

**FORMER RARDE SITE
WALTHAM ABBEY (NORTH)**

**ASBESTOS CLEARANCE TESTING
OF BUILDINGS**

ESG REPORT NO. 2056/94



BRITISH AEROSPACE
DEFENCE
ROYAL ORDNANCE

**FORMER RARDE SITE
WALTHAM ABBEY (NORTH)**

**ASBESTOS CLEARANCE TESTING
OF BUILDINGS**

ESG REPORT NO. 2056/94

**Environmental Services Group
Royal Ordnance Division
British Aerospace Defence Limited
Westcott
Aylesbury
Bucks HP18 ONZ**


ISSUE 1

**Date: 11th November 1994
Ref: 2m/r205694.sam**

Report Originator.....

P N MAYELL

Date.....14/11/94

Authorised by.....

Dr G BULLOCH

Date.....14/11/94

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1. INTRODUCTION

Waltham Abbey North site has a large number of buildings containing asbestos lagging and/or cemented asbestos products. Fibrous asbestos requires removal to prevent any release of harmful fibres during building deterioration. Cement-bonded asbestos may also require removal, either as part of a building strip out or because of deterioration and the risk of fibre release. In January 1993, PJ Contracting carried out a survey of all buildings on the site to identify all asbestos present, and published a report. Since that date, a number of buildings have been stripped of asbestos, and air clearance certified. Encapsulation methods of asbestos removal and disposal involving the removal of total pipe runs and asbestos at the same time do not require clearance testing on completion. This report lists all buildings identified as having asbestos present, identifies those stripped, and those which have been air tested and clearance certified (Appendix 1 contains this list. Appendix 2 shows the location of the buildings on site). This report will be re-issued if any further clearance is completed.

2. ASBESTOS REMOVAL

Removal of fibrous asbestos (lagging) was carried out by a licensed asbestos contractor in accordance with HSE approved procedures. All identified fibrous asbestos has now been removed.

Cement-bonded asbestos has been removed where necessary to meet operational requirements in accordance with all legal requirements. Where fragmentation of cemented asbestos was likely, this removal was carried out by a licensed asbestos contractor.

3. AIR CLEARANCE TESTING

Where fibrous asbestos cannot be removed in sealed packages, it must be stripped within a sealed enclosure within the building. On completion of stripping, the enclosure must be vacuumed, and the air tested for fibres prior to unsealing the enclosure. Appendix 1 shows where this has been carried out. Appendix 3 contains copies of the air clearance certificates.

APPENDIX 1

APPENDIX 1- LIST OF BUILDINGS IDENTIFIED AS CONTAINING ASBESTOS

Building Number	Fibrous Asbestos ?	Cemented Asbestos ?	Fibrous Removed ?	Cemented Removed ?	Air Test Required ?	Air Test Complete ?
A201/2	N	Y	-	Y	N	-
A203	Y		Y		Y	Y
A210	Y		Y	-	Y	Y
A213	Y		Y		Y	Y
A214	Y		Y		Y	Y
A230	Y	Y	Y	Y	N	-
A231	Y	Y	Y	Y	N	-
A232	Y	Y	Y	Y	N	-
A234	Y	Y	Y	Y	N	-
A250	N	Y	-	Y	N	-
A269	Y		Y		Y	Y
E5	N	Y		Y	N	-
E10	Y	N	Y	-	N	-
E13	N	Y		N	N	-
E14	N	Y		N	N	-
H5		Y		Y	N	-
H6		Y		Y	N	-
H7		Y		N	N	-
H8	Y	Y	Y	Y	Y	Y
H10	Y	Y	Y	Y	Y	Y
H11		Y		Y	N	-
H12		Y		Y	N	-
H15		Y		N	N	-
H25	Y	Y	Y	Y	Y	Y
H26	Y		Y		N	-
H37		Y		Y	N	-
H65		Y		Y	N	-
H66		Y		Y	N	-
H67	Y	Y		Y	N	-
H68	Y	Y		Y	N	-

Building Number	Fibrous Asbestos ?	Cemented Asbestos ?	Fibrous Removed ?	Cemented Removed ?	Air Test Required ?	Air Test Complete ?
H70		Y		Y	N	-
H71		Y		Y	N	-
H72		Y		Y	N	-
L101		Y		N	N	-
L102		Y		N	N	-
L106		Y, debris		Y	N	-
L107		Y		Y	N	-
L108		Y		N	N	-
L109		Y		N	N	-
L116	Y		Y		N	-
L117		Y		Y	N	-
L118		Y		N	N	-
L119	Y	Y	Y	N	N	-
L120		Y		Y	N	-
L121		Y		N	N	-
L122	Y	-	Y	-	Y	Y
L123	Y	Y	Y	N	N	-
L125	Y		Y		N	-
L128	Y	Y		N	N	-
L130		Y		Y	N	-
L134		Y		Y	N	-
L136		Y		Y	N	-
L137		Y		Y	N	-
L138		Y		N	N	-
L139		Y		Y	N	-
L140		Y		N	N	-
L142		Y		Y	N	-
L143	Y	Y	Y	N	Y	Y
L145	Y	Y	Y	N	Y	Y
L146	Y	Y	Y	N	Y	Y
L147		Y		Y	N	-
L148	Y	Y	Y		Y	Y
L149	Y	Y	Y		N	-

Building Number	Fibrous Asbestos ?	Cemented Asbestos ?	Fibrous Removed ?	Cemented Removed ?	Air Test Required ?	Air Test Complete ?
L151	Y	Y	Y		Y	Y
L152	Y	Y	Y	Y	N	-
L153	Y	Y	Y	N	N	-
L155	Y	Y	Y		Y	Y
L157	Y	Y	Y		Y	Y
L159	Y	Y	Y		Y	Y
L160		Y		Y	N	-
L164		Y		Y	N	-
L166		Y		Y	N	-
L168	Y		Y		N	-
L169		Y		Y	N	-
L177	Y		Y		N	-
L178		Y		N	N	-
L180	Y		Y		N	-
L181	Y	Y	Y	N	Y	Y
L182		Y		Y	N	-
L185		Y		N	N	-
L186		Y		N	N	-
L187		Y		Y	N	-
L188		Y		Y	N	-
L190		Y		N	N	-
L191		Y		N	N	-
L192		Y		Y	N	-
L193		Y		Y	N	-
L194		Y		Y	N	-
L195		Y		N	N	-
L199		Y		N	N	-
S1		Y		Y	N	-
S5		Y		Y	N	-
S6		Y		Y	N	-
S9		Y		Y	N	-
S11		Y		Y	N	-
S12		Y		Y	N	-

