

Environmental Impact Assessment Report

Appendix 19.2

Volume 3 Part 10





ABOUT SAFETY LTD.

**ASBESTOS | LEAD BASED PAINT | MOULD | SILICA DUST | HAZMAT
SURVEYING & TESTING
RISK MANAGEMENT | PROJECT MANAGEMENT**

Refurbishment & Demolition Asbestos Survey

Site Address	Dublin 3FM Masterplan Kilsaran Concrete Southbank Road Dublin Port	
Site Location		
Client	Name: Dublin Port Company Port Centre, Alexandra Road, Dublin Port, Dublin 1 Contact: Sean Reilly, Programme Management Office Tel: 01 8876043 Mob: 086 1035756	
Survey Dates	26/01/23	
Issue Date	30/01/23	
Surveyor(s)	John Kelleher, About Safety Ltd.	

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
	No asbestos containing materials identified.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

- To carry out a survey to ascertain the presence of asbestos based materials.
- To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.
- To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.
- To sample and estimate the extent and volume of any asbestos materials that may be present.
- To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.
- To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.
- To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information	<i>Scope of Works:</i>	Proposed redevelopment of the site.
	<i>Structural Details:</i>	Ready-mix concrete facility consisting of modern prefab offices Steel framed truck loading building, conveyor building and bulk fuel storage building which are covered with single skin profile steel cladding. Various bulk storage water tanks and vessels around the yard.
	<i>Reservations:</i>	The ESB sub-station was not accessed.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be broken up for removal or examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

In the material assessment process, the main factors influencing fiber release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fiber released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fiber release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fiber release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fiber is immersed in a liquid having a refractive index near to that of the particle or fiber, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an occupied site.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on ACM Management and Abatement".

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

Kilsaran Concrete

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
		No samples taken		

Glossary

*NADIS = No Asbestos Detected in Sample

VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	Kilsaran Concrete	Office		Outer metal skin with plasterboard internal linings.		NAD							
2.	Kilsaran Concrete	Welfare Bld.		Outer metal skin with plasterboard internal linings.		NAD							
3.	Kilsaran Concrete	ESB substation.		Property of ESB.		Not accessible							
4.	Kilsaran Concrete	Kilsaran Switchroom		Polystyrene between outer steel casing and internal plywood linings.		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	Kilsaran Concrete	Kilsaran Switchroom		Plywood internal wall and ceiling linings. Modern electrical plant and equipment		NAD							
6.	Kilsaran Concrete	Kilsaran		Water storage vessels.		NAD							
7.	Kilsaran Concrete	Kilsaran		Steel container hut		NAD							
8.	Kilsaran Concrete	Kilsaran Conveyor shed		Single skin metal cladding over structural steel frame.		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	Kilsaran Concrete	Kilsaran Readymix Loading shed		Structural steel frames. Outer metal cladding.		NAD							
10.	Kilsaran Concrete	Kilsaran Readymix Loading shed Office		Modern electrical plant and equipment.		NAD							
11.	Kilsaran Concrete	Kilsaran Readymix Loading shed Upper deck				NAD							
12.	Kilsaran Concrete	Kilsaran Readymix Conveyor				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	Kilsaran Concrete	Conveyor Shed		Outer metal skin on structural steel frames. Conveyor system		NAD							
14.	Kilsaran Concrete	Fuel store		Outer metal skin on structural steel frames.		NAD S							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				



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Refurbishment & Demolition Asbestos Survey

Site Address	Marina Village Pigeon House Road Dublin 4	
Site Location		
Client	Name: Dublin Port Company Port Centre, Alexandra Road, Dublin Port, Dublin 1 Contact: Sean Reilly, Programme Management Office Tel: 01 8876043 Mob: 086 1035756	
Survey Dates	10/01/23	
Issue Date	30/01/23	
Surveyor(s)	John Kelleher, About Safety Ltd.	

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
	No visible asbestos containing materials identified.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

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The objectives of this survey were to:

- To carry out a survey to ascertain the presence of asbestos based materials.
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- To sample and estimate the extent and volume of any asbestos materials that may be present.
- To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.
- To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.
- To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information	<i>Scope of Works:</i>	Proposed Demolition
	<i>Structural Details:</i>	<p>The original Poolbeg Yacht Club was constructed circa fifty years ago and has undergone various facelifts in recent years. The building is over two storeys. The ground floor has an indoor bar, various stores and a keg store, with various offices and WC's. The upper floor has a large meeting room, store room and plantroom. The air handling ductwork and boiler are relatively recent installations.</p> <p>The Stella Maris Rowing Club buildings are only recently constructed i.e. 2017. Unless there is overwhelming evidence to indicate that asbestos materials were used in its construction, the building is considered because of its era of construction to non-asbestos containing.</p>
	<i>Reservations:</i>	Existing fixed floor coverings in the Poolbeg YC were not disturbed during the visit.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be broken up for removal or examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

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Asbestos Contaminated Soils (ACS)

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Material Assessment

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Material Assessment Algorithm

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- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fiber release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fiber release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fiber is immersed in a liquid having a refractive index near to that of the particle or fiber, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an occupied building.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on ACM Management and Abatement".

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The

contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

Marine Village

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
		No samples taken		

Glossary

*NADIS = No Asbestos Detected in Sample

VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

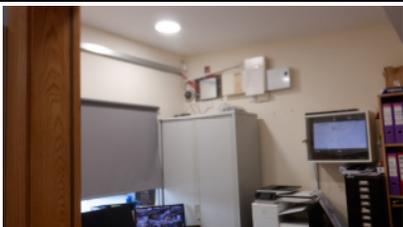
Crocidolite (blue asbestos)

Analyst: John Kelleher

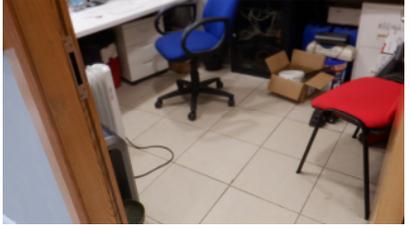
Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	Stella Maris Rowing Club	Stella Maris Rowing Club		Constructed Circa 3 to 4 years ago.		NAD							
2.	Poolbeg Yacht Club	Poolbeg Sailing Club roofs				NAD							
3.	Poolbeg Yacht Club	Poolbeg Sailing Club Attic void		Modern AH ductwork and plant		NAD							
4.	Poolbeg Yacht Club	Poolbeg Sailing Club Attic void		Modern wall mounted gas boilers and assemblies		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	Poolbeg Yacht Club	Poolbeg Sailing Club Attic void		Plasterboard to ceilings and walls. Timber flooring		NAD							
6.	Poolbeg Yacht Club	Poolbeg Sailing Club 1 st floor Assembly room		Plasterboard to ceilings and walls. Timber flooring		NAD							
7.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor Reception		New build		NAD							
8.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor Office				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor Office		Modern refurb.		NAD							
10.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor		Modern refurb.		NAD							
11.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor		Modern refurb.		NAD							
12.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor Hallway Store		Modern refurb.		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor		Timber floor		NAD							
14.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor				NAD							
15.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor		Ceramic tiles on bar floor.		NAD							
16.	Poolbeg Yacht Club	Poolbeg Sailing Club Ground floor		Concrete floor		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17.	Poolbeg Yacht Club	Poolbeg Sailing Club Lean-to store area				NAD							
18.	Poolbeg Yacht Club	Poolbeg Sailing Club 24 hour WC's		Modern facilities		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
	No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.			



