

Grenfell Tower – fire safety investigation:

The active and passive fire protection measures within Grenfell Tower on 14th June 2017 and the extent to which they: (1) complied with relevant regulations, legislation, guidance and industry practice, (2) failed to control the spread of fire and smoke, and (3) contributed to the speed at which the fire spread.

Phase 2 Report – VERSION 2

The Health and Safety File – Main Report

The Construction (Design and Management) Regulations:

The duty to provide a *health and safety file* – assessment of compliance for relevant fire safety works at Grenfell Tower

REPORT OF

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On behalf of	:	Grenfell Tower Inquiry
On instructions of	:	Cathy Kennedy, Solicitor, Grenfell Tower Inquiry
Subject Matter		To examine the circumstances surrounding the fire at Grenfell Tower on 14th June 2017
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Version 2 – explanation

- 1) Further to my report of 28th October 2019, the Inquiry advised me of new evidence relevant to my investigation regarding *The Health and Safety File* as it relates to my assessment of compliance for relevant fire safety works at Grenfell Tower.
- 2) Specifically, I note the following new evidence provided to me:
- 3) New disclosure from Artelia relevant to CDM issues;
- 4) A letter from DWF law on behalf of the RBKC dated 30 January 2020 advising of an error at *original* Paragraph 12.1.15;
- 5) New evidence from KCTMO regarding the 2011-2013 fire door replacement works programme, and the 2004-2006 lift refurbishment works;
- 6) New evidence regarding All Group Holding's involvement in the preparation of the Building Manual for Rydon, as well as further witness statements from Steve Butler of All Group Holdings;
- 7) A new version of the Building Manual, which now incorporates a *health and safety file*. This version was provided by the KCTMO and sent to me by the Inquiry team, on the 11th February 2020. See Section 17 of my separate Phase 2 report *Regulation 38 Fire Safety Information: Assessment and compliance for relevant works at Grenfell Tower* for further details of my investigation of this new information.
- 8) I have therefore updated my report.
- 9) I can confirm this evidence does change my original conclusions, which I set out in full in this Version 2 at Section 13, relying on the conclusions provided at Section 7.7, 8.6, 9.9, 10.5, 11.6, 11.7, and 12.4.

1 Introduction

1.1 Purpose of this report

1.1.1 This report is provided in response to item 1a. of my Phase 2 instructions dated 3 July 2019 “*consideration of relevant handover duties in terms of the provision of relevant fire safety information*”:

“1. Your final conclusions on the active and passive fire protection measures within Grenfell Tower on 14th June 2017 and the extent to which they: (1) complied with relevant regulations, legislation, guidance and industry practice, (2) failed to control the spread of fire and smoke, and (3) contributed to the speed at which the fire spread. This Report should incorporate your opinion (where relevant) on:

a) compliance with the Building Regulations 2010, taking into account Regulations 3 and 4 of the 2010 Regulations and the concept of “material alteration” as defined in Regulation 3(2) and any impact that has on your final conclusions;

b) consideration of relevant handover duties in terms of the provision of relevant fire safety information.”

1.1.2 This report focuses on specific duties relevant to the provision of fire safety information as required under the Construction (Design and Management) Regulations (CDM), for works undertaken in Grenfell Tower between 1994 (when the Regulations were first introduced) and the night of the fire.

1.1.3 The overall purpose of the CDM Regulations is explained most recently as:

“2.1 This instrument (“the 2015 Regulations”) is intended to protect persons from health and safety risks arising from construction work through the establishment of a systematic framework for management of those risks.”

1.1.4 By the night of the fire at Grenfell Tower, this meant the Kensington and Chelsea Tenant Management Organisation (KCTMO) had a statutory duty under Regulation 4(5) of CDM 2015 to ensure that:

“4(5) A client must ensure that—”

“(b) the principal designer prepares a health and safety file for the project, which”

“(iii) is kept available for inspection by any person who may need it to comply with any relevant legal requirements.”

1.1.5 This is further clarified in Appendix 4 of the HSE publication for compliance with CDM 2015 as:

“7 The client must then retain the file and ensure it is available to anyone who may need it for as long as it is relevant – normally the lifetime of the building – to enable them to comply with health and safety requirements

during any subsequent project. It can be kept electronically, on paper, on film, or any other durable form.”

- 1.1.6** KCTMO at all times, had to have a *health and safety file* available and to provide it to any party such that any form of *construction work* in Grenfell Tower could then be properly planned to protect all building occupants from health and safety risks arising from that work.
- 1.1.7** There is a requirement for this file to contain specific fire safety information including gas supply equipment; fire-fighting services etc; fire doors and compartmentalisation etc.
- 1.1.8** There have been three versions of the CDM Regulations enacted since their introduction: CDM 1994, CDM 2007 and CDM 2015.
- 1.1.9** I will present the content of the CDM Regulations and then explain which parties had duties relating to fire safety under the Regulations, specifically the requirement to:
- a) Provide *information* or *pre-construction information* at the start of works; and
 - b) Update, or prepare where none exists, a *health and safety file* so that it is provided to the *client* at the end of the works.
- 1.1.10** There are other duties to provide information enacted through these Regulations, but I am not dealing with anything other than information that refers to fire safety issues.

1.2 The interrelationship with Regulation 38 – fire safety information

- 1.2.1** It is important to understand the relationship between the Building Regulation 38, and the separate but additional statutory duties under CDM.
- 1.2.2** Regulation 38 requires that, where building work involves the erection or extension of a relevant building, or a relevant change of use of a building, fire safety information shall be given to the responsible person at the completion of the project or when the building or extension is first occupied.
- 1.2.3** The statutory guidance document Approved Document B requires a fire safety manual to be created for that purpose, and for this to be provided to the responsible person, who then takes ownership of the fire safety manual, and updates this as and when required.
- 1.2.4** This is all set out in BS 9999 Annex H.
- 1.2.5** A fire safety manual should therefore contain design information and then, operational records.
- 1.2.6** BS 9999 Annex H paragraph H.3 states:

“The fire safety manual should be made available for inspection or tests by auditors and regulators and for operational purposes by the fire and rescue service.”

1.2.7 This means that the KCTMO had a statutory duty to make the fire safety manual available on the night of the fire, should London Fire Brigade (LFB) have wanted to refer to its contents for information on the firefighting services, etc, provided for their use.

1.2.8 Additionally, as Appendix 4 of the HSE publication for compliance with CDM 2015 states:

“7 The client must then retain the file and ensure it is available to anyone who may need it for as long as it is relevant – normally the lifetime of the building – to enable them to comply with health and safety requirements during any subsequent project. It can be kept electronically, on paper, on film, or any other durable form.”

1.2.9 Therefore, both the *fire safety manual* **and** the *health and safety file* should have been kept available.

1.2.10 BS 9999 Annex H paragraph H.1 deals with the interrelationship between the fire safety manual and the separate but additional duty to provide fire information in the *health and safety file* (as required under CDM):

“NOTE Depending on circumstances, the fire safety manual might need to be separate from the safety plan required by the Construction (Design and Management) Regulations 2007, in which case the information from this should be duplicated in the fire safety manual.”

1.2.11 Paragraph 258 of the Approved code of practice for CDM 2007 (L144) also states:

“258 The scope, structure and format for the file should be agreed between the client and CDM co-ordinator at the start of a project. There can be a separate file for each structure, one for an entire project or site, or one for a group of related structures. The file may be combined with the Building Regulations Log Book, or a maintenance manual providing that this does not result in the health and safety information being lost or buried. What matters is that people can find the information they need easily and that any differences between similar structures are clearly shown.”

1.2.12 So regardless of the final structure in any Building Manual, there are two statutory obligations – to have on record the relevant information to comply with Regulation 38 and the relevant information to comply with CDM.

1.2.13 I deal with Regulation 38 in my separate Phase 2 report *Building Regulation 38 fire safety information: Assessment of compliance for relevant work*.

1.2.14 In my opinion both files were relevant on the night of the fire. I address why in detail in Sections 1.3 and 12 of this Report.

1.3 Relevance of CDM related information, the night of the fire

- 1.3.1 In Section 13 of this report I present my conclusions, regarding the compliance status of each of the organisations with respect to their duties under the Construction (Design and Management) Regulations, related to fire safety information.
- 1.3.2 These conclusions are based on the evidence that I have been provided with to date.
- 1.3.3 If any new evidence is provided to me, I will update my report, and any conclusions if the evidence impacts my conclusions.
- 1.3.4 Of these, the most significant conclusion with respect to the night of the fire is with regard to the availability and content of the *health and safety file*.
- 1.3.5 The contract between KCTMO and Rydon required Rydon to include the *health and safety file* in their Building Manual (p161 of {RYD00000001}).
- Part 4: The Health and Safety File: (prepared and supplied by the CDM Coordinator). Content as clause 150.

Figure 1.1: Excerpt of p161 of Rydon's contract of {RYD00000001}

- 1.3.6 Appendix 4 of the guidance document to the CDM 2015 Regulations - L153 Managing health and safety in construction, Construction (Design and Management) Regulations 2015 Guidance on Regulations states that the *health and safety file*:
- “... must contain information about the current project likely to be needed to ensure health and safety during any subsequent work, such as maintenance, cleaning, refurbishment or demolition.”
- 1.3.7 To be clear, there is no statement in CDM 2015 (or indeed any version) relating to making the *health and safety file* explicitly available purely for the operational purposes of the fire and rescue service, unlike the fire manual.
- 1.3.8 But, I do not think it is unreasonable to expect that if the fire safety manual (as required under Regulation 38 of the Building Regulations) was not available for the fire and rescue service, even though it was required to be, the *health and safety file* could be made available and relied upon instead.
- 1.3.9 My focus in this report is the *health and safety file* only.
- 1.3.10 It is my opinion, as I explain herein, that the information relating to the compartmentation; location of the firefighting equipment, the fire protection measures provided; gas supply equipment, was information relevant to London Fire Brigade on the night of the fire, and should have been immediately available by means of this *health and safety file*.

- 1.3.11** This should have been possible from information and as-built drawings of the building, its plant and equipment in the *health and safety file*, as is required.
- 1.3.12** Further any hazards not eliminated through the design and construction process, should also have been clearly documented in the *health and safety file*, as is required.
- 1.3.13** This report sets out these issues in full.

2 Construction (Design and Management) Regulations

2.1 Overview

2.1.1 The Construction (Design and Management) Regulations first came into force on 31st March 1995 as the Construction (Design and Management) Regulations 1994.

2.1.2 The origin of the Regulations is explained in Annex 1 of the explanatory memorandum to CDM 2007:

“Transposition Note for Council Directive 1992/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites (eighth individual Directive within the meaning of Article 16(1) of Directive 89/391/EEC) as implemented in Great Britain by the Construction (Design and Management) Regulations 2007 (CDM 2007).

The Directive was originally transposed largely by the Construction (Design and Management) Regulations 1994 (CDM 94) and the Construction (Health, Safety and Welfare) Regulations 1996 (CHSW), and to a lesser extent by a number of other already existing enactments. The Work at Height Regulations 2005 revoked and re-enacted the CHSW provisions relating to work at height.

The Construction (Design and Management) Regulations 2007 revoke and re-enact in consolidated form CDM 94 and CHSW. The CHSW requirements are essentially unaltered but modifications have been made to CDM 94 to assist duty holders to better understand and comply with their responsibilities, with a view to securing improved health, safety and welfare performance, and concomitant business benefits. CDM 2007 maintains the approach adopted by CDM 94 and CHSW”

2.1.3 I have reviewed the Construction (Health, Safety and Welfare) Regulations 1996 (CHSW), referred to above, and found that it contains no reference to a *health and safety file* or *information* to be handed by the *client* to a duty holder prior to design and construction, therefore I will not provide any further review in this Report.

2.1.4 The introductory Section of the CDM 1994 Regulations makes clear the CDM Regulations are the UK implementation of European Council Directive 1992/57/EEC created by the Secretary of State, in exercise of the powers conferred on him by the Health and Safety at Work etc. Act 1974:

“Whereas the Health and Safety Commission has submitted to the Secretary of State, under section 11(2)(d) of the Health and Safety at Work etc. Act 1974(1) (“the 1974 Act”), proposals for the purpose of making regulations after the carrying out by the said Commission of consultations in accordance with section 50(3) of the 1974 Act;

And whereas the Secretary of State has made modifications to the said proposals under section 50(1) of the 1974 Act and has consulted the said Commission thereon in accordance with section 50(2) of that Act;

Now therefore, the Secretary of State, in exercise of the powers conferred on him by sections 15(1), (2), (3)(a) and (c), (4)(a), (6)(b) and (9), and 82(3)(a) of, and paragraphs 1(1)(c), 6(1), 14, 15(1), 20 and 21 of Schedule 3 to, the 1974 Act, and of all other powers enabling him in that behalf and for the purpose of giving effect to the said proposals of the said Commission with modifications as aforesaid, hereby makes the following Regulations”

2.1.5 There have been three sets of Construction (Design and Management) Regulations published since their enactment on 31st March 1995. These are:

- a) Construction (Design and Management) Regulations 1994, herein CDM 1994
- b) Construction (Design and Management) Regulations 2007, herein CDM 2007
- c) Construction (Design and Management) Regulations 2015, herein CDM 2015

2.1.6 The purpose of the CDM Regulations is set out in the explanatory memorandum to the most recent CDM 2015 Regulations:

“2.1 This instrument (“the 2015 Regulations”) is intended to protect persons from health and safety risks arising from construction work through the establishment of a systematic framework for management of those risks.”

2.1.7 I will explain the specific duties under each set of the CDM Regulations in Sections 3, 4, and 5 of this report.

2.1.8 The duties presented are limited to those relevant to fire safety only, as described in Section 2.2.

2.2 Parts of CDM which rely on information related to fire safety

2.2.1 There are three parts of the CDM Regulations which must include information related to fire safety. These are:

- a) The *pre-construction information*
- b) The *construction phase plan*
- c) The *health and safety file*

2.2.2 I will provide a short overview of the purpose of each of those parts now, to aid the reader in understanding the rest of my Report.

2.2.3 For a full explanation of the duties for these documents under the CDM 1994, 2007, and 2015 please refer to Sections 3, 4, and 5 respectively.

2.2.4 *Pre-construction information*

2.2.5 All versions of the CDM Regulations require that the *client* provides *pre-construction information* to other duty holders before *design* / *construction work* is planned / undertaken.

2.2.6 Paragraph 85 of the Approved code of practice to CDM 1994 *HSG 224 Managing Health and Safety in construction - Construction (Design and Management) Regulations 1994* states the reason for providing this information:

“Clients must not leave it to contractors to discover hazards. Relevant information needs to be considered at the design/ planning stage by the designer and those preparing the health and safety plan. Without it, the work cannot be properly planned, or decisions made about the resources needed. The information needs to be sufficient to ensure that significant risks during construction can be anticipated, and avoided or properly controlled.”

2.2.7 It should be noted that *pre-construction information* is a defined term under CDM 2007 and CDM 2015. In CDM 1994 this information was called *information*.

2.2.8 Information related to fire safety, forms part of this *pre-construction information*. For example, Appendix 2 of the approved code of practice for CDM 2007 states the *pre-construction information* should include:

“Requirements relating to the health and safety of the client's employees or customers or those involved in the project such as:

...

(iv) fire precautions,

(v) emergency procedures and means of escape”

2.2.9 I provide a full review of the required information related to fire safety that should have been contained in the *pre-construction information* provided for the works at Grenfell Tower, under CDM 1994, 2007 and 2015 in Sections 3.5, 4.5, and 5.7 respectively.

2.2.10 *Construction phase plan*

2.2.11 All CDM Regulations require the *principal contractors* to create a plan of how to undertake the *construction work* safely based on the knowledge obtained from the *pre-construction information*.

2.2.12 It should be noted that *construction phase plan* is a defined term under CDM 2007 and CDM 2015. In CDM 1994 this information was called the *health and safety plan*.

2.2.13 As the *construction phase plan* only applies to health and safety during the *construction phase* I will not discuss this further in this report.

2.2.14 I will deal with the construction work fire risk issues in my Phase 2 report about the Regulatory Reform (Fire Safety) Order.

2.2.15 ***Health and safety file***

2.2.16 All versions of the CDM Regulations state that a specific document called a *health & safety file* was required for certain projects (depending on duration of the project or number of *contractors*), and it must be handed to the *client* at the end of the *construction phase*.

2.2.17 The guidance document to the current CDM 2015 Regulations: (*L153 Managing health and safety in construction, Construction (Design and Management) Regulations 2015 Guidance on Regulations*) defines the purpose of the *health and safety file* as:

“The health and safety file is defined as a file appropriate to the characteristics of the project, containing relevant health and safety information to be taken into account during any subsequent project”

and

“the file must contain information about the current project likely to be needed to ensure health and safety during any subsequent work, such as maintenance, cleaning, refurbishment or demolition.”

2.2.18 Information related to fire safety should be included in this *health and safety file*. For example, paragraph 263 of the approved code of practice for CDM 2007 states the *health and safety file* should include (bold emphasis added by me):

*“(g) the nature, location and markings of significant services, including underground cables; gas supply equipment; **fire-fighting services** etc;*

*(h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, **fire doors and compartmentalisation** etc).”*

2.2.19 I provide a full review of the required information related to fire safety that should have been contained in the *health and safety file* provided under CDM 1994, 2007 and 2015, for the works in Grenfell Tower, in Sections 3.5, 4.5, and 5.7 respectively.

2.3 **Health and Safety at Work etc. Act 1974**

2.3.1 The Health and Safety at Work etc. Act 1974 (the Act) is the primary piece of legislation for occupational health and safety in Great Britain.

2.3.2 Section 15 of the Act is applicable to the creation, repealing, or modification of health and safety regulations. As I identified in Section 2.1 the CDM Regulations were created by the Secretary of State using powers given to them by this Act.

2.3.3 Between the introduction of CDM 1994 and today, the Act has been amended several times. For the purposes of this Report I will rely on the version as amended 31st January 2017¹ as this was the relevant version on the night of the fire.

2.4 HSE publications for CDM compliance

2.4.1 Approved codes of practice

2.4.2 The Health and Safety Executive (HSE) publishes Approved Codes of Practices (ACOPs).

2.4.3 For CDM 1994 and CDM 2007 they were titled “*Managing Health and Safety in Construction*”.

2.4.4 The HSE published two Approved Codes of Practice (ACOPs) for CDM 1994 first in 1995, which was repealed and replaced in 2001.

2.4.5 A single ACOP was published by the HSE for CDM 2007.

2.4.6 The HSE website provides a summary of the legal status of ACOPs:²

“Each ACOP is approved by the Health and Safety Executive, with the consent of the Secretary of State. It gives practical advice on how to comply with the law. If you follow the advice you will be doing enough to comply with the law in respect of those specific matters on which the Code gives advice. You may use alternative methods to those set out in the Code in order to comply with the law.

However, the Code has a special legal status. If you are prosecuted for breach of health and safety law, and it is proved that you did not follow the relevant provisions of the Code, you will need to show that you have complied with the law in some other way or a Court will find you at fault.”

2.4.7 ACOPs are approved by the Health and Safety Executive, with the consent of the Secretary of State by virtue of Section 16(1) of the Health and Safety at Work etc. Act 1974.

2.4.8 For the purposes of this Report, the ACOP’s are referenced herein as:

- a) The 1994 ACOP (HSG 224); and
- b) The 2007 ACOP (L144).

¹ As amended by Policing and Crime Act 2017
<http://www.legislation.gov.uk/changes/affected/ukpga/1974/37?results-count=50&sort=affecting-year-number&order=descending&page=2> Accessed:23/10/2019

² <http://www.hse.gov.uk/legislation/legal-status.htm> – Accessed online: 10/10/2019

2.4.9 HSE Guidance documents

2.4.10 For CDM 2015, the HSE published a guidance document titled, “*Managing health and safety in construction*”.

2.4.11 The HSE website provides a summary of the legal status of “*guidance documents*” it publishes:

“HSE guidance provides advice to help you understand how to comply with the law; explanations of specific requirements in law; specific technical information or references to further sources of information to help you comply with your legal duties.”

and

“This guidance is issued by the Health and Safety Executive. Following the guidance is not compulsory, unless specifically stated, and you are free to take other action. But if you do follow the guidance you will normally be doing enough to comply with the law. Health and safety inspectors seek to secure compliance with the law and may refer to this guidance.”