Building Number	Fibrous Asbestos ?	Cemented Asbestos ?	Fibrous Removed ?	Cemented Removed ?	Air Test Required ?	Air Test Complete ?
S23		Y		Y	N	-
S25		Y		N	N	-
S27		Y		Y	N	-
S32		Y, debris		Y	N	-
S33		Y, debris		Y	N	-
S34		Y			N	-
S43		Y		Y	N	-
S46		Y		Y	N	-
S47		Y		Y	N	-
S48		Y		Y	N	-
S49		Y		Y	N	-
U1		Y		Y	N	-
U4		Y		Y	N	-
U5		Y		N	N	-
U6		Y		N	N	-
U7		Y		N	N	-
1		Y, debris		Y	N	-
14		Y, debris		Y	N	-
16A		Y		Y	N	-
18		Y, debris		Y	N	-
18A		Y, debris		Y	N	-
22		Y, debris		Y	N	-
23		Y, debris		Y	N	-
29		Y, debris		Y	N	-
36		Y, debris		Y	N	-
38		Y		Y	N	-
41		Y		N	N	-
46A		Y, debris		Y	N	-
46R		Y, debris		Y	N	-
62		Y, debris		Y	N	-
63		Y, debris		Y	N	-
76A		Y		Y	N	-

Building Number	Fibrous Asbestos ?	Cemented Asbestos ?	Fibrous Removed ?	Cemented Removed ?	Air Test Required ?	Air Test Complete ?
83B	Y		Y		N	-
92A		Y		Y	N	-
93A		Y		Y	N	-
93C		Y		Y	N	-
96	Y	Y	Y	Y	N	-
96A		Y, debris		Y	N	-
96B		Y, debris		Y	N	-
98A		Y, debris		Y	N	-
102		Y		Y	N	-
104A		Y, debris		Y	N	-
X2		Y, debris		Y	N	-
X4 - X14		Y		Y	N	-
X24		Y		N	N	-
X25		Y		N	N	-

APPENDIX 2



APPENDIX 3

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 Fax: 081 599 0531



Environmental Monitoring
 Specialists



AIRBORNE DUST MONITORING

Date of Monitoring: 12. 08. 94

Location of Monitoring: Powdermill Lane, Waltham Abbey

Airborne dust monitoring has been carried out at the location referred to above. The method employed was that set out in the current edition of the Guidance Note EH10 for 'clearance tests' and that set out in the Testing Laboratory Document DOC.002, "Airborne Dust Monitoring Instruction Manual" for other tests.

LABORATORY REFERENCE E 564 ONK

ENCLOSURE AREA (Approx.) < 10m²

FILTER DIAMETER (mm) 23

~~re-assurance~~
~~background test~~
~~leak test~~
 clearance test

RESULTS

Sample Ref. No.	Sample Reference	Volume Sampled. litres	No. Grat. Areas examined	No. fibres counted	Airborne Dust Concentration fibres/mi
M20/120894/25	A203 Plant room L.H.S.	240	200	5 / 400	< 0.01
M20/120894/26	A203 " " R.H.S.	240	200		
/					
/					
/					
/					
/					
/					
/					
/					

REPORTED BY *Anthony*





Testing
No :089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION.

SURVEYS CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE. ESSEX.

MONITORING DATE 06/10/92
REPORT ISSUE DATE 06/10/92
CONFIRMATION REPORT ISSUE DATE 15/10/92
REPORT NUMBER H/92/348
PAGE 1 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. NORTH SITE POWDERMILL LANE WALTHAM
ABBEY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-
Estimate of Enclosure N/A . Total number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

Type of test taken: REASSURANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : H573 GOO

<u>SAMPLE ALLOCATION NUMBERS</u>	<u>SAMPLE LOCATION</u>	<u>VOLUME SAMPLED SUB TOTAL</u>	<u>GRATICULE AREAS EXAMINED</u>	<u>NUMBER OF FIBRES SUB TOTAL</u>	<u>FIBRES PER ML.</u>
H81189	ROOM A210 BOILER HOUSE	480	100	0	<0.01
H81190	ROOM A210 BOILER HOUSE	480	100	0	<0.01
H81191	ROOM A210 BOILER HOUSE	480	100	0	<0.01
H81192	ROOM A210 BOILER HOUSE	480	100	½	<0.01
H81193	ROOM A210 BOILER HOUSE	480	100	0	<0.01

RESULTS CONTINUE OVERLEAF.



Testing
No. : 089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE, ESSEX.

MONITORING DATE 06/10/92
REPORT ISSUE DATE 06/10/92
CONFIRMATION REPORT ISSUE DATE 15/10/92
REPORT NUMBER H/92/348
PAGE 2 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. NORTH SITE POWDERMILL LANE WALTHAM
ABBAY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-
Estimate of Enclosure N/A . Total number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

Type of test taken: REASSURANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : H573 GOO

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME		GRATICULE AREAS		NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED	SUB TOTAL	EXAMINED	SUB TOTAL	FIBRES	SUB TOTAL	
H81194	ROOM A210 BOILER HOUSE		480	100		1		<0.01
H81195	ROOM A210 BOILER HOUSE		480	100		0		0.01
H81196	ROOM A210 BOILER HOUSE		480	100		0		<0.01
H81197	ROOM A210 BOILER HOUSE		480	100		0		<0.01
H81198	ROOM A210 BOILER HOUSE		480	100		1		<0.01

COMMENTS SHEET RAISED : NO

REPORTED BY: ROBERT WARD

HEAD OF LAB: J.P.WINCH



ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS
AIR MONITORING, CONSULTATION,
SURVEYS

PAGE 3 OF 3

CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A.

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S. 39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the current Health and Safety Executive Guidance Notes M.D.H.S.39.