ABOUT SAFETY LTD.

ASBESTOS | LEAD BASED PAINT | MOULD | SILICA DUST | HAZMAT
SURVEYING & TESTING
RISK MANAGEMENT | PROJECT MANAGEMENT

Refurbishment & Demolition Asbestos Survey

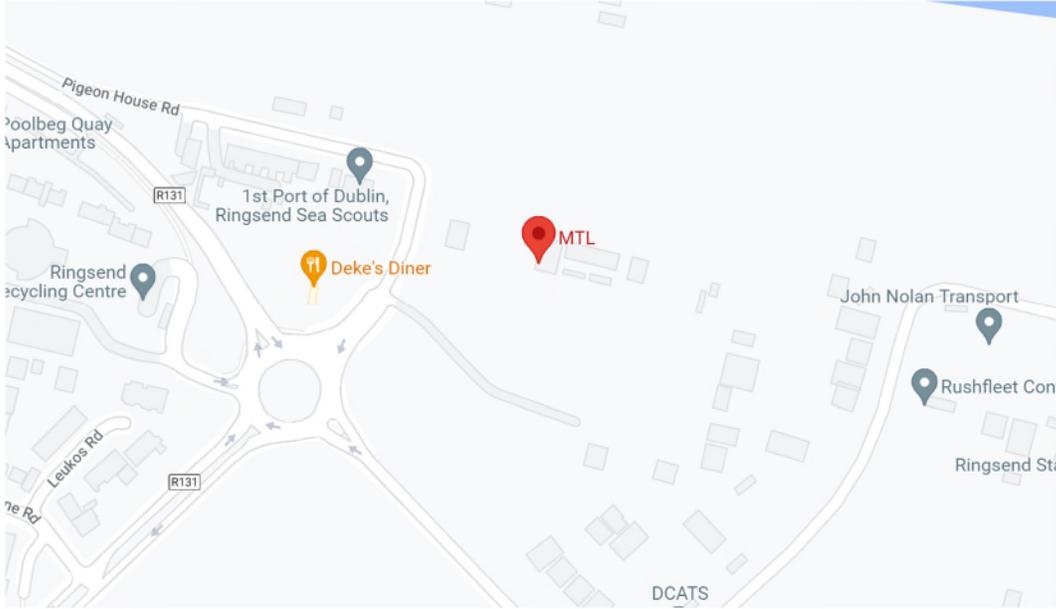
Site Address	Plot K, MTL Depot Dublin 3FM Masterplan Dublin Port
Site Location	
Client	Name: Dublin Port Company Port Centre, Alexandra Road, Dublin Port, Dublin 1 Contact: Sean Reilly, Programme Management Office Tel: 01 8876043 Mob: 086 1035756
Survey Dates	10/01/23
Issue Date	30/02/23
Surveyor(s)	John Kelleher, About Safety Ltd.

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
57	Two asbestos containing flange gaskets were identified to the calorifer immersion units in the maintenance workshop. Intact.

Ref:	Presumed/Strongly Presumed Asbestos [Requires investigation by the competent or specialist asbestos contractor prior to work likely to cause disturbance.]
35	Boiler room - Integral areas of the old boiler are presumed to contain asbestos. Intact.
36	Boiler room - Circulation pump flange gaskets are presumed to contain asbestos.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

To carry out a survey to ascertain the presence of asbestos based materials.

To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.

To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.

To sample and estimate the extent and volume of any asbestos materials that may be present.

To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.

To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.

To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information

<i>Scope of Works:</i>	Proposed redevelopment of the site.
<i>Structural Details:</i>	Single and two storey prefabricated cabins. Relatively modern units with insulation inside the outer steel panels. Plasterboard linings internally. The security hut is prefabricated fiberglass structure. The workshop building has prefabricated offices and locker rooms. The maintenance workshop has profile steel cladding to the roof and sides. The maintenance storeroom has galvanized corrugated sheeting to roof and sides.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be broken up for removal or examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required

in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

In the material assessment process, the main factors influencing fiber release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fiber released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fiber release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fiber release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fiber is immersed in a liquid having a refractive index near to that of the particle or fiber, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition. Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an occupied buildings.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on ACM Management and Abatement".

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

MTL Depot

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
Jkb23011004	2301004	Security Hut floor	Brown lino	NADIS
Jkb23011005	2301005	Security hut sink unit	Bitumen pad	NADIS
Jkb23011006	2301006	Maintenance workshop, calorifer	Flange gaskets	Chrysotile
Jkb23011007	2301007	Maintenance work shop locker room	Old linos	NADIS

Glossary

*NADIS = No Asbestos Detected in Sample
VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

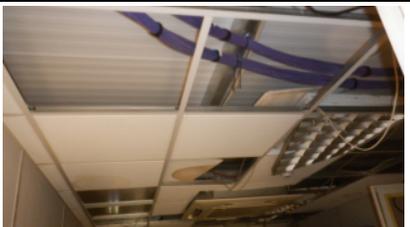
Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	MTL Depot	Peel Ports Main office				NAD							
2.	MTL Depot	Peel Ports Main office		Original mineral fibre tiles in lobby ceiling		NAD							
3.	MTL Depot	Peel Ports Main offices		Modern drop ceilings with lay-in ceiling tiles.		NAD							
4.	MTL Depot	Peel Ports Main office		Plasterboard ceilings over drop ceilings		NAD							

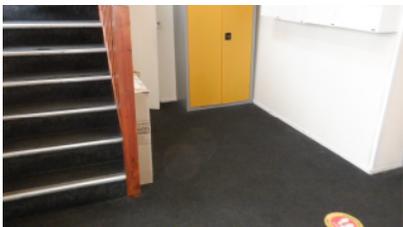
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	MTL Depot	Peel Ports Main office				NAD							
6.	MTL Depot	Peel Ports Main office				NAD							
7.	MTL Depot	Peel Ports Main office				NAD							
8.	MTL Depot	Comms Peel Ports		Insulation profile steel over drop ceilings.		NAD							

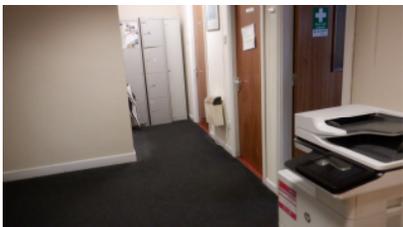
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		≤ 4		Very Low
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		7 - 9		Medium
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	MTL Depot	Peel Ports Main offices Store room				NAD							
10.	MTL Depot	Peel Ports Main office Kitchen				NAD							
11.	MTL Depot	Peel Ports Main office WC's				NAD							
12.	MTL Depot	Peel Ports Main office WC				NAD							

