from premises (per month): *25,000 m³*

Name of sewage works: *Direct to R. Stew estuary **

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Po-210</i>	<i>0.096</i>		<i>1.02**</i>		

2. Discharge to atmosphere

Stack height: *25 m (several stacks)*

Distance and bearing to nearest residence: *750 m*

Distance and bearing to nearest point of public access: *200 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Po-210</i>	<i>675</i>		<i>2.36</i>		

3. Comments: ** at TM 2232 62290 EW, ?*
TM 2232 232 695 NS ?

*** Estimated that most "drops out" in drainage system before reaching estuary!*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Exxon Fuels Health*, Site ref: *58 ESS*
and location: *Colchester Hospital,* Grid ref: *TL 9927*
Turner Road
Colchester

1. Discharge to sewer

Flow from premises (per month): *4,600 m³*

Name of sewage works: *Haven STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Tc-99m	120,000		45,639	56,311	
Tl-201	3900		281	27	
Ga-67	1800		132	0	
In-111	1800		0	0	
Cr-51	900		40	70	
I-131	420		0	0	
P-32	300		0	0	
Se-75	120		0	0	
Sr-89	120		0	0	
I-125	60		0	1.2	
Fe-59	60		0	0	
Co-57	60		0	0	
Co-58	60		0	0	
Y-90	24		0	0	
Other except alpha (total)	120		0	0	

2. Discharge to atmosphere

Stack height: *10 m (from patient)*

Distance and bearing to nearest residence: *300 m*

Distance and bearing to nearest point of public access: *75 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Tc-99m	1,750		894	890	

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Exon Rivers Health* Site ref: *59 ESS*
and location: *Exon County Hospital,* Grid ref: *TL 9824*
Heaton Road, Colchester

1. Discharge to sewer

Flow from premises (per month): *4,000 m³*

Name of sewage works: *Haven STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>240,000</i>		<i>143.169</i>	<i>139,304</i>	
<i>I-131</i>	<i>28,200</i>		<i>10,989</i>	<i>3,013</i>	
<i>P-32</i>	<i>3,000</i>		<i>183</i>	<i>54</i>	
<i>Tl-201</i>	<i>3,000</i>		<i>266</i>	<i>492</i>	
<i>Sr-89</i>	<i>2,400</i>		<i>450</i>	<i>45</i>	
<i>Cs-137</i>	<i>1,800</i>		<i>423</i>	<i>634</i>	
<i>Ta-182</i>	<i>1,800</i>		<i>0</i>	<i>0</i>	
<i>Ga-67</i>	<i>1,200</i>		<i>265</i>	<i>126</i>	
<i>Se-75</i>	<i>180</i>		<i>1.6</i>	<i>1.9</i>	
<i>I-125</i>	<i>120</i>		<i>1.2</i>	<i>0.3</i>	
<i>Fe-59</i>	<i>60</i>		<i>0</i>	<i>0</i>	
<i>Co-57</i>	<i>60</i>		<i>0.4</i>	<i>0.5</i>	
<i>Co-58</i>	<i>60</i>		<i>0.5</i>	<i>0.8</i>	
<i>V-90</i>	<i>60</i>		<i>0</i>	<i>0</i>	
<i>Other except alpha (total)</i>	<i>120</i>		<i>0</i>	<i>0</i>	

2. Discharge to atmosphere

Stack height: *5 m (from patients)*

Distance and bearing to nearest residence: *50 m*

Distance and bearing to nearest point of public access: *10 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>500</i>		<i>320</i>	<i>315</i>	

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Mid Essex Hospitals* Site ref: *60 ESS*
and location: *Count Road, Chelmsford* Grid ref: *TL 7010*

(167)

1. Discharge to sewer

Flow from premises (per month): *4,180 m³*

Name of sewage works: *Chelmsford STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>300,000</i>		<i>111,364</i>		
<i>I-131</i>	<i>3,600</i>		<i>18</i>		
<i>I-125</i>	<i>600</i>		<i>228</i>		
<i>Other except</i>	<i>2,500</i>		<i>1,100</i>		
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *?* (*patient exhalation*)

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>1,700</i>		<i>1,455</i>		

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Mobile Oil Co.*
and location: *Guyton Refinery,*
Essex

Site ref: *61 ESS*
Grid ref: *TQ 747 823*

1. Discharge to sewer

Flow from premises (per month): $5.5 \times 10^6 \text{ m}^3$

Name of sewage works: *Drain to R. Thames at TQ 747 823*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *107 m at 61 m*

Distance and bearing to nearest residence: *940 m*

Distance and bearing to nearest point of public access: *570 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

Authorisation not available

Site name *Nichols Institute* Site ref: *62 ESS*
and location: *Naffton Walden, Essex* Grid ref: *TL 5521 2338*

Flow from premises (per month): N/A
Name of sewage works:

[illegible]

Stack height: N/A
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

[illegible]

Authorized Transfers only

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Rhone Poulenc Agriculture* Site ref: *63 ESS*
and location: *Manningtree, Essex* Grid ref: *TM 099 305*

(168)

1. Discharge to sewer

Flow from premises (per month): *N/A*
Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *0 m*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

} *Respiration of plants*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14</i>	<i>12,000</i>		<i>357</i>		<i>521</i>

3. Comments:

Site name and location: Shell UK Ltd
Shell Haven Refinery
Stanford-la-Hope, Essex

Grid ref: 7 (approx TQ 76 32)

(178)

Flow from premises (per month):

Name of sewage works: Direct to R. Thames

2. Discharge to atmosphere

Stack height: 31 m (minimum)

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

3. Comments:

RSA3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Southeast Health Care*
and location: *Southeast Hospital,*
Westcliff, Essex

Site ref: 65 ESS
Grid ref: TQ 864 873

(178)

1. Discharge to sewer

Flow from premises (per month): 5,519 m³

Name of sewage works: *Southeast STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996 *	1995	1994 *
<i>Tc-99m</i>	<i>480,000</i>		<i>233,873</i>		<i>145,000</i>
<i>I-131</i>	<i>200,000</i>		<i>55,925</i>		<i>70,700</i>
<i>Other exempt alpha (total)</i>	<i>36,000</i>		<i>3,441</i>		<i>5,700</i>

2. Discharge to atmosphere

Stack height: *Various (up to 15 m) - see below for routes **

Distance and bearing to nearest residence: *150 m*

Distance and bearing to nearest point of public access: *5 - 6 m*

Distance and bearing to nearest agricultural land:

	Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
			1997	1996	1995	1994
(a)	<i>Xe-133</i>	<i>215,000</i>		<i>0</i>		<i>0</i>
(b)	<i>Xe-133</i>	<i>24,000</i>		<i>0</i>		<i>0</i>
	<i>Tc-99m</i>	<i>6,000</i>		<i>1.344</i>		<i>0</i>
(c)	<i>C-14, H-3</i>	<i>1,000</i>		<i>1.5</i>		<i>-</i>
	<i>(total)</i>					