2.4.12 I herein refer to the HSE published guidance document as the 2015 guidance document (L153).

2.4.13 My use of the HSE ACOPs and guidance documents

2.4.14 For works to Grenfell Tower undertaken under CDM 1994 and CDM 2007 I will rely on the relevant ACOP as the basis for identifying whether all of the duties under the CDM Regulations have been discharged by the relevant duty holders at the time of design and construction work; as relevant to fire safety matters.

2.4.15 For works to Grenfell Tower undertaken under CDM 2015, I will use the 2015 guidance document (L153) as the basis for identifying whether all of the duties under the CDM Regulations have been discharged by the relevant duty holders at the time of design and construction work; as relevant to fire safety matters.

2.4.16 If the duties set out in the CDM 1994 ACOP; CDM 2007 ACOP; or in the 2015 guidance document (L153) have not been discharged I will treat this as a breach of the CDM Regulations.

2.5 Enforcement of CDM by means of the HSAW 1974 Act

2.5.1 The enforcing authority for CDM is defined under the “*The Health and Safety (Enforcing Authority) Regulations 1977*”.

2.5.2 These Regulations were made by the Secretary of State, in exercise of the powers conferred on him by the Health and Safety at Work Act 1974.

2.5.3 The 1977 Health and Safety (Enforcing Authority) Regulations were updated in 1989, and 1998.

2.5.4 I herein refer to the 1998 Health and Safety (Enforcing Authority) Regulations, as the first works considered in this Report commenced in 2004.

2.5.5 Regulation 4(4) of The Health and Safety (Enforcing Authority) Regulations 1998 states:

“(4) The Executive shall be the enforcing authority for—

(a) section 6 of the 1974 Act;

(b) the other relevant statutory provisions in respect of any activity specified in Schedule 2 (whether or not it is the main activity carried on in premises).”

2.5.6 Schedule 2 “Activities in respect of which the Health and Safety Executive is the enforcing authority” states in paragraph 4:

“4. The following activities carried on at any premises by persons who do not normally work in the premises—

(a) construction work if—

(I) regulation 7(1) of the Construction (Design and Management) Regulations 1994 (S.I.1994/3140) (which requires projects which include or are intended to include construction work to be notified to the Executive) applies to the project which includes the work; or

(ii) the whole or part of the work contracted to be undertaken by the contractor at the premises is to the external fabric or other external part of a building or structure; or

(iii) it is carried out in a physically segregated area of the premises, the activities normally carried out in that area have been suspended for the purpose of enabling the construction work to be carried out, the contractor has authority to exclude from that area persons who are not attending in connection with the carrying out of the work and the work is not the maintenance of insulation on pipes, boilers or other parts of heating or water systems or its removal from them;

(b) the installation, maintenance or repair of any gas system, or any work in relation to a gas fitting;

(c) the installation, maintenance or repair of electricity systems;

(d) work with ionising radiations except work in one or more of the categories set out in Schedule 3 to the Ionising Radiations Regulations 1985.”

2.5.7 The Health and Safety (Enforcing Authority) Regulations 1998 defines “the Executive” as “the Health and Safety Executive”.

2.5.8 Enforcement to CDM 1994

2.5.9 Regulation 7(1) of CDM 1994, as detailed in subparagraph 4(a)(i) of the Health and Safety (Enforcing Authority) Regulations 1998 is applicable where a project is *notifiable*.

2.5.10 Regulation 22 of CDM 1994 states:

“22. Notwithstanding regulation 3 of the Health and Safety (Enforcing Authority) Regulations 1989(7), the enforcing authority for these Regulations shall be the Executive.”

2.5.11 Therefore, any *notifiable* works undertaken to CDM 1994, which are not enforceable by the local authorities (Paragraph 3 of the Enforcing Authority Regulations) are enforceable by the Executive, namely the Health and Safety Executive.

2.5.12 Enforcement to CDM 2007

2.5.13 Regulation 46 of CDM 2007 covers “*enforcement in respect of fire*”, as follows:

“46.—(1) Subject to paragraphs (2) and (3)—

(a) in England and Wales, the enforcing authority within the meaning of article 25 of the Regulatory Reform (Fire Safety) Order 2005(11); or

(b) in Scotland the enforcing authority within the meaning of section 61 of the Fire (Scotland) Act 2005(12),

shall be the enforcing authority in respect of a construction site which is contained within, or forms part of, premises which are occupied by persons other than those carrying out the construction work or any activity arising from such work as regards regulations 39 and 40, in so far as those regulations relate to fire, and regulation 41.

(2) In England and Wales paragraph (1) only applies in respect of premises to which the Regulatory Reform (Fire Safety) Order 2005 applies.

(3) In Scotland paragraph (1) only applies in respect of premises to which Part 3 of the Fire (Scotland) Act 2005 applies (13).”

2.5.14 Whereby Regulations 39, 40, and 41 of CDM 2007 cover “*emergency procedures*”, “*emergency routes and exits*”, and “*fire detection and fire-fighting*”, for a *construction site*.

2.5.15 Therefore, other than those items and the specific circumstances dealt with in Regulation 46 of CDM 2007, any *notifiable* works undertaken to CDM 2007 are enforceable by the Executive, namely the Health and Safety Executive.

2.5.16 Enforcement to CDM 2015

2.5.17 Regulation 36 of CDM 2015 covers “*Enforcement in respect of fire*”, as follows:

“36. The enforcing authority for regulations 30 and 31 (so far as those regulations relate to fire) and regulation 32, in respect of a construction site which is contained within or forms part of premises occupied by persons other than those carrying out construction work, or any activity related to this work, is—

(a) in England and Wales, the enforcing authority within the meaning of article 25 of the Regulatory Reform (Fire Safety) Order 2005 F15 in respect of premises to which that Order applies; or

(b) in Scotland, the enforcing authority within the meaning of section 61 of the Fire (Scotland) Act 2005 F16 in respect of premises to which Part 3 of that Act applies.”

2.5.18 Regulations 30, 31, and 32 of CDM 2015 cover “*emergency procedures*”, “*emergency routes and exits*”, and “*fire detection and fire-fighting*”, for a *construction site*.

2.5.19 Therefore, other than those items and the specific circumstances dealt with by Regulation 36 of CDM 2015, any *notifiable* works undertaken to CDM 2015 are enforceable by the Executive, namely the Health and Safety Executive.

3 The Construction (Design and Management) Regulations 1994 (CDM 1994)

3.1 Overview

3.1.1 I will deal with CDM 1994 first.

3.1.2 The CDM 1994 Regulations were made on 19th December 1994, laid before Parliament on 10th January 1995, and came into force on 31st March 1995. They were subsequently repealed and replaced when the CDM 2007 Regulations came into force, on 6th April 2007.

3.1.3 In this section I provide a review of the duties related to the *health and safety file* under CDM 1994 and the *information* that the *client* was required to provide so that the *planning supervisor* could create the *health and safety file*.

3.1.4 CDM 1994 was in force during the 2004-2006 Lift Replacement works. I review whether the relevant duty holders complied with CDM 1994 for the 2004-2006 Lift Replacement works in Section 7.

3.2 Duties related to *information*

3.2.1 Regulation 11 of CDM 1994 states:

“Client to ensure information is available

11.—(1) Every client shall ensure that the planning supervisor for any project carried out for the client is provided (as soon as is reasonably practicable but in any event before the commencement of the work to which the information relates) with all information mentioned in paragraph (2) about the state or condition of any premises at or on which construction work included or intended to be included in the project is or is intended to be carried out.

(2) The information required to be provided by paragraph (1) is information which is relevant to the functions of the planning supervisor under these Regulations and which the client has or could ascertain by making enquiries which it is reasonable for a person in his position to make.”

3.2.2 The *client* was required to provide the *planning supervisor* with *information* “*about the state or condition of any premises at or on which construction work included or intended to be included in the project is or is intended to be carried out*”.

3.2.3 This would also include the relevant fire safety provisions in the building as will be discussed in Section 3.5 of this Report as the *contractors* work must not compromise any existing fire safety features without suitable mitigation.

3.2.4 This is in order to protect as far as is reasonably practicable, the health and safety of all persons at work carrying out the construction work, and all persons who may be affected by the work of such persons at work.

3.3 Duties related to the *health and safety file*

3.3.1 Regulation 14 of CDM 1994 stipulates the requirement for preparation or amendment of a *health and safety file* by the appointed *planning supervisor* and subsequent delivery to the *client*.

3.3.2 The relevant parts of Regulation 14, (d), (e) and (f) are stated below:

“14. The planning supervisor appointed for any project shall—

...

d) ensure that a health and safety file is prepared in respect of each structure comprised in the project containing—

(i) information included with the design by virtue of regulation 13(2)(b), and

(ii) any other information relating to the project which it is reasonably foreseeable will be necessary to ensure the health and safety of any person at work who is carrying out or will carry out construction work or cleaning work in or on the structure or of any person who may be affected by the work of such a person at work;

(e) review, amend or add to the health and safety file prepared by virtue of sub-paragraph (d) of this regulation as necessary to ensure that it contains the information mentioned in that sub-paragraph when it is delivered to the client in accordance with sub-paragraph (f) of this regulation; and

(f) ensure that, on the completion of construction work on each structure comprised in the project, the health and safety file in respect of that structure is delivered to the client.”

3.3.3 Regulation 13(2)(b) states:

“(2) Every designer shall—

(a) ...

(b) ensure that the design includes adequate information about any aspect of the project or structure or materials (including articles or substances) which might affect the health or safety of any person at work carrying out construction work or cleaning work in or on the structure at any time or of any person who may be affected by the work of such a person at work; and

(c) ...”

3.3.4 Regulation 3(2) “*Application of regulations*” states the exemptions to Regulation 14:

“(2) Subject to paragraph (3), regulations 4 to 12 and 14 to 19 shall not apply to or in relation to construction work included in a project where the client has reasonable grounds for believing that—

(a) the project is not notifiable; and

(b) the largest number of persons at work at any one time carrying out construction work included in the project will be or, as the case may be, is less than 5.”

3.3.5 Where *notifiable* is defined in Regulation 2(4) of CDM 1994 as:

“2(4) For the purposes of these Regulations, a project is notifiable if the construction phase—

(a) will be longer than 30 days; or

(b) will involve more than 500 person days of construction work,”

3.3.6 Therefore, a *health and safety file* was required for *notifiable* projects under CDM 1994.

3.3.7 The following duty holders are responsible for providing information to be included into the *health and safety file*.

3.3.8 *Designers* are required to provide information for the *health and safety file* to the *principal contractor*, by virtue of Regulation 14(d)(i), and 13(b), as shown above.

3.3.9 *Contractors* are required to provide information for the *health and safety file* to the *principal contractor*, by virtue of Regulation 19(1)(f):

“19.—(1) Every contractor shall, in relation to the project—

...

(f) promptly provide the principal contractor with any information which—

(i) is in the possession of the contractor or which he could ascertain by making reasonable enquiries of persons under his control, and

(ii) it is reasonable to believe the principal contractor would provide to the planning supervisor in order to comply with the requirements imposed on the principal contractor in respect thereof by regulation 16(1)(e), and

(iii) which is not in the possession of the principal contractor”

3.3.10 The *principal contractor* is then required to pass this information to the *planning supervisor*. Regulation 16(1)(e):

“16.—(1) The principal contractor appointed for any project shall—

...

(e) promptly provide the planning supervisor with any information which—

(i) is in the possession of the principal contractor or which he could ascertain by making reasonable enquiries of a contractor, and

(ii) it is reasonable to believe the planning supervisor would include in the health and safety file in order to comply with the requirements imposed on him in respect thereof in regulation 14, and

(iii) is not in the possession of the planning supervisor.”

3.3.11 The *planning supervisor* therefore prepares, reviews, amends or adds to the *health and safety file*. The file will include information from *designers*, *contractors*, and the *principal contractor*, and once *construction work* is completed, it shall be delivered to the *client*.

3.3.12 During the day to day operation of the building, Regulation 12(1) of CDM 1994 states the client must:

“Every client shall take such steps as it is reasonable for a person in his position to take to ensure that the information in any health and safety file which has been delivered to him is kept available for inspection by any person who may need information in the file for the purpose of complying with the requirements and prohibitions imposed on him by or under the relevant statutory provisions.”

3.4 Amendments to CDM 1994

3.4.1 CDM 1994 was in force from 1994 to 2007. During this period several amendments were made to the CDM Regulations by other legislation and regulations.

3.4.2 I have reviewed the amendments made to CDM 1994 to identify whether they had a material effect on duties related to the *health and safety file* or *information*. From my assessment I have concluded that none of the amendments to CDM 1994 are material to the duties related to the *health and safety file* or *information*.

3.5 Approved Code of Practice for compliance with CDM 1994

3.5.1 The Health and Safety Executive (HSE) published an approved code of practice to provide guidance on how to comply with CDM 1994 titled *HSG 224 - Managing Health and Safety in Construction. Construction (Design and Management Regulations 1994) Approved Code of Practice and guidance*, herein the 1994 ACOP (HSG 224).

3.5.2 I have reviewed this approved code of practice for the recommended contents of the *information* the *client* was required to provide to the *planning supervisor* and the recommended contents of the *health and safety file*, specifically in relation to information about fire safety.

3.5.3 Fire safety related contents of the information

3.5.4 Paragraph 85 of the 1994 ACOP (HSG 224) states:

“Clients must not leave it to contractors to discover hazards. Relevant information needs to be considered at the design/ planning stage by the designer and those preparing the health and safety plan. Without it, the work cannot be properly planned, or decisions made about the resources needed. The information needs to be sufficient to ensure that significant risks during construction can be anticipated, and avoided or properly controlled. It needs to include for example:

- a) The presence, location and condition of hazardous materials, such as asbestos or waste chemicals;*
- b) activities on or near the site, which will continue during construction work, e.g. retail shops, deliveries and traffic movements, railway lines or busy roads; public access to a retail store;*
- c) requirements relating to the health and safety of the client’s employees or customers, e.g. permit to work systems in a petrochemical plant, fire precautions in a paper mill, one -way systems onsite, means of escape, ‘no-go’ areas, smoking and parking restrictions*
- d) access and space problems, such as narrow streets, lack of parking, turning or storage space;*
- e) Information about means of access to parts of the structure, e.g. fragile materials and anchorage points for fall arrest systems;*
- f) Available information about site services and their location, in particular, about those that are concealed, such as underground services*
- g) Ground conditions and underground structures or watercourses, such as culverts, where this might affect the safe use of plant, e.g. cranes, or the safety of groundworks, e.g. the construction of trenches;*
- h) Buildings, other structures or trees which might be unstable or at risk of unintentional collapse;*
- i) Previous structural modifications, including weakening or strengthening of the structure;*
- j) Fire damage, ground shrinkage, movement or poor maintenance which may have adversely affected the structure*
- k) Any difficulties relating to plant and equipment in the premises such as overhead service gantries whose height restricts access;*
- l) Health and safety information contained in earlier design, construction or ‘as built’ drawings, such as details of pre stressed or post tensioned structures.”*

3.5.5 In terms of information related to fire safety provisions, in my opinion the two most relevant recommendations are:

“c) requirements relating to the health and safety of the client’s employees or customers, e.g. permit to work systems in a petrochemical plant, fire precautions in a paper mill, one -way systems onsite, means of escape, ‘no-go’ areas, smoking and parking restrictions”

and

“l) Health and safety information contained in earlier design, construction or ‘as built’ drawings, such as details of pre stressed or post tensioned structures.”

3.5.6 In my opinion the *information* provided by the *client* under CDM 1994 therefore should include as a minimum for fire safety purposes, the as-built fire strategy plans and information on any fire precautions in the building.

3.5.7 It should be noted that the fire precautions only relate to *“the health and safety of the client’s employees or customers”*.

3.5.8 The fire safety precautions during the *construction phase* are controlled by the *construction phase plan* per Regulation 15; and would rely on the fire safety information relevant to the existing condition, recorded in the *health and safety file*.

3.5.9 **Fire safety related contents of the *health and safety file***

3.5.10 As concluded in Section 3.3, a *health and safety file* is required for CDM 1994 where a project is *notifiable*.

3.5.11 The 1994 ACOP (HSG 224) states the following regarding *notification*:

“43 Any day on which work takes place counts towards the period of construction work, including weekends and holidays. The total ‘person days’ is the total number of shifts worked by everybody involved in the project, including supervisors. In borderline cases, where you are unsure how long the work will take, it is best to notify HSE.

44 Where a small project, which was not notifiable, requires a short extension or small increase in the number of people, you do not need to notify HSE of the change. However, construction work may significantly overrun, or the scope may change so that it becomes notifiable. If this happens you must notify HSE as soon as you can.”

3.5.12 Appendix 4 of the 1994 ACOP (HSG 224) states the following information should be included in the *health and safety file*:

“a) a brief description of the work carried out;

b) residual hazards and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);

- c) key structural Principals incorporated in the design of the structure (e.g., bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;*
- d) any hazards associated with materials used (for example hazardous substances, lead paint; special coatings which should not be burnt off);*
- e) Information regarding the removal or dismantling of installed plant and equipment (for example lifting arrangements);*
- f) health and safety information about equipment provided for cleaning or maintaining the structure;*
- g) the nature, location and markings of significant services, including fire-fighting services;*
- h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentation;”*

3.5.13

The 1994 ACOP (HSG 224) is also specific about what information should not be included in the *health and safety file*:

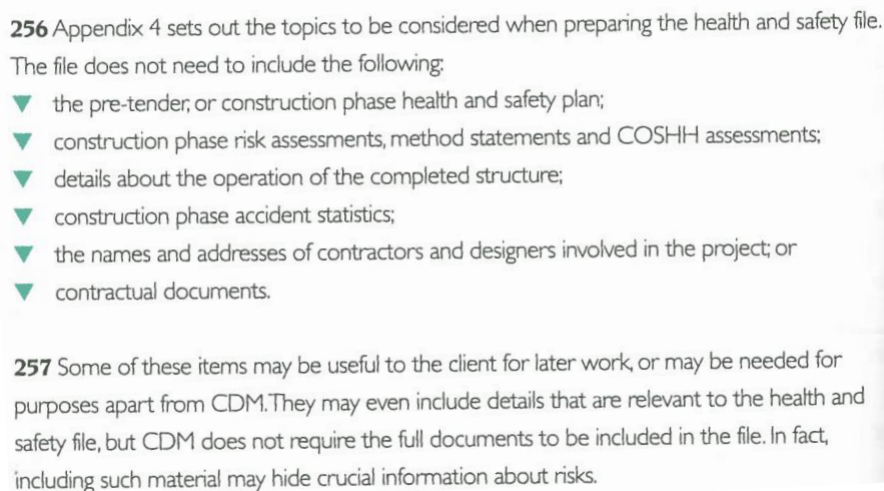


Figure 3.1: Paragraph 256 of the 1994 ACOP (HSG 224)

3.5.14

In my opinion the three most relevant requirements to fire safety are:

- “b) residual hazards and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);*
- g) the nature, location and markings of significant services, including fire-fighting services;*

h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentation”

3.5.15 For *notifiable* works undertaken to CDM 1994, a *health and safety file* was required containing the fire safety information highlighted above.

3.5.16 The 1994 ACOP (HSG 224) is also specific about the client’s ongoing duties in relation to the *health and safety file*. Paragraph 263 states:

263 Clients have to keep the health and safety file available for inspection by anybody who needs the information. Emergency maintenance contractors may need to see the file in advance, so that they can work safely if they are called in. To be useful, the file needs to be kept up to date and retained for as long as it is relevant.

Figure 3.2: Paragraph 263 of the 1994 ACOP (HSG 224)

4 The Construction (Design and Management) Regulations 2007 (CDM 2007)

- 4.1.1 I deal with CDM 2007 next.
- 4.1.2 I provide my review of the duties related to the provision of fire safety information through the *pre-construction information*, and the *health and safety file* in the CDM 2007 Regulations.
- 4.1.3 The CDM 2007 Regulations were made on 07th February 2007, laid before Parliament on 15th February 2007, and came into force on 6th April 2007. They were subsequently repealed and replaced by the CDM 2015 Regulations when they came into force on 6th April 2015.
- 4.1.4 CDM 2007 was in force for the entirety of the 2001-2013 Flat Entrance Door Replacement works.
- 4.1.5 The 2012-2016 Primary Refurbishment works commenced under CDM 2007 but were ongoing during the implementation of CDM 2015.
- 4.1.6 The duties under CDM 2015 are covered in Section 5, with the duties during the six-month formal transition period required for projects being undertaken over both CDM 2007 and CDM 2015, covered in Section 5.5.