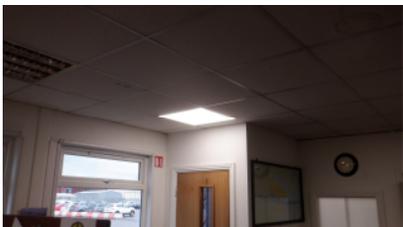
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	MTL Depot	Peel Ports Main office		Hotpress		NAD							
14.	MTL Depot	Peel Ports 2 storey office building.				NAD							
15.	MTL Depot	Peel Ports 2 storey office bld. Lobby				NAD							
16.	MTL Depot	Peel Ports 2 storey office bld. lobby		Plasterboard internal linings.		NAD							

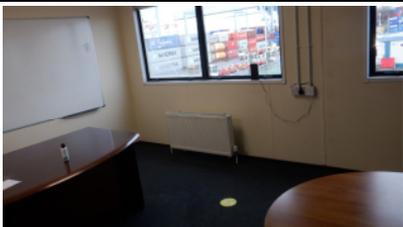
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		7 - 9		Medium	
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17.	MTL Depot	Peel Ports 2 storey office bld.		MMMF insulation in wall cavities		NAD							
18.	MTL Depot	Peel Ports 2 storey office bld. Internal offices		Modern drop ceilings with lay-in ceiling tiles.		NAD							
19.	MTL Depot	Peel Ports 2 storey office bld. Reception		Modern drop ceilings with lay-in ceiling tiles.		NAD							
20.	MTL Depot	Peel Ports 2 storey office bld. Ground floor offices		Modern drop ceilings with lay-in ceiling tiles.		NAD							

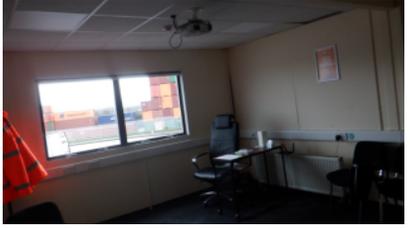
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21.	MTL Depot	Peel Ports 2 storey office bld. Ground floor offices				NAD							
22.	MTL Depot	Peel Ports 2 storey office bld. Ground floor Canteen				NAD							
23.	MTL Depot	Peel Ports 2 storey office bld. Ground floor		Kingspan sheeting over ceilings		NAD							
24.	MTL Depot	Peel Ports 2 storey office bld. Ground floor Kitchen				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
			5 - 6	Low
			7 - 9	Medium
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25.	MTL Depot	Peel Ports 2 storey office bld. Ground floor WC's				NAD							
26.	MTL Depot	Peel Ports 2 storey office bld. 1st Floor				NAD							
27.	MTL Depot	Peel Ports 2 storey office bld. 1st Floor		Plywood under carpets. Modern drop ceilings with lay-in ceiling tiles.		NAD							
28.	MTL Depot	Peel Ports 2 storey office bld. 1st Floor				NAD							

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29.	MTL Depot	Peel Ports 2 storey office bld. 1 st Floor				NAD							
30.	MTL Depot	Peel Ports 2 storey office bld. 1 st Floor				NAD							
31.	MTL Depot	Peel Ports 2 storey office bld. 1 st Floor WC's				NAD							
32.	MTL Depot	Peel Ports 2 storey office bld. Welfare building		Modern unit		NAD							

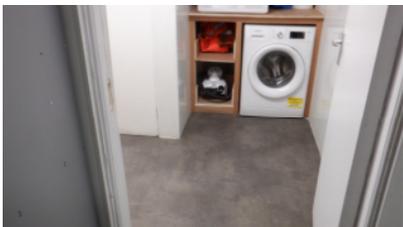
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33.	MTL Depot	Peel Ports 2 storey office bld. Welfare building				NAD							
34.	MTL Depot	Peel Ports 2 storey office bld. Welfare building				NAD							
35.	MTL Depot	Peel Ports Boiler room		Integral areas of the boiler		NAD						Dismantling and investigation by a competent asbestos contractor prior to disposal.	
36.	MTL Depot	Peel Ports Boiler room		Circulation pump gaskets.		NAD						Dismantling and investigation by a competent asbestos contractor prior to disposal.	

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37.	MTL Depot	Peel Ports Boiler room		Insulated double flue		NAD							
38.	MTL Depot	Peel Ports Welfare Bld.				NAD							
39.	MTL Depot	Peel Ports Welfare Bld.				NAD							
40.	MTL Depot	Peel Ports Welfare Bld.				NAD							

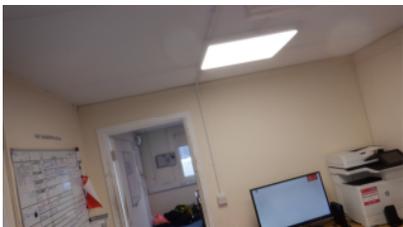
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41.	MTL Depot	Peel Ports Welfare Bld.				NAD							
42.	MTL Depot	Peel Ports Welfare Bld.		PVC cladding on roof		NAD							
43.	MTL Depot	Peel Ports Welfare Bld.				NAD							
44.	MTL Depot	Peel Ports Welfare Bld.		New prefab building		NAD							

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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
45.	MTL Depot	Security Hut		Fibreglass construction		NAD							
46.	MTL Depot	Security Hut				NAD							
47.	MTL Depot	Security Hut Kitchen	2301004	Brown lino over plywood.		NAD							
48.	MTL Depot	Security Hut	2301005	Sink pad		NAD							

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		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
49.	MTL Depot	Maintenance Offices				NAD							
50.	MTL Depot	Maintenance Offices				NAD							
51.	MTL Depot	Maintenance Offices				NAD							
52.	MTL Depot	Maintenance Offices				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
53.	MTL Depot	Maintenance workshop				NAD							
54.	MTL Depot	Maintenance workshop				NAD							
55.	MTL Depot	Maintenance workshop		Modern lino to floor		NAD							
56.	MTL Depot	Maintenance workshop				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
57.	MTL Depot	Maintenance workshop	2301006	Immersion flange gaskets to calorifer	2 gaskets	Chrysotile	1	0	0	1	2	Manage in place. Removal by a competent asbestos contractor prior to work likely to cause disturbance.	
58.	MTL Depot	Maintenance workshop				NAD							
59.	MTL Depot	Maintenance workshop		Modern lino.		NAD							
60.	MTL Depot	Maintenance workshop				NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
62.	MTL Depot	Maintenance workshop	2301007	Old Linos		NAD							
63.	MTL Depot	Maintenance Storeroom		Galvanized steel structure.		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
			5 - 6	Low
			7 - 9	Medium
			≥ 10	High
			No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.	

**P&O Ferries Administration and Freight Buildings
Dublin Port**

Refurbishment & Demolition Survey for Asbestos Containing Materials

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1.0 Executive Summary

A Refurbishment and Demolition Asbestos Survey was carried out at above property. This report should be read in its entirety, including detailed information, which is contained in other sections and appendices. Below is a summary of the survey.

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to demolition]
21	Asbestos containing pipework flange gaskets in the boiler room and therefore strongly presumed in all similar gaskets in the building.