3. Comments: *Route (a) 15 m above ground*
" (b) Room extractor fans
" (c) Hospital vent. system
** not complete year*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *University of Essex*
and location: *Colchester*

Site ref: *66 ESS*
Grid ref: *7 (approx. TMO2S 238)*

1. Discharge to sewer

Flow from premises (per month): *18,000 m³*
Name of sewage works: *?*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>24,000</i>		<i>274</i>		<i>200</i>
<i>Other except alpha (total)</i>	<i>24,000</i>		<i>616</i>		<i>1268</i>

2. Discharge to atmosphere

Stack height: *Various (15-30m)*
Distance and bearing to nearest residence: *?*
Distance and bearing to nearest point of public access: *?*
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>100</i>		<i>92 ?</i>		<i>95 ?</i>
<i>Tc-99</i>	<i>1.2</i>		<i>?</i>		<i>?</i>

3. Comments: *See separate sheet for incinerator.*
RS43 not found.

Site name and location: University of Essex
Colchester

Site ref: 66 ESS
Grid ref: 7 (approx. TM028238)

Type of incinerator: Incinerator firestream F35 with afterburner

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land

[illegible]

Partition factors: 100% to atmosphere for all nuclides

Comments: * Organic and solid wastes
RSA 3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Conoco Ltd*
and location: *Grimby, South*
Humber side

Site ref: 67 HUM
Grid ref: TA 15870 -
16750

1. Discharge to sewer

Flow from premises (per month): 360,000 m³

Name of sewage works: *an effluent treatment plant to South* } *see*
Killingholme main drain } *appendix*
} *sheet*
} *for STP*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Bt-82</i>	<i>177,600</i>				
<i>Ta-113m</i>	<i>192,000</i>				
<i>Na-24</i>	<i>88,800</i>				
<i>Mn-56</i>	<i>22,200</i>				
<i>H-3</i>	<i>1,800,000</i>				
<i>Tc-99m</i>	<i>2,400,000</i>				
<i>other except</i>	<i>120,000</i>				
<i>alpha (-)</i>					

2. Discharge to atmosphere

Stack height: *Various (13m to 100m)*

Distance and bearing to nearest residence: ?

Distance and bearing to nearest point of public access: ?

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>300,000</i>				
<i>Kr-85</i>	<i>800,000</i>				
<i>Kr-79</i>	<i>148,000</i>				
<i>Ar-41</i>	<i>600,000</i>				
<i>other except</i>	<i>32,000</i>				
<i>alpha (-)</i>					

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *humber Oil Refinery* Site ref: 68 HUM
and location: *Birmingham, Grimsby* Grid ref: TA 1569 1755

1. Discharge to sewer

Flow from premises (per month): *180,000 m³*
Name of sewage works: *Own effluent treatment plant to North Killingholme Drain and R. Humber* (see report sheet for details)

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	450,000				
In-113m	88,800				
Br-82	44,400				
Na-24	22,200				
Mn-56	22,200				
Ba-137m	22,200				

2. Discharge to atmosphere

Stack height: *various (91-132 m)*
Distance and bearing to nearest residence: *800 m*
Distance and bearing to nearest point of public access: *200 m*
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Kr-85	1,200,000				
Kr-79	450,000				
H-3	450,000				
La-140/Na-24	2,220				

3. Comments:

**Discharge point TA 1579 1861*

See note for assessment of marine discharge

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Millennium Inorganic*
and location: *Grimaby, South*
Humber-side

Site ref: *69 HUM*
Grid ref: *? (approx. TA 2114)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Direct to River Humber*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>All activity</i>	<i>(see below)</i>				
<i>(Ra-226</i>					
<i>Th-232 etc)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

RSF3 not found

*Disposal limit 0.74 Bq/g - no limit
to total activity by this route.*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Millennium Inorganic*
and location: *Grimsby, North*
Humber side

Site ref: *70 HUM*
Grid ref: *? (approx. TA 2114)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Direct to River Humber*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

Replaced by single authorisation
(see 69 HUM)

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *North East Leics NHS*
and location: *Grimby Hospital,*
Grimby

Site ref: *71 HUM*
Grid ref: *? (approx. TA 263 072)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Pye's pumping station (to Humber Estuary)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>360,000</i>				
<i>I-131</i>	<i>24,000</i>				
<i>I-125</i>	<i>60</i>				
<i>Other except</i>	<i>24,000</i>				
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *RSA3 not found*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Conoco (UK) Ltd*
and location: *Theddlethorpe, Lincs.*

Site ref: *72 LIN*
Grid ref: *TF 4887 4987*
(*at TF 488 873 ?*)

1. Discharge to sewer

Flow from premises (per month): *66,000 m³*

Name of sewage works: *Pipeline to sea (at TF 5056 8750)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Ra-226</i>	<i>9,000</i>				
<i>Ra-228</i>	<i>9,000</i>				
<i>Ra-224</i>	<i>9,000</i>				
<i>Pb-210</i>	<i>9,000</i>				
<i>Bc-210</i>	<i>9,000</i>				
<i>Po-210</i>	<i>9,000</i>				

2. Discharge to atmosphere

Stack height: *N/A*
Distance and bearing to nearest residence:
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

See note for assessment of dose

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Grantham & District Hospital* Site ref: *73 LIN*
and location: *Grantham, Lincs.* Grid ref: *? (approx. SK 913 368)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *?*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>240,000</i>				
<i>I-123</i>	<i>6,000</i>				
<i>I-131</i>	<i>1,200</i>				
<i>I-125</i>	<i>144</i>				
<i>Other except</i>	<i>16,800</i>				
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

RSA3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Lincoln & North NHS*
and location: *St. George's Hospital,*
Lincoln

Site ref: *74 LIN*
Grid ref: *? (approx. SK 962 73)*

1. Discharge to sewer

Flow from premises (per month): *?*

Name of sewage works: *Camwick Sew, Lincoln (assumed)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>I-131</i>	<i>216,000</i>				
<i>Tc-99m</i>	<i>36,000</i>				
<i>I-125</i>	<i>12</i>				
<i>P-32, Co-58</i>	<i>9,600</i>				
<i>Sr-75, Sr-89</i>					
<i>Y-90 (total)</i>					
<i>Other except alpha (total)</i>	<i>4,800</i>				
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

RSA 3 not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Lincoln & North NHS*
and location: *County Hospital,*
Lincoln

Site ref: *75 LIN*
Grid ref: *SK 988 718*

1. Discharge to sewer

Flow from premises (per month): *6,000 m³*

Name of sewage works: *Camwick STW, Lincoln*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>300,000</i>				
<i>I-125</i>	<i>240</i>				
<i>I-131</i>	<i>36,000</i>				
<i>I-123</i>	<i>7,200</i>				
<i>Sr-75</i>	<i>6</i>				
<i>Tl-201</i>	<i>14,400</i>				
<i>Ir-111, Co-57</i>					
<i>Co-58, Cr-51</i>					
<i>Ga-67, other</i>					
<i>except alpha</i>					
<i>(total)</i>					

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Pilgrim Health NHS*
and location: *Pilgrim Hospital,*
Boston, Lincoln.