4.2 Duties related to the *pre-construction information*

- 4.2.1 Regulation 10 of CDM 2007 states:

“Client's duty in relation to information

10.—(1) Every client shall ensure that

(a) every person designing the structure; and

(b) every contractor who has been or may be appointed by the client, is promptly provided with pre-construction information in accordance with paragraph (2).

(2) The pre-construction information shall consist of all the information in the client's possession (or which is reasonably obtainable), including—

(a) any information about or affecting the site or the construction work;

(b) any information concerning the proposed use of the structure as a workplace;

(c) the minimum amount of time before the construction phase which will be allowed to the contractors appointed by the client for planning and preparation for construction work; and

(d) any information in any existing health and safety file, which is relevant to the person to whom the client provides it for the purposes specified in paragraph (3).

(3) *The purposes referred to in paragraph (2) are—*

(a) to ensure so far as is reasonably practicable the health and safety of persons

(i) engaged in the construction work,

(ii) liable to be affected by the way in which it is carried out, and

(iii) who will use the structure as a workplace; and

(b) without prejudice to sub-paragraph (a), to assist the persons to whom information is provided under this regulation—

(i) to perform their duties under these Regulations, and

(ii) to determine the resources referred to in regulation 9(1) which they are to allocate for managing the project.”

4.2.2 I note that Regulation 10(2) of CDM 2007 specifically references “any information in any existing health and safety file”.

4.2.3 Regulation 15 of CDM 2007 states:

“Client's duty in relation to information where a project is notifiable

15. Where the project is notifiable, the client shall promptly provide the CDM co-ordinator with pre-construction information consisting of—

(a) all the information described in regulation 10(2) to be provided to any person in pursuance of regulation 10(1);

(b) any further information as described in regulation 10(2) in the client's possession (or which is reasonably obtainable) which is relevant to the CDM co-ordinator for the purposes specified in regulation 10(3), including the minimum amount of time before the construction phase which will be allowed to the principal contractor for planning and preparation for construction work.”

4.2.4 Under CDM 2007 the *client* was therefore required to provide *pre-construction information* to the *designers* and *contractors* where the project was not *notifiable*; and to the *designers*, *contractors* and the *CDM co-ordinator* where the project was *notifiable*.

4.2.5 The information that should be provided relevant to fire safety is discussed in Section 4.5.

4.3 Duties related to the *health and safety file*

4.3.1 CDM 2007 also required the preparation of a *health and safety file*.

4.3.2 The *planning supervisor* role was removed under CDM 2007 and the duty to prepare the *health and safety file* became the responsibility of a new position - the *CDM co-ordinator*.

4.3.3 The *General duties of CDM co-ordinators*, Regulation 20 .—(1) states

“The CDM co-ordinator shall—

(c) liaise with the principal contractor regarding—

(i) the contents of the health and safety file,

(ii) the information which the principal contractor needs to prepare the construction phase plan, and

(iii) any design development which may affect planning and management of the construction work.”

4.3.4 And, at Regulation 20(2) (2) (without prejudice to paragraph (1)) at (e) – (f) of *“General duties of CDM co-ordinators”*:

“(e) Prepare, where none exists, and otherwise review and update a record (“the health and safety file”) containing information relating to the project which is likely to be needed during any subsequent construction work to ensure the health and safety of any person, including the information provided in pursuance of regulations 17(1), 18(2) and 22(1)(j); and

(f) at the end of the construction phase, pass the health and safety file to the client”

4.3.5 Where Regulation 17(1) states:

“17.—(1) The client shall ensure that the CDM co-ordinator is provided with all the health and safety information in the client's possession (or which is reasonably obtainable) relating to the project which is likely to be needed for inclusion in the health and safety file, including information specified in regulation 4(9)(c) of the Control of Asbestos Regulations 2006.”

4.3.6 Both the *designer* and the *contractor* also have duties regarding the *health and safety file*:

4.3.7 Regulation 18(2) states:

“18(2) The designer shall take all reasonable steps to provide with his design sufficient information about aspects of the design of the structure or its construction or maintenance as will adequately assist the CDM co-ordinator to comply with his duties under these Regulations, including his duties in relation to the health and safety file.”

4.3.8 And Regulation 22(1)(j) states:

“22.—(1) The principal contractor for a project shall—

(j) identify to each contractor the information relating to the contractor's activity which is likely to be required by the CDM co-ordinator for inclusion in the health and safety file in pursuance of regulation 20(2)(e) and ensure that such information is promptly provided to the CDM co-ordinator”

4.3.9 Therefore, the *principal contractor* collates information from the *contractors* and provides it to the *CDM co-ordinator*.

4.3.10 The duty to produce a *health and safety file* is contained in Part 3 of CDM 2007.

4.3.11 Regulation 3(3) of CDM 2007 states:

“The duties under Part 3 shall apply only where a project—

(a) is notifiable; and

(b) is carried out for or on behalf of, or by, a client.”

4.3.12 Therefore, a *health and safety file* was required to be prepared if the project was *notifiable* and the project was carried out for or on behalf of, or by, a *client*.

4.3.13 *Notifiable* is defined in Regulation 2(3) of CDM 2007 as:

“For the purposes of these Regulations, a project is notifiable if the construction phase is likely to involve more than—

(a) 30 days; or (b) 500 person days, of construction work.”

4.4 Amendments to CDM 2007

4.4.1 CDM 2007 was in force from 2007 to 2015. During this period several amendments were made to CDM 2007 because of changes to other legislation/ regulations.

4.4.2 I have reviewed the amendments made to CDM 2007 to identify whether they had material effect on duties related to the *pre-construction information* or the *health and safety file*. From my review I conclude that none of the amendments to CDM 2007 resulted in a material change to the duties related to the *pre-construction information* or the *health and safety file*.

4.5 Guidance for compliance with CDM 2007

4.5.1 The Health and Safety Executive (HSE) published an approved code of practice to provide guidance on how to comply with CDM 2007 *L144 Managing Health and Safety in Construction. Construction (Design and Management) Regulation 2007*, herein the 2007 ACOP (L144).

4.5.2 In this section I review the required contents of the *pre-construction information* and the *health and safety file* as required by the 2007 ACOP (L144), specifically where the information is relevant to fire safety.

4.5.3 Contents of the *pre-construction information*

4.5.4 Appendix 2 of the 2007 ACOP (L144) states:

“When drawing up the pre-construction information, each of the following topics should be considered. Information should be included where the topic

is relevant to the work proposed. The pre-construction information provides information for those bidding for or planning work, and for the development of the construction phase plan. The level of detail in the information should be proportionate to the risks involved in the project.

Pre-construction information

1 Description of project

(a) project description and programme details including:

- (i) key dates (including planned start and finish of the construction phase), and*
- (ii) the minimum time to be allowed between appointment of the principal contractor and instruction to commence work on site;*

(b) details of client, designers, CDM co-ordinator and other consultants;

(c) whether or not the structure will be used as a workplace (in which case, the finished design will need to take account of the relevant requirements of the Workplace (Health, Safety and Welfare) Regulations 1992);

(d) extent and location of existing records and plans.

2 Client's considerations and management requirements

(a) arrangements for:

- (i) planning for and managing the construction work, including any health and safety goals for the project,*
- (ii) communication and liaison between client and others,*
- (iii) security of the site,*
- (iv) welfare provision;*

(b) requirements relating to the health and safety of the client's employees or customers or those involved in the project such as:

- (i) site hoarding requirements,*
- (ii) site transport arrangements or vehicle movement restrictions,*
- (iii) client permit-to-work systems,*
- (iv) fire precautions,*
- (v) emergency procedures and means of escape,*
- (vi) 'no-go' areas or other authorisation requirements for those involved in the project,"*
- (vii) any areas the client has designated as confined spaces,*

(viii) smoking and parking restrictions.

3 Environmental restrictions and existing on-site risks

(a) Safety hazards, including:

(i) boundaries and access, including temporary access - for example narrow streets, lack of parking, turning or storage space,

(ii) any restrictions on deliveries or waste collection or storage,

(iii) adjacent land uses - for example schools, railway lines or busy roads,

(iv) existing storage of hazardous materials,

(v) location of existing services particularly those that are concealed - water, electricity, gas, etc,

(vi) ground conditions, underground structures or water courses where this might affect the safe use of plant, for example cranes, or the safety of groundworks,

(vii) information about existing structures - stability, structural form, fragile or hazardous materials, anchorage points for fall arrest systems (particularly where demolition is involved),

(viii) previous structural modifications, including weakening or strengthening of the structure (particularly where demolition is involved),

(ix) fire damage, ground shrinkage, movement or poor maintenance which may have adversely affected the structure,

(x) any difficulties relating to plant and equipment in the premises, such as overhead gantries whose height restricts access,

(xi) health and safety information contained in earlier design, construction or 'as-built' drawings, such as details of pre-stressed or post-tensioned structures;

(b) health hazards, including:

(i) asbestos, including results of surveys (particularly where demolition is involved),

(ii) existing storage of hazardous materials,

(iii) contaminated land, including results of surveys,

(iv) existing structures containing hazardous materials,

(v) health risks arising from client's activities.

4 Significant design and construction hazards

(a) significant design assumptions and suggested work methods, sequences or other control measures;

(b) arrangements for co-ordination of ongoing design work and handling design changes;

(c) information on significant risks identified during design;

(d) materials requiring particular precautions.

5 The health and safety file

Description of its format and any conditions relating to its content. ”

4.5.5 The list of required *pre-construction information* in the 2007 ACOP (L144) is therefore similar to the recommended list in the 1994 ACOP (HSG 224) but adds extra requirements relating to inclusion of information about the management of the project.

4.5.6 In my opinion the two most relevant requirements to fire safety are those set out by item 2b of Appendix 2 of the 2007 ACOP (L144), which states:

“(b) requirements relating to the health and safety of the client's employees or customers or those involved in the project such as:

...

(iv) fire precautions,

(v) emergency procedures and means of escape”

4.5.7 I note the recommendation is to include information about the fire precautions relating to the health and safety of *those involved in the project* (e.g. the employees of the *contractor*) not just the *client's* employees or customers

4.5.8 *Contents of the health and safety file*

4.5.9 As concluded in Section 4.3, a *health and safety file* is required where a project is *notifiable*.

4.5.10 The 2007 ACOP (L144) states the following regarding *notification*:

“16 All days on which construction work takes place count towards the period of construction work. Holidays and weekends do not count if no construction work takes place on these days.

17 Where a small project that is not notifiable requires a short extension, or short-term increase in the number of people, there is no need to notify HSE. However, if the work or the scope changes significantly so that it becomes notifiable, HSE should be informed.”

4.5.11 Paragraph 263 of the 2007 ACOP (L144) states:

“263 When putting together the health and safety file, you should consider including information about each of the following where they are relevant to the health and safety of any future construction work. The level of detail

should allow the likely risks to be identified and addressed by those carrying out the work:

- a) brief description of the work carried out;*
- b) any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);*
- c) key structural Principals (for example, bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;*
- d) hazardous materials used (for example, lead paint; pesticides; special coatings which should not be burnt off etc);*
- e) Information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc)*
- f) health and safety information about equipment provided for cleaning or maintaining the structure;*
- g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
- h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc). ”*

4.5.12 Paragraph 264 of the 2007 ACOP (L144) states what the *health and safety file* should not include:

“264 The file does not need to include things that will be of no help when planning future construction work, for example:

- (a) the pre-construction information, or construction phase plan;*
- (b) construction phase risk assessments, written systems of work and COSHH assessments;*
- (c) details about the normal operation of the completed structure;*
- (d) construction phase accident statistics;*
- (e) details of all the contractors and designers involved in the project (though it may be useful to include details of the principal contractor and CDM co-ordinator);*
- (f) contractual documents;*

(g) information about structures, or parts of structures, that have been demolished - unless there are any implications for remaining or future structures, for example voids;

(h) information contained in other documents, but relevant cross-references should be included.

Some of these items may be useful to the client, or may be needed for purposes other than complying with the CDM Regulations, but the Regulations themselves do not require them to be included in the file. Including too much material may hide crucial information about risks."

4.5.13 In my opinion the most relevant requirements to fire safety are:

"b) any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);

g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;

h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc)."

4.5.14 To conclude, for *notifiable* works undertaken to CDM 2007, a *health and safety file* was required containing the fire safety information highlighted above.

4.5.15 The 2007 CDM ACOP (L144) also provides specific guidance on the client's duties in relation to *health and safety file* after the *construction phase* has been completed. Paragraph 265 states:

"265 To be useful the file needs to be kept up to date and retained for as long as it is relevant - normally the lifetime of the structure. It may be kept electronically (with suitable backup arrangements), on paper, on film, or any other durable form. Where clients dispose of their entire interest in a structure, they should pass the file to the new owners and ensure that they are aware of the nature and purpose of the file. Where they sell part of a structure, any relevant information in the file should be passed or copied to the new owner."

5 The Construction (Design and Management) Regulations 2015 (CDM 2015)

- 5.1.1 Finally, I explain CDM 2015 which remains in force currently.
- 5.1.2 The CDM 2015 Regulations were made on 22nd January 2015, laid before Parliament on 29th January 2015, and came into force on 6th April 2015.
- 5.1.3 The CDM 2015 Regulations were in force during the later stages of the 2012-2016 Primary Refurbishment works and the full duration of the 2016-2017 Gas Riser Replacement works.
- 5.1.4 In this section I provide a review of the duties related to the provision of information as relate to fire safety, through the *pre-construction information*, and *health and safety file* in CDM 2015.
- 5.1.5 I have also added a review of the duties related to the *construction phase plan* as on the night of the fire the gas works were ongoing hence the safety of the occupants of the tower was dependent on the construction phase mitigation measures.
- 5.1.6 It is important to note that during the 2012-2016 Primary Refurbishment works the relevant health and safety legislation changed from CDM 2007 to CDM 2015.
- 5.1.7 Formal transitional arrangements were required by Regulation 38 of CDM 2015, which was enabled by Section 82(3)(a) of the Health and Safety at Work etc. Act, for projects which began under CDM 2007 and continued after the 6th April 2015 when CDM 2015 came into force.
- 5.1.8 This was therefore the case for the 2012-2016 Primary Refurbishment works which did not complete until 2016.
- 5.1.9 The transitional arrangements in CDM 2015 are detailed in Section 5.5 below.
- 5.1.10 I explain the evidence regarding how these transitional duties were dealt with at Grenfell Tower during the 2012-2016 Primary Refurbishment works in Section 9.8.
- 5.1.11 Unlike CDM 1994 and CDM 2007, a *health and safety file* needs to be reviewed, updated, and revised for all projects, regardless of *notification* to the HSE under CDM 2015.

5.2 Duties related to the *pre-construction information*

- 5.2.1 Regulation 4(4) of CDM 2015 states:

“4.— (4) A client must provide pre-construction information as soon as is practicable to every designer and contractor appointed, or being considered for appointment, to the project”

5.2.2 Where *pre-construction information* is defined in Regulation 2 of CDM 2015 as:

“pre-construction information” means information in the client's possession or which is reasonably obtainable by or on behalf of the client, which is relevant to the construction work and is of an appropriate level of detail and proportionate to the risks involved, including—

(a) information about—

(i) the project;

(ii) planning and management of the project;

(iii) health and safety hazards, including design and construction hazards and how they will be addressed; and

(b) information in any existing health and safety file;”

5.2.3 I note that Regulation 2 of CDM 2015 specifically references “*information in any existing health and safety file*”.

5.2.4 Regulation 11 of CDM 2015 states:

“11(6) The principal designer must—

(a) assist the client in the provision of the pre-construction information required by regulation 4(4); and

(b) so far as it is within the principal designer's control, provide pre-construction information, promptly and in a convenient form, to every designer and contractor appointed, or being considered for appointment, to the project.”

5.2.5 Regulation 12 of CDM 2015 states:

“12(3) The principal designer must assist the principal contractor in preparing the construction phase plan by providing to the principal contractor all information the principal designer holds that is relevant to the construction phase plan including—

(a) pre-construction information obtained from the client;”

5.3 Duties related to the *construction phase plan*

5.3.1 Regulation 12 states (bold emphasis my own):

*“12.—(1) **During the pre-construction phase, and before setting up a construction site, the principal contractor must draw up a construction phase plan, or make arrangements for a construction phase plan to be drawn up.***

(2) The construction phase plan must set out the health and safety arrangements and site rules taking account, where necessary, of the industrial

activities taking place on the construction site and, where applicable, must include specific measures concerning work which falls within one or more of the categories set out in Schedule 3.

(3) The principal designer must assist the principal contractor in preparing the construction phase plan by providing to the principal contractor all information the principal designer holds that is relevant to the construction phase plan including—

(a) pre-construction information obtained from the client;

(b) any information obtained from designers under regulation 9(3)(b).

*(4) **Throughout the project** the principal contractor must ensure that the **construction phase plan** is appropriately **reviewed, updated and revised from time to time** so that it continues to be sufficient to ensure that construction work is carried out, so far as is reasonably practicable, without risks to health or safety.”*

5.3.2 Please note the duties outlined above are relevant for the 2016-2017 Gas Riser Replacement works only, in this Phase 2 Report.

5.4 Duties related to the *health and safety file*

5.4.1 Regulation 12(5) states (bold emphasis added by me):

*“During the pre-construction phase, the principal designer must prepare a health and safety file appropriate to the characteristics of the project which must contain information relating to the project which is likely to be needed **during any subsequent project** to ensure the health and safety of any person.”*

5.4.2 Further to this Regulation 12(6) to 12(10) state (bold emphasis added by me):

*“(6) The principal designer must ensure that the health and safety file is appropriately **reviewed, updated and revised** from time to time to take account of the work and any changes that have occurred.*

(7) During the project, the principal contractor must provide the principal designer with any information in the principal contractor’s possession relevant to the health and safety file, for inclusion in the health and safety file.

(8) If the principal designer’s appointment concludes before the end of the project, the principal designer must pass the health and safety file to the principal contractor.

(9) Where the health and safety file is passed to the principal contractor under paragraph (8), the principal contractor must ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.

(10) At the end of the project, the principal designer, or where there is no principal designer the principal contractor, must pass the health and safety file to the client.”

5.4.3 Note this is for projects undertaken entirely under CDM 2015. Refer to Section 5.5 for transitional arrangements.

5.4.4 Additional duties are placed on the *principal designer* to Regulation 11(2):

“(2) In fulfilling the duties in paragraph (1), and in particular when—

(a) design, technical and organisational aspects are being decided in order to plan the various items or stages of work which are to take place simultaneously or in succession; and

(b) estimating the period of time required to complete such work or work stages, the principal designer must take into account the general Principles of prevention and, where relevant, the content of any construction phase plan and any health and safety file.”

5.4.5 Regulation 4(5)(b) places duties on the *client* to ensure the *principal designer* prepares a *health and safety file*:

“(5) A client must ensure that—

...

(b) the principal designer prepares a health and safety file for the project, which—

(i) complies with the requirements of regulation 12(5);

(ii) is revised from time to time as appropriate to incorporate any relevant new information; and

(iii) is kept available for inspection by any person who may need it to comply with any relevant legal requirements.”

5.4.6 *Designers* have duties regarding the *health and safety file*, as covered in Regulation 9(3)(c):

“9(3) If it is not possible to eliminate these risks, the designer must, so far as is reasonably practicable—

(a) take steps to reduce or, if that is not possible, control the risks through the subsequent design process;

(b) provide information about those risks to the principal designer; and

(c) ensure appropriate information is included in the health and safety file.”

5.4.7 Therefore, the *designer* must provide information about any residual hazards for inclusion in the *health and safety file*.