Ref:	Presumed/Strongly Presumed Asbestos & Non Accessed Areas [Requires investigation by a competent contractor prior to demolition]
16	Flange gaskets to pipework on the roof of the Admin Buildings.
19	Eyeglass gasket to Chappee Boiler in the Admin Building is presumed to contain asbestos and may be integral areas of the boiler.
22	Admin building boiler room - immersion flange gaskets presumed to contain asbestos.
36	Integral areas of the gas boiler in the Freight Driver Terminal boiler room presumed to contain asbestos.
38	Substrate roofing felts on the Freight Drivers Terminal presumed to contain asbestos.
43	immersion flange gaskets presumed to contain asbestos in the Freight Drivers Hotpress.

2.0 Names and Addresses

Client Name:
Dublin Port Authority

Instructing Party:
Dublin Port Authority

Contact:
Phone:

Contact: Colin Hartfors
Phone:

Site Full Name:
**P&O Ferries Administration and Freight Drivers
Terminal.
Dublin Port**

Report Author:
**About Safety Limited
24 Oceancrest
Arklow
Co. Wicklow**

Contact: John Kelleher
Phone: 086 2208488

Asbestos Surveyor: John Kelleher

British Occupational Hygiene Society (BOHS) Asbestos Proficiency Certification

- S301: Asbestos and other Fibres
- P401: Identification of Asbestos in Bulk Samples (PLM)
- P402: Building Surveys and Bulk Sampling for Asbestos
- P403: Asbestos Fibre Counting
- P404: Air Sampling and Clearance Testing of Asbestos
- P405: Management of Asbestos in Buildings (Safe Removal & Disposal)



3.0 Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above buildings. The survey sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Survey Date(s): 14/09/16

4.0 Objectives

The objectives of this survey were to:

To carry out a survey to ascertain the presence of asbestos based materials.

To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.

To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.

To sample and estimate the extent and volume of any asbestos materials that may be present.

To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.

To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.

To instigate asbestos removal works prior to refurbishment/demolition.

NB: The extent of asbestos containing materials if identified in this report are only approximate and should not be relied upon as a basis for tendering removal works. Contractors tendering works are expected to satisfy themselves by site visit and measurement the exact nature and extent of any works which is proposed.

5.0 Scope of Works & Site Description

Scope of Works: Demolition of all buildings

Structural Details:

General Information

2 storey office building constructed in the 1990's. Flat roof.

Internal fabric of the building i.e. vinyl floor tiles, carpets and drop ceilings with lay-in ceiling tiles are relatively modern. The workshop building is clad in profile steel sheeting.

6.0 Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. .

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

6.1 Asbestos Refurbishment & Demolition Survey Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

6.2 Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues

with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

7.0 Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

7.1 Material Assessment Algorithm

In the material assessment process, the main factors influencing fibre release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fibre released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fibre release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fibre release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibres, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibres.

8.0 Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fibre is immersed in a liquid having a refractive index near to that of the particle or fibre, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken

where it was considered necessary.

The analysis of samples of textured coatings and thermoplastic floor tiles can be unreliable due to the very fine dispersed asbestos present. Where samples of these materials are taken, a negative result may not necessarily reliably confirm that the material does not contain asbestos.

9.0 General Caveat

This report is based on a Refurbishment & Demolition survey of occupied buildings.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. **It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.**

This report has been written with reference to the various Guidance Notes etc, issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

10.0 Specific Notes

10.1 Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibres present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Guidelines on Working with Materials Containing Asbestos Cement".

10.2 Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14 day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

P&O Terminal Buildings

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
Jkb18091401	1825701	P&O Admin building boiler room pipework	Flange gasket	Chrysotile
Jkb18091402	1825702	P&O boiler front plate	Woven rope gasket	NADIS
Jkb18091403	1825703	Freight Drivers Terminal cupboard	Common Grey VFT and Evode	NADIS
Jkb18091404	1825704	Workshop office	Common Grey VFT and Evode	NADIS

Glossary

*NADIS = No Asbestos Detected in Sample

VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
1	P&O Admin Building	Facades		Modern stone facades. Building constructed circum. Early 1990's		NAD							
2	P&O Admin Building	Ground Floor Reception		Drop ceilings with lay-in ceiling tiles under concrete slab.		NAD							
3	P&O Admin Building	Ground Floor Comms room		Common grey VFT and adhesive		NAD							
4	P&O Admin Building	Ground Floor Comms room		MMMF insulation to AH ductwork in ceilings		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
	5 - 6		Low		
	7 - 9		Medium		
	≥ 10		High		
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.			

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
5	P&O Admin Building	Ground Floor Circulation corridors				NAD							
6	P&O Admin Building	Ground Floor Rear of building				NAD							
7	P&O Admin Building	Ground Floor Rear of building		M&E services on ceilings.		NAD							
8	P&O Admin Building	Ground Floor WC's		Ceramic tiles to floors		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4		Very Low
	5 - 6		Low		
	7 - 9		Medium		
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
9	P&O Admin Building	Ground floor Corridor		Common grey VFT and adhesive		NAD							
10	P&O Admin Building	Ground floor Locker room				NAD							
11	P&O Admin Building	Ground floor Locker room				NAD							
12	P&O Admin Building	Ground floor 1 st floor		Drop ceilings with lay-in ceiling tiles under concrete slab.		NAD							

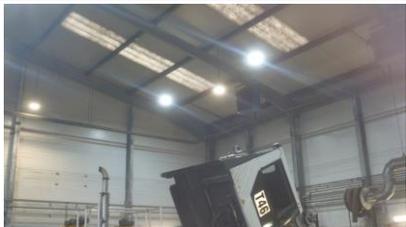
Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
13	P&O Admin Building	1 st floor Circulation corridors				NAD							
14	P&O Admin Building	1 st floor Plantroom		MMMF to AH ductwork		NAD							
15	P&O Admin Building	Roof Plantroom				NAD							
16	P&O Admin Building	Roof Plant		Pipework flange gaskets		Presumed asbestos						Investigation by a competent contractor prior to works likely to cause disturbance.	

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
17	P&O Admin Building	Roof Plant		MMMF to AH ductwork		NAD							
18	P&O Admin Building	Roof				NAD							
19	P&O Admin Building	Boiler room Chappee boiler		Gasket to eyeglass		Presumed to contain asbestos						Investigation by a competent contractor prior to works likely to cause disturbance.	
20	P&O Admin Building	Boiler room Chappee boiler	1825702	Nylon woven rope gasket behind eyeglass flange.		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
21	P&O Admin Building	Boiler room Chappee boiler	1825701	HT pipework flange gaskets	Presumed in all similar flanges	Chrysotile						Removal and disposal as asbestos waste by a competent contractor prior to works likely to cause disturbance.	
22	P&O Admin Building	Boiler room Calorifer		Immersion flange gaskets		Presumed to contain asbestos						Investigation by a competent contractor prior to works likely to cause disturbance.	
23	Workshop Building	Garage Externally		Metal cadding to roof and sides.		NAD							
24	Workshop Building	Garage		Metal cadding to roof and sides.		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
25	Workshop Building	Garage Boiler room		MMMF insulation around boiler.		NAD							
26	Workshop Building	Garage Boiler room		Ceramic fibre type packing inside boiler		NAD							
27	Workshop Building	Garage		Plasterboard to boiler ceiling		NAD							
28	Workshop Building	Workshop office		Common grey VFT and Evode		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
29	Workshop Building	Worshop store room				NAD							
30	Workshop Building	Workshop canteen		Common grey VFT and Evode		NAD							
31	Workshop Building	Workshop WC's		Common grey VFT and Evode		NAD							
32	Workshop Building	Workshop Loading Bay Room				NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
33	Workshop Building	Workshop Loading Bay Room All Space Office				NAD							
34	Workshop Building	Workshop Fuel Tank				NAD							
35	Cabin	Yard Area Old Security Hut				NAD							
36	Freight Drivers Terminal	External boiler room		Integral areas of the old boiler		Presumed to contain asbestos						Presumed to contain asbestos	