Site ref: *76 LIN*
Grid ref: *? (approx TF 034 04)*

1. Discharge to sewer

Flow from premises (per month):

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>300,000</i>				
<i>I-131</i>	<i>9,600</i>				
<i>I-123</i>	<i>2,400</i>				
<i>I-125</i>	<i>180</i>				
<i>Other except alpha (total)</i>	<i>12,000</i>				

2. Discharge to atmosphere

Stack height: *N/A*

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments: *RSA 3 not found*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *British Sugar Plc.*
and location: *Norwich Res. Park,*
Colney, Norwich

Site ref: *77 NOF*
Grid ref: *? (approx. TG 183082)*

1. Discharge to sewer

Flow from premises (per month): *60 - 270 m³*

Name of sewage works: *Whitlingham STW (aerated)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>1,200</i>		<i>90</i>		
<i>(total)</i>					
<i>S-35</i>	<i>1,200</i>		<i>0</i>		
<i>P-32</i>	<i>600</i>		<i>0</i>		
<i>T-125</i>	<i>120</i>		<i>0</i>		
<i>Other except</i>	<i>600</i>		<i>-</i>		
<i>alpha (total)</i>					

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Institute of Food Research* Site ref: *78 NOF*
and location: *Norwich Res. Park,* Grid ref: *TG 183 082*
Colney lane, Norwich

1. Discharge to sewer

Flow from premises (per month): 500 - 2,000 m³

Name of sewage works: Whitlingham STW

[illegible]

2. Discharge to atmosphere

Stack height: 15 m

Distance and bearing to nearest residence: 125 m

Distance and bearing to nearest point of public access: 25 m

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	2,000				
C-14	20				

3. Comments:

~~See additional sheet for incubation~~

Site name *Institute of Food Research* Site ref: *78 NDF*
and location: *Norwich Res. Park,* Grid ref: *TG 183 082*
Colney Lane, Norwich

Stack height: 10 m

Distance and bearing to nearest point of public access: 25 m

[illegible]**Comments:**

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *John Innes Centre*
and location: *Normich Res. Park,*
Colney house, Normich

Site ref: 79 NDF
Grid ref: TG 1828 0752

1. Discharge to sewer

Flow from premises (per month): *4,660 m³*

Name of sewage works: *Whitlingham STW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	120,000		240	700	
Mo-99/Tc-99m	24,000		0	-	
C-14	2,400		33	60	
P-32/P-33	96,000		7,900	6,800	
S-35	36,000		650	920	
Other exempt alpha (total)	12,000		0	-	

2. Discharge to atmosphere

Stack height: *various (10-22 m)*

Distance and bearing to nearest residence: *140 - 250 m*

Distance and bearing to nearest point of public access: *50 - 220 m*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	200,000		0	-	
C-14	6,000		1	-	
Other exempt alpha (total)	1		0	-	

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Suffolk College*
and location: *Ipswich*

Site ref: *98 SUF*
Grid ref: *? (approx TM 1744)*

1. Discharge to sewer

Flow from premises (per month): *11,760 m³*

Name of sewage works: *Cliff Quay, Ipswich*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Sr-90 and</i>	<i>96</i>				
<i>all other</i>					
<i>alpha (total)</i>					
<i>Other (beta)</i>	<i>962</i>				
<i>total</i>					

2. Discharge to atmosphere

Stack height: *31 m*

Distance and bearing to nearest residence: *400 m*

Distance and bearing to nearest point of public access: *10 m (indoor)*

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>all nuclides</i>	<i>888</i>				
<i>(other than</i>					
<i>alpha)</i>					

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name: *Ipswich Hospital NHS* Site ref: *99 SVF*
and location: *Heath Road, Ipswich* Grid ref: *TM 194 450*

1. Discharge to sewer

Flow from premises (per month): *9,000 m³*
Name of sewage works: *Cliff Quay, Ipswich*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>1,200</i>		<i>-</i>	<i>-</i>	<i>-</i>
<i>C-14</i>	<i>1,200</i>		<i>70</i>	<i>30</i>	<i>20</i>
<i>Tc-99m</i>	<i>840,000</i>		<i>80,000</i>	<i>83,000</i>	<i>110,000</i>
<i>I-131</i>	<i>156,000</i>		<i>39,000</i>	<i>50,000</i>	<i>21,000</i>
<i>Other except alpha (total)</i>	<i>3,000</i>		<i>270</i>	<i>110</i>	<i>80</i>

2. Discharge to atmosphere

Stack height: *11m*
Distance and bearing to nearest residence: *70 m*
Distance and bearing to nearest point of public access:
Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Xe-133</i>	<i>100,000</i>		<i>84,000</i>	<i>79,000</i>	<i>84,000</i>

3. Comments:

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name VCH hld.

Site ref: 100 SUF

and location: Brandon, Suffolk

Grid ref: TL 773 854

(144)

1. Discharge to sewer

Flow from premises (per month):

Ni / A

Name of sewage works:

[illegible]

2. Discharge to atmosphere

Stack height: 8 m

Distance and bearing to nearest residence: 180 m

Distance and bearing to nearest point of public access: 17 m

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
H-3	300,000			194,000	20,700

3. Comments:

Current authorisation not found

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *Wardle Storeys Plc.*
and location: *Brantham,*

Site ref: *101 SVF*

Grid ref: *TM 1070 3270*

Manningtree, Essex

1. Discharge to sewer

Flow from premises (per month):

N/A

Name of sewage works:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

2. Discharge to atmosphere

Stack height:

N/A

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994

3. Comments:

*Authorisation refers to accumulation
for decay and disposal to bechem.*

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *West Suffolk Hospitals* Site ref: 102 SUF
and location: *W. Suffolk Hospital* Grid ref: TL 851 627
Bury St. Edmunds

1. Discharge to sewer

Flow from premises (per month): 5,000 m³

Name of sewage works: *Bury St. Edmunds SW*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Tc-99m	240,000	117,000	101,000		
I-131	36,000	-	74		
P-32	2,400	-	-		
Other except alpha (total)	3,000	74 *	0.3		

2. Discharge to atmosphere

Stack height: 5 m (*building extraction*)

Distance and bearing to nearest residence: 100 m

Distance and bearing to nearest point of public access: 20 m

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
Tc-99m	10	0.06	0.14		

3. Comments: * Tl-201, Co-57, Co-58.

ASSESSMENT DATA: LIQUID AND GASEOUS DISPOSAL

Site name *White Rose Environmental* Site ref: *103 SVF*
and location: *Ipswich Hospital,* Grid ref: *TM194 448*
Ipswich

1. Discharge to sewer

Flow from premises (per month): *900 m³ from White Rose plus 10,800 m³ from Hospital*
Name of sewage works: *Cliff Quay, Ipswich (assumed)*