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Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 06/10/92
REPORT ISSUE DATE 06/10/92
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REPORT NUMBER H/92/349
PAGE 1 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. NORTH SITE POWDERMILL LANE WALTHAM
ABBEY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure N/A . Total number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

Type of test taken: REASSURANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : H573 GOO

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME		GRATICULE AREAS EXAMINED	NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED	SUB TOTAL		FIBRES	SUB TOTAL	
H81199	ROOM A210 MACHINE SHOP	480		100	0		<0.01
H81200	ROOM A210 MACHINE SHOP	480		100	1		<0.01
H81201	ROOM A210 MACHINE SHOP	480		100	½		<0.01
H81202	ROOM A210 MACHINE SHOP	480		100	½		<0.01

RESULTS CONTINUE OVERLEAF.



ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION,

SURVEYS CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
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STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 06/10/92
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REPORT NUMBER H/92/349
PAGE 2 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. NORTH SITE POWDERMILL LANE WALTHAM
ABBAY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-
Estimate of Enclosure N/A . Total number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

Type of test taken: REASSURANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : H573 GOO

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME		GRATICULE AREAS EXAMINED	NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED	SUB TOTAL		FIBRES	SUB TOTAL	
H81203	ROOM A210 MACHINE SHOP		480	100		0	<0.01
H81204	ROOM A210 MACHINE SHOP		480	100		½	<0.01
H81205	ROOM A210 MACHINE SHOP		480	100		0	<0.01
H81206	ROOM A210 MACHINE SHOP		480	100		0	<0.01

COMMENTS SHEET RAISED : NO

REPORTED BY: ROBERT WARD

HEAD OF LAB: J.P. WINCH



ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION. SURVEYS

PAGE 3 OF 3

CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A.

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S. 39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the current Health and Safety Executive Guidance Notes M.D.H.S.39.

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Environmental Monitoring Specialists



AIRBORNE DUST MONITORING

Date of Monitoring: 16/02/94

Location of Monitoring: Power-Mill here, Waltham Abbey

Airborne dust monitoring has been carried out at the the location referred to above. The method employed was that set out in the current edition of the Guidance Note EH10 for 'clearance tests' and that set out in the Micron Monitoring Laboratories Ltd. "Airborne Dust Monitoring Instruction Manual" for other tests.

LABORATORY REFERENCE G-510 EPM

ENCLOSURE AREA (Approx.) < 3,000 m³

FILTER DIAMETER (mm) 16

re-assurance ✓
background test
~~leak test~~
~~clearance test~~

RESULTS

Sample Ref. No.	Sample Reference	Volume Sampled, litres	No. Grat. Areas examined	No. fibres counted	Airborne Dust Concentration fibres/ml
M131160294 01	Bld A210	240	200	14	0.00
M131160294 02		240	200	2	0.00
M131160294 03	Machine	240	200	3	0.00
M131160294 04	Shop	240	200	2	0.00
M131160294 05		240	200	3	0.00
M131160294 06	"	240	200	2	0.00
M121160294 07	"	240	200	14	0.00
M131160294 08	"	240	200	14	0.00
M131160294 09	"	240	200	2	0.00
		Σ			

REPORTED BY E. [Signature]

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Fax: 081 599 0531



Environmental Monitoring Specialists



AIRBORNE DUST MONITORING

Date of Monitoring: 15/02/94

Location of Monitoring: Powder Mill here, Waltham Abbey,

Airborne dust monitoring has been carried out at the the location referred to above. The method employed was that set out in the current edition of the Guidance Note EH10 for 'clearance tests' and that set out in the Micron Monitoring Laboratories Ltd. "Airborne Dust Monitoring Instruction Manual" for other tests.

LABORATORY REFERENCE G570 DPM

ENCLOSURE AREA (Approx.) < 3,000 m³

FILTER DIAMETER (mm) 16

re-assurance ✓
~~background test~~
~~lean test~~
~~clearance test~~

RESULTS

Sample Ref. No.	Sample Reference	Volume Sampled, litres	No. Grat. Areas examined	No. fibres counted	Airborne Dust Concentration fibres/ml
M13150294 01	Bld. A210	240	200	24	0.010
M13150294 02		240	200	3	0.010
M13150294 03	Boiler	240	200	2	0.010
M13150294 04	House	240	200	14	0.010
M13150294 05		240	200	3	0.010
M13150294 06	✓	240	200	2	0.010
M13150294 07	✓	240	200	14	0.010
M13150294 08	✓	240	200	3	0.010
M13150294 09	✓	240	200	3	0.010
		Σ			

A210



REPORTED BY

E. Beames



Directors: C. J. Thomas (Managing) J. H. Older (Technical)
 211 Goodmayes House, 1-5 Combe Street, Romford, Essex RM7 7DN





Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE, ESSEX.

MONITORING DATE 06/10/92
REPORT ISSUE DATE 06/10/92
CONFIRMATION REPORT ISSUE DATE 15/10/92
REPORT NUMBER H/92/350
PAGE 1 OF 2

MONITORING ADDRESS: FORMER R.A.R.D.E. NORTH SITE POWDERMILL LANE WALTHAM ABBEY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-
Estimate of Enclosure N/A . Total number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

Type of test taken: REASSURANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : H573 GOO

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME	GRATICULE	NUMBER OF	FIBRES PER
		SAMPLED	AREAS	FIBRES	ML.
		SUB TOTAL	EXAMINED	SUB TOTAL	
H81207	ROOM A213	480	100	0	<0.01
H81208	ROOM A213	480	100	1	<0.01
H81209	ROOM A214	240	100	1	<0.01
H81210	ROOM A214	240	100	0	<0.01
H81211	ROOM A269	240	100	0	<0.01
H81212	ROOM A269	240	100	0	<0.01

COMMENTS SHEET RAISED : NO

REPORTED BY: ROBERT WARD

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A.

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S. 39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the current Health and Safety Executive Guidance Notes M.D.H.S.39.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

MICRON MONITORING LABORATORIES LTD

Goodmayes House · 45-49 Goodmayes Road · Ilford · Essex IG3 9UF · Tel: 081-597 3333

Fax: 081 599 0531



Environmental Monitoring Specialists



CLIENT:

Royal Ordnance Plc.,
Environmental Services Group,
Former R.A.R.D.E. WA (NS),
Waltham Abbey,
Essex.