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
37	Freight Drivers Terminal	Terminal External boiler room		Modern roofing felt over plywood		NAD							
38	Freight Drivers Terminal	Roof		Substrate roofing felt		Presumed asbestos until proven otherwise						Sampling and investigation prior to demolition.	
39	Freight Drivers Terminal	Lobby		Common grey VFT under flooring		NAD							
40	Freight Drivers Terminal	Lobby		MMMF insulation over drop ceilings		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
41	Freight Drivers Terminal	Lobby store	1825703 1825704	1825703		NAD							
42	Freight Drivers Terminal	Ladies WC				NAD							
43	Freight Drivers Terminal	Hotpress		Immersion flange gaskets		Presumed asbestos						Sampling and investigation prior to demolition.	
44	Freight Drivers Terminal	Waiting room				NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
45	Freight Drivers Terminal	Disabled WC				NAD							
46	Freight Drivers Terminal	Changing room				NAD							
47	Freight Drivers Terminal	Gents WC				NAD							
48	Freight Drivers Terminal	Kitchen areas				NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo / Image
49	Freight Drivers Terminal	Electrical cupboard at kitchen				NAD							
50	Loading Ramp	Security Hut 1		Metal skin with polyurethane insulation		NAD							
51	Loading Ramp	Security Hut 2		Fiberglass molded unit		NAD							
52	Loading Ramp	Security Hut 3		Fiberglass molded unit		NAD							

Key NAD = No asbestos detected NAA = Non Accessed Area AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		



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Refurbishment & Demolition Asbestos Survey

Site Address	Sludge & ESB Jetties Dublin 3FM Masterplan Dublin Port	
Site Location		
Client	Name: Dublin Port Company Port Centre, Alexandra Road, Dublin Port, Dublin 1 Contact: Sean Reilly, Programme Management Office Tel: 01 8876043 Mob: 086 1035756	
Survey Dates	25/01/23	
Issue Date	30/01/23	
Surveyor(s)	John Kelleher, About Safety Ltd.	

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
2	Asbestos containing textured paint to the ceiling of the old DCC Jetty Head hut. Circa 5 square meters. Delaminating and flaking in areas. Statutory notification of 14 days is required to be given by the appointed contractor.
7, 8	Asbestos containing textured paint to the ceiling of the old DCC pumping station building. Circa 300 square meters. Delaminating and flaking in areas. Statutory notification of 14 days is required to be given by the appointed contractor.
18	Asbestos containing flange gaskets to old plant on the Jetty Head. Presumed in all similar valve and pipework assemblies. Trade standard at the time of construction.
20, 21, 22	Asbestos containing vinyl floor tiles and/or adhesive in the Hetty Head office building. Circa 30 square meters.

Ref:	Presumed/Strongly Presumed Asbestos [Requires investigation by the competent or specialist asbestos contractor prior to work likely to cause disturbance.]
11	The roof of the DCC Pumphouse has green mineral felt on the round roof covers which require investigation when access is available.
19, 20	The old plant on the ESB Jetty Head platform are presumed to contain asbestos and should be dismantled and investigated by a competent contractor prior to work likely to cause disturbance. Trade standard at the time of installation.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

To carry out a survey to ascertain the presence of asbestos based materials.

To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.

To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.

To sample and estimate the extent and volume of any asbestos materials that may be present.

To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.

To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.

To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information

<i>Scope of Works:</i>	Proposed demolition of Jettys and associated buildings.	
<i>Structural Details:</i>	<p>The Sludge Jetty is solid concrete structure with two single storey concrete buildings. The buildings have flat roofs. The jetty has large water pipes with MMMF lagging.</p> <p>The ESB Jetty is a solid concrete structure with a single storey building on the Jetty.</p>	

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognizance of the requirements of HSG 264, *Asbestos: The Survey Guide*. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be removed for examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

In the material assessment process, the main factors influencing fiber release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fiber released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fiber release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fiber release). The value assigned to each of the four parameters is added together to give a total score of

between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fiber is immersed in a liquid having a refractive index near to that of the particle or fiber, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of unoccupied areas and buildings.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on ACM Management and Abatement".

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

Sludge and ESB Jetties

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
Jkb23011001	2301001	Sludge Jetty old pumping station ceiling	Textured paint	Chrysotile
Jkb23011002	2301002	Sludge Jetty old pumping station ceiling	Textured paint	Chrysotile
Jkb23011003	2301003	Sludge Jetty old pumping station ceiling	Textured paint	Chrysotile
Jkb2302501	2302501	Sludge Jetty hut ceiling	Textured paint	Chrysotile
Jkb2302502	2302502	ESB Jetty - Old pipework flanges	Gasket	Chrysotile
Jkb2302503	2302503	ESB Jetty – old pipework	Pink plaster	NADIS
Jkb2302504	2302504	ESB Jetty – old pipework	Felt wrap	NADIS
Jkb2302505	2302505	ESB Jetty – office	DPC	NADIS
Jkb2302506	2302506	ESB Jetty – bigroom floor	Bitumen adhesive	Chrysotile
Jkb2302507	2302507	ESB Jetty – office	VFT	Chrysotile
Jkb2302508	2302508	ESB Jetty – office	VFT adhesive	Chrysotile

Glossary

*NADIS = No Asbestos Detected in Sample
VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	Sludge Jetty	Jetty Head building		No access		Presumed asbestos							
2.	Sludge Jetty	Jetty Head building	2302501	Textured paint to ceiling	Circa 5 SM	Chrysotile	1	2	2	1	6	Removal and disposal as asbestos waste by a specialist asbestos contractor under fully controlled conditions. Statutory notification of 14 days to H.S.A.	
3.	Sludge Jetty	Jetty Head		Rubber gaskets to fire hydrant and plant		NAD							
4.	Sludge Jetty	Jetty Head		Rubber gaskets to fire hydrant and plant		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	Sludge Jetty	Jetty Pier		MMMF insulation to water pipe.		NAD							
6.	Sludge Jetty	Jetty East/West Berthing Dolphins		Concrete construction		NAD							
7.	Sludge Jetty	DCC Pumphouse Ceiling	2301001 2301002	Textured paint to ceiling, beams and over ceramic tiles. Flaking in areas	Circa 300 SM	Chrysotile	1	2	2	1	6	Removal and disposal as asbestos waste by a specialist asbestos contractor under fully controlled conditions. Statutory notification of 14 days to H.S.A.	
8.	Sludge Jetty	DCC Pumphouse Ceiling	2301003	Textured paint. Flaking	As above	Chrysotile	1	2	2	1	6	Removal and disposal as asbestos waste by a specialist asbestos contractor under fully controlled conditions. Statutory notification of 14 days to H.S.A.	