5.4.8 Under CDM 2015, there are duties placed on *contractors* to provide information for inclusion in the *health and safety file*, as follows (bold emphasis added by me):

*““designer” means any person (including a client, **contractor** or other person referred to in these Regulations) who in the course or furtherance of a business—*

(a) prepares or modifies a design; or

(b) arranges for, or instructs, any person under their control to do so, relating to a structure, or to a product or mechanical or electrical system intended for a particular structure, and a person is deemed to prepare a design where a design is prepared by a person under their control;”

5.4.9 Please note the duties outlined above are relevant for the 2016-2017 Gas Riser Replacement works.

5.4.10 The 2012-2016 Primary Refurbishment works begun under CDM 2007 and then continued into CDM 2015. These were therefore subject to separate transitional arrangements, as I discuss in Section 5.5 from 6th April 2015 to 6th October 2015.

5.4.11 The 2012-2016 Primary Refurbishment works were then fully subject to the requirements of CDM 2015, outlined above, after 6th October 2015 for the remainder of the project.

5.5 Transitional provisions between CDM 2007 and CDM 2015

5.5.1 Between 2012 and 2016 Grenfell Tower was refurbished. Full details of the 2012-2016 Primary Refurbishment works can be found in Section 4 of my phase 1 report {BLAS0000004}.

5.5.2 The *construction phase* of the 2012-2016 Primary Refurbishment works at Grenfell Tower began on 2nd June 2014 {RBK00000275}.

5.5.3 Artelia issued the certificate of practical completion for the 2012-2016 Primary Refurbishment works on 18th July 2016 {ART00006689}, therefore the new Regulations came into force before the end of the 2012-2016 Primary Refurbishment works.

5.5.4 Regulation 37 of CDM 2015 states:

“37. Schedule 4, which makes transitional and saving provisions, has effect.”

5.5.5 Paragraph 1 of Schedule 4 of CDM 2015 describes a relevant project as “*a project which began before 6th April 2015*”. The 2012-2016 Primary Refurbishment works were therefore subject to Schedule 4 of CDM 2015 for the 6-month transitional period.

- 5.5.6** Paragraph 3 of Schedule 4 covers “*Projects with no existing CDM co-ordinator or principal contractor*”. The 2012-2016 Primary Refurbishment works had an appointed *CDM co-ordinator* and *principal contractor* as discussed later in this report in Section 8.
- 5.5.7** Paragraph 3 of Schedule 4 of CMD 2015 is therefore not applicable, and not covered any further here.
- 5.5.8** Paragraph 4 of Schedule 4 covers “*Projects with an existing CDM co-ordinator*”. This paragraph, and subsequently paragraphs 5 and 6, apply where there is a *CDM co-ordinator* appointed for a relevant project.
- 5.5.9** Under subparagraph 4(2):
- “...the appointment of the *CDM co-ordinator* continues to have effect for the purposes of these Regulations until a principal designer is appointed or the project comes to an end.”
- 5.5.10** Subparagraphs 4(4)(a) is as follows:
- “(4) Where the appointment of a *CDM co-ordinator* continues to have effect under subparagraph (2)—
- (a) the *CDM co-ordinator* must comply with the duties in paragraph 5;”
- 5.5.11** Subparagraphs 4(3) and 6(3) cover the *client’s* duty to appoint a *principal designer*. These subparagraphs are below:
- “4.—
- (3) The client must appoint in writing a principal designer for the project before 6th October 2015 unless the project comes to an end on or before that date.”
- 5.5.12** Paragraph 6 of Schedule 4 covers “*duties disappplied pending appointment of principal designer*”. Paragraph 6(3) states:
- “6.—
- (3) If a client fails to make the appointment required by paragraph 4(3) the client must fulfil the duties of a principal designer in regulations 11 and 12 on and after 6th October 2015.”
- 5.5.13** Under the transitional provisions of Schedule 4 of CDM 2015 the *CDM co-ordinator* was to continue this role, until a time that the *client* appointed a *principal designer*, or until the 6th October 2015; after which time the *client* was required to fulfil the duties of the *principal designer*.
- 5.5.14** The 2012-2016 Primary Refurbishment works ended in 2016.
- 5.5.15** Duties relating to the *health and safety file* for the 2012-2016 Primary Refurbishment works were therefore required to comply with CDM 2007, then Schedule 4 of CDM 2015, and then following the transitional period, CDM 2015.

5.5.16 During the 6-month transitional period; from 6th April 2015 to 6th October 2015, the *CDM co-ordinator* was required to fulfil the duties of paragraph 5 of Schedule 4 of CDM 2015.

5.5.17 Paragraph 5 of Schedule 4 CDM 2015 covers the duties of the *CDM co-ordinator* during the transition period. This covers duties relating to *pre-construction information* and the *health and safety file*. This is replicated below:

“5.—(1) *The CDM co-ordinator must—*

(a) cooperate with any other person working on or in relation to a project at the same or an adjoining construction site, to the extent necessary to enable any person with a duty or function under these Regulations to fulfil that duty or function;

(b) where the CDM co-ordinator works under the control of another, report to that person anything they are aware of in relation to the project which is likely to endanger their own health or safety or that of others;

(c) ensure that suitable arrangements are made and implemented for the coordination of health and safety measures during the planning and preparation for the construction phase, including facilitating—

(i) cooperation and coordination between all persons working on the pre-construction phase of the project; and

(ii) the application of the general principles of prevention;

(d) liaise with the principal contractor over—

(i) the content of the health and safety file;

(ii) the information which the principal contractor needs to prepare the construction phase plan; and

(iii) any design development which may affect planning and management of the construction work;

(e) where no or partial pre-construction information has been supplied to the CDM co-ordinator by the client under regulation 10 of the 2007 Regulations, assist the client to comply with regulation 4(4) of these Regulations;

(f) unless the information has already been provided under regulation 20(2)(b) of the 2007 Regulations, provide any pre-construction information that is in the possession or control of the CDM co-ordinator, promptly and in a convenient form, to every designer and contractor appointed, or being considered for appointment, to the project;

(g) take all reasonable steps to ensure that designers comply with their duties under regulation 9 of these Regulations;

(h) take all reasonable steps to ensure cooperation between designers and the principal contractor during the construction phase in relation to any design or change to a design;

(i) if a health and safety file has not been prepared under regulation 20(2)(e) of the 2007 Regulations, prepare a health and safety file that complies with the requirements of regulation 12(5) of these Regulations;

(j) review, update and revise the health and safety file from time to time to take account of the work and any changes that have occurred;

(k) if the CDM co-ordinator's appointment continues to have effect immediately before the project ends, pass the health and safety file to the client at the end of the project;

(l) if a principal designer is appointed, pass the health and safety file and all other relevant health and safety information in the CDM co-ordinator's possession to the principal designer, as soon as is practicable after the appointment."

5.5.18 Therefore, the *CDM co-ordinator* for *notifiable* projects that started under CDM 2007 were required to continue performing the role of *CDM co-ordinator* between 6th April 2015 and 6th October 2015 unless the *client* appointed a *principal designer*.

5.5.19 If a *principal designer* was appointed, they then took on the duties of the *principal designer* as set out under the CDM 2015 regulations.

5.5.20 If the *client* failed to appoint a *principal designer* the *client* had to fulfil the duties of a *principal designer* on and after 6th October 2015, until a time where a *principal designer* is appointed.

5.5.21 The transitional arrangements made clear arrangements for the handover of the *health and safety file* from the *CDM co-ordinator* to either the *client* or the *principal designer*.

5.5.22 In Section 9.8 I discuss the 2012-2016 Primary Refurbishment works, what parties were required to fulfil these roles, and the duties placed on those parties by CDM 2007, the transitional arrangements of CDM 2015, and CDM 2015.

5.6 Amendments to CDM 2015

5.6.1 Between the coming into force of CDM 2015 on 6th April 2015 and the present day, other regulations have resulted in amendments to CDM 2015.

5.6.2 I have undertaken a review of the amendments caused by these Regulations and whether they had material effect on duties related to the *pre-construction information* or the *health and safety file* under CDM 2015. From my assessment I conclude that none of the amendments to CDM 2015 are material to the duties related to the *pre-construction information*, and the *health and safety file*.

5.7 Guidance for compliance with CDM 2015.

5.7.1 As I have explained in Section 2.3.1 there is no published ACOP for CDM 2015.

5.7.2 Instead a guidance document was published by the Health and Safety Executive as ‘*L153 Managing Health and Safety in Construction, Construction (Design and Management) Regulation 2015*’, herein the 2015 guidance document (L153).

5.7.3 The “*Impact Assessment*” from the introduction of CDM 2015 states:

“44. It is proposed that the revised regulatory package does not contain an Approved Code of Practice (ACOP). The existing ACOP attempts to define management arrangements and standards for the entire spectrum of construction projects, and as such it has not been fully effective. In particular, the ACOP is long and is often over-interpreted. The CDM evaluation showed that it has had very limited impact in the SME sector, to whom it appears inaccessible and irrelevant.

45. The textual improvements aim to make the Regulations and guidance significantly easier to understand and this in turn will reduce time needed for familiarisation for new businesses and contribute to the amelioration of many of the issues identified in paragraphs 8 - 9. It is planned that the Regulations will be supplemented by a suite of concise, accessible guidance tailored to the needs of duty holders in specific industry subsectors, especially those operating on smaller sites.

46. One of the main messages from the formal consultation was that respondents (most of whom are from the relatively larger sector of the industry) like and value having an ACOP, especially because they perceive it as having a special legal status. To address these concerns, we propose to introduce a new, simplified ACOP next year, once the industry has had a chance to familiarise itself with the guidance. Any additional costs that would derive from that would be analysed in the corresponding IA. This CDM 2015 IA therefore analyses the situation with the withdrawal of the ACOP, which will be the case after the Regulations come into force and until a new ACOP is introduced.”

5.7.4 No new simplified ACOP was ever published. In lieu of an ACOP for CDM 2015 I have reviewed the recommended contents of the *pre-construction information* and the *health and safety file* as defined in the 2015 guidance document (L153).

5.7.5 Recommended contents of the *pre-construction information*

5.7.6 Appendix 2 *Pre-construction information* of the 2015 guidance document (L153) states:

“5 When pre-construction information is complete, it must include proportionate information about:

(a) the project, such as the client brief and key dates of the construction phase;

(b) the planning and management of the project such as the resources and time being allocated to each stage of the project and the arrangements to ensure there is cooperation between duty holders and the work is coordinated;

(c) the health and safety hazards of the site, including design and construction hazards and how they will be addressed;

(d) any relevant information in an existing health and safety file.”

5.7.7 The recommended list of information is therefore significantly less prescriptive than that stated in the 2007 ACOP (L144) as I reviewed in Section 4.5.

5.7.8 There is now no specific reference to information related to fire safety, as there was before.

5.7.9 Fire is referred to in the *construction phase plan*.

5.7.10 **Recommended contents of the *construction phase plan***

5.7.11 *Appendix 3 The construction phase plan* of the 2015 guidance document (L153) states (bold emphasis in the original document):

“What is a construction phase plan?

2 A construction phase plan is a document that must record the:

(a) health and safety arrangements for the construction phase;

(b) site rules; and

(c) where relevant, specific measures concerning work that falls within one or more of the categories listed in Schedule 3.

3 The plan must record the arrangements for managing the significant health and safety risks associated with the construction phase of a project. It is the basis for communicating these arrangements to all those involved in the construction phase, so it should be easy to understand and as simple as possible.

4 In considering what information is included, the emphasis is that it:

*(a) is **relevant to the project**;*

*(b) **has sufficient detail to clearly set out the arrangements, site rules and special measures needed to manage the construction phase; but***

*(c) **is still proportionate to the scale and complexity of the project and the risks involved.***

*The plan should **not** include documents that get in the way of a clear understanding of what is needed to manage the construction phase, such as generic risk assessments, records of how decisions were reached or detailed safety method statements.*

5 The following list of topics should be considered when drawing up the plan:

(a) a description of the project such as key dates and details of key members of the project team;

(b) the management of the work including:

(i) the health and safety aims for the project;

(ii) the site rules;

(iii) arrangements to ensure cooperation between project team members and coordination of their work, e.g. regular site meetings;

(iv) arrangements for involving workers;

(v) site induction;

(vi) welfare facilities; and

(vii) fire and emergency procedures;

5.7.12 In my opinion the most relevant requirements to fire safety is “*fire and emergency procedures*”

5.7.13 Appendix 3 of the CDM 2015 guidance document (L153) also sets out “*What must duty holders do?*” in relation to the *construction phase plan*. Paragraph 14 states (bold emphasis added by me):

*“14 The principal contractor must ensure that the construction phase plan is appropriately reviewed, updated and revised from time to time. The plan is a working document and will need to be **reviewed regularly** enough to address significant changes to the risks involved in the work or in the effectiveness of the controls that have been put in place. This means that the principal contractor **must monitor** how effective the plan is in addressing identified risks and whether it is being implemented properly. Ensuring the plan remains fit for purpose must also involve co-operating with:*

(a) the contractors who are most likely to see if the arrangements for controlling health and safety risks are working; and

(b) the principal designer and designers when changes in designs during the construction phase have implications for the plan.”

5.7.14 **Recommended contents of the health and safety file**

5.7.15 “Appendix 4 *The health and safety file*” of the 2015 guidance document (L153) states:

“2 The health and safety file is defined as a file appropriate to the characteristics of the project, containing relevant health and safety information to be taken into account during any subsequent project. The file is only required for projects involving more than one contractor.

3 The file must contain information about the current project likely to be needed to ensure health and safety during any subsequent work, such as maintenance, cleaning, refurbishment or demolition. When preparing the health and safety file, information on the following should be considered for inclusion:

- (a) a brief description of the work carried out;*
- (b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);*
- (c) key structural principles (e.g. bracing, sources of substantial stored energy –including pre- or post-tensioned members) and safe working loads for floors and roofs;*
- (d) hazardous materials used (e.g. lead paints and special coatings);*
- (e) information regarding the removal or dismantling of installed plant and equipment (e.g. any special arrangements for lifting such equipment);*
- (f) health and safety information about equipment provided for cleaning or maintaining the structure;*
- (g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
- (h) information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors).*

4 There should be enough detail to allow the likely risks to be identified and addressed by those carrying out the work. However, the level of detail should be proportionate to the risks. The file should not include things that will be of no help when planning future construction work such as pre-construction information, the construction phase plan, contractual documents, safety method statements etc. Information must be in a convenient form, clear, concise and easily understandable.”

5.7.16 In my opinion the most relevant requirements to fire safety are:

“(b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);

...

(g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;

...

(h) information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors)."

5.7.17 Note this list is essentially identical to the 1994 ACOP (HSG 224) and 2007 ACOP (L144) recommendations.

5.7.18 In Table 5.1 below I present my comparison of the 1994 ACOP (HSG 224), 2007 ACOP (L144), and the 2015 guidance document (L153) regarding the contents of the *health and safety file*.

5.7.19 To conclude, for works undertaken to CDM 2015, a *health and safety file* was required containing the fire safety information highlighted above.

Table 5.1: *Health and safety file* contents in accordance with the guidance in place at the relevant time

1994-2007 1994 ACOP (HSG 224) Appendix 4	2007-2015 2007 ACOP (L144) Paragraph 263	2015- 2015 guidance document (L153) Appendix 4	Review of material differences in recommended contents of <i>health and safety file</i>
a) a brief description of the work carried out;	a) brief description of the work carried out;	a) brief description of the work carried out;	No material difference between 1994, 2007 and 2015.
b) residual hazards and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc.);	b) any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc.);	b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);	No material difference between 1994, 2007 and 2015 other than water bearing strata being removed as a specific example in the 2015 guidance.
c) key structural principles incorporated in the design of the structure (e.g., bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;	c) key structural principles (for example, bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;	c) key structural principles (e.g. bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs;	No material difference between 1994, 2007 and 2015 other than removing the example of safe working loads precluding the placing scaffolding or heavy machinery in certain areas.
d) any hazards associated with materials used (for example hazardous substances, lead paint; special coatings which should not be burnt off);	d) hazardous materials used (for example, lead paint; pesticides; special coatings which should not be burnt off etc.);	d) hazardous materials used (e.g. lead paint; special coatings and Special coating);	Pesticides added as example in 2007 guidance then removed in 2015 guidance
e) Information regarding the removal or dismantling of installed plant and equipment (for example lifting arrangements)	e) Information regarding the removal or dismantling of installed plant and equipment (for example any special arrangements for lifting, order or other special instructions for dismantling etc.)	e) Information regarding the removal or dismantling of installed plant and equipment (e.g. any special arrangements for lifting such equipment)	Order or other special instructions for dismantling added as an example in 2007 guidance then removed in 2015 guidance.

1994-2007 1994 ACOP (HSG 224) Appendix 4	2007-2015 2007 ACOP (L144) Paragraph 263	2015- 2015 guidance document (L153) Appendix 4	Review of material differences in recommended contents of <i>health and safety file</i>
f) health and safety information about equipment provided for cleaning or maintaining the structure;	f) health and safety information about equipment provided for cleaning or maintaining the structure;	f) health and safety information about equipment provided for cleaning or maintaining the structure;	No material difference between 1994, 2007 and 2015.
g) the nature, location and markings of significant services, including fire-fighting services;	g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc.;	g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc.;	Underground cables; gas supply equipment added as specific examples in the 2007 guidance.
h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentation	h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc.).	h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors).	No material difference between 1994, 2007 and 2015 other than removing compartmentalisation as an example in the 2015 guidance.

5.7.20 Appendix 4 of the CDM 2015 guidance document (L153) also sets out “*What must duty holders do?*” in relation to the *health and safety file*.

5.7.21 The duties for the *client* are stated as follows (bold emphasis added by me):

“5 The client must ensure that the principal designer prepares the health and safety file for a project. As the project progresses, the client must ensure that the principal designer regularly updates, reviews and revises the health and safety file to take account of the work and any changes that have occurred. The client should be aware that if the principal designer’s appointment finishes before the end of the project, the principal designer must pass the health and safety file to the principal contractor, who then must take on the responsibility for the file.

6 Once the project is finished, the client should expect the principal designer to pass them the health and safety file. In cases where the principal designer has left the project before it finishes, it will be for the principal contractor to pass the file to the client.

7 The client must then retain the file and ensure it is available to anyone who may need it for as long as it is relevant – normally the lifetime of the building – to enable them to comply with health and safety requirements during any subsequent project. It can be kept electronically, on paper, on film, or any other durable form.

8 If a client disposes of their interest in the building, they must give the file to the individual or organisation who takes on the client duties and ensure that the new client is aware of the nature and purpose of the file. If they sell part of a building, any relevant information in the file must be passed or copied to the new owner. If the client leases out all or part of the building, arrangements should be made for the file to be made available to leaseholders. If the leaseholder acts as a client for a future construction project, the leaseholder and the original client must arrange for the file to be made available to the new principal designer.”

5.7.22 The duties for the *principal designer* are stated as follows (bold emphasis added by me):

“10 The principal designer must prepare the health and safety file. They are accountable to the client and should liaise closely to agree the structure and content of the file as soon as practicable after appointment. In preparing the file, the principal designer should expect the client to provide any health and safety file that may exist from an earlier project.

11 The principal designer must also cooperate with the rest of the project team and should expect their cooperation in return. Cooperation with the principal contractor is particularly important in agreeing the structure and content of the information included in the file. Liaison with designers and other contractors is also important. They may hold information that is useful for the health and safety file, which may be difficult to obtain after they have left the project.

*12 The principal designer, in cooperation with other members of the project team, must also **ensure that the file is appropriately updated, reviewed and revised to ensure it takes account of any changes that occur as the project progresses.***

*13 The principal designer must pass the updated file to the client at the end of the project. In doing this, they should ensure the client understands the structure and content of the file and its significance for any subsequent project. If the principal designer's appointment finishes before the end of the project, **they must pass the file to the principal contractor who must then take on responsibility for it.** In doing this, the principal designer should ensure **the principal contractor is aware of any outstanding issues** that may need to be taken into account when reviewing, updating and revising the file."*

- 5.7.23** To conclude, the status of the *health and safety file* is dynamic throughout the project, should reflect any changes that occur as project progress, and is therefore required to be kept up to date for the duration of the work by the *principal designer*.
- 5.7.24** The *client* has a responsibility to ensure the file is kept up to date, by the *principal designer* during the work, and that the file is subsequently made available for any future work.
- 5.7.25** The *principal designer* (or the *principal contractor* if the file is transferred to it by the *principal designer*) is required to ensure the client understands the structure and content of the file and its significance for any subsequent project.