15th July 1994,

REPORT No. B13/045

AIRBORNE ASBESTOS DUST MONITORING

<u>MONITORING SITE ADDRESS ;</u>	Building H10., Powdermill Lane, Waltham Abbey, Essex.
<u>DATE OF MONITORING ;</u>	14th July 1994.
<u>ESTIMATED ENCLOSURE VOLUME ;</u>	Less Than 600 Cubic Metres.
<u>LABORATORY REFERENCE ;</u>	G570 DPM - Mobile.
<u>TECHNICIAN ;</u>	E. Hamer.
<u>FILTER DIAMETER ;</u>	16mm.
<u>METHOD OF MONITORING</u>	See Appendix 'A'
<u>METHOD OF ANALYSIS</u>	See Appendix 'B'

RESULTS

Sample No.	Reference	Volume Sampled, Litres	No. Grat. Areas Examined	No. Fibres Counted	Asbestos Dust Concentration Fibres/ml
<u>Date of Sampling; 14th July 1994.</u>			<u>Type of Test; 'Clearance'</u>		
M13/140794/01	Building H10	240	200	8	Less Than 0.01
M13/140794/02	Building H10	240	200	8.5	Less Than 0.01
M13/140794/03	Building H10	240	200	7	Less Than 0.01
M13/140794/04	Building H10	240	200	6.5	Less Than 0.01

REPORTED BY _____

J.OLDER / S.WATTS

Opinions and interpretations expressed herein are outside the scope of NAMAS accreditation.

APPENDIX 'A' - METHOD OF MONITORING

The monitoring was carried out using the procedures specified for use in the approved Code of Practice, "Work with asbestos insulation, asbestos coating and asbestos insulation board" (Revised Feb. 1988). These procedures require that monitoring is carried out to the requirements of the current edition of the Health & Safety Executive Guidance Note EH10 which in turn invokes the use of the method set out in the current edition of MDHS 39 for the determination of the "CLEARANCE INDICATOR".

The dust raising carried out during the "Clearance Test" was by means of repeated banging of accessible areas with a clean flat board.

The procedure carried out for "Leak" tests are set out in the Testing Laboratory Document DOC/002.

APPENDIX 'B' - METHOD OF ANALYSIS

The membrane filter samples were analysed using the method set out in the current edition of MDHS 39.

COMMENTS

It should be noted in this report that only the results of measurements headed as 'Clearance', and no other results, should be regarded as having been sampled and analysed for determination of the 'Clearance Indicator'. Exposure to all forms of asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' for site clearance. Using the methods described in the current edition of H.S.E. Guidance Note EH10 and MDHS 39 the lowest fibre level reliably detectable above background with a 480 litre sample is about 0.010 fibre/ml and a level of 0.010 fibre/ml is taken as the 'Clearance'. The results from each 480 litre sample or pooled set of samples should be compared with it. At least 80% of results should be less than or equal to 0.010 fibre/ml and all of them should be less than 0.015 fibre/ml.

If results exceed the 'Clearance Indicator' steps should be taken to identify the source of contamination. Following further cleaning of the enclosure a Re-test should be carried out.

DISCLAIMER

Certified that the above mentioned samples/parts/materials have been tested/examined in accordance with the terms of the contract/order applicable and unless otherwise stated, conform fully to standards/specifications quoted. This does not however, guarantee the balance of production from which the tested samples/parts/materials have been taken to be equal quality.

MICRON MONITORING LABORATORIES LTD

Goodmayes House · 45-49 Goodmayes Road · Ilford · Essex IG3 9UF · Tel: 081-597 3333

Fax: 081 599 0531



Environmental Monitoring
Specialists



AIRBORNE DUST MONITORING

Date of Monitoring: 19/07/94

Location of Monitoring: Paper Mill Lane, Waltham Abbey

Airborne dust monitoring has been carried out at the location referred to above. The method employed was that set out in the current edition of the Guidance Note EH10 for 'clearance tests' and that set out in the Testing Laboratory Document DOC/002, "Airborne Dust Monitoring Instruction Manual" for other tests.

LABORATORY REFERENCE G500 JPM

ENCLOSURE AREA (Approx.) 600m²

FILTER DIAMETER (mm) 16

~~no assurance~~
~~background test~~
~~leak test~~
clearance test ✓

RESULTS

Sample Ref. No.	Sample Reference	Volume Sampled, litres	No. Grat. Areas examined	No. fibres counted	Airborne Dust Concentration fibres/ml
MB190794 01	Bd H10	240	200	94	0.010
MB190794 02	"	240	200	9	0.010
MB190794 03	"	240	200	84	0.010
MB190794 04	"	240	200	74	0.010

REPORTED BY E. Beina



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 02.07.93
REPORT ISSUED DATE: 02.07.93
CONFIRMATION REPORT ISSUE DATE: 05.07.93
REPORT NUMBER: ID/93/120
PAGE 1 OF 2

MONITORING ADDRESS: FORMER R.A.R.D.E., POWDER MILL LANE, WALTHAM ABBEY,
H.25.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure. 140 SQM. Total Number of Samples taken 4. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of monitoring using a: BOARD

TYPE OF TEST TAKEN: CLEARANCE


SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO. OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
ID513	INSIDE AREA		480	200		1	<0.01
ID514	INSIDE AREA		480	200		2	<0.01
ID515	INSIDE AREA	240	480	200	0	1	<0.01
ID516	INSIDE AREA	240		200	1		
ID517	INSIDE AREA	240		200	1		
ID518	INSIDE AREA	240	480	200	0	1	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: IAN DONALDSON


HEAD OF LAB: J.P. WINCH



Testing
No 1039

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the "Clearance Indicator" with respect to Site Clearance.

Using the Methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S 39, The lower limit of accurate measurement is as follows:- at least 80% of the results should be less than or equal to 0.010 Fibres/ML and all of them should be less than 0.015 Fibres/ML. So in small enclosures requiring four or fewer Samples, none of them should exceed 0.010 Fibres/ML, but in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ML. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the Site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39 for the determination of the "Clearance Indicator".