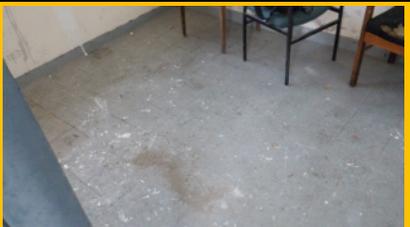
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	Sludge Jetty	DCC Pumphouse Ceiling		Old pipework in ceiling		NAD							
10.	Sludge Jetty	DCC Pumphouse External facades				NAD							
11.	Sludge Jetty	DCC Pumphouse Ceiling		Roofing felt		Presumed asbestos	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
12.													This Row is Blank

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	ESB Jetty	Jetty Pier		Pipework runs		NAD							
14.	ESB Jetty	Jetty Head Loading Platform Storeroom		Concrete floor.		NAD							
15.	ESB Jetty	Jetty Head Loading Platform WC		Ceramic floor tiles and toilet ware		NAD							
16.	ESB Jetty	Jetty Head Loading Platform	2302503	Pink plaster over MMMF		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17.	ESB Jetty	Jetty Head Loading Platform	2302504	Felt wrap over MMMF insulation.		NAD							
18.	ESB Jetty	Jetty Head Loading Platform	2302502	Old pipework flange gaskets		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.	
19.	ESB Jetty	Jetty Head Loading Platform		Flange gaskets to all old pipework		Strongly presumed asbestos. Trade standard at the time of installation.						Investigation by a competent contractor prior to work likely to cause disturbance.	
20.	ESB Jetty	Jetty Head Office 1 Floor	2302507	VFT and adhesive. Lifting	Circa 9 SM	Chrysotile	1	1	0	1	3	Removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21.	ESB Jetty	Jetty Head Office 2 Floor	2302506	VFT adhesive.	Circa 13 SM	Chrysotile	1	1	0	1	3	Removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.	
22.	ESB Jetty	Jetty Head Office 1 Floor	2302508	VFT and adhesive. Lifting	Circa 8 SM	Chrysotile	1	1	0	1	3	Removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.	
23.	ESB Jetty	Jetty Head Offices Roof		Bitumen asphalt over concrete		NAD							
24.	ESB Jetty	Jetty Head Marine Loading Arms		Flange gaskets		Presumed asbestos	1	0	0	1	2	Investigation by a competent contractor prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
25.	ESB Jetty	East finger Berthing and Mooring Dolphins		Concrete construction		NAD							
26.	ESB Jetty	West finger Berthing and Mooring Dolphins		Concrete construction		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				



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Refurbishment & Demolition Asbestos Survey

Site Address	Dublin Port 3FM Project Old ESB Laboratory Building Pigeon House Road Dublin	
Site Location		
Client	Name: Dublin Port Company Port Centre, Alexandra Road, Dublin Port, Dublin 1	
	Contact: Sean Reilly, Programme Management Office Tel: 01 8876043 Mob: 086 1035756	
Survey Dates	18/04/23	
Issue Date	19/04/23	
Surveyor(s)	John Kelleher, About Safety Limited	

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
1	Single skin asbestos cement corrugated roof sheeting on the stores building. Circa 700 square meters
2, 5	Flat asbestos cement sheeting to the ceiling in the stores building. Circa 700 square meters. Local damage and debris in areas.
10, 12, 25, 26, 32, 33, 35, 36, 40	Asbestos containing common vinyl floor tiles and adhesive in various laboratories and rooms throughout the laboratory building.

Ref:	Presumed/Strongly Presumed Asbestos [Requires investigation by the competent or specialist asbestos contractor prior to work likely to cause disturbance.]
6	Integral areas of the old electrical panels in the stores building are presumed to contain asbestos.
7	The roofing felt on the laboratory office building is presumed to contain asbestos.
8, 9	The thread nosings at the entrance lobby doors are presumed asbestos. The brown vinyl floor tile and adhesive in the entrance lobby are presumed asbestos.
11, 14, 15, 16 – 24, 27, 28 – 31, 34	Asbestos containing vinyl floor tiles and/or adhesive are presumed under the existing lino's and carpets in the laboratory office building.
13, 37, 38	Old air handling ductwork in the ceiling voids and associated plantroom are presumed to contain asbestos.
39	The fireboard material in the air handling plantroom is presumed asbestos until sampled and proven otherwise.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

To carry out a survey to ascertain the presence of asbestos based materials.

To review historical information i.e. renovation histories, and other applicable information for each building to be surveyed, if available.

To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.

To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.

To sample and estimate the extent and volume of any asbestos materials that may be present.

To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.

To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.

To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information	<i>Scope of Works:</i>	As per 3FM Project
	<i>Structural Details:</i>	Single storey building of solid construction with pitched roofs.
	<i>External Aspects:</i>	Asbestos cement corrugated roof sheeting on the bottom stores section of the building with profile steel sheeting and felt overcover on the upper offices section.
	<i>Internal Aspects:</i>	Asbestos cement sheeting to the ceiling of the stores building. Plasterboard ceilings generally. Fireboard in the air handling room. Original vinyl floor tiles and lino floor coverings generally. Plasterboard internal partitions between individual rooms.
	<i>Non Accessed Areas:</i>	Ceiling voids, roofs, under existing floor coverings.
	<i>Reservations:</i>	Due to occupancy intrusive surveying was not undertaken. Samples were taken from easily accessible and loose debris evident on the floors.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be broken up for removal or examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried

out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

In the material assessment process, the main factors influencing fiber release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fiber released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fiber release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fiber release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fiber is immersed in a liquid having a refractive index near to that of the particle or fiber, and is viewed

under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an occupied building.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on ACM Management and Abatement".

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

Old ESB Laboratory Building

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
Jkb18042301	2310801	Gents WC	Common VFT	Chrysotile
Jkb18042302	2310802	Gents WC	Common VFT adhesive	Chrysotile
Jkb18042303	2310803	Stores Building	Cement debris on floor	Chrysotile
Jkb18042304	2310804	Stores Building	Cement debris on floor	Chrysotile

Glossary

*NADIS = No Asbestos Detected in Sample
VFT = Vinyl Floor Tile

Chrysotile (white asbestos)

Amosite (brown asbestos)

Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	South Port 3FM Project	Old ESB Laboratory Bottom stores building		Asbestos cement sheeting to lower shed		Presumed crocidolite/ chrysotile	1	1	1	3	6	Investigation and sampling of suspect materials prior to any work undertaken.	
2.	South Port 3FM Project	Old ESB Laboratory Bottom stores building Roof	2310803 2310804	Flat AC sheeting to ceiling with debris on floor. Local damage and cracking in areas.		Chrysotile	1	2	1	1	5	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
3.	South Port 3FM Project	Old ESB Laboratory Bottom stores building Office		Hardboard to ceiling.		NAD							
4.	South Port 3FM Project	Old ESB Laboratory Bottom stores building		Plasterboard ceiling		NAD							