6 Methodology

6.1 Methodology for my assessment of compliance with CDM Regulations

6.1.1 In Sections 7 to 11, I present my investigation of whether the duty holders complied with the requirements of the relevant CDM Regulations for the following works to Grenfell tower:

- a) Section 7 – 2004-2006 Lift replacement works
- b) Section 8 – 2011-2013 Flat Entrance Door Replacement works
- c) Section 9 – 2012-2016 Primary Refurbishment works
- d) Section 10 – The *health and safety file* prepared at the completion of the Primary Refurbishment works
- e) Section 11 – 2016-2017 Gas Riser Replacement works

6.1.2 For each of the works I provide:

- a) A summary of the works.
- b) Applicable version of CDM Regulations.
- c) Appointed CDM duty holders (planning supervisor, CDM co-ordinator, principal designer, principal contractor, and client).
- d) Confirm if a *health and safety file* was required.
- e) Present any evidence of an existing health and safety file having been provided as *information* (CDM 1994) or *pre-construction information* (CDM 2007 and 2015) by the *client*.
- f) Present any evidence of a *health and safety file*, once the relevant works at Grenfell Tower were completed
- g) Present any evidence of the KCTMO, as *client*, providing information contained in any existing *health and safety file*, for the next project in Grenfell Tower.

6.1.3 The primary source of evidence I have used to identify the duration of works and duty holders is as recorded in the F10 - *Notification of construction project form*, published by the HSE.

6.1.4 This form is produced as a template by the HSE in order to record the “*particulars*” required by Schedule 1 of CDM 1994, 2007 and 2015.

6.1.5 This form should be sent to the HSE for *notifiable* projects.

6.1.6 Schedule 1 of CDM 1994, 2007 and 2015 all require that for *notifiable* projects the names and addresses of the *client*, *principal contractor* and *planning supervisor*, *CDM co-ordinator* or *principal designers* (as applicable

to the Regulations in force at the time of *notification*) are *notified* in writing to the HSE.

- 6.1.7 I also review any *health and safety file* available for each project.
- 6.1.8 I analyse what fire safety information is contained within that *health and safety file* and compare it with the guidance published, for complying with the Regulations that are applicable for that set of works.
- 6.1.9 That guidance is to be found in the ACOPs and the guidance documents that I set out in Sections 3, 4, and 5 for CDM 1994, 2007, and 2015 respectively.

7 2004-2006 Lift replacement works

7.1 Summary of works

7.1.1 From 2004-2006, lift replacement works were undertaken in Grenfell Tower. These works included the replacement of the two passenger lifts located within the central core of Grenfell Tower.

7.1.2 The works were inclusive of all builders, electrical, structural and other attended works and included the installation of one hydraulic lift, which was subsequently demolished during the 2012-2016 Primary Refurbishment works.

7.2 Applicable version of CDM Regulations

7.2.1 The HSE *notification of project* form (page 29-30 of {TMO00869718}) for the 2004-2006 lift replacement works is dated 20th December 2004; with the works stated to start on 1st February 2005 for 52 weeks.

7.2.2 CDM 1994 was therefore the relevant Regulations in force for the entirety of these works.

7.3 Appointed CDM duty holders

7.3.1 In Figure 7.1 below I have included an excerpt of the HSE *Notification of project*:

2. Client: name, full address, postcode and telephone number (if more than one client, please attach details on separate sheet)

Name:	The Royal Borough of Kensington & Chelsea	Telephone Number:	020 7361 2794
Address:	Tennant Management Organisation Town Hall Hornion Street		
Postcode:	W8 7NX		

3. Planning Supervisor: name, full address, postcode and telephone number

Name:	Butler & Young Associates	Telephone Number:	01883 717172
Address:	1 st Floor 54-62 Station Road East Oxted Surrey		
Postcode:	RH8 0PG		

4. Principal Contractor (or contractor when project for a domestic client) name, full address, postcode and telephone number

Name:	Apex Lift & Escalator Engineers Ltd	Telephone Number:	
Address:	Apex House LEFA Business Park Edgington Way Sidcup Kent		
Postcode:	DA14 5BH		

Figure 7.1: Excerpt from pg. 30 of {TMO00869718}

7.3.2 From Figure 7.1 it can be seen that:

- The Royal Borough of Kensington and Chelsea are identified as *client*, noting that the address of the *client* is “*Tennant [sic] Management Organisation*”;

- b) Butler & Young Associates as the *planning supervisor*; and
- c) Apex Lift & Escalator Engineers Ltd as *principal contractor*.

7.3.3 I note that Butler & Young Associates is referred to as Butler & Young Lift Consultants Ltd (BYLCL) in all other project documentation. It is not clear if this is intended to be a reference to the same company or if there are two different companies. For simplicity, herein I refer to Butler & Young Lift Consultants Ltd (BYLCL) as Butler & Young.

7.3.4 The Apex “*Pre-Tender Stage Health & Safety Plan*” {APX00000044} names “*The Royal Borough of Kensington & Chelsea*” as the *client* for the 2004-2006 Lift replacement works.

7.3.5 In a letter from Apex {APX00000055} to RBKC, Mr Gordon Perry (KCTMO) is the addressee.

7.3.6 In her statement {RBK00035166}, Celia Caliskan (RBKC) states in paragraphs 11 and 12 respectively regarding the time when “*RBKC agreed with the TMO that it was going to increase its monitoring*” ... “*I believe Gordon Perry was still CEO of the TMO at that stage*”.

7.3.7 I therefore conclude that the KCTMO were the *client*.

7.4 *Was a health and safety file required*

7.4.1 The HSE notification of project form (page 29 of {TMO00869718}) states the duration of works to be 52 weeks.

7.4.2 52 weeks exceeds 30 days; therefore, this project was *notifiable* under CDM 1994 as described in Section 3 of this report.

7.4.3 As the project was *notifiable* a *health and safety file* was therefore required to be prepared by the *planning supervisor* and that “*on the completion of construction work on each structure comprised in the project, the health and safety file in respect of that structure is delivered to the client*” to comply with Regulation 14 of CDM 1994.

7.5 *Evidence of information provided by the client*

7.5.1 To comply with Regulation 11 of CDM 1994, it was the duty of KCTMO to first provide Butler & Young with *information* which Butler & Young could then use to create the *health and safety file* for the lift replacement works.

7.5.2 The TMO project brief attached to an email sent from TMO to RBKC{TMO00853783} contained some relevant information, and for example states at:

“*6.0 Health and safety*

6.1 The Consultant shall identify any area of concern, including access to machine rooms and make recommendations and identify cost”

- 7.5.3 Butler and Young produced a document titled [The refurbishment of two electric passenger lifts, HO90&91 and replacement of one hydraulic passenger lift, HO92 at Grenfell Tower Lancaster West Estate London W11 for the Royal Borough of Kensington & Chelsea].
- 7.5.4 This document comprises a scope of works for the replacement of 3 specific lifts in Grenfell Tower and a series of specifications for that work. Hereafter I refer to this document as the Butler and Young Lift Specification {BUT00000044}.
- 7.5.5 Annex 1 of Part 1 of Butler & Young Lift Specification {BUT00000044} is the “*Kensington & Chelsea Tenant Management Organisation Ltd health and safety policy*”.
- 7.5.6 One of the headings in the policy is “*Fire safety and emergency procedures*”.
- 7.5.7 Separately at “*Part 5 Health and Safety Plan*” the Butler & Young Lift Specification {BUT00000044} states that “*The Principal Contractor shall be aware that the vehicle route around Grenfell Tower is a fire path and must be maintained free of any obstruction.*”
- 7.5.8 It further states that the Principal contractor should “*Consider health and safety issues for working in occupied or partly occupied premises (e.g. fire/evacuation procedures)*”.
- 7.5.9 *Information* (relevant to fire safety) was therefore provided to the lift replacement works tenderers by the *Planning Supervisor*.
- 7.5.10 I have evidence too that KCTMO held a “Pre-start meeting” with the successful tenderer Apex, and the *planning supervisor* Butler & Young on 30th November 2004{TMO00869715}; and monthly progress meetings (e.g. 22nd February 2005 {TMO00869716}) and 27th April 2005 {APX00005640}) where “*CDM and planning supervisor matters*” was a standing item on the Agenda.

7.6 Evidence of a *health and safety file*

- 7.6.1 Butler & Young’s Lift Specification {BUT00000044} did not contain any existing *health and safety file* for Grenfell Tower.
- 7.6.2 To comply with Regulation 14 of CDM 1994, Butler & Young Associates as the *planning supervisor* had a duty to ensure a *health and safety file* was prepared, then to review, amend or add to that file; before finally on completion of construction work deliver the *health and safety file* to the KCTMO.
- 7.6.3 I have no evidence of Butler & Young preparing a *health and safety file*.
- 7.6.4 Nor that Butler & Young delivered a *health and safety file* to the KCTMO on completion of the construction works.

- 7.6.5 I do have evidence of information being provided by Apex the *principal contractor* prior to construction, to Butler and Young and the KCTMO.
- 7.6.6 For example, “*Grenfell Tower lift refurbishment minutes of pre-start meeting held at Grenfell Tower estate office*” {TMO00869715} dated 30th November 2004 states:
- “2.4 The Apex ***Pre Construction Health and Safety File*** and all Apex method statements and risk assessments plus those of their building sub contractors, Drurycourt, had been received, inspected and commented on by BYLCL and were in the process of certain minor amendments.”
- 7.6.7 On 10th January 2005 James Palmer (Health & Safety/ Quality Assurance Officer) of Apex sent a letter to Mr S Ellis {APX00000049} of Butler & Young stating:
- “Please find enclosed the Health & Safety File for your perusal if you could advise of any amendments if required and return to Apex to carry out. If the file is satisfactory can you please forward to site.”
- 7.6.8 The planned date for the commencement of the construction work (on page 29 of {TMO00869718}) is recorded as 1st February 2005. This letter was therefore sent before the 2004-2006 Lift replacement works began on site.
- 7.6.9 I have not been provided with the attachment, referred to in the letter in the evidence available to me {APX00000049}.
- 7.6.10 The certificate of practical completion of the lift works was issued by Butler and Young on the 27th of February 2006 {APX00005420}. The certificate states that “*that Practical Completion of the Works was achieved on 6th February 2006*”.
- 7.6.11 Item 7.1 of meeting minutes dated on the 23rd February 2006 {APX00004944} states:
- “GP to provide TMO with the H&S file”
- 7.6.12 The introduction to the meeting minutes states GP is Gary Poynter of Apex Lift & Escalator Engineers Ltd.
- 7.6.13 Apex Lift & Escalator Engineers Ltd were therefore instructed to issue the *health and safety file*.
- 7.6.14 On 24th February 2006 James Palmer (Health & Safety/ Quality Assurance Officer) of Apex sent a letter to Mr Robin Cahalarn Royal Borough of Kensington and Chelsea {APX00000050} stating:
- “Please find enclosed the Health & Safety File for your perusal in respect of the project at Grenfell Tower”
- 7.6.15 This is the only evidence I have referring to a *health and safety file*, that is in line with the time the construction works were completed.

7.7 **My review of the lift replacement works *health and safety file* produced by the contractor Apex**

- 7.7.1** As set out above I have no evidence available to me that Butler & Young in their role of *planning supervisor*, prepared, amended, added to or delivered a *health and safety file* to the KCTMO.
- 7.7.2** I have evidence of one document produced by Apex lifts titled “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*”
- 7.7.3** This document has been disclosed twice by Carl Stokes ({CST00000022}, {CST00000384}); three times by TMO ({TMO00869731}, {TMO00869718}, {TMO10028592}); and once by Artelia {ART00001894}. There is no difference between any of these versions.
- 7.7.4** The “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} is a 356 page document. I have excerpted the first three pages in Figure 7.2.

Figure 7.2: Pages 1-3 of “Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ” {TMO00869731}

- 7.7.5** Appendix 4 of the 1994 ACOP (HSG 224) states the following information should be included in the *health and safety file*:
- “a) a brief description of the work carried out;*
 - b) residual hazards and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);*
 - c) key structural Principals incorporated in the design of the structure (e.g., bracing, sources of substantial stored energy - including pre- or post-tensioned members) and safe working loads for floors and roofs, particularly where these may preclude placing scaffolding or heavy machinery there;*
 - d) any hazards associated with materials used (for example hazardous substances, lead paint; special coatings which should not be burnt off);*
 - e) Information regarding the removal or dismantling of installed plant and equipment (for example lifting arrangements);*
 - f) health and safety information about equipment provided for cleaning or maintaining the structure;*
 - g) the nature, location and markings of significant services, including fire-fighting services;*
 - h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentation;”*
- 7.7.6** The information provided in “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} does not comply with the list from Appendix 4 of the 1994 ACOP (HSG 224).
- 7.7.7** The information provided by Apex in the document they have titled *health and safety file* {TMO00869718} is a combination of construction phase information and pre-construction information as I explain below.
- 7.7.8** Section 1 of “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} is titled “*Health and Safety Plan*” which is a copy of “*Part 5 Pre tender Health and Safety Plan*” of Butler & Young ’s Lift Specification {BUT00000044}.
- 7.7.9** The *pre-tender health and safety plan* is a separate requirement to the *health and safety file*. The *pre tender health and safety plan* is required to be produced by the *planning supervisor* to comply with Regulation 15 of CDM 1994. Whereas the *health and safety file* is required to be produced to comply with Regulation 14 of CDM 1994.
- 7.7.10** Once the construction phase has finished the information in the *pre-tender health and safety plan* is no longer relevant and should not be included in the *health and safety file*.

7.7.11 The remainder of “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} contains construction phase risk assessments and method statements for the proposed works for the lift replacement at Grenfell Tower, and COSHH assessments for materials used as part of the lift replacement such as grease primer and white spirits; all these documents were produced by Apex.

7.7.12 Paragraph 256 of the 1994 ACOP (HSG 224) explicitly states that the pre tender construction phase plan; construction phase risk assessments, method statements, and COSHH assessments should not be included in the *health and safety file*:

256 Appendix 4 sets out the topics to be considered when preparing the health and safety file. The file does not need to include the following:

- ▼ the pre-tender; or construction phase health and safety plan;
- ▼ construction phase risk assessments, method statements and COSHH assessments;
- ▼ details about the operation of the completed structure;
- ▼ construction phase accident statistics;
- ▼ the names and addresses of contractors and designers involved in the project; or
- ▼ contractual documents.

257 Some of these items may be useful to the client for later work, or may be needed for purposes apart from CDM. They may even include details that are relevant to the health and safety file, but CDM does not require the full documents to be included in the file. In fact, including such material may hide crucial information about risks.

Figure 7.3: Paragraph 256 of the 1994 ACOP (HSG 224)

7.7.13 I have therefore concluded that the “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {CST00000384} produced by Apex, does not comply with the required content of the 1994 ACOP (HSG 224) and therefore is a breach of the CDM 1994 regulations.

7.7.14 I note there are two “*front*” covers before the table of contents (Figure 7.2 above); with the 2nd Page “*the construction stage health and safety plan*” the more relevant description of the document contents as I have explained above.

7.7.15 I do not know why another “*front*” page was then placed on the file, apparently retitling it the *health and safety file*, for Grenfell Tower.

7.7.16 I note that the Butler & Young tender document specification states {TMO00869717}:

*“The lift shall not be deemed to have been accepted nor achieved practical completion until the drawings, maintenance manuals and **Contractors Health & Safety File** in accordance with CDM regulations have been received and approved.”*

- 7.7.17** To comply with Regulation 14 of CDM 1994, Butler & Young as the *planning supervisor* had a duty to prepare, amend, and deliver a *health and safety file* to the KCTMO upon completion of construction.
- 7.7.18** I have no evidence that they reviewed the Apex document, and it was sent directly as I referred to earlier, to the KCTMO by Apex {APX00000050}.
- 7.7.19** I consider this whole arrangement therefore to be a breach of the CDM Regulations.

8 2011-2013 Flat Entrance Door Replacement works

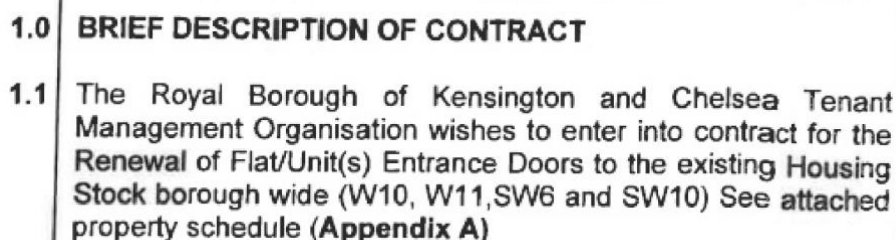
8.1 Summary of works

8.1.1 The tender brief dated “December 2010” “Replacement flat front entrance doors and associated work specification” {MAS00000039} was issued by letter by KCTMO on the 5th of January 2011 {MAS00000015}.

8.1.2 The letter {MAS00000015} states:

I would be grateful if you could submit your fee quotation by **12 NOON ON Tuesday 18th January 2011** returned in the envelope provided.

8.1.3 The tender brief {MAS00000039} provides a description of the proposed works:



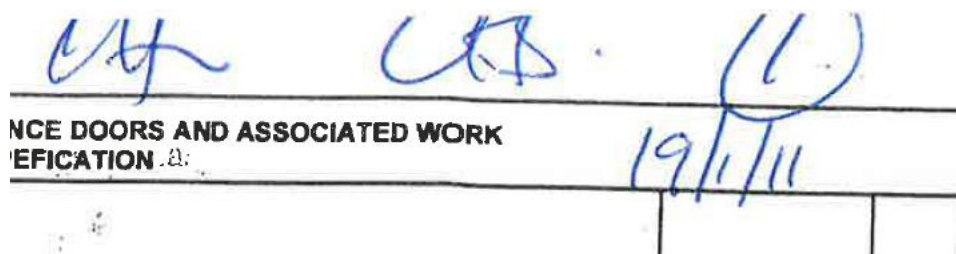
1.0 BRIEF DESCRIPTION OF CONTRACT

1.1 The Royal Borough of Kensington and Chelsea Tenant Management Organisation wishes to enter into contract for the **Renewal** of Flat/Unit(s) Entrance Doors to the existing Housing Stock borough wide (W10, W11, SW6 and SW10) See attached property schedule (**Appendix A**)

Figure 8.1: Section 1.0 of tender brief {MAS00000039}

8.1.4 Appendix A of the “Replacement flat front entrance doors and associated work specification” {MAS00000037} references 313 individual site addresses with multiple properties at each site across the entire KCTMO estate. Grenfell Tower is listed as site 25.

8.1.5 I note the tender brief is signed and dated on 19th January 2011, one day after the return date of the tenders specified in the issue letter {MAS00000015} as shown below:



Signature: [Handwritten signature] Date: 19/1/11

REPLACEMENT OF FLAT FRONT ENTRANCE DOORS AND ASSOCIATED WORK SPECIFICATION

Figure 8.2 Excerpt of page 1 of the tender brief {MAS00000039}

8.1.6 It is unclear who signed this document.

8.1.7 Robert Black of KCTMO issued a letter to John Tapscott of Manse Masterdord Ltd {MAS00000027} dated 10th February 2011 stating:

The intended start date for the contract is 11 February 2011 with an end date of January 2012 subject only to the size of the final programme following the completion by the KCTMO of its FRA for its medium risk stock.