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
<i>Any except alpha (total)</i>	<i>120 *</i>		<i>-</i>		

2. Discharge to atmosphere

Stack height:

Distance and bearing to nearest residence:

Distance and bearing to nearest point of public access:

Distance and bearing to nearest agricultural land:

Nuclide	Authorised release per year (MBq)	Actual release per year (MBq)			
		1997	1996	1995	1994
	<i>See above to check for incineration</i>				

3. Comments: ** Incinerator bin washings*

Site name *White Rose Environmental* Site ref: 103 SVF
and location: *Ipswich Hospital,* Grid ref: TM 194 448

Type of incinerator: ^{1 process} Evans universal multihearth with lime/charcoal scrubber

Stack height: 48 m

Distance and bearing to nearest point of public access: 30m

Distance and bearing to nearest agricultural land

[illegible]

Partition factors: 100% to atmosphere for all nuclides

Comments:

APPENDIX C

COMPILED DATA ON SEWAGE TREATMENT PLANTS

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ASSESSMENT DATA: SEWAGE PLANT

Plant name *Bazildon STW*
and location: *Swan*

Site ref: *?*
Grid ref: *?*

Discharge to: *Pitsea Creek (tidal)* Location: *TQ 7371 8742*
(grid ref)

Vol. flow (raw sewage) into plant: *28,400 m³/d*

Vol. flow out from plant: *28,400 m³/d*

Vol. flow of river/estuary at discharge point: *No GS (tidal)*

Type of plant: *Activated sludge*

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>276,000</i>		<i>163,000</i>		<i>143,900</i>
<i>Other except</i>	<i>8,880</i>		<i>23</i>		<i>566</i>
<i>alpha (total)</i>					

Comments:

ASSESSMENT DATA: SEWAGE PLANT

Plant name Bedford STW
and location: Meadow Lane,
Cardington

Site ref:

Grid ref:

Discharge to: R. Great Ouse

Location: TN 083 495
(grid ref)

Vol. flow (raw sewage) into plant: 35,000 m³/d

Vol. flow out from plant: 35,000 m³/d

Vol. flow of river/estuary at discharge point: [33002] 10.2 m³/s

mean flow
preceding)
1996)

Type of plant:

Production rate of sludge: 67,500 m³/y
(liquid)

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
Tc-99m	255,000	110,000	130,000		
TR-201	7,200	66	89		
Ga-67	3,600	110	92		
I-123	2,400	0	0		
I-131	1,800	0	670		
In-111	1,776	0	0		
Ct-51	840	0	0		
I-125	36	0	0		
Ce-57	12	0.07	0.37		
Other accept	1,200	0.1	0.56		
Other (total)					

Comments:

01.BED

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Boston STW*
and location: *hines*

Site ref: *7*
Grid ref: *.*

Discharge to: *R. Witham*

Location: *~ TF 3244*
(grid ref)

Vol. flow (raw sewage) into plant: *10,000 m³/d*

Vol. flow out from plant: *10,000 m³/d*

Vol. flow of river/estuary at discharge point:
$$\begin{array}{r} 30002 \\ + \\ 30001 \\ + \\ 30006 \\ + \\ 30003 \end{array}$$
 4.892 m³/d

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99 m</i>	<i>300,000</i>				
<i>I-131</i>	<i>9,600</i>				
<i>I-123</i>	<i>2,400</i>				
<i>I-125</i>	<i>180</i>				
<i>Other except</i>	<i>12,000</i>				
<i>alpha (total)</i>					

Comments: *76 LIN*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Broadholme STW*
and location: *near Kettering*

Site ref:
Grid ref:

Discharge to: *R. Nene*

Location: *SP 939 688 **
(grid ref)

Vol. flow (raw sewage) into plant: *46,500 m³/d*

Vol. flow out from plant: *46,500 m³/d*

Vol. flow of river/estuary at discharge point:

$$\begin{array}{r} 32004 \\ + \\ 32006 \\ + \\ 32007 \\ + \\ 32008 \end{array}$$

4.503 m³/s

Type of plant:

Production rate of sludge: *78,750 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
P-32	<i>2,400</i>			-	<i>0.1</i>
Cr-51	<i>36</i>			<i>2</i>	<i>0.1</i>
Cr-57	<i>6</i>			<i>0.1</i>	<i>0.1</i>
Co-58	<i>3</i>			<i>0.2</i>	<i>0.1</i>
Ga-67	<i>3,600</i>			-	-
Tc-99m	<i>240,000</i>			<i>142,000</i>	<i>129,600</i>
I-123	<i>6,000</i>			<i>160</i>	<i>56</i>
I-125	<i>340</i>			<i>102</i>	<i>95</i>
Tr-201	<i>6,000</i>			<i>282</i>	<i>199</i>

Comments:

85 NOH

** Discharge point is
at Broadholme STW on
R. Nene (near Wellingborough)*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Bury St. Edmunds**
and location: *Suffolk* Site ref:
Grid ref:

Discharge to: *R. Lark (unmanned)* Location: *~ TL 84 68*
(grid ref)

Vol. flow (raw sewage) into plant: *11,000 m³/d*

Vol. flow out from plant: *11,000 m³/d*

Vol. flow of river/estuary at discharge point: *[33014]* *1.279 m³/s*

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>240,000</i>	<i>117,000</i>	<i>101,000</i>		
<i>I-131</i>	<i>36,000</i>	<i>-</i>	<i>74</i>		
<i>P-32</i>	<i>2,400</i>	<i>-</i>	<i>-</i>		
<i>Other except alpha (total)</i>	<i>3,000</i>	<i>74</i>	<i>0.3</i>		

Comments: *10230F*

** Known as Fornham All Saints STW*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Canwick STW*
and location: *Washington Road,*
Lincoln

Site ref: *—*
Grid ref:

Discharge to: *South Delfe and to*
R. Witham

Location: *SK 988 703*
(grid ref)

Vol. flow (raw sewage) into plant: *29,400 m³/d*

Vol. flow out from plant: *29,400 m³/d*

Vol. flow of river/estuary at discharge point: *[3000]* *1.755 m³/s*

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>336,000</i>				
<i>I-125</i>	<i>252</i>				
<i>I-131</i>	<i>252,000</i>				
<i>I-123</i>	<i>7,200</i>				
<i>Other except</i>	<i>28,800</i>				
<i>alpha (etc)</i>					

Comments:

75 LIN ; 74 LIN

Plant name and location: Chelmsford S.W.
Essex

Discharge to: Blackwater Estuary
via R. Chelmer

Vol. flow (raw sewage) into plant: 52,050 m³/d

Vol. flow out from plant: 52,050 m³/d

Vol. flow of river/estuary at discharge point: $[37008] \times 1.046 \text{ m}^3/\text{s}$

Production rate of sludge: None (liquid)

River usage/abstraction:

Comments:

60 ESS-

ASSESSMENT DATA: SEWAGE PLANT

Plant name and location: *Corby STW
Northants.*

Site ref:
Grid ref:

Discharge to: *Willow Brook,
R. Welland**

Location:
(grid ref) *?*

Vol. flow (raw sewage) into plant: *10,760 m³/d*

Vol. flow out from plant: *10,760 m³/d*

Vol. flow of river/estuary at discharge point: *[32002] 0.784 m³/s*

Type of plant:

Production rate of sludge: *63,750 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>396</i>				

Comments:

88 NCH

** Willow Brook flows into
R. Nene not R. Welland - locat.
of STW not known.*

ASSESSMENT DATA: SEWAGE PLANT

Plant name and location: *Cliff Quay STW Ipswich*

Site ref:
Grid ref:

Discharge to: *R. Orwell (tidal)*

Location: *TM 1713 4150*
(grid ref)

Vol. flow (raw sewage) into plant: *28 - 29,000 m³/d*

Vol. flow out from plant: *(as above ?)*

Vol. flow of river/estuary at discharge point: *[35001] 1.384 m³/s*

Type of plant:

Production rate of sludge: *91,250 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
H-3	1,200		-	-	-
C-14	1,200		70	30	20
Tc-99m	840,000		80,000	83,000	110,000
I-131	156,000		39,000	50,000	21,000
Other exempt	4,082		270	110	80
alpha (total)					
Sr-90 and	96		-	-	-
all other					
alpha (total)					

Comments: *98 SVF*
99 SVF
103 SVF

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Glton Valley STW*
and location: *Milton Keynes*

Site ref:
Grid ref:

Discharge to: *R. Great Ouse*

Location: *SP 8841 4518*
(grid ref)

Vol. flow (raw sewage) into plant: *54,610 m³/d*

Vol. flow out from plant: *(as above?)*

Vol. flow of river/estuary at discharge point: $\left[\begin{array}{r} 33037 \\ + \\ 33015 \end{array} \right] 6.919 \text{ m}^3/\text{s}$

Type of plant:

Production rate of sludge: *98-100,000 m³/y*
(liquid)

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq) *			
		1997	1996	1995	1994
H-3, C-14 (total)	<i>180,060</i>		<i>1836</i>	<i>2300</i>	<i>90</i>
I-125	<i>8,044</i>		<i>67</i>	<i>20</i>	<i>34</i>
S-35	<i>3,000</i>		-	-	-
Tc-99m	<i>30,000</i>		<i>2,100</i>	-	<i>1,250</i>
Ct-51	<i>888</i>		<i>36</i>	-	<i>149</i>
Other except alpha (total)	<i>2,534</i>		<i>3</i>	-	<i>2</i>
Am, alpha (total)	<i>12</i>		-	-	-

Comments:

06 BUC
07 BUC
08 BUC
09 BUC
10 BUC

** not all sites reported each year*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Flag Fen STW*
and location: *Peterborough*

Site ref:
Grid ref:

Discharge to: *R. Nene*

Location: *TL 272 994*
(grid ref)

Vol. flow (raw sewage) into plant: *58,000 m³/d*

Vol. flow out from plant: *58,000 m³/d*

Vol. flow of river/estuary at discharge point: *[3200]* *9.385 m³/s*

Type of plant:

Production rate of sludge: *105,000 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>360,000</i>			<i>153,820</i>	<i>153,000</i>
<i>I-131</i>	<i>24,000</i>			-	-
<i>P-32</i>	<i>4,800</i>			-	-
<i>I-123</i>	<i>3600</i>			<i>111</i>	-
<i>I-125</i>	<i>480</i>			<i>302</i>	<i>148</i>
<i>other except</i>	<i>3,600</i>			<i>103</i>	<i>16</i>
<i>alpha (total)</i>					

Comments:

43 CAM

* Known as Marston Strw

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Great Billing STW*
and location: *Northampton*

Site ref:
Grid ref:

Discharge to: *R. Nene*

Location: *SP 818 619*
(grid ref)

Vol. flow (raw sewage) into plant: *50,000 m³/d*

Vol. flow out from plant: *50,000 m³/d*

Vol. flow of river/estuary at discharge point: $\left[\begin{array}{c} 32006 \\ + \\ 32007 \\ + \\ 32008 \end{array} \right] 3.153 \text{ m}^3/\text{s}$

Type of plant:

Production rate of sludge: *125,625 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>264,000</i>				
<i>I-123</i>	<i>6,000</i>				
<i>I-125</i>	<i>120</i>				
<i>I-131</i>	<i>132,000</i>				
<i>Other except</i>	<i>25,500</i>				
<i>alpha (total)</i>					

Comments:

87 NOH

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Great Chesterford STW*
and location: *Daffron Walden*

Site ref:
Grid ref:

Discharge to: *R. Cam*

Location: *TL 506 428*
(grid ref)

Vol. flow (raw sewage) into plant: *432 m³/d*

Vol. flow out from plant: *432 m³/d*

Vol. flow of river/estuary at discharge point: *[33051] 0.601 m³/d*

Type of plant:

Production rate of sludge: *2,500 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq) *			
		1997	1996	1995	1994
<i>P-32</i>	<i>11,940</i>	<i>3,260</i>	<i>2,580</i>	<i>2,250</i>	
<i>S-35</i>	<i>8,520</i>	<i>137</i>	<i>136</i>	<i>110</i>	
<i>P-33</i>	<i>7,080</i>	<i>4</i>	<i>0</i>	<i>0</i>	

Comments:

23 CAM 36 CAM

*Discharge records from
23 CAM only*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Haven STW*
and location: *Colchester, Essex*

Site ref:
Grid ref:

Discharge to: *R. Colne*

Location: *TM 01 23*
(grid ref)

Vol. flow (raw sewage) into plant: *27,300 m³/d*

Vol. flow out from plant: *27,300 m³/d*

Vol. flow of river/estuary at discharge point: *[37005] 1.036 m³/s*

Type of plant:

Production rate of sludge: *None (liquid)*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
H-3	24,000		274		200
Tc-99m	360,000		188,508		195,615
Tl-201	6,900		547		519
Ga-67	3,000		397		126
In-111	3,600		0		0
Cr-51	2,700		463		704
I-131	28,620		10,989		3,013
P-32	3,300		183		54
Se-75	300		2		2
Sr-89	2,520		450		45
I-125	180		1		2
* other receipt waste (total)	24,684		617		1,269

Comments:

58 ESS 59 ESS 66 ESS

* minor nuclides included in this category

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Huntingdon* STW
and location: *Godmanchester*

Site ref:

Grid ref:

Discharge to: *fr. Ouse*

Location: TL 262 07100
(grid ref)

Vol. flow (raw sewage) into plant: $10,700 \text{ m}^3/\text{d}$

Vol. flow out from plant: $10,700 \text{ m}^3/\text{d}$

Vol. flow of river/estuary at discharge point: $\left[\begin{array}{r} 33020 \\ + \\ 33026 \end{array} \right] 14.90 \text{ m}^3/\text{s}$