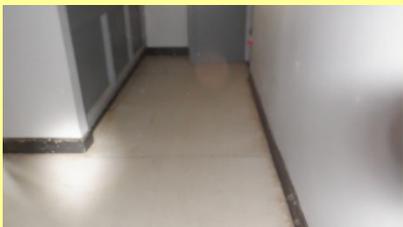
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	South Port 3FM Project	Old ESB Laboratory Bottom stores building		Broken and damaged AC sheeting. Local damage		Chrysotile	1	2	1	1	5	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
6.	South Port 3FM Project	Old ESB Laboratory Bottom stores building		Integral areas of old electrical panels behind store materials		Presumed asbestos materials	2	2	2	2	8	Investigation and sampling of suspect materials prior to any work undertaken.	
7.	South Port 3FM Project	Old ESB Laboratory Upper office building Roof		Felt to profile steel sheeting		Presumed asbestos	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
8.	South Port 3FM Project	Old ESB Laboratory And Offices Entrance lobby		Thread nosings		Presumed asbestos	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	

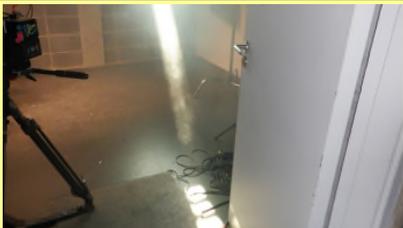
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Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	South Port 3FM Project	Old ESB Laboratory And Offices Entrance lobby		VFT and adhesive		Presumed asbestos	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
10.	South Port 3FM Project	Old ESB Laboratory And Offices Laboratory		Common VFT and adhesive. Intact		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
11.	South Port 3FM Project	Old ESB Laboratory And Offices Laboratory		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
12.	South Port 3FM Project	Old ESB Laboratory And Offices Laboratory		Common VFT and adhesive. Lifting and breaking locally		Chrysotile	1	1	0	1	3	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	South Port 3FM Project	Old ESB Laboratory And Offices Laboratory		Ventilation ductwork in ceiling void		Presumed asbestos seals	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
14.	South Port 3FM Project	Old ESB Laboratory And Offices Lobby at exit door		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
15.	South Port 3FM Project	Old ESB Laboratory And Offices Corridor		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
16.	South Port 3FM Project	Old ESB Laboratory And Offices Film set room		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	

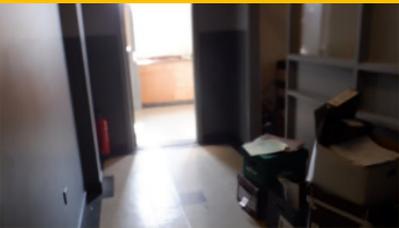
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
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		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
18.	South Port 3FM Project	Old ESB Laboratory And Offices Film set		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
19.	South Port 3FM Project	Old ESB Laboratory And Offices Old laboratory storage area.		Old common VFT and/or adhesive.		Presumed under lino	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
20.	South Port 3FM Project	Old ESB Laboratory And Offices Film set		Old common VFT and/or adhesive.		Presumed under lino/carpet.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21.	South Port 3FM Project	Old ESB Laboratory And Offices Film set		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
22.	South Port 3FM Project	Old ESB Laboratory And Offices Film set		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
23.	South Port 3FM Project	Old ESB Laboratory And Offices Kitchen		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
24.	South Port 3FM Project	Old ESB Laboratory And Offices Film set storage room		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
25.	South Port 3FM Project	Old ESB Laboratory And Offices		Common VFT and adhesive in office corridor		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
26.	South Port 3FM Project	Old ESB Laboratory And Offices Individual offices		Common VFT and adhesive in office corridor		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
27.	South Port 3FM Project	Old ESB Laboratory And Offices Corridor		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
28.	South Port 3FM Project	Old ESB Laboratory And Offices Individual offices		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	

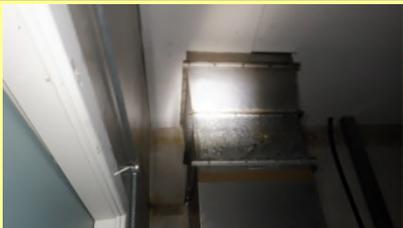
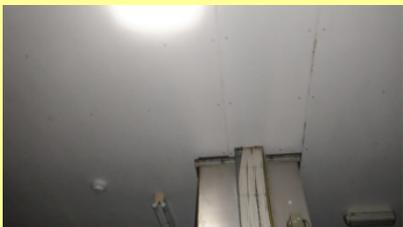
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
29.	South Port 3FM Project	Old ESB Laboratory And Offices Individual offices		Old common VFT and/or adhesive.		Presumed under carpet.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
30.	South Port 3FM Project	Old ESB Laboratory And Offices Individual offices		Old common VFT and/or adhesive.		Presumed under carpet.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
31.	South Port 3FM Project	Old ESB Laboratory And Offices Individual offices		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
32.	South Port 3FM Project	Old ESB Laboratory And Offices Film crew canteen		Common VFT and adhesive. Intact		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
33.	South Port 3FM Project	Old ESB Laboratory And Offices Corridor		Common VFT and adhesive. intact		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
34.	South Port 3FM Project	Old ESB Laboratory And Offices Corridor		Old common VFT and/or adhesive.		Presumed under lino.	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
35.	South Port 3FM Project	Old ESB Laboratory And Offices Gents WC		Common VFT and adhesive. Lifting and breaking		Chrysotile	1	1	0	1	3	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	
36.	South Port 3FM Project	Old ESB Laboratory And Offices Ladies WC		Common VFT and adhesive. Intact		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
			5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
37.	South Port 3FM Project	Old ESB Laboratory And Offices		Evidence of previous asbestos removal work in this area		Presumed asbestos residues	2	2	2	2	8	Investigation and sampling of suspect materials prior to any work undertaken.	
38.	South Port 3FM Project	AH room Old ESB Laboratory And Offices AH room		Adhesive on ductwork joints		Presumed asbestos residues	1	0	0	1	2	Investigation and sampling of suspect materials prior to any work undertaken.	
39.	South Port 3FM Project	Old ESB Laboratory And Offices AH room		Fireboard to ceiling.		Presumed asbestos until proven otherwise	2	2	2	2	8	Investigation and sampling of suspect materials prior to any work undertaken.	
40.	South Port 3FM Project	Old ESB Laboratory And Offices Cupboard		Common VFT and adhesive. Intact		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent person prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					



ABOUT SAFETY LTD.

ASBESTOS | LEAD BASED PAINT | MOULD | SILICA DUST | HAZMAT
 SURVEYING & TESTING
 RISK MANAGEMENT | PROJECT MANAGEMENT

Refurbishment & Demolition Asbestos Survey

Site Address	Hammond Lane Metal Company Ltd. Pigeon House Road Dublin 4	
Site Location		
Client	Name: Project Management Office Dublin Port Company Port Centre Alexandra Road Dublin 1	
Survey Dates	12/04/24	
Issue Date	12/04/24	
Surveyor(s)	John Kelleher, About Safety Ltd.	

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Executive Summary

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to work likely to cause disturbance.]
	No visible asbestos containing materials identified.