Figure 8.3 Excerpt from letter by Robert Black {MAS00000027}

- 8.1.8** It was therefore acknowledged prior to the formal appointment of Manse Masterdor to undertake the works (as discussed in Section 8.1), that KCTMO anticipated those works to last at least 323 days (note this was not only related to Grenfell Tower).
- 8.1.9** Paragraph 3 Contract particulars of “*JCT Measured Term Contract Revision 2 2009*” {MAS00000086} states that the contract period for the works across the entire estate was to be from 14th March 2011 to 31st March 2012, a period of 382 days.
- 8.1.10** However, it appears that the works took significantly longer than this.
- 8.1.11** The contract was extended twice, until 31st August 2012 {MAS00000249} and again until 28th February 2013 {MAS00000294}. The full period of contract was therefore 716 days.
- 8.1.12** The spreadsheet {MAS000000003} produced by Manse Masterdor after the fire for this Inquiry, which is said to be based on their as-built records of installation, shows that the first door at Grenfell Tower was fitted on 25th April 2011 and the final door on 19th August 2013 which is a period of 634 days
- 8.1.13** I note between 25th April 2011 and 19th August 2013, also recorded on their spreadsheet, there is a total of 32 days individually listed as days there were doors fitted in Grenfell Tower.
- 8.1.14** I am also aware of a project planning document dated 2nd of March 2011 {TMO00866748} that lists 32 individual workdays assigned to Grenfell Tower.
- 8.1.15** Paragraphs 43 and 44 of the 2007 ACOP (L144) state:
- “43 Any day on which work takes place counts towards the period of construction work, including weekends and holidays. The total ‘person days’ is the total number of shifts worked by everybody involved in the project, including supervisors. In borderline cases, where you are unsure how long the work will take, it is best to notify HSE.*
- 44 Where a small project, which was not notifiable, requires a short extension or small increase in the number of people, you do not need to notify HSE of the change. However, construction work may significantly overrun or the scope may change so that it becomes notifiable. If this happens you must notify HSE as soon as you can.”*
- 8.1.16** Irrespective of the method of measurement, the duration of the 2011-2013 Flat Entrance Door Replacement works exceeded 30 days of construction

even if only the works to Grenfell Tower are considered in isolation and separate from the works to the other 312 site locations.

- 8.1.17 The works were therefore *notifiable* in accordance with Regulation 2(3) of CDM 2007.

8.2 Applicable version of CDM Regulations

- 8.2.1 The tender brief “*Replacement flat front entrance doors and associated work specification*” issued by KCTMO {MAS00000039} for the 2011-2013 Flat Entrance Door Replacement works was issued by KCTMO on 5th January 2011 {MAS00000015}.

- 8.2.2 As I have explained above, the contract for these works across the entire estate estimated a period of 382 days {MAS00000086}.

- 8.2.3 CDM 2007 was therefore the relevant Regulations for the duration of the project.

8.3 Appointed CDM duty holders

- 8.3.1 As I have identified in Section 8.1, the flat front entrance door works were notifiable therefore KCTMO had a duty to appoint a *CDM co-ordinator* and a *principal contractor* to comply with Regulation 14 of CDM 2007. Otherwise they became responsible for discharging those duties themselves.

- 8.3.2 I have not found an F10 *notification* form for the 2011-2013 Flat Entrance Door Replacement works. I have therefore relied on the evidence from written appointments and contracts to identify for myself the CDM duty holders.

8.3.3 CDM co-ordinator

- 8.3.4 In his Witness statement Paul Lennon (Managing director of Baily Garner) states {BAG00000032}:

“4. By an email dated 4 January 2011 [11:07], (PLi01:)[{BAG00000034}] Kensington and Chelsea Tenant Management Organisation (KCTMO) instructed BGHS Ltd to carry out the CDM co-ordinator services for fire door replacement works across the borough of Kensington and Chelsea, including at Grenfell Tower. An email from 4 January 2011 [10:13] (PL/02:) [{BAG00000036}] contained a project notification form which requested BGHS Ltd to carry out CDM co-ordinator services for the “Supply and fit in accordance with TMO performance specification one number GRP 30m fire/ security door set, complete with all necessary ironmongery, letter plates, door viewer and chain, handles, cylinder locks, hinges and other requirements” (the Project).”

- 8.3.5 The agreed fee for Baily Garner to provide CDMC services was £1960 {BAG00000034}.

- 8.3.6 I have not seen a programme or set of tasks, forming the basis for this amount.

8.3.7 Mr Lennon then goes on to state:

“11. After issuing the project information register to form part of the tender pack on 10 January 2011 (PL/4: {BAG00000024}) BGHS Ltd had no further involvement in the Project. BGHS Ltd did not receive any further instructions from KCTMO after those issued on 4 January 2011 (PL/01) {BAG00000034}.

12. KCTMO never advised BGHS Ltd that a contractor had been appointed or the identity of that contractor.

13. BGHS Ltd was not involved in any way in the appointment of a principal contractor for the Works.”

8.3.8 This is confirmed by the invoice {BAG00000028} issued with a cover letter from Baily Garner to KCTMO on 31st of January {BAG00000035} for the following works *“Receiving your instructions and acting as CDM Co-ordinator in accordance with the Construction (Design & Management) Regulations 2007 up to and including preparation of the Pre-construction Information Pack”* which was described as *“Fee stage reached 55%”*

8.3.9 Baily Garner were therefore the appointed *CDM Coordinator* from 4th of January to 10th of January 2011. I do not have any evidence of any further involvement by them in the works. While it will ultimately be a matter for the Chairman to resolve the factual issue of who was *CDM Coordinator* for these works, my analysis below assumes that Baily Garner was not the *CDM Coordinator* after 10 January 2011.

8.3.10 I note that there is conflicting evidence with regard to the date of issue of the tender pack and what it contained.

8.3.11 KCTMO issued their tender pack on 5th of January 2011 however Mr Lennon states that Baily Garner issued the *“the project information register to form part of the tender pack on 10 January 2011”*. I discuss this further in Section 8.5.

8.3.12 Regulation 14(4) of CDM 2007 states (bold emphasis added by me):

“(4) The client shall—

*(a) be deemed for the purposes of these Regulations, save paragraphs (1) and (2) and regulations 18(1) and 19(1)(a) to have been appointed as the CDM co-ordinator or principal contractor, or both, **for any period** for which no person (including himself) has been so appointed;”*

8.3.13 I have seen no evidence that Baily Garner contributed to, nor were instructed to contribute to the project after 10th January 2011.

8.3.14 I have seen no evidence of Baily Garner invoicing for any works undertaken by them after that date.

- 8.3.15** I do not know why KCTMO would appoint a *CDM co-ordinator* to act as “as *CDM Co-ordinator in accordance with the Construction (Design & Management) Regulations 2007 up to and including preparation of the Pre-construction Information Pack*”, and then not require a *CDM co-ordinator* role any further.
- 8.3.16** Therefore, it is my opinion that under Regulation 14(4) of CDM 2007 that KCTMO assumed the duties of *CDM Coordinator* for all works after the 10th January 2011.
- 8.3.17** Therefore, it is my opinion that under Regulation 14(4) of CDM 2007 that KCTMO assumed the duties of *CDM Coordinator* for all works after 10th January 2011.

PC/CDM-C	Responsibility for compilation and assembly of the file;
...	
CDM Co-ordinator	Responsibility for reviewing the file to establish satisfactory completion;
CDM Co-ordinator	Responsibility for delivering the file to the client.

Figure 8.4: Excerpts of Appendix C of Tender Pack {MAS00000043}

- 8.3.18** Therefore, after 10th January 2011 in accordance with KCTMOs Tender brief KCTMO were responsible to compile the *health and safety file*; review the health and safety file to establish satisfactory completion and deliver the file to themselves.
- 8.3.19** **Principal contractor**
- 8.3.20** In terms of the appointment of a Principal Contractor, Robert Black of KCTMO issued a letter to John Tapscott of Manse Masterdor Ltd {MAS00000016} dated 10th February 2011 stating:

Dear Sir,

Re KCKCTMO fire Door replacement programme 2011-2012.

We refer to your tender dated 18th January 2011 and to our telephone conversation in relation to the Works.

We are pleased to inform you that, subject to approval of our tender report by the KCTMO Operations Committee ("the Committee") on the 22nd February 2011, it is our intention to accept your tender and to enter into a contract with you ("the Contract") for the carrying out of the Works.

It is intended that the form of the Contract will be based upon the JCT Measured term form of contract 2005 and will incorporate the following documents:

1. A copy of your schedule of individual fire door prices.
2. A copy of you tender documentation

The intended start date for the contract is 11 February 2011 with an end date of January 2012 subject only to the size of the final programme following the completion by the KCTMO of its FRA for its medium risk stock.

Notwithstanding that all the tender report has not yet been approved by the committee, we hereby authorise and ask that you proceed with the initial surveying and commence manufacture of the doors set out in initial programme included within the tender documents with an intention to complete the initial programme as soon as possible.

Although the Contract has not yet been entered into, all the terms and conditions of the Contract so far as agreed between us, and so far as not inconsistent with the terms of this

letter, will apply to any work carried out by you pursuant to the instruction contained in this letter.

You will keep us fully and promptly informed of the progress of the work carried out by you pursuant to this letter and shall report to us on the 23rd February 2011, providing supporting documentary evidence, of all costs and expenses which you incur pursuant to this instruction should the committee fail to approve the tender report.

The KCTMO will pay you for any activities properly undertaken by you pursuant to the instruction contained in this letter, provided that our total liability under this letter shall not exceed £5,000.00 plus Value Added Tax at the above mentioned date.

For the avoidance of doubt, we are not bound to enter into any further contract with you and our commitment at this stage is strictly limited as set out in this letter. You must obtain our further authorisation and instruction before committing to any expenditure above the limit stated in this paragraph.

Within 4 days of the date of this letter you must provide us with certificates of verification of insurance cover confirming that all insurances which you are required to maintain under the terms of the proposed Contract are in place upon the required terms and at the required levels. In particular (to the extent that they have not been provided to us to date) we require evidence of your Contractor's All Risks, Professional Indemnity, Employer's Liability, Public Liability and if applicable JCT clause 21.2.1 or similar insurances.

You shall act as designer and principal contractor for the purposes of the Construction (Design and Management) Regulations 1994 or any amendment or re-enactment thereof ("the CDM Regulations") and shall perform all the functions required of you in these capacities by the CDM Regulations. You warrant to us that you are competent and have allocated or, as the case may be, will allocate adequate resources to ensure compliance with your obligations under this paragraph.

Yours faithfully,



Robert Black
Chief Executive
Kensington & Chelsea Tenant Management organisation

Figure 8.5: Letter from Robert Black to John Tapscott of Manse Masterdor {MAS00000016}

- 8.3.21 Robert Black's letter therefore expressed KCTMO's intention to appoint Manse Masterdor as *designer and principal contractor* for the 2011-2013 Flat Entrance Door Replacement works.
- 8.3.22 I have been provided with a document titled "*JCT Measured Term Contract Revision 2 2009*" {MAS00000086} disclosed by Manse Masterdor:

Articles of Agreement

This Agreement is made the _____ 20 _____

Between

The Employer Kensington & Chelsea Tenants
Management Organisation Ltd.

(Company No. 3048135)⁽¹⁾

of/whose registered office is at Network Hub, 292A Kensal Road,
London W10 5BE

And

The Contractor manse masterdor Ltd,

(Company No. 210725)⁽¹⁾ 3530099

of/whose registered office is at 8 Devonshire Square, London
EC2M 4PL. FIVE WORKS, NETHER HEAGE,
DEBBY DESL 2JJ

Figure 8.6: *Articles of Agreement* section of JCT Measured Term Contract Revision 2 2009 {MAS00000086}

8.3.23

The contract between KCTMO and Manse Masterdor is undated.

8.3.24 The contract also has *principal contractor* stuck out, and counter signed as below.

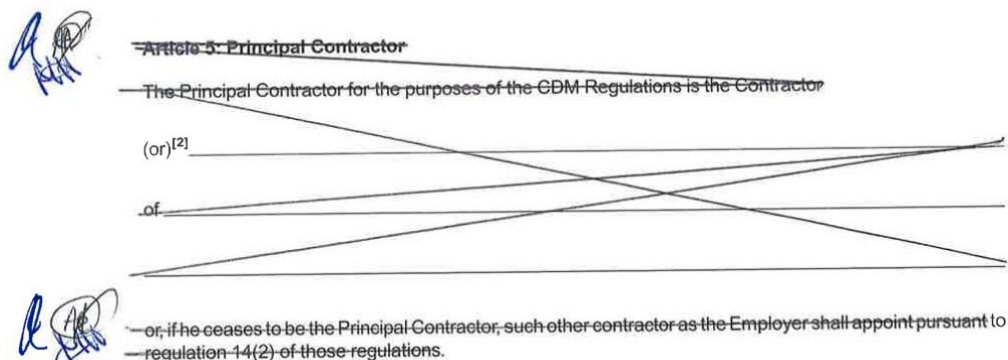


Figure 8.7: Article 5 of JCT Measured Term Contract Revision 2 2009 {MAS00000086}

8.3.25 I have not been able to identify who the signatures are that countersigned the removal of Article 5 from the contract.

8.3.26 This contradicts Robert Black of KCTMO's {MAS00000027} intention to appoint Manse Masterdor as *principal contractor*. Potentially it may be that KCTMO had changed their mind and did not want to appoint a *principal contractor*, or Manse Masterdor didn't agree to take on this role. The records do not explain this contradiction.

8.3.27 I note that in circumstances where KCTMO did not appoint a *principal contractor* for notifiable works they would then assume the duties per CDM 2007 Regulation 14(4):

"14(4) The client shall—

(a) be deemed for the purposes of these Regulations, save paragraphs (1) and (2) and regulations 18(1) and 19(1)(a) to have been appointed as the CDM co-ordinator or principal contractor, or both, for any period for which no person (including himself) has been so appointed;"

8.3.28 Appendix C of the tender pack issued by KCTMO {MAS00000043}, assigns duties regarding the *health and safety* to the Principal

PC/CDM-C	Responsibility for compilation and assembly of the file;
Principal Contractor	Responsibility for contributions to each section of the file;
Principal Contractor	Responsibility for co-ordinating and Chasing contributors;

Figure 8.8: Excerpt of Appendix C of tender pack {MAS00000043}

8.3.29 Therefore, in accordance with KCTMOs Tender brief as Principal Contractor KCTMO were responsible for compiling the *health and safety file*; contribute to each section of the file and coordinate chasing contributors.

8.3.30 I acknowledge the contradictions I have found in the evidence available to me. However in Table 8.1 below I provide my summary of my findings from the evidence available to me in relation to the 2011-2013 Flat Entrance Door Replacement works.

Table 8.1 CDM 2007 duty holders in relation to the 2011-2013 Flat Entrance Door Replacement works

CDM 2007 duty holder	2011-2013 Flat Entrance Door Replacement works appointed duty holder
<i>Client</i>	Kensington and Chelsea Tenant Management Organisation (KCTMO)
<i>CDM co-ordinator</i>	Baily Garner up to the issue of the tender documents on 10 th January 2011. KCTMO did not appoint Baily Garner after this time and in doing so therefore assumed these duties also due to Regulation 14(4) of CDM 2007.
<i>Principal contractor</i>	Despite KCTMO writing a letter to Manse Masterdord with the intention to appoint them as <i>principal contractor</i> , the signed contract expressly removes this role. Therefore, this role would appear also to have become that of the KCTMO, by definition under the Regulation 14(4) of CDM 2007

8.4 Was a *health and safety file* required?

8.4.1 As the project was *notifiable* the appointed *CDM co-ordinator* was required to prepare a *health and safety file* and provide that file to the *client* at the end of the project to fulfil their duties under Regulation 20(2) of CDM 2007.

8.4.2 As I have identified in Section 8.3 there was no *CDM co-ordinator* appointed after Baily Garner completed their initial scope of work.

8.4.3 Therefore, after the tender stage the KCTMO assumed the duties of the *CDM co-ordinator* hence it was their duty to create a *health and safety file*.

8.5 Evidence of *pre-construction information* provided by the *client*

8.5.1 Regulation 10 of CDM 2007 states:

“10.—(1) Every client shall ensure that

(a) every person designing the structure; and

(b) every contractor who has been or may be appointed by the client, is promptly provided with *pre-construction information* in accordance with paragraph (2).

(2) The *pre-construction information* shall consist of all the information in the client's possession (or which is reasonably obtainable), including—

(a) any information about or affecting the site or the construction work;

(b) any information concerning the proposed use of the structure as a workplace;

(c) the minimum amount of time before the construction phase which will be allowed to the contractors appointed by the client for planning and preparation for construction work; and

(d) any information in any existing health and safety file, ”

8.5.2 And Regulation 20(2) of CDM 2007 states (bold emphasis added by me):

“20(2) Without prejudice to paragraph (1) the CDM co-ordinator shall—

(a) take all reasonable steps to identify and collect the pre-construction information;

(b) promptly provide in a convenient form to—

(i) every person designing the structure, and

(ii) every contractor who has been or may be appointed by the client (including the principal contractor), such of the pre-construction information in his possession as is relevant to each;

8.5.3 Alan Thomas (Baily Garner) emailed Abigail Acosta (KCTMO) on 4th January 2011 stating, *“In order to get the documentation moving, please can you forward as much information to hand as indicated in red/yellow under client/designer on the attached Project Information Register.”* {BAG00000011}

8.5.4 Ms Acosta emailed {BAG00000015} the form {BAG00000016} back along with a list of *“Buildings where fire doors could be fitted”* {BAG00000017} and *“Virex List - tenants with a history of physical or verbal threatening behaviour”* {BAG00000018}.

8.5.5 Her comments dated 4th of January 2011 on the form {BAG00000016} stated that the *“Health and Safety file(s) for previous works”* is *“Not available*

8.5.6 I note that there is conflicting evidence in regard to the issue of *pre construction information* for the project, also.

8.5.7 TMO issued the tender pack on 5th January 2011 {MAS00000015} Appendix C of which was titled (bold emphasis added by me) *“KCTMO **example** of pre construction information pack”* {MAS00000043}.

8.5.8 In paragraph 11 of his witness statement Paul Lennon {BAG00000032} states that Baily Garner issued a *“project information register to form part of the tender pack on 10 January 2011”*. I have not been able to find any specific email or letter which records this was done.

- 8.5.9 I do not know if Paul Lennon is referring to the entire “*Pre-Tender Information Pack*” {MAS00000120} which contains the *project information register* or just the register itself {MAS00000024}.
- 8.5.10 This is important because Baily Garner produced a document titled “*Pre-Tender Information Pack*” {MAS00000120} which is dated the 10th of January 2011; six days after the TMO tender brief was issued; and this contained detailed *pre-construction information* requirements.
- 8.5.11 This *pre-construction information* was not therefore included in the Tender Pack issued by KCTMO on the 5th of January {MAS00000043}.
- 8.5.12 However, Manse Masterdor disclosed this document {MAS00000120} indicating that they received it at some point. I have not been able to identify when they received this document nor who they received it from.
- 8.5.13 A draft version of this document was disclosed by Baily Garner {BAG00000013} which is undated and unsigned.
- 8.5.14 The introduction of the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} states:

“*The Pre-Tender Information Pack is intended to raise particular risks as are evident to the CDM Co-ordinator and designers from the documents available at the time of the preparation. This is to enable contractors to assign adequate resources to the matters during the tender period, and subsequently the appointed, Principal Contractor, to develop the Construction Phase Health & Safety Plan for the project.*”
- 8.5.15 Based on the above paragraph it appears that the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} was intended to act as the *pre-construction information*.
- 8.5.16 Section 5 *Health and Safety file* of the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} states:

Section 5.0: The Health and Safety File

As the project progresses the Principal Contractor is required to collect all information, which could be beneficial to those who will be involved in future construction work to the properties and to pass this information to the CDM Co-ordinator. This will include;

Figure 8.9 Excerpt from Baily Garner “*Pre-Tender Information Pack*” {MAS00000120}

- 8.5.17 I note that there are some inconsistencies between the “*KCTMO example of pre construction information pack*” {MAS00000043} and the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120}.
- 8.5.18 For example:

- a) The “*KCTMO example of pre construction information pack*” {MAS00000043} states the duration of works is 10 weeks whereas the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} states the works will last 14 weeks
- b) The “*KCTMO example of pre construction information pack*” {MAS00000043} states CDM coordinator “*TBA*” whereas the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} states the CDM coordinator is “*Baily Garner*”
- c) In terms of the health and safety file “*KCTMO example of pre construction information pack*” {MAS00000043} states “*Content as per the attached template in Appendix F*” noting that no Appendix F has been disclosed to me to date; whereas the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} quotes verbatim the recommended content of the *health and safety file* from paragraph 263 of the 2007 ACOP (L144).

8.5.19 I note both the “*KCTMO example of pre construction information pack*” {MAS00000043} and the Baily Garner “*Pre-Tender Information Pack*” {MAS00000120} contain some fire safety information however neither document states that the buildings will be occupied during the works and that while the doors are being replaced mitigation measures would be required.

8.5.20 Further to this neither document contains or makes reference to any existing fire risk assessments or fire strategy documents / drawings for any of the buildings.