APPENDIX B

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method Set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 27.07.93
REPORT ISSUED DATE: 27.07.93
CONFIRMATION REPORT ISSUE DATE: 30.07.93
REPORT NUMBER: ID/93/141
PAGE 1 OF 2

MONITORING ADDRESS: R.A.R.D.E. WORKS, WALTHAM ABBEY.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure. N/A Total Number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of monitoring using a: N/A

TYPE OF TEST TAKEN: RE-ASSURANCE

SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO. OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
ID576	L122 FIRST AID ROOM		240	200		2	<0.01
ID577	L122 MAIN LAB		240	200		1	<0.01
ID578	L122 MAIN ROOM UPSTAIRS		240	200		1	<0.01
ID579	L181 SAMPLE ROOM		240	200		2	<0.01

COMMENTS SHEET RAISED: NO

REPORTED BY: IAN DONALDSON

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX

MONITORING DATE: 27.09.93
REPORT ISSUED DATE: 27.09.93
CONFIRMATION REPORT ISSUE DATE: 01.10.93
REPORT NUMBER: ES/93/023
PAGE 1 OF 2

MONITORING ADDRESS: R.A.R.D.E. WORKS POWDERMILL LANE WALTHAM ABBEY - BLOCK
NUMBER L143.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 180SQM Total Number of Samples taken 4 Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of monitoring using: PLASTIC BAG

TYPE OF TEST TAKEN: CLEARANCE.


SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO.OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
ES1151	BLOCK NO.L143 SMALL ROOM		480	200		2	<0.01
ES1152	BLOCK NO.L143 SMALL ROOM		480	200		2.5	<0.01
ES1153	BLOCK NO.L143 SMALL ROOM		480	200		4	<0.01
ES1154	BLOCK NO.L143 SMALL ROOM		480	200		1.5	<0.01

RESULTS WITHIN CLEARANCE INDICATOR: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: E. STOREY


HEAD OF LAB: J.P.WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the "Clearance Indicator" with respect to Site Clearance.

Using the Methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S 39, The lower limit of accurate measurement is as follows:- at least 80% of the results should be less than or equal to 0.010 Fibres/ML and all of them should be less than 0.015 Fibres/ML. So in small enclosures requiring four or fewer Samples, none of them should exceed 0.010 Fibres/ML, but in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ML. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the Site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39 for the determination of the "Clearance Indicator".

APPENDIX B

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method Set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.

UNION HOUSE, 679 HIGH ROAD, SOUTH BENFLEET, ESSEX, SS7 5SF

TELEPHONE: 0268 794111

FAX: 0268 792837



Testing
No 1039

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENTS, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 29/04/93
REPORT ISSUE DATE 29/04/93
CONFIRMATION REPORT ISSUE DATE 30/04/93
REPORT NUMBER M/93/008
PAGE 1 OF 2

MONITORING ADDRESS: FORMER R.A.R.D.E. SITE POWDERMILL LANE WALTHAM ABBEY.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure area 30sqm Total number of Samples taken 2. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD.

Type of test taken: CLEARANCE

Sample Analysed in: SATELLITE

REG NO IF MOBILE:

<u>SAMPLE ALLOCATION NUMBERS</u>	<u>SAMPLE LOCATION</u>	<u>VOLUME SAMPLED SUB TOTAL</u>	<u>GRATICULE AREAS EXAMINED</u>	<u>NUMBER OF FIBRES SUB TOTAL</u>	<u>FIBRES PER ML.</u>
M30012	ROOM 8 BUILDING L145.	480	200	3	<0.01
M30013	ROOM 8 BUILDING L145.	480	200	4	<0.01

RESULTS WITHIN CLEARANCE INDICATOR: YES.

COMMENTS SHEET RAISED: NO

REPORTED BY: DAVE MARSTON

HEAD OF LAB: J.P. WINCH



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml, But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No 1039

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENTS, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANDFORD-LE-HOPE
ESSEX.

MONITORING DATE 07/04/93
REPORT ISSUE DATE 07/09/04/93
CONFIRMATION REPORT ISSUE DATE 14/04/93
REPORT NUMBER PAW/93/023
PAGE 1 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. SITE, POWDER MILL LANE,
WALTHAM ABBEY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure area 12 SQM Total number of Samples taken 2. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE: F379 HUR

<u>SAMPLE ALLOCATION NUMBERS</u>	<u>SAMPLE LOCATION</u>	<u>VOLUME SAMPLED SUB TOTAL</u>	<u>GRATICULE AREAS EXAMINED</u>	<u>NUMBER OF FIBRES SUB TOTAL</u>	<u>FIBRES PER ML.</u>
PAW034	BUILDING L145 ROOM 3 ENCLOSURE	240	200	2	
		480		3½	<0.01
PAW035	BUILDING L145 ROOM 3 ENCLOSURE	240	200	1½	

RESULTS CONTINUE OVERLEAF



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENTS. NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANDFORD-LE-HOPE
ESSEX.

MONITORING DATE 07/04/93
REPORT ISSUE DATE 07/09/04/93
CONFIRMATION REPORT ISSUE DATE 14/04/93
REPORT NUMBER PAW/93/023
PAGE 2 OF 3

MONITORING ADDRESS: FORMER R.A.R.D.E. SITE, POWDER MILL LANE,
WALTHAM ABBEY ESSEX.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure area 12 SQM Total number of Samples taken 2. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE


REG NO IF MOBILE: F379 HUR

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME SAMPLED SUB TOTAL	GRATICULE AREAS EXAMINED	NUMBER OF FIBRES SUB TOTAL	FIBRES PER ML.
PAW036	BUILDING L145 ROOM 3 ENCLOSURE	240	200	1	
		480		3	<0.01
PAW037	BUILDING L145 ROOM 3 ENCLOSURE	240	200	2	

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: PAUL WARWICK


HEAD OF LAB: J.P. WINCH



Testna
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 3 OF 3

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml, But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION. SURVEYS

CONFIRMATION SHEET

CLIENTS. NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 01/04/93
REPORT ISSUE DATE 01/04/93
CONFIRMATION REPORT ISSUE DATE 01/04/93
REPORT NUMBER TL/93/084
PAGE 1 OF 2

MONITORING ADDRESS: OLD R.A.R.D.E. SITE, POWDERMILL LANE, WLATHAM ABBEY
BLD L145 CORRIDOR.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 200 SQM Total number of Samples taken 4. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLEAR PLASTIC BAG

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE: F493 OVW

<u>SAMPLE ALLOCATION NUMBERS</u>	<u>SAMPLE LOCATION</u>	<u>VOLUME SAMPLED SUB TOTAL</u>	<u>GRATICULE AREAS EXAMINED</u>	<u>NUMBER OF FIBRES SUB TOTAL</u>	<u>FIBRES PER ML.</u>
TL1507	INSIDE ENCLOSURE	480	200	3	<0.01
TL1508	INSIDE ENCLOSURE	480	200	2½	<0.01
TL1509	INSIDE ENCLOSURE	480	200	3	<0.01
TL1510	INSIDE ENCLOSURE	480	200	1½	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: TRACY LEWIS