Ref:	Presumed/Strongly Presumed Asbestos [Requires dismantling and/or investigation by the competent or specialist asbestos contractor prior to work likely to cause disturbance.]
	Due to the nature of the metal recycling business it is presumed that asbestos containing materials in the form of woven rope and flat HT gaskets and other products etc. may be present in scrap heaps including dust and debris.

NB: The extent of asbestos containing materials identified in this report are only approximate and should not be relied upon as a basis for tendering removal works. Contractors tendering works are expected to satisfy themselves by site visit and measurement the exact nature and extent of any works which is proposed.

Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

- To carry out a survey to ascertain the presence of asbestos based materials.
- To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.
- To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.
- To sample and estimate the extent and volume of any asbestos materials that may be present.
- To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.
- To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.
- To instigate asbestos removal works prior to refurbishment/demolition.

Scope of Works & Site Description

General Information	<i>Scope of Works:</i>	Proposed Redevelopment of Quays
	<i>Structural Details:</i>	Office Building: 2 storey recent construction. Big garage: Single storey building solid construction with profile steel cladding on the roof and sides. Small garage: Single storey building of block construction with profile steel cladding on the walls and sides. Silo Building: Relatively modern construction with profile steel sheeting on the roof and walls. Pump House: Single storey building of solid construction with flat roof. Sub-station: Single storey building of solid construction with flat roof.
	<i>Reservations:</i>	The recycling processing areas was not accessed. High risk working facility.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey. Original and permanent finishes or areas of the building subject to protection orders were not disturbed where requested by the client.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Special considerations for old boilers and plant containing asbestos gaskets:

Some old plant may have gaskets and seals which could contain asbestos. During normal maintenance operations these gaskets or seals may have to be opened, which would not normally be notifiable. If, however the gasket was in a friable condition or had to be broken up for removal or examination, the work could become notifiable. An assessment would need to be made and the work notified with the H.S.A. if necessary. Dismantling of boilers and plant is a specialist task requiring specialist tools and is considered demolition.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

In the material assessment process, the main factors influencing fibre release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fibre released from an ACM when subject to disturbance are:

- Product Type
- Extent of damage or deterioration
- Surface Treatment; and

- **Asbestos type**

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fibre release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fibre release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

Materials with assessment scores of 10 or more are rated as having a high potential to release fibers, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibers.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fibre is immersed in a liquid having a refractive index near to that of the particle or fibre, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated). The commitment to quality is independently assured through membership of the Asbestos in Materials scheme (AIMS), HSL(UK).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an occupied site.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

This report has been written with reference to the various Guidance Notes etc., issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibers present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority's document "Asbestos-containing materials (ACM's) in Workplaces – Practical Guidelines on

ACM Management and Abatement”.

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14-day notification is required and for drawing up a plan of work for any removal works.

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

Hammond Lane Facility

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
		No sample taken		

Glossary

*No visible asbestos containing materials identified. IS = No Asbestos Detected in Sample
Chrysotile (white asbestos) Amosite (brown asbestos) Crocidolite (blue asbestos)
VFT = Vinyl Floor Tile

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1.	Hammond Lane	Main office		Recent construction		No visible asbestos containing materials identified.							
2.	Hammond Lane	Fuel Bunded area		Flange gaskets to storage vessel		Presumed asbestos						Investigate prior to work likely to cause disturbance.	
3.	Hammond Lane	Vehicle wash area				No visible asbestos containing materials identified.							
4.	Hammond Lane	Old container offices				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5.	Hammond Lane	Old container offices		Plasterboard internal linings		No visible asbestos containing materials identified.							
6.	Hammond Lane	Garage		Profile steel cladding to roof and sides over mass concrete walls.		No visible asbestos containing materials identified.							
7.	Hammond Lane	Garage		Profile steel cladding to roof and sides over mass concrete walls.		No visible asbestos containing materials identified.							
8.	Hammond Lane	Garage		Old vehicles		Presumed asbestos brake shoes and flange gaskets to engines.						Investigate prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
	Presumed/Strongly presumed ACM Or Non Accessed Area	No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9.	Hammond Lane	Metal Pile East side of site		Old baled engines		Presumed asbestos gaskets.						Investigate prior to work likely to cause disturbance.	
10.	Hammond Lane	Metal Pile East side of site		Flange gaskets on old tank vessel		Strongly presumed						Investigate prior to work likely to cause disturbance.	
11.	Hammond Lane	Small garage North East		Profile steel sheeting on roof and over block wall.		No visible asbestos containing materials identified.							
12.	Hammond Lane	Small garage North East		Internal areas.		No visible asbestos containing materials identified.							

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		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13.	Hammond Lane	Small garage North East		Bunded area		No visible asbestos containing materials identified.							
14.	Hammond Lane	Scrap handling area		Conveyors		No visible asbestos containing materials identified.							
15.	Hammond Lane	Scrap handling area Water Tank areas		Plastic pipework.		No visible asbestos containing materials identified.							
16.	Hammond Lane	Power House No. 2		Electrical plant and assemblies.		No visible asbestos containing materials identified.							

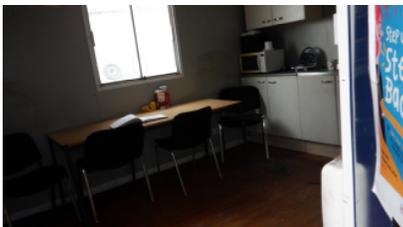
Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17.	Hammond Lane	Scrap Handling area P&E023		Transformer 1		Presumed asbestos gaskets						Investigate prior to work likely to cause disturbance.	
18.	Hammond Lane	Scrap Handling area P&E023		Transformer 2 (made live in 1998)		Presumed asbestos gaskets						Investigate prior to work likely to cause disturbance.	
19.	Hammond Lane	Scrap Handling area Roof deck		Pumping station in container		No visible asbestos containing materials identified.							
20.	Hammond Lane	Scrap Handling area Roof deck Plantroom				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21.	Hammond Lane	Scrap Recycling area		Viewing tower and plant		No visible asbestos containing materials identified.							
22.	Hammond Lane	Scrap Recycling area		Recycled materials		Presumed asbestos							
23.	Hammond Lane	Silos		Relativel modern plant		No visible asbestos containing materials identified.							
24.	Hammond Lane	First Aid Cabin		Plasterboard internal linings		No visible asbestos containing materials identified.							

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			≤ 4	Very Low
			5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
25.	Hammond Lane	First Aid Cabin Electrical room		Modern electric panels		No visible asbestos containing materials identified.							
26.	Hammond Lane	Reception office				No visible asbestos containing materials identified.							
27.	Hammond Lane	Canteen				No visible asbestos containing materials identified.							
28.	Hammond Lane	Silo Building		Relatively modern construction.		No visible asbestos containing materials identified.							

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		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
29.	Hammond Lane	Water Pump House				No visible asbestos containing materials identified.							
30.	Hammond Lane	Electrical substation		Bitumen asphalt to roof		No visible asbestos containing materials identified.							
31.	Hammond Lane	Electrical substation		Modern panels and assemblies.		No visible asbestos containing materials identified.							
32.	Hammond Lane	ESB substation		ESB networks access only.		Outside scope of survey							

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		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	5 - 6		Low	
	7 - 9		Medium	
		≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				