8.5.21 This is the only evidence available regarding *pre-construction information*, at this time.

8.6 Evidence of a *health and safety file*

8.6.1 To comply with Regulation 20(2)(e) and (f) of CDM 2007 it was the duty of the *CDM co-ordinator* to prepare, where non exits, and otherwise review and update the *health and safety file* then pass the *health and safety file* to the *client* KCTMO at the end of the construction phase.

8.6.2 Section 56.1 of the KCTMO tender brief also states “*Replacement flat front entrance doors and associated work specification*” {MAS00000039} issued on 5th January 2011 states (bold emphasis added by me):

“The Building Manual (incorporating the Health and Safety file and subtitled accordingly) is to be a comprehensive information source and guide for the Employer and end users, providing a complete understanding of the building and its system and enabling it to be operated an [sic] maintained efficiently and safely.”

8.6.3 As Baily Garner were not appointed to act as *CDM Coordinator* after the “*preparation of the Pre-construction Information Pack*” as confirmed by their invoice {BAG00000028}, it therefore became KCTMOs duty to prepare their own *health and safety file*.

- 8.6.4 I note that this seems to contradict Ms Acosta's witness statement {TMO00862539} when asked "*how frequently representatives of KCTMO and Manse Masterdor met in the course of the Fire-doors Refurbishment Programme*" she states at paragraph 10(b) (bold emphasis added by me):
- "Baily Garner H&S coordinator by Baily Garner (Health & Safety) Limited **quarterly** or as and when needed if issues or concerns raised on site via clerk of works"*
- 8.6.5 I have not identified any evidence that supports this statement in the documents disclosed to me.
- 8.6.6 I note in her witness statement, when asked "*In relation to the Contract please give details of: any certification or accreditation relating to fire safety that was relied upon by Manse Masterdor under this Contract.*" Ms Acosta states at paragraph 5(d) {TMO00862539}:
- "d) This information would have been provided to LHC and requested by Baily Garner (Health and Safety) to ensure compliancy and **also formed part of the health and safety files**"*
- 8.6.7 I have not identified any evidence that supports this statement in the documents disclosed to me.
- 8.6.8 I have found no evidence from any of the CDM 2007 duty holders (all roles being filled by KCTMO due to their failure to appoint any other party) that a *health and safety file* was created for the 2011-2013 Flat Entrance Door Replacement works.
- 8.6.9 This is neither for the project as a whole, or specifically for Grenfell Tower.
- 8.6.10 I have also seen no evidence that any such file was "passed" to KCTMO upon completion of the works. Noting they were responsible for preparing one and passing one back to themselves.
- 8.6.11 I conclude this whole arrangement was a breach of the CDM Regulations, presided over by the KCTMO at that time.

9 2012-2016 Primary Refurbishment works

9.1 Summary of works

- 9.1.1 Full details of the 2012-2016 Primary Refurbishment works can be found in Section 4 of my Phase 1 report {BLAS0000004}.

9.2 Applicable version of CDM Regulations

- 9.2.1 The initial HSE F10 *notification of construction project* form {ART00006493}, was signed by Keith Bushell on behalf of Artelia UK Ltd on 30th May 2014. At this time CDM 2007 was in force.
- 9.2.2 I have found four other revisions of the F10, issued after the 30th May 2014, dated 9th June 2014 {ART00004954}, 23rd March 2015 {ART00006529}, 20th July 2015 {ART00004955}, and 10th March 2016 {ART00009368}. I address this further in Section 9.3.40 of this report.
- 9.2.3 On 18th July 2016, Artelia issued a certificate of practical completion for the works at Grenfell Tower {ART00006689}.
- 9.2.4 CDM 2015 came into force on 6th April 2015.
- 9.2.5 CDM 2015 Schedule 4 “*Transitional and saving provisions*” set out separate requirements for the period between 6th April 2015 and 6th October 2015 known as the “*transitional period*” between CDM 2007 and CDM 2015.
- 9.2.6 The 2012-2016 Primary Refurbishment therefore spanned two versions of the CDM Regulations: CDM 2007 and CDM 2015 and spanned the “*transitional period*” between the two sets of Regulations.
- 9.2.7 All these requirements therefore applied to the Primary Refurbishment work.

9.3 Appointed CDM duty holders

9.3.1 CDM co-ordinator

- 9.3.2 The initial HSE F10 *notification of construction project* form {ART00006493} which was issued by Artelia to the HSE confirms that Artelia UK were the appointed *CDM co-ordinator* under CDM 2007 for the 2012-2016 Primary Refurbishment works.
- 9.3.3 Simon Cash (Artelia) states in his witness statement to the Inquiry at paragraph 6 {ART00006544}:
- “AUK was appointed to provide services on the Project by the Royal Borough of Kensington and Chelsea Tenant Management Organisation (the “TMO”), who was AUK’s client. Although countersigned appointment documents were only received by AUK from the TMO in July 2014 (SC/I [I]), as explained in paragraph 43 below, AUK’s proposal to provide services as EA, QS and

CDM-C was sent to the TMO on 2 May 2012 and formally confirmed by the TMO on 21 August 2012.”

9.3.4 This is confirmed by the Artelia contract with KCTMO dated 23rd June 2014 {ART00005742}.

9.3.5 Page 23 of Artelia’s contract {ART00005742} states:

The image shows a form titled 'Services' with instructions and a list of services to be selected. The instructions state: 'Tick as appropriate to indicate which type(s) of services are to be performed by the Consultant. Those Services that have been ticked should be attached to this Appointment. Within the attached schedule(s) of services, a tick should be placed in the box adjacent to those particular services that are to be Basic Services. Please specify, if applicable.'

The list of services includes:

- ☐ RICS-BUILDING-SURVEYOR-SERVICES
 - ☐ Construction
 - ☐ Building-and-Measured-Surveys
 - ☐ Asset-Management
 - ☐ Insurance
 - ☐ Feasibility
 - ☐ Property
 - ☐ Landlord-and-Tenant
 - ☐ Miscellaneous
- ☒ RICS CDM CO-ORDINATOR SERVICES
- ☒ RICS EMPLOYER'S AGENT SERVICES
- ☐ RICS-PROJECT-MANAGER-SERVICES
- ☐ RICS-PROJECT-MONITOR-SERVICES
- ☒ RICS QUANTITY SURVEYOR SERVICES
- ☐ OTHER

Figure 9.1 Excerpt from Page 23 of Artelia’s contract {ART00005742}

9.3.6 The CDM co-ordinator services are contained within Artelia’s contract (page 61-63 of {ART00005742}), which is the RICS contract type for CDM co-ordinator as confirmed by Artelia in paragraph 4.1.4 of their opening submissions for Modules 1 - 3 of Phase 2 {ART00009376}. I have reproduced this below:

“1) Submit statutory notification to the HSE / enforcing authority (F10) including details of known designers

2) Advise and assist the Client in understanding their duties and what is expected of them on the project

3) Advise and assist the Client in appointment of competent Designers and Contractors

4) Advise and assist the Client in ensuring that the project team understand their duties and what is expected of them on the project

5) Advise and assist the Client in making sure that there are suitable management arrangements throughout the project

6) Seek the cooperation of and cooperate with other duty holders involved in the project so far as necessary to enable them all to perform their duties under the regulations. [Regulation 5].

7) Give suitable and sufficient advice and assistance to the client on the following measures:

a) taking reasonable steps to ensure that the arrangements for managing the project are suitable to ensure that:

i) the construction work can be carried out so far as is reasonably practicable without risk to the health and safety of any person;

ii) the requirements of schedule 2 of the Regulations (welfare) are complied with; and

iii) any structure designed for use as a workplace has been designed to take account of the provisions of the Workplace (Health, Safety and Welfare) Regulations 1992 which relate to the design of, and materials used in, the structure; [Regulation 20(1)(a)].

b) taking reasonable steps to ensure that these arrangements are maintained and reviewed throughout the project; [Regulation 20(1)(b)].

c) advising the Client on what pre-construction information is required; [Regulation 20(1)(a)].

d) ensuring that the construction phase does not start unless the principal contractor has prepared an adequate construction phase plan and that appropriate welfare will be provided during the construction phase; [Regulation 20(1)(a)].

e) providing health and safety information for the health and safety file. [Regulation 20(1)(a)].

8) Ensure that suitable arrangements are made and implemented for the coordination of health and safety measures during planning and preparation for the construction phase, including facilitating:

a) cooperation and coordination between duty holders on the project; [Regulation 20(1)(b)(i)].

b) the application of the general principles of prevention and in particular:

i) avoiding risks;

ii) evaluating the risks which cannot be avoided;

iii) combating the risks at source;

iv) developing a coherent overall prevention policy;

v) giving collective protective measures priority over individual protective measures; [Regulation 20(1)(b)(ii) and Appendix 7 of ACOP].

9) Take all reasonable steps to identify and collect the pre-construction information and distribute the relevant parts of it promptly in a convenient

form to every designer and every contractor who may be or has been appointed by the client. [Regulation 20(2)(a) and (b)].

10) Liaise with the principal contractor on:

a) the information which the principal contractor needs to prepare the construction phase plan;

b) any design development which may affect planning and management of the construction work; and

c) the contents of the Health and Safety file. [Regulation 20(1)(c)].

11) Co-ordinate health and safety aspects of design work and co-operate with others involved in the project. [Regulation 20(2)(c)].

12) Take all reasonable steps to ensure cooperation between designers and the principal contractor during the construction phase in relation to any design or change to a design. [Regulation 20(2)(d)].

13) Prepare where none exists or otherwise review and update the health and safety file incorporating relevant information from other duty holders. [Regulation 20(2)(e)].

14) Deliver TWO copies of the health and safety file to the Client. [Regulation 20(2)(f)].

15) Obtain the client's approval to the terms of the notice to be given to the Health and Safety Executive in accordance with Regulation 21 and ensure that such notice is given to the HSE."

9.3.7 I do not know if Clauses 16-19 that follow, under the title "Additional related services where applicable" were incorporated in Artelia UK's scope of work. But I note this makes no difference to the final conclusions I provide in my report, which is focused on fire safety issues only.

9.3.8 Principal designer

9.3.9 As a *CDM Co-ordinator* was appointed for the 2012-2016 Primary Refurbishment works, during the "*transitional period*" between CDM 2007 and CDM 2015, the requirements of Schedule 4 paragraph 4 of CDM 2015 then applied. This sets out how the duties of the *CDM co-ordinator* are transferred to either the *client* or the *principal designer*.

9.3.10 The project was not complete by 6th October 2015. Therefore, the *client* was required to appoint a *principal designer* for the project under Schedule 4 paragraph 4(3) of CDM 2015, for the period 6th October 2015 to the end of the Primary Refurbishment works.

9.3.11 The need for a *principal designer*, was first raised internally within Artelia on 2nd of February 2015 in an email from Keith Bushell (Artelia) to Nick Valente (Artelia) and Philip Booth (Artelia) with the subject "*Grenfell Tower CDM Report*".

- 9.3.12** In this email {ART00009283} Mr Bushell states that:
- “As the project will not get PC before October 6th KCTMO will have to appoint a Principal designer to take over the CDM role as the new CDM 2015 regulations (6/4/15). This is due to the transitional period between 6/4/15 to 6/10/15. I can discuss this further if required”.*
- 9.3.13** I set out the arrangements made by Artelia, for both the transitional period, and the transfer out of the transitional period, in Sections 9.8, and 9.10 of this report.
- 9.3.14** However, emails between KCTMO, Rydon, and Artelia between 25th September 2015 and 7th October 2015 ({ART00006174}, {ART00006195}, {ART00006257}, {ART00006359}) state that Rydon, Artelia and Studio E all declined to accept the new role as *principal designer* under CDM 2015.
- 9.3.15** I note for completeness that JRP ({ART00009342} and {ART00009336}) and Bailey Garner ({ART00006195} and paragraph 15 of {TMO00853697}) were also approached at this time for *principal designer* services. But they were not appointed to this new role.
- 9.3.16** It should be noted that Paragraph 6(3) of Schedule 4 of the CDM 2015 Regulations states:
- “(3) If a client fails to make the appointment required by paragraph 4(3) the client must fulfil the duties of a principal designer in regulations 11 and 12 on and after 6th October 2015.”*
- 9.3.17** Therefore, unless KCTMO appointed a *principal designer*, immediately from 6th October 2015 they would assume the role and would therefore be responsible for updating and maintaining the *health and safety file* under CDM 2015.
- 9.3.18** The matter was still not resolved when the 6th October 2015 deadline had passed. I deal with this in more detail in Section 9.10 of this Expert Report.
- 9.3.19** In fact, the evidence shows the matter was only resolved by mid-November 2015.
- 9.3.20** On 1st October 2015 Claire Williams (KCTMO) emailed Neil Reed (Artelia) stating her “*top issues*” {ART00009343}; one of these was:
- “5 CDM Regulations change: As long as the project team agree the Design is fundamentally complete then we believe the provisions within the legislation allow KCTMO to request the Principal Contractor to compile the H&S File and issue direct without the formal appointment of a Principal Designer. Can we get this put into the meeting next week – and check that the team agree the design is ‘fundamentally complete’, and get this minuted?”*
- 9.3.21** At this time Claire Williams’ (KCTMO) understanding of the CDM Regulations 2015 was that Rydon could be requested to compile the *health and safety file* as the design was “*fundamentally complete*”.

- 9.3.22** In the minutes for Progress Meeting 17 on 17th November 2015 {ART00006185}, it was noted that:
- “it was agreed that Rydon are not the PD (Principal Designer) under the CDM Regulations 2015. The TMO as the client are to undertake this role. It was further agreed that Rydon would be responsible for collating and presenting the H&S File information in accordance with the Employer’ Requirements and the PCI and present to the TMO as PD.”*
- 9.3.23** I note that Regulation 12 of CDM 2015 states:
- “(8) If the principal designer’s appointment concludes before the end of the project, the principal designer must pass the health and safety file to the principal contractor.*
- (9) Where the health and safety file is passed to the principal contractor under paragraph (8), the principal contractor must ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.*
- (10) At the end of the project, the principal designer, or where there is no principal designer the principal contractor, must pass the health and safety file to the client.”*
- 9.3.24** I do not know if KCTMO considered Regulation 12 when considering the options available to them, nor do I have any record as to what advice regarding Regulation 12 Artelia may have provided to the KCTMO.
- 9.3.25** The evidence demonstrates to me that the KCTMO accepted the role as *principal designer*, based on their interpretation of the legislation, and then appear to have relied on Rydon to collate the information required for the *health and safety file*, by means of contractual obligations.
- 9.3.26** It is outside my realm of expertise to provide an opinion on whether this was an appropriate arrangement under the CDM 2015 Regulations.
- 9.3.27** I have however referred to the fire safety information provided by Rydon, in my own investigations regarding the final *health and safety file* for Grenfell Tower required at the end of the Primary Refurbishment works.
- 9.3.28** I consider KCTMO to be responsible for assuring themselves of the quality and relevance of that information, in their role as *Principal Designer*.
- 9.3.29** **Client and principal contractor**
- 9.3.30** The first HSE F10 form for the project is dated 30th May 2014 {ART00006493}. It confirms that the KCTMO were the appointed *client*; and Rydon were the *principal contractor* for the project.
- 9.3.31** In the context of KCTMO taking on the additional role of *principal designer* in October 2015, from then, the KCTMO still retained their duties as a client.
- 9.3.32** Regulation 4 (5) and 4(6) of CDM 2015 states:

“(5) *A client must ensure that—*

...

(b) the principal designer prepares a health and safety file for the project, which—

(i) complies with the requirements of regulation 12(5);

(ii) is revised from time to time as appropriate to incorporate any relevant new information; and

(iii) is kept available for inspection by any person who may need it to comply with any relevant legal requirements.

(6) A client must take reasonable steps to ensure that—

(a) the principal designer complies with any other principal designer duties in regulations 11 and 12; and

(b) the principal contractor complies with any other principal contractor duties in regulations 12 to 14.”

9.3.33 As a client KCTMO were therefore responsible for taking reasonable steps to ensure that the *principal contractor* and *principal designer* complied with their CDM duties after the transition to CDM 2015.

9.3.34 I explain the condition of the fire safety information in the version of the *health and safety file*, as was required to be handed over at the end of the transition period by the *CDM Co-Ordinator* (Artelia) to the *principal designer* (KCTMO) – see Section 9.9 of this report. This is my opinion based on the requirements of Schedule 4 *Transitional and saving provisions* Paragraph 5(1)(L).

9.3.35 I consider Artelia to be responsible for that information, in their role as CDM Co-ordinator at that stage.

9.3.36 As stated in paragraph 261 of the CDM 2007 ACOP

“The client should make sure that the CDM co-ordinator compiles the file.”

9.3.37 KCTMO were therefore also responsible for ensuring that Artelia compiled the *health and safety file* at that stage.

9.3.38 The KCTMO were therefore first *client*; and then from October 2015 *client* and the *principal designer*. At the time of the transition they were therefore responsible for the handover of the *health and safety file* as it reflected the completed construction work in October 2015, from Artelia to themselves.

9.3.39 **Summary of the duty holders on the Primary Refurbishment project**

9.3.40 I have identified a total of six F10 forms for the 2012-2016 Primary Refurbishment works.

9.3.41

I have summarised the duty holders, in the six Tables that follow, for the 2012-2016 Primary Refurbishment works under each of the CDM 2007, the transitional arrangements of CDM 2015, and CDM 2015 [Table 9.1 to Table 9.6 inclusive].

Table 9.1 CDM 2007 duty holders in relation to the 2012-2016 Primary Refurbishment works per the 30th May 2014 F10 {ART00006493}

CDM 2007 duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00006493}
<i>Client</i>	The Royal Borough of Kensington and Chelsea ... Tenant Management Organisation TMO
<i>CDM co-ordinator</i>	Artelia UK
<i>Principal contractor</i>	Rydon Maintenance Ltd
Notes: The F10 was signed by Keith Bushell on the 30 th May 2014 The Start date of the works was stated to be 2 nd June 2014 The duration of the works was stated as 62 weeks (up to 10 th August 2015)	

Table 9.2 CDM 2007 duty holders in relation to the 2012-2016 Primary Refurbishment works per the 9th June 2014 F10 {ART00004954}

CDM 2007 duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00004954}
<i>Client</i>	The Royal Borough of Kensington and Chelsea ... Tenant Management Organisation TMO
<i>CDM co-ordinator</i>	Artelia UK
<i>Principal contractor</i>	Rydon Maintenance Ltd
Notes: The F10 was signed by Keith Bushell on the 9 th June 2014 The Start date of the works was stated to be 2 nd June 2014 The duration of the works was stated as 62 weeks (up to 10 th August 2015)	

Table 9.3 CDM 2007 duty holders in relation to the 2012-2016 Primary Refurbishment works per the 23rd March 2015 F10 {ART00006529}

CDM 2007 duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00006529}
<i>Client</i>	The Royal Borough of Kensington and Chelsea ... Tenant Management Organisation TMO
<i>CDM co-ordinator</i>	Artelia UK
<i>Principal contractor</i>	Rydon Maintenance Ltd
Notes: The F10 was signed by Keith Bushell on the 23 rd March 2015 The Start date of the works was stated to be 2 nd June 2014 The duration of the works was stated as 73 weeks (up to 26 th October 2015)	

Table 9.4 CDM 2015 transitional period duty holders in relation to the 2012-2016 Primary Refurbishment works per the 20th July 2015 F10 {ART00004955}

CDM 2015 transition period duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00004955}
<i>Client</i>	The Royal Borough of Kensington and Chelsea ... Tenant Management Organisation TMO
<i>Principal designer/ CDM coordinator*</i>	Artelia UK Ltd
<i>Principal contractor</i>	Rydon Maintenance Ltd
<p>Notes:</p> <p>The F10 was signed by Colin James on the 20th July 2015</p> <p>The Start date of the works was stated to be 2nd June 2014</p> <p>The duration of the works was stated as 73 weeks (up to 26th October 2015)</p> <p>* Within this F10 form Artelia UK Ltd is noted as the “Principal Designer” and the “CDM co-ordinator” in two separate locations.</p> <p>I note Artelia UK Ltd were the CDM co-ordinator, not the principal designer. I set out the circumstances around this in full in Section 9.8.19.</p>	

Table 9.5 CDM 2015 duty holders in relation to the 2012-2016 Primary Refurbishment works per the 28th October 2015 F10 {ART00005027}

CDM 2015 duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00005027}
<i>Client</i>	The Royal Borough of Kensington and Chelsea ... Tenant Management Organisation TMO
<i>Principal designer*</i>	Artelia UK Ltd
<i>Principal contractor</i>	Rydon Maintenance Ltd
<p>Notes:</p> <p>The F10 was signed by Paul Burrows on the 28th October 2015</p> <p>The Start date of the works was stated to be 2nd June 2014</p> <p>The duration of the works was stated as 96 weeks (up to 4th April 2016)</p> <p>* Within this F10 form Artelia UK Ltd is noted as the “Principal Designer” though they were not operating in that role.</p> <p>I set out the circumstances around this in full in Section 9.8.19</p>	

Table 9.6: CDM 2015 duty holders in relation to the 2012-2016 Primary Refurbishment works per the 10th March 2016 F10 {ART00009368}

CDM 2015 duty holder position	2012-2016 Primary Refurbishment works appointed duty holder {ART00009368}
<i>Client</i>	KCTMO
<i>Principal designer</i>	KCTMO
<i>Principal contractor</i>	Rydon Maintenance Ltd
<p>Notes:</p> <p>The F10 was signed by David Hughes (Rydon) “<i>acting of [sic] behalf of the Client/Principal Designer</i>” on the 10th March 2016</p> <p>The Start date of the works was stated to be 2nd April 2014 – Note previous F10 forms stated 2nd June 2014.</p> <p>The duration of the works was stated as 104 weeks (up to 30th March 2016)</p> <p>The practical completion certificate was issued on 18th July 2016 therefore no F10 form appears to have been in place for the last 110 days of construction work of the project</p>	

9.3.42 Under CDM 2007, *designers* and *contractors* (via the *principal contractor*) are required to provide the *CDM co-ordinator* with information to be included in the *health and safety file*.