HEAD OF LAB: J.P. WINCH



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml. But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
MANORWAY ROAD
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 01.10.93
REPORT ISSUED DATE: 01.10.93
CONFIRMATION REPORT ISSUE DATE: 11.10.93
REPORT NUMBER: ES/93/027
PAGE 1 OF 2

MONITORING ADDRESS: R.A.R.D.E. WORKS - POWDERMILL LANE WALTHAM ABBEY,
BLOCK NO - L 146.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 90 CBM Total Number of Samples taken 4. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of monitoring using: PLASTIC BAG

TYPE OF TEST TAKEN: CLEARANCE

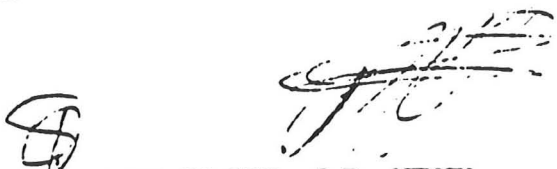
SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO. OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
ES1183	BLOCK NO L 146 HALLWAY (1)		480	200		1.5	<0.01
ES1184	BLOCK NO L 146 HALLWAY (2)		480	200		2	<0.01
ES1185	BLOCK NO L 146 HALLWAY (3)		480	200		2	<0.01
ES1186	BLOCK NO L 146 HALLWAY (4)		480	200		0.5	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: EUGENE STOREY


HEAD OF LAB: J.P. WINCH

UNION HOUSE, 679 HIGH ROAD, SOUTH BENFLEET, ESSEX. SS7 5SF
TELEPHONE: 0268 794111
FAX: 0268 792837



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 11/02/93
REPORT ISSUE DATE 11/02/93
CONFIRMATION REPORT ISSUE DATE 16/02/93
REPORT NUMBER H/93/046
PAGE 1 OF 2

MONITORING ADDRESS: R.A.R.D.E. WORKS, POWDERMILL LANE, WALTHAM ABBEY.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 60 SQM Total number of Samples taken 2. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME	GRATICULE	NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED SUB TOTAL	AREAS EXAMINED	FIBRES SUB TOTAL		
H81562	BUILDING 148	240	200	3	7	<0.01
	ROOM 13A & 13B					
H81563	BUILDING 148	240	200	4	6½	<0.01
	ROOM 13A & 13B					
H81564	BUILDING 148	240	200	3	6½	<0.01
	ROOM 13A & 13B					
H81565	BUILDING 148	240	200	3½	6½	<0.01
	ROOM 13A & 13B					

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: ROBERT WARD

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml, But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1039

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANOR HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 08/02/93
REPORT ISSUE DATE 08/02/93
CONFIRMATION REPORT ISSUE DATE 09/02/93
REPORT NUMBER DH/93/051
PAGE 1 OF 2

MONITORING ADDRESS: FORMER R.A.R.D.E. WORKS, NORTH SITE BUILDING 4A.4B.4C
L148 WALTHAM ABBEY.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 28 SQM Total number of Samples taken 2. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE REG NO IF MOBILE : E447 YGT

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME		GRATICULE AREAS EXAMINED	NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED	SUB TOTAL		FIBRES	SUB TOTAL	
DH11409	INSIDE ENCLOSURE	240	480	200	0	0	0.01
DH11410	INSIDE ENCLOSURE	240		200	0		
DH11412	INSIDE ENCLOSURE	240	480	200	4	4	<0.01
DH11413	INSIDE ENCLOSURE	240		200	0		

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: DARREN HAYWARD

HEAD OF LAB: J.P. WINCH

UNIT 7, UNION HOUSE 679 HIGH ROAD, SOUTH BENFLEET, ESSEX. SS7 5SF

TELEPHONE: 0268 794111

FAX: 0268 792837



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml. But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection. and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 02/02/93
REPORT ISSUE DATE 02/02/93
CONFIRMATION REPORT ISSUE DATE 03/02/93
REPORT NUMBER DH/93/043
PAGE 1 OF 2

MONITORING ADDRESS: FORMER RARDE NORTH SITE BUILDING L148 - DUCTING BELOW
CORRIDOR - WALTHAM ABBEY.

Air Monitoring was carried out in the locations shown below. Methods and
Procedures are shown in Appendix A & B. Any Non Compliances to the Health
and Safety Executives Guidance Notes will be shown on a separate Comments
Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 210 SQM Total number of Samples taken 4. Air
disturbance was carried out for a minimum of 5 minutes at the commencement
of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : E447 YGT

<u>SAMPLE</u> <u>ALLOCATION</u> <u>NUMBERS</u>	<u>SAMPLE LOCATION</u>	<u>VOLUME</u> <u>SAMPLED</u> <u>SUB TOTAL</u>	<u>GRATICULE</u> <u>AREAS</u> <u>EXAMINED</u>	<u>NUMBER OF</u> <u>FIBRES</u> <u>SUB TOTAL</u>	<u>FIBRES PER</u> <u>ML.</u>
DH11366	INSIDE ENCLOSURE	480	200	0	0.01
DH11367	INSIDE ENCLOSURE	480	200	0	0.01
DH11368	INSIDE ENCLOSURE	480	200	2	<0.01
DH11369	INSIDE ENCLOSURE	480	200	4	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENT SHEET RAISED: NO

REPORTED BY: DARREN HAYWARD

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml, But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING. CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE 13/01/93
REPORT ISSUE DATE 13/01/93
CONFIRMATION REPORT ISSUE DATE 13/01/93
REPORT NUMBER RK/93/023
PAGE 1 OF 2

MONITORING ADDRESS: R.A.D.R.E. POWERMILL LANE, WALTHAM ABBEY,
BUILDING L 148.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 12 SQM Total number of Samples taken 2 Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: POLY BAG

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE : E905 GVX

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME		GRATICULE AREAS EXAMINED	NUMBER OF FIBRES		FIBRES PER ML.
		SAMPLED	SUB TOTAL		FIBRES	SUB TOTAL	
RK60565	ROOM 13A & B	480		200	3½		<0.01
RK60566	ROOM 13A & B	480		200	4		<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: ROBERT KING