Type of plant:

Production rate of sludge: $30,000 \text{ m}^3/\text{y}$

Sludge disposal route:

River usage/abstraction:

[illegible]**Comments:**

25 CAM

ASSESSMENT DATA: SEWAGE PLANT

Plant name Kentford STW
and location: (near) Newmarket

Site ref:

Grid ref:

Discharge to: R. Kennett
(Lee Brook)

Location: TL 699 688
(grid ref)

Vol. flow (raw sewage) into plant: 350 m³/d

Vol. flow out from plant: 350 m³/d

Vol. flow of river/estuary at discharge point: [33023] 0.249 m³/s

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<u>Tc-99m</u>	<u>12,000</u>		<u>-</u>		
<u>Cs-137</u>	<u>9,600</u>		<u>2587</u>	<u>1,662</u>	
<u>H-3</u>	<u>3,600</u>		<u>119</u>	<u>135</u>	
<u>S-35</u>	<u>1,200</u>		<u>81</u>	<u>255</u>	
<u>In-111</u>	<u>1,200</u>		<u>-</u>		
<u>P-33</u>	<u>1,200</u>		<u>8</u>	<u>53</u>	
<u>I-125</u>	<u>7,200</u>		<u>0</u>	<u>25</u>	
<u>P-32</u>	<u>600</u>		<u>33</u>	<u>41</u>	
<u>Fe-59</u>	<u>6</u>		<u>-</u>		
<u>Other except</u>	<u>1,200</u>		<u>-</u>		
<u>alpha (total)</u>					

Comments:

92 SUF

ASSESSMENT DATA: SEWAGE PLANT

Plant name and location: *Kings Lynn STW*
hines

Site ref:
Grid ref:

Discharge to: *R. Ouse*

Location: *TF 605 223*
(grid ref)

Vol. flow (raw sewage) into plant: *26,000 m³/d*

Vol. flow out from plant: *26,000 m³/d*

Vol. flow of river/estuary at discharge point: $\left. \begin{array}{r} 33035 \\ + \\ 33007 \end{array} \right\} 15.296 \text{ m}^3/\text{s}$

Type of plant:

Production rate of sludge: *77,500 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>240,000</i>	<i>98,100</i>		<i>67,000</i>	<i>68,800</i>
<i>Ga-67</i>	<i>9,600</i>	<i>166</i>		<i>690</i>	<i>970</i>
<i>I-131</i>	<i>12,000</i>	<i>5,600</i>		-	<i>440</i>
<i>I-123</i>	<i>6,000</i>	-		-	-
<i>P-32</i>	<i>2,400</i>	-		<i>42</i>	-
<i>Ct-51</i>	<i>960</i>	<i>121</i>		<i>40</i>	<i>76</i>
<i>I-125</i>	<i>72</i>	<i>9.7</i>		<i>24</i>	<i>38</i>
<i>Ce-57</i>	<i>12</i>	<i>1.9</i>		<i>2</i>	<i>1.6</i>
<i>Other except alpha (total)</i>	<i>2,400</i>	<i>0.3</i>		-	-

Comments:

80 NOF

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Melbourn STW*
and location: *Melbourn, Royston*

Site ref:
Grid ref:

Discharge to: *R. Mel*

Location: *TL 3842*
(grid ref)

Vol. flow (raw sewage) into plant: *1,800 m³/d*

Vol. flow out from plant: *1,800 m³/d*

Vol. flow of river/estuary at discharge point: *No GS - assumed flow 0.5 m³/s as typical*

Type of plant:

Production rate of sludge: *2,500 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>S-35</i>	<i>888</i>	<i>-</i>	<i>0</i>	<i>0</i>	
<i>P-32</i>	<i>444</i>	<i>-</i>	<i>0</i>	<i>0</i>	
<i>I-125</i>	<i>120</i>	<i>13</i>	<i>20</i>	<i>2</i>	

Comments:

18 CAM

ASSESSMENT DATA: SEWAGE PLANT

Plant name and location: Milton STW
Gosley Road
Cambridge

Site ref:
Grid ref:

Discharge to: R. Cam

Location: TL 483 614 } as per
(grid ref) 473 616 } in RSA3
482 607
484 615

Vol. flow (raw sewage) into plant: 36,000 m³/d

Vol. flow out from plant: 36,000 m³/d

Vol. flow of river/estuary at discharge point: $\left[\begin{matrix} 33016^* \\ \text{or} \\ 33003^* \end{matrix} \right] 3.238 \text{ m}^3/\text{s (average)}$

Type of plant:

Production rate of sludge: none (liquid)

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq) **			
		1997	1996	1995	1994
H-3, C-14 (total)	1,394,952				
Ga-67	31,200				
Tc-99m	960,000				
In-111, 113m	26,400				
I-131	540,000				
P-32, 33 (total)	58,043				
S-35	81,807				
Ct-51	28,888				
I-125	42,489				
I-123	—				
Other exempt alpha (total)	279,586				
F-18*	43,200				
V-48*	4.8				

Comments:

* Cyclotron produced isotopes (54 CAM)
** Not all sites reported disposal

11 CAM 12 CAM 13 CAM 20 CAM 21 CAM 22 CAM 24 CAM
28 CAM 34 CAM 41 CAM 42 CAM 45 CAM 46 CAM 50 CAM
51 CAM 52 CAM 54 CAM 16 CAM (from Babraham)
30 CAM 33 CAM 35 CAM 37 CAM 38 CAM 40 CAM 44 CAM

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Newmarket STW*
and location: *Newmarket*

Site ref:
Grid ref:

Discharge to: *Newmarket Public*
no. 1 drain (assumed
to River Snail)

Location: *TL 635 671*
(grid ref)

Vol. flow (raw sewage) into plant: *6,100 m³/d*

Vol. flow out from plant: *6,100 m³/d*

Vol. flow of river/estuary at discharge point: *[33050]* *0.302 m³/s*

Type of plant:

Production rate of sludge: *12,500 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>600</i>	<i>12</i>			
<i>(total)</i>					
<i>S-35, P-32</i>	<i>600</i>	<i>0</i>			
<i>P-33 (total)</i>					
<i>I-125</i>	<i>24</i>	<i>3.3</i>			

Comments:

26 CAM
96 SUP

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Papworth (Everard) STW*
and location: *Cambridgeshire*

Site ref:
Grid ref:

Discharge to: *R. Great Ouse*
(West Brook)

Location: *Tk 280 638*
(grid ref)

Vol. flow (raw sewage) into plant: *500 m³/d*

Vol. flow out from plant: *500 m³/d*

Vol. flow of river/estuary at discharge point: *No GS - assumed flow 0.5 m³/s*
as typical

Type of plant:

Production rate of sludge: *2,500 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>300,000</i>	<i>185,000</i>	<i>183</i>	<i>177,600</i>	
<i>Tk-201</i>	<i>9,600</i>	<i>199</i>	<i>0</i>	<i>-</i>	
<i>Ga-67</i>	<i>7,200</i>	<i>-</i>	<i>0</i>	<i>-</i>	
<i>In-111</i>	<i>1,800</i>	<i>58</i>	<i>23.6</i>	<i>30.6</i>	
<i>I-125</i>	<i>720</i>	<i>-</i>	<i>0</i>		
<i>Other except alpha (total)</i>	<i>4,800</i>	<i>3.9</i>	<i>0</i>	<i>2</i>	

Comments:

39 CAM

Plant name and location: *Pyrisia* STW
Epimabry

Site ref:
Grid ref:

Location:
(grid ref)

Vol. flow out from plant: 7

Type of plant: Preliminary treatment plant (screening and possible maceration) before discharge to estuary.