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml. But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1039

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 19.10.93
REPORT ISSUED DATE: 19.10.93
CONFIRMATION REPORT ISSUE DATE: 21.10.93
REPORT NUMBER: ES/93/045
PAGE 1 OF 2

MONITORING ADDRESS: R.A.R.D.E. WORKS, POWDERMILL LANE - WALTHAM ABBEY.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 80 SQM Total Number of Samples taken 4. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of monitoring using: PLASTIC BAG

TYPE OF TEST TAKEN: CLEARANCE


SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: H573 GOO

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO. OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
ES1260	BUILDING NO L151 HALLWAY (1)		480	200		1.5	<0.01
ES1261	BUILDING NO L151 HALLWAY (2)		480	200		3	<0.01
ES1262	BUILDING NO L151 HALLWAY (3)		480	200		2	<0.01
ES1263	BUILDING NO L151 HALLWAY (4)		480	200		2.5	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: EUGENE STOREY


HEAD OF LAB: J.P. WINCH

UNION HOUSE, 679 HIGH ROAD, SOUTH BENFLEET, ESSEX. SS7 5SF

TELEPHONE: 0268 794111

FAX: 0268 792837



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS

AIR MONITORING, CONSULTATION,

SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the "Clearance Indicator" with respect to Site Clearance.

Using the Methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S 39, The lower limit of accurate measurement is as follows:- at least 80% of the results should be less than or equal to 0.010 Fibres/ML and all of them should be less than 0.015 Fibres/ML. So in small enclosures requiring four or fewer Samples, none of them should exceed 0.010 Fibres/ML, but in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ML. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the Site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39 for the determination of the "Clearance Indicator".

APPENDIX B

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method Set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.

UNION HOUSE, 679 HIGH ROAD, SOUTH BENFLEET, ESSEX, SS7 5SF

TELEPHONE: 0268 794111

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MICRON MONITORING LABORATORIES LTD

Goodmayes House · 45-49 Goodmayes Road · Ilford · Essex IG3 9UF · Tel: 081-597 3333

Fax: 081 599 0531



Environmental Monitoring
Specialists



CLIENT:

Royal Ordnance Plc.,
Environmental Services Group,
Former R.A.R.D.E. WA (NS),
Waltham Abbey,
Essex.

21st October 1994,

REPORT No. B13/059

AIRBORNE ASBESTOS DUST MONITORING

<u>MONITORING SITE ADDRESS :</u>	Powdermill Lane., Waltham Abbey, Essex.
<u>DATE OF MONITORING :</u>	12th & 13th October 1994.
<u>ESTIMATED ENCLOSURE AREA :</u>	Less Than 50 Square Metres.
<u>LABORATORY REFERENCE :</u>	E564 OMK - Mobile.
<u>TECHNICIAN :</u>	D. Hutchins.
<u>FILTER DIAMETER :</u>	23mm.
<u>METHOD OF MONITORING</u>	See Appendix 'A'
<u>METHOD OF ANALYSIS</u>	See Appendix 'B'

RESULTS

Sample No.	Reference	Volume Sampled, Litres	No. Grat. Areas Examined	No. Fibres Counted	Asbestos Dust Concentration Fibres/ml
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Date of Sampling: 12th October 1994.

Type of Test: 'Clearance'

Mens' Urinal Building - L.151

M20/121094/13	L.H.S.	240	200	1	Less Than 0.01
M20/121094/14	R.H.S.	240	200	3	
M20/121094/15	Centre	240	200	2	Less Than 0.01
M20/121094/16	By Airlock	240	200	2	

Date of Sampling: 13th October 1994.

Type of Test: 'Clearance'

Building L.151 (Room 2)

M20/131094/13	R.H.S. Front	240	200	0	Less Than 0.01
M20/131094/14	L.H.S. Front	240	200	1	
M20/131094/15	R.H.S. Rear	240	200	3	Less Than 0.01
M20/131094/16	L.H.S. Rear	240	200	2	

REPORTED BY

J. OLDER / ~~S. WATTS~~

Opinions and interpretations expressed herein are outside the scope of NAMAS accreditation.

APPENDIX 'A' - METHOD OF MONITORING

The monitoring was carried out using the procedures specified for use in the approved Code of Practice, "Work with asbestos insulation, asbestos coating and asbestos insulation board" (Revised Feb. 1988). These procedures require that monitoring is carried out to the requirements of the current edition of the Health & Safety Executive Guidance Note EH10 which in turn invokes the use of the method set out in the current edition of MDHS 39 for the determination of the "CLEARANCE INDICATOR".

The dust raising carried out during the "Clearance Test" was by means of repeated banging of accessible areas with a clean flat board.

The procedure carried out for "Leak" tests are set out in the Testing Laboratory Document DOC/002.

APPENDIX 'B' - METHOD OF ANALYSIS

The membrane filter samples were analysed using the method set out in the current edition of MDHS 39.

COMMENTS

It should be noted in this report that only the results of measurements headed as 'Clearance', and no other results, should be regarded as having been sampled and analysed for determination of the 'Clearance Indicator'. Exposure to all forms of asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' for site clearance. Using the methods described in the current edition of H.S.E. Guidance Note EH10 and MDHS 39 the lowest fibre level reliably detectable above background with a 480 litre sample is about 0.010 fibre/ml and a level of 0.010 fibre/ml is taken as the 'Clearance'. The results from each 480 litre sample or pooled set of samples should be compared with it. At least 80% of results should be less than or equal to 0.010 fibre/ml and all of them should be less than 0.015 fibre/ml.

If results exceed the 'Clearance Indicator' steps should be taken to identify the source of contamination. Following further cleaning of the enclosure a Re-test should be carried out.

DISCLAIMER

Certified that the above mentioned samples/parts/materials have been tested/examined in accordance with the terms of the contract/order applicable and unless otherwise stated, conform fully to standards/specifications quoted. This does not however, guarantee the balance of production from which the tested samples/parts/materials have been taken to be of equal quality.

Copy to R. Watts



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 17.11.93
REPORT ISSUED DATE: 17.11.93
CONFIRMATION REPORT ISSUE DATE: 18.11.93
REPORT NUMBER: DH/93/345
PAGE 1 OF 2

MONITORING ADDRESS: FORMER R.A.R.D.E. WORKS, WALTHAM ABBEY, BLOCK L155.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure N/A Total Number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using: N/A

TYPE OF TEST TAKEN: RE-ASSURANCE

SAMPLE ANALYSED IN: MOBILE REG NUMBER IF MOBILE: L781 LHK

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO.OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
DH12700	INSIDE ENCLOSURE		320	200		0	<0.01
DH12701	INSIDE ENCLOSURE		320	200		0	<0.01
DH12702	INSIDE ENCLOSURE		320	200		1	<0.01
DH12703	INSIDE ENCLOSURE		320	200		2	<0.01

COMMENTS SHEET RAISED: NO

REPORTED BY: DARREN HAYWARD

HEAD OF LAB: J.P. WINCH



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES
SAMPLING & BULK ANALYSIS
AIR MONITORING, CONSULTATION,
SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

01089

CLIENT, NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANDFORD-LE-HOPE
ESSEX.

MONITORING DATE 15/03/93
REPORT ISSUE DATE 15/03/93
CONFIRMATION REPORT ISSUE DATE 16/03/93
REPORT NUMBER TL/93/065
PAGE 1 OF 2

MONITORING ADDRESS: OLD R.A.D.R.E. SITE. WALTHAM ABBEY, BUILDING L157 DUCT BENEATH CORRIDOR.

Air Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure 200 SQM Total number of Samples taken 4. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: CLIPBOARD

Type of test taken: CLEARANCE

Sample Analysed in: MOBILE

REG NO IF MOBILE: F493 OVW

SAMPLE ALLOCATION NUMBERS	SAMPLE LOCATION	VOLUME	GRATICULE AREAS	NUMBER OF FIBRES	FIBRES PER ML.
		SAMPLED SUB TOTAL	EXAMINED	SUB TOTAL	
TL1439	INSIDE ENCLOSURE	480	200	3	<0.01
TL1440	INSIDE ENCLOSURE	480	200	2½	<0.01
TL1441	INSIDE ENCLOSURE	480	200	1	<0.01
TL1442	INSIDE ENCLOSURE	480	200	3	<0.01

RESULTS WITHIN CLEARANCE INDICATOR LEVEL: YES

COMMENTS SHEET RAISED: NO

REPORTED BY: TRACY LEWIS

HEAD OF LAB: J.P. WINCH

PSH v0 121 Refers.



Testing
No 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

PAGE 2 OF 2

CONFIRMATION REPORT FOR CLEARANCE TESTING.

CONCLUSION:

Exposure to all forms of Asbestos should be kept to a minimum reasonably practicable.

The following should be noted as an interpretation of the 'Clearance Indicator' with respect to Site Clearance.

Using the methods described in the Current Health and Safety Executive Guidance Notes E.H.10 and M.D.H.S. 39, The lower limit of accurate measurement is as follows; At least 80% of the results should be less than or equal to 0.010 Fibres/ml, and all of them should be less than 0.015 Fibres/ml. So in small enclosures requiring four or fewer samples, none of them should exceed 0.010 Fibres/ml, But in larger enclosures one result in five may be between 0.010 and 0.015 Fibres/ml. If the results exceed this criteria steps should be taken to identify the source of contamination and following further cleaning of the enclosure, a re-test should be carried out.

The levels stated above should be regarded only as a transient indication of the site cleanliness in conjunction with visual inspection, and not as an acceptable permanent environmental level.

APPENDIX A.

These procedures require that Monitoring is carried out to the requirements of the current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the methods set out in the Current M.D.H.S. 39, for the determination of the "Clearance Indicator".

APPENDIX B.

METHOD OF ANALYSIS.

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S. 39.



Testing
No. 1089

ENVIRONMENTAL CONTAMINATION SERVICES

SAMPLING & BULK ANALYSIS AIR MONITORING, CONSULTATION, SURVEYS

CONFIRMATION SHEET

CLIENT NAME & ADDRESS
P.J. CONTRACTING LIMITED
MANORWAY HOUSE
THE MANORWAY
STANFORD-LE-HOPE
ESSEX.

MONITORING DATE: 01.12.93
REPORT ISSUED DATE: 01.12.93
CONFIRMATION REPORT ISSUE DATE: 06.12.93
REPORT NUMBER: DH/93/362
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MONITORING ADDRESS: FORMER R.A.R.D.E. WORKS, WALTHAM ABBEY.

Monitoring was carried out in the locations shown below. Methods and Procedures are shown in Appendix A & B. Any Non-Compliances to the Health and Safety Executives Guidance Notes will be shown on a separate Comments Sheet.

RESULTS

THIS SECTION ONLY TO BE COMPLETED ON A CLEARANCE INDICATOR TEST:-

Estimate of Enclosure N/A Total Number of Samples taken N/A. Air disturbance was carried out for a minimum of 5 minutes at the commencement of each full hour of Monitoring using a: N/A

TYPE OF TEST TAKEN: RE-ASSURANCE

SAMPLE ANALYSED IN: MOBILE

REG NUMBER IF MOBILE: L781 LHK

SAMPLE ALLOCATION NUMBER	SAMPLE LOCATION	VOLUME SAMPLED		GRATICULE AREAS EXAMINED	NO. OF FIBRES		FIBRES PER ML.
		SUB	TOTAL		SUB	TOTAL	
DH12755	BUILDING 159 INSIDE ENCLOSURE		240	200		8	<0.01
DH12756	BUILDING 159 INSIDE ENCLOSURE		240	200		5	<0.01
DH12757	BUILDING 159 INSIDE ENCLOSURE		240	200		3	<0.01
DH12758	BUILDING 159 INSIDE ENCLOSURE		240	200		6	<0.01

COMMENTS SHEET RAISED: NO

REPORTED BY: DARREN HAYWARD

HEAD OF LAB: J.P. WINCH





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CONFIRMATION REPORT FOR NON CLEARANCE TESTING

APPENDIX A

The Monitoring was carried out to the requirements of the Current Health and Safety Executive Guidance Notes E.H.10, which invokes the use of the Methods set out in the Current M.D.H.S.39.

APPENDIX B.

METHOD OF ANALYSIS

The Membrane Filter Sample(s) were Analysed using the Method set out in the Current Health and Safety Executive Guidance Notes M.D.H.S.39.

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