Production rate of sludge:

Sludge disposal route:

[illegible]

Comments: 71 HUM

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Sandy STW*
and location: *Beds.*

Site ref:
Grid ref:

Discharge to: *River Tame*
(assumed)

Location: *~ T4 165 495*
(grid ref)

Vol. flow (raw sewage) into plant: *1,800 m³/d*

Vol. flow out from plant: *1,800 m³/d*

Vol. flow of river/estuary at discharge point: *[33022] 3.033 m³/s*

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq) *			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>300</i>	<i>1.1</i>	<i>0.9</i>	<i>0.7</i>	<i>4.2</i>
<i>(total)</i>					

Comments: *O2 BED*

* listed as C-14

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Silsoe SW* *
and location: *Beds*

Site ref:
Grid ref:

Discharge to: *River Flitt*
(unnamed)

Location: *N TL 08 36*
(grid ref)

Vol. flow (raw sewage) into plant: *1,300 m³/d*

Vol. flow out from plant: *1,800 m³/d*

Vol. flow of river/estuary at discharge point: *[33028] 0.829 m³/s*

Type of plant:

Production rate of sludge:

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>C-14</i>	<i>240</i>	<i>0.6</i>	<i>0.3</i>	<i>0.3</i>	<i>47.5</i>

Comments: *04 BED*

Known as Claphill SW

Plant name and location: *Southern SW*
grass

Discharge to: Thames Estuary

Vol. flow (raw sewage) into plant: $36,500 \text{ m}^3/\text{d}$

Vol. flow out from plant: $36,500 \text{ m}^3/\text{d}$

Vol. flow of river/estuary at discharge point:

Type of plant:

Production rate of sludge: None (liquid)

Sludge disposal route:

River usage/abstraction:

Comments:

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Urtica dioica* STW
and location: *hollows, Cambridge*

Site ref:
Grid ref:

Discharge to: Tributary of
Great One

Location: TL 3678 6335
(grid ref)

Vol. flow (raw sewage) into plant: $3,550 \text{ m}^3/\text{d}$

Vol. flow out from plant: 3.550 m³/d

Vol. flow of river/estuary at discharge point: No GS - assumed flow
0.5 m³/s as typical

Type of plant:

Production rate of sludge: $5,000 \text{ m}^3/\text{y}$

Sludge disposal route:

River usage/abstraction:

[illegible]**Comments:**

53 CAM

* I-125 only

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Whittleham STW*
and location: *Notwich*

Site ref:
Grid ref:

Discharge to: *R. Yare (tidal)*

Location: *TG 2829 0805*
(grid ref)

Vol. flow (raw sewage) into plant: *73,000 m³/d*

Vol. flow out from plant: *(as above?)*

Vol. flow of river/estuary at discharge point:

34004
+
34005
+
34001
+
34002

6.503 m³/d

Type of plant:

Production rate of sludge: *182,000 m³/y*

Sludge disposal route:

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq) *			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>318,243</i>				
<i>(total)</i>					
<i>S-35</i>	<i>37,380</i>				
<i>P-32, P-33</i>	<i>98,400</i>				
<i>(total)</i>					
<i>I-125</i>	<i>360</i>				
<i>Mo-99/Tc-99m</i>	<i>624,000</i>				
<i>I-131</i>	<i>300,000</i>				
<i>I-123</i>	<i>4,800</i>				
<i>Ga-67</i>	<i>6,000</i>				
<i>Other except</i>	<i>29,510</i>				
<i>alpha (total)</i>					
<i>Any alpha</i>	<i>0.14</i>				
<i>(total)</i>					
<i>Nat U / Th</i>	<i>24g</i>				

Comments:

77 NOF
78 NOF
79 NOF
81 NOF

82 NOF
84 NOF

** Reports not available
from all sites.*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Aggers UK*
and location: *Charterford, Suffolk*
Walden

Site ref: *55 ESS*
Grid ref: *TL 534 422*

Discharge to: *R. Cam via unnamed stream*

Location: *TL 5314 4237*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *5,400 m³ / month*

Vol. flow of river/estuary at discharge point: *[33051] 0.601 m³/s*

Type of plant: *Own STP - discharge via settling ponds*

Production rate of sludge: *?*

Sludge disposal route: *To landfill as V L W*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>22,200</i>				<i>1.36</i>
<i>(total)</i>					
<i>Other except alpha (total)</i>	<i>1,332</i>				<i>0.001</i>
<i>alpha (total)</i>					

Comments: *Own STP [55 ESS]*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Babraham Institute,*
and location: *Babraham, Cambridge*

Site ref: *47 CAM*
Grid ref: *TL 511 506*

Discharge to: *R. Granta (R. Cam*
catchment)

Location: *TL 511 502*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *7,500 m³/month*

Vol. flow of river/estuary at discharge point: *[33055] 0.242 m³/s*

Type of plant: *Own STP - chlorine bed filtration into holding*
gravel tanks

Production rate of sludge: *?*

Sludge disposal route: *Sludge to landfill on site (as V4440)*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>H-3, C-14</i>	<i>4,440</i>	<i>216</i>	<i>612</i>	<i>297</i>	
<i>(total)</i>					
<i>Other accept</i>	<i>8,880</i>	<i>1 035</i>	<i>1,615*</i>	<i>2,077*</i>	
<i>Alpha (total)</i>					

Comments: *Own STP [47 CAM]*

** Mainly Cr-51, P-32, S-35*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Conoco Ltd* Site ref: *67 HUM*
and location: *Grimsby, S. Humber side* Grid ref: *TA 1587 1675*

Discharge to: *South Killingholme* Location: *?*
main drain & R. Humber (grid ref)
estuary

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *360,000 m³/month*

Vol. flow of river/estuary at discharge point:

Type of plant: *Own STP*

Production rate of sludge: *?*

Sludge disposal route: *Not known*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>B⁻-32</i>	<i>177,600</i>				
<i>T⁻-113m</i>	<i>192,000</i>				
<i>Na-24</i>	<i>88,800</i>				
<i>Mn-56</i>	<i>22,200</i>				
<i>H-3</i>	<i>1,800,000</i>				
<i>T⁻-99m</i>	<i>2,400,000</i>				
<i>Other except ciph. (total)</i>	<i>120,000</i>				

Comments: *Own STP [67 HUM]*

ASSESSMENT DATA: SEWAGE PLANT

Plant name and location: *Cranfield Biotechnology Centre* Site ref: *03 BED*
Cranfield Grid ref: *~ SP 940 425*

Discharge to: *Chisleley Brook* Location: *~ SP 942 432 (OSTW)*
and R. Great Ouse (grid ref)
at Newport Pagnell

Vol. flow (raw sewage) into plant: *10,000 m³/month (assumed)*

Vol. flow out from plant: *10,000 m³/month (assumed)*

Vol. flow of river/estuary at discharge point: $\left[\begin{matrix} 33037 \\ 33015 \end{matrix} \right] 6.919 \text{ m}^3/\text{s}$

Type of plant: *Own STW*

Production rate of sludge: *Not known*

Sludge disposal route: *Not known*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>H-3 / C-14</i>	<i>48</i>		<i>0</i>		
<i>(total)</i>					
<i>Other except alpha (total)</i>	<i>288</i>		<i>0</i>		

Comments: *own STP [03 BED]*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Huntingdon Life Sciences* Site ref: *27 CAM*
and location: *Alconbury, Huntingdon* Grid ref: *TL 188 743*

Discharge to: *Cock Brook, leading* Location: *?*
x Matchams Brook x (grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *9,000 m³/month*

Vol. flow of river/estuary at discharge point: *[33020] 0.760 m³/s*

Type of plant: *Own STW to holding lagoon before discharge*

Production rate of sludge: *?*

Sludge disposal route: *Sludge to agricultural land at Stennet*
Farm, Ingbar, Burg St. Edmunds.

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>120,000</i>	<i>23,800</i>			
<i>(total)</i>					
<i>Other exempt</i>	<i>4,800</i>	<i>0.1</i>			
<i>alpha (total)</i>					

Comments: *Own STP [27 CAM]*

*x Matchams Brook not named on map - assumed
flows to Alconbury Brook.*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Huntingdon Life Sciences* Site ref: *95 SUF*
and location: *Eye, Suffolk* Grid ref: *TM 188 743*

Discharge to: *R. Dove via Cack Brook and Metcham Brook* Location: *TM 188 743*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *9,000 m³ / month*

Vol. flow of river/estuary at discharge point: *[34007] 0.654 m³/s*

Type of plant: *own STP - to holding lagoon of $2.3 \times 10^3 \text{ m}^3$ capacity*

Production rate of sludge: *?*

Sludge disposal route: *not known*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>C-14, H-3</i>	<i>3,600</i>	<i>0.3</i>	<i>905</i>		
<i>(total)</i>					
<i>Other except alpha (total)</i>	<i>12</i>	<i>-</i>	<i>0</i>		

Comments: *own STP [95 SUF]*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Int. Terrestrial Ecology*
and location: *Abbots Ripton,*

Site ref: *29 CAM*
Grid ref: *TL 201 798*

Discharge to: *Huntingdon*
*Ewingswode Stream**

Location: *TL 201 798*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *300 m³/month*

Vol. flow of river/estuary at discharge point: *[33060] 0.445 m³/s*

Type of plant: *Own STP*

Production rate of sludge: *?*

Sludge disposal route: *Sludge removed once per month (probably)*
to landfill

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>I - 125</i>	<i>24</i>				
<i>C - 14</i>	<i>6</i>				
<i>H - 3</i>	<i>2.4</i>				

Comments: *Own STP [29 CAM]*

* Not clear where majority of stream
flow will go, as various possible
diversions [*to High hole, Kings Dyke or R. Nene (Old Course)*]

ASSESSMENT DATA: SEWAGE PLANT

Plant name *hindsay oil Refinery*
and location: *Jarrow, Co. Durham*

Site ref: *68 HUM*
Grid ref: *TA 1569 1755*

Discharge to: *North Killingholme Drain*
and R. Humber estuary

Location: *TA 1579 1861*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *180,000 m³/month*

Vol. flow of river/estuary at discharge point:

Type of plant: *Own STP*

Production rate of sludge: *?*

Sludge disposal route: *Not known*

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>H-3</i>	<i>450,000</i>				
<i>Ta-113m</i>	<i>38,800</i>				
<i>Br-82</i>	<i>44,400</i>				
<i>Na-24</i>	<i>22,200</i>				
<i>Mn-56</i>	<i>22,200</i>				
<i>Ba-137m</i>	<i>22,200</i>				

Comments: *own STP [68 HUM]*

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Unbur Roseville*,
and location: *Sharnbrook, Bedford*

Site ref: *05 BED*
Grid ref: *SP 98 60*

Discharge to: *Sharn Brook and then*
to Great Ouse

Location: *SP 98 60*
(grid ref)

Vol. flow (raw sewage) into plant: *?*

Vol. flow out from plant: *18,000 m³/month*

Vol. flow of river/estuary at discharge point: *[33009] 9.460 m³/s*

Type of plant: *own STP*

Production rate of sludge: *2m³ dried sludge removed approx. 2 months*
after entering sewerage works

Sludge disposal route: *Deposited into sites in Calworth Estate*
where general public have no access.

River usage/abstraction:

Drinking water intake at Clapham water treatment works
approx. 15 miles downstream on R. Great Ouse.

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
11-3	2,400	52.5	42.6	50.2	
C-14	2,400	39.6	75.3	81.6	
C-51	1,200		0	0.014	
P-32	1,200	0.5	3.7	2.3	
P-33	1,200	1.0	0	9.9	
I-125	1,200	28.9	30.9	48.2	
Fe-59	1,200		0		
Y-90	1,200		0		
In-111	1,200		0		
S-35	1,080	-	3.7	18.6	
Ce-45	900		0		
Ru-103	720		0		
Ce-36	644		0		
Mn-54	644		0		

Comments:

own STP [05 BED]

ASSESSMENT DATA: SEWAGE PLANT

Plant name *Doddland Hospital*
and location: *Kettering, N. Hampton*

Site ref: 89 NOH
Grid ref: SP 839 800

Discharge to: *Existing soakaway*

Location: SP 8384 8000
(grid ref)

Vol. flow (raw sewage) into plant: ?

Vol. flow out from plant: *600 m³/month*

Vol. flow of river/estuary at discharge point: *N/A*

Type of plant: *Own STP - 13 m³ two stage primary tank followed by 24/24(?) embedded biofilter with pump capacity of 7 m³*

Production rate of sludge: ?

Sludge disposal route: *Sludge removed by tanker and deposited off-site (?) at 4-6 months intervals**

River usage/abstraction:

Nuclide	Authorised input per year (MBq)	Actual input per year (MBq)			
		1997	1996	1995	1994
<i>Tc-99m</i>	<i>2,040</i>			<i>15</i>	

Comments: *Own STP [89 NOH]*

** Disposal at Anglian Water Treatment plants at either Corby or Wellingborough*