9.3.43 Under CDM 2015, *designers* and the *principal contractor* are required to provide the *principal designer* with information to be included in the *health and safety file*.

9.4 Was a *health and safety file* required?

9.4.1 The first HSE *F10 notification of construction project form* {ART00006493}, was signed by Artelia on 30th May 2014. On 18th July 2016, Artelia issued a certificate of practical completion for the works at Grenfell Tower {ART00006689}.

9.4.2 Under CDM 2007 the project exceeded 30 days and therefore was *notifiable* under Regulation 2(3).

9.4.3 As the project was *notifiable*, Artelia as *CDM co-ordinator* was required to “*prepare, where none exists, and otherwise review and update a record (“the health and safety file”)*” to comply with Regulation 22(2)(e) of CDM 2007.

9.4.4 During the transition between CDM 2007 and CDM 2015, Artelia as *CDM coordinator* then had to pass the *health and safety file* to KCTMO as *principal designer* to comply with Schedule 4 of CDM 2015. This is discussed further in Section 9.8.

9.5 Evidence of *pre-construction Information*

9.5.1 The information required

9.5.2 CDM 2007 Regulation 17(3) states:

“The client shall take reasonable steps to ensure that after the construction phase the information in the health and safety file—

(a) is kept available for inspection by any person who may need it to comply with the relevant statutory provisions; and

(b) is revised as often as may be appropriate to incorporate any relevant new information”

9.5.3 As I have set out in Section 8, the 2011-2013 flat front entrance door works were notifiable and therefore a *health and safety file* was required.

9.5.4 To comply with Regulation 17(3) of CDM 2007, KCTMO were therefore required to have in their possession, a *health and safety file* “*kept available for inspection by any person who may need it to comply with the relevant statutory provisions*”.

9.5.5 As I have explained in Section 8.6, I have found no evidence of an up to date *health and safety file* for Grenfell Tower at the end of those works.

9.5.6 At the start of the Primary Refurbishment works, in order to comply with Regulation 10 (1) and 15 of CDM 2007, KCTMO were required to provide Artelia with the *pre-construction information* in their possession, including any information in any existing *health and safety file* as required by Regulation 10(2)(d).

9.5.7 KCTMO could not provide any information in an existing *health and safety file* which was relevant to the Primary Refurbishment works and which would enable the *principal contractor* to comply with its statutory obligations (see Regulation 17(3) of CDM 2007).

9.5.8 However, KCTMO and Artelia were still required to provide information which the *Principal Contractor* needed to prepare the *construction phase plan*.

9.5.9 To comply with Regulation 20(2) CDM 2007 it was the duty of Artelia as the appointed *CDM co-ordinator* to:

“(a)take all reasonable steps to identify and collect the pre-construction information;

(b)promptly provide in a convenient form to—

(i)every person designing the structure, and

(ii)every contractor who has been or may be appointed by the client (including the principal contractor),”

- 9.5.10** KCTMO and Artelia both therefore had duties to collect the *pre-construction information* for the project.
- 9.5.11** As there was no existing *health and safety file* Artelia's preconstruction information should have provided the following information to "every person designing the structure"; and "every contractor who has been or may be appointed by the client (including the principal contractor)":
- "b) any residual hazards which remain and how they have been dealt with (for example surveys or other information concerning asbestos; contaminated land; water bearing strata; buried services etc);*
- ...
- g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
- h) information and as-built drawings of the structure, its plant and equipment (for example, the means of safe access to and from service voids, fire doors and compartmentalisation etc)."*
- 9.5.12** In the sections below I review the documents provided by Artelia on the following basis.
- 9.5.13** From a fire safety perspective, the *pre-construction information* needed to communicate to the future *principal contractor* that the works were going to be carried out in an existing building which would remain fully occupied throughout the works.
- 9.5.14** In preparing any *construction phase plan*, the *principal contractor*, needed therefore to consider the impact of those works, on the existing fire safety regime, including any fire safety systems.
- 9.5.15** With regard to fire safety in my opinion the relevant information would have included as a minimum:
- a) The latest fire risk assessment for Grenfell Tower setting out any residual hazards which remain and how they were being dealt with;
 - b) The existing building fire strategy explaining the active and passive fire protection measures, their location and condition, and the arrangements made for evacuation and firefighting [note a report produced by Exova had been in circulation since 16th August 2012 {EXO00000784}]; and
 - c) As built fire strategy drawings for the existing building, showing the active and passive fire protection measures.
- 9.5.16** Indeed, this is also acknowledged by Artelia, in their generic text provided at Section 2.15 of Artelia *pre-construction information* document, where they refer to existing building fire strategies, reproduced in Figure 9.8 below.

- 9.5.17 Evidence of *pre-construction information* produced by Artelia**
- 9.5.18** “Part 6” of the Employer’s Requirements, is titled “*Schedule of Contract Information*” ({RYD00000001}, page 264-270) and was produced by Artelia.
- 9.5.19** It lists the information that was issued as part of the original tender package, and those documents added to the tender as part of a later addendum.
- 9.5.20** The tender package was issued before construction began at Grenfell Tower, and therefore I consider the tender package in its entirety to be *pre-construction information*.
- 9.5.21** The tender package included a document by Artelia entitled “*Pre-construction information for the Royal Borough of Kensington and Chelsea Tenant Management Organisation (TMO) Enhancements [sic] and improvements to Grenfell Tower*”_{RYD00092644} (Artelia’s document hereafter).
- 9.5.22** The full list of documents in “*Schedule of Contract Information*” ({RYD00000001}, page 264-270), also included the following documents relevant to fire safety:
- a) *1279 SEA (08) 100 Fire Access* drawing {HAR000000056}
 - b) *1279 SEA (08) 101 Fire Strategy* drawing {HAR000000057}
 - c) *Grenfell Tower – OFSS- Grenfell Tower Outline Fire Safety Strategy by Exova Warrington Fire*; dated 07/11/13 Report
 - d) *FRA Grenfell Tower Nov 2012- Fire Risk assessment by CS Stokes and Associates Ltd*, dated 01/01/2014 drawing
 - e) *S(61)01_200 Dry riser schematic and detail* drawing
 - f) *U(14)01_200 Smoke vent schematic* drawing
- 9.5.23** The two SEA drawings provide some relevant fire safety information that could help the contractor understand the existing building evacuation provision layout, and some of the active and passive systems; particularly if read in conjunction with the November 2012 fire risk assessment document by Carl Stokes.
- 9.5.24** I note that the specific revision and date information is not provided in the schedule of contract information. Both of these drawings were originally issued on 24th October 2013, approximately 1 month before tender issue.
- 9.5.25** Revision 1 of both of these documents are dated as 24th October 2014. Therefore, it appears the original version of these drawings which is the most likely provided as *pre-construction information*.
- 9.5.26** Regarding the other documents provided - the dry riser schematic and smoke vent schematic communicate future proposals rather than set out the existing operational condition of these two systems.

- 9.5.27 I am not attempting to provide a full compliance assessment of any of these documents here.
- 9.5.28 As I have set out in my separate Phase 2 report on the fire engineer, the design fire strategy (MT14652R.Iss 03- Grenfell Tower – OFSS – Grenfell Tower Outline Fire Safety Strategy by Exova Warrington Fire; dated 07/11/13 {EXO00001106}) did not incorporate any information regarding the existing building fire safety condition, despite such a report {EXO00000784}, also being written by Exova.
- 9.5.29 Therefore, I have considered the Artelia *pre-construction information* report, in conjunction with the two SEA drawings and the November 2012 fire risk assessment by Carl Stokes, as being the location of potentially relevant fire safety information during the pre-construction phase.
- 9.5.30 In the sections below I review this technical information to confirm if it provided relevant fire safety information for a *Principal Contractor*, about the existing conditions at Grenfell Tower.
- 9.5.31 **My review of the *pre-construction information* assembled by Artelia**
- 9.5.32 In relation to Artelia’s *pre-construction information* document {RYD00092644}, Simon Cash (Artelia) states in his witness statement {ART00006544}:
- “210. Prior to April 2015, Keith Bushell of AUK had been acting as the CDM-C on the Project for AUK. Examples of him performing that role include:
- ...
- (ii) On 6 November 2013, he prepared Pre-Construction Information for Grenfell Tower (see SC/346) in accordance with the requirements of the CDM Regulations 2007.”
- 9.5.33 The introduction section of {RYD00092644} states:
- “This Pre-Construction Information has been prepared in accordance with the requirements of the Construction (Design and Management) Regulations 2007 (the CDM Regulations). It has been compiled on the basis of the information available about the project at the time of this revision.
- Pre-Construction Stage*
- The purpose of this document is to brief contractors on the significant safety aspects of the project as they are presently understood. It provides information and requirements on:
- Safety considerations affecting the site and its environment;
 - Health and Safety aspects of the associated structures and equipment;
 - Submissions on Health and Safety matters; and

- *The Construction Phase Plan.*”

9.5.34 Artelia’s document {RYD00092644} relies on the same headings as the 2007 ACOP - within each Section of the *pre-construction information* as I have reproduced in Figure 9.3, Figure 9.4 and Figure 9.5.



**Enhancements and improvements to Grenfell Tower
For The Royal Borough of Kensington and Chelsea
Tenant Management Organisation (TMO)**

Date: 25 November 2013
N°: 11833

Artelia UK
Tubs Hill House
London Road, Sevenoaks
Kent TN13 1BL

Figure 9.2: Front cover of the “*Pre-Construction Information For The Royal Borough Of Kensington And Chelsea Tenant Management organisation (TMO) Enhancements [sic] And Improvements To Grenfell Tower*” {RYD00092644}



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Figure 9.5: Table of contents (continued) of the “*Pre-Construction Information For The Royal Borough Of Kensington And Chelsea Tenant Management organisation (TMO) Enhancements And Improvements To Grenfell Tower*” {RYD00092644}

- 9.5.36** Artelia’s *pre-construction information* document {RYD00092644} contains a section titled “*The Health and Safety file*” at Section 6. It appears to be a contents page, rather than *the Health and Safety file* itself, for example it states “*Should Include*” under the Heading 6.3 *The Basic Content of the File*, within Section 6 *The Health and Safety file* portion of the document.
- 9.5.37** Section 3.14 of Artelia’s *pre-construction information* document {RYD00092644} states:
- “*A Health and Safety File as defined by the Regulations is not available for this building*”.
- 9.5.38** Artelia’s *pre-construction information* document provides fire safety information in three places {RYD00092644}.

9.5.39 First in Section 2.4:

2.4 Site Access and Egress

Refer to the tender documents preliminaries section and conditions imposed by the Planning Approval Notice.

Refer to the following:

Phasing Plan: Studio E Drawing – Proposed Phasing Plan 1279(00)1003 dated 4/10/13. See Appendix 1.

Access to and from the site is from Grenfell Road.

The Principal Contractor must ensure that the parking or unloading and loading of vehicles should not restrict access or obstruct thoroughfares at any time.

Unloading operations shall only be undertaken within the site boundaries.

At no point must the identified emergency access for the fire and rescue services to the site, or surrounding area, be blocked by contractor's vehicles or works.

Figure 9.6: Section 2.4 of Artelia pre-construction information {RYD00092644}

9.5.40 Then, at Section 2.14:

2.14 Fire Precautions

The Principal Contractor shall provide all necessary fire fighting/ fire protection arrangements for the type of work being undertaken and shall not rely on any fire fighting/ fire protection arrangements provided for the normal operation of the building/ area.

The Principal Contractor shall not remove or displace any of the fire fighting/ fire protection arrangements provided for the normal operation of the building/ area without first agreeing and arranging the implementation of adequate alternative arrangements.

The Principal Contractor is required to comply with the "Joint Code of Practice on the Protection from Fire of Construction Sites and Buildings Undergoing Renovation" (the Fire Code) and accordingly produce a Fire Safety Plan for this project which will be amended to suit the progress of works.

A Fire Safety Plan must be drawn up and agreed with the CDM Coordinator so that in the event of an emergency all parties are made aware. Fire routes and exits will be inspected as part of the safety regime to ensure that they are maintained in a safe manner. It is important that a robust strategy is formed between the Principal Contractor and Client's Representative where existing

buildings and shared sites have a relevant influence on fire strategies, so that all parties react to fire emergencies.

The Fire Safety Plan will be compliant with the provisions for the existing building and must require the implementation of appropriate 'Permit to Work' measures.

Figure 9.7: Section 2.14 of Artelia pre-construction information {RYD00092644}

9.5.41 And finally, at Section 2.15:

2.15 Emergency Procedures and Means of Escape

Refer to the following for details of means of escape:

Location Plan;
Site Area Access Plan;
Phasing Plan;
Other; and
Existing emergency procedures and fire plan.

Keep existing routes clear at all times.

The Principal Contractor must produce an Emergency Plan and procedures for all hazardous activities which will be amended to suit the progress of works.

Figure 9.8: Section 2.15 of Artelia pre-construction information {RYD00092644}

9.5.42 I have reviewed the full list of drawings provided in Part 6 (Table 9.7). And I consider the drawings referred to in Table 9-7 below, as most likely to be the location plan, site area access plan and phasing plan.

9.5.43 I note too that the November 2012 risk assessment {TMO00831859} contains a section “*The evacuation strategy for this building;*” and additionally a “*fire strategy*” drawing was provided according to Part 6 also.

9.5.44 Artelia’s *pre-construction information* document {RYD00092644} therefore sets out information for the contractor with respect to fire safety and refers to specific fire safety drawings and fire safety information within the tender package.

9.5.45 In Table 9.7 I explain which of the provided drawings and information are most relevant to those referred to from the three relevant sections of Artelia’s *pre-construction information* document.

Table 9.7: Information relating to fire safety provided on drawings referenced by Artelia's document

PCI section	Reference provided in Artelia's document {RYD00092644}	Was the relevant drawing/document provided in the pre-construction information?	Does the document relay the relevant fire safety information?
2.4	<i>Proposed Phasing Plan 1279(00)1003 dated 4/10/13</i>	Yes (noting that the drawing in the tender pack was numbered 1279(00)100 Rev.3 {HAR00000003})	Yes. An emergency vehicle access route is marked on this drawing.
2.14	N/A	While Section 2.14 of Artelia's document does not provide specific references, the <i>pre-construction information</i> did include the most recent fire risk assessment for Grenfell Tower and fire strategy drawings for the proposed scheme.	Yes. Many principles of the fire strategy for the building are provided in the fire risk assessment provided. However, I note that the <i>pre construction information</i> does not include the Exova existing building fire strategy dated 16th august 2012 {EXO00000784}
2.15	Location plan	No drawing of this name was included in the <i>schedule of contract information</i> {RYD00000001} However, the position of Grenfell Tower with respect to the immediately surrounding buildings is shown on the Existing Site Plan {HAR00000001} and the Phasing Plan {HAR00000003} (see below).	See below.
	Site Area Access Plan	No drawings with this name were included in the <i>Schedule of Contract Information</i> {RYD00000001}. However, the drawing 1279 SEA (00) 011 – <i>Existing Site Plan</i> {HAR00000001} was provided in the tender pack by Studio E. Access around Grenfell Tower is also indicated on the Phasing Plan (see below) and the Fire Access Plan {HAR00000056}	Escape routes are not shown on the Existing Site Plan 1279 SEA (00) 011 {HAR00000001} Escape routes proposed for use during construction phase are shown on the Phasing Plan (see below). Final exit routes from Grenfell Tower at Ground Floor are shown in the Fire Access Plan {HAR00000056}
	Phasing Plan	Yes. Drawing 1279 (00) 100 Phasing Plan Rev03 was provided {HAR00000003}	Yes. The Phasing Plan identifies the pedestrian escape route from the single stair at Walkway level (Level 2)
	Other	N/A	N/A

PCI section	Reference provided in Artelia's document {RYD00092644}	Was the relevant drawing/document provided in the pre-construction information?	Does the document relay the relevant fire safety information?
	Existing emergency procedures and fire plan	Yes. The 2012 fire risk assessment, plus the Fire strategy {HAR00000057} and Fire access plan {HAR00000056} drawings were included in the tender pack.	As I have set out above, the combination of the 2012 fire risk assessment and the fire strategy drawings provide some information to understand the key principles of the existing emergency procedures.

9.5.46 My opinion on the content of the *pre-construction information* provided by Artelia

9.5.47 By reference to Section 9.5.13, I conclude:

- a) Sections 4.1 and 4.2 of Artelia's document {RYD00092644} and Section A12 paragraph 220 of the Contract Preliminaries (p95 of {RYD00000001}) communicate to Rydon (the *principal contractor*) that the works were going to be carried out in an existing building which would remain fully occupied throughout the works.
- b) The latest fire risk assessment for Grenfell Tower was provided {TMO00831859} that sets out in part the active and passive fire protection measures, and some of the fire hazards in the building.
- c) A specific existing building fire strategy explaining the active and passive fire protection measures, their location and condition, and the arrangements made for evacuation and firefighting was not provided.
- d) I note that a report produced by Exova was issued 16th August 2012 {EXO00000784}, but this was not included in the tender package.
- e) Two Fire strategy drawings for the existing building, with some additional new proposals also marked on them, were provided.
- f) Other drawings in the tender package indicated the emergency vehicle access route and means of escape for residents (*Proposed Phasing Plan* 1279(00)100 rev3 dated 4/10/13, {HAR00000003}).
- g) Therefore, whilst an overview of some active and passive fire protection measures (such as compartmentation, lift override switch, dry riser inlet and lobby smoke control system) was provided in the fire risk assessment report, the locations of all these measures were not provided on a set of comprehensive drawings.

9.5.48 However, if one considers the PCI document from Artelia {RYD00092644} together with all the other information in the tender package, it is my opinion that the *principal contractor* could understand the key principles of fire safety in Grenfell Tower, and therefore commence the preparation of outline plans for the management of fire safety during the construction phase.

- 9.5.49** In my opinion there were some substantial omissions from the *pre-construction information*, particularly the omission of the existing building fire safety strategy.
- 9.5.50** Therefore, matters such as the smoke ventilation system in the common lobby not being fully operational and without a suitable mitigation measure in place at that time, were not communicated to Rydon.
- 9.5.51** However, these omissions are not substantially relevant to my analysis in this particular Phase 2 report and will be dealt with elsewhere.
- 9.5.52** **F 10 notification communicated in the pre-construction information**
- 9.5.53** In Section 1.5 of the Artelia *pre-construction information* document {RYD00092644} it states that “*An F10 Notification has been sent to HSE*”.
- 9.5.54** I have found no F10 form, from that time period. In fact, I note that Simon Lawrence of Rydon requested the F10 via email from Keith Bushell {ART00004963} on 23rd May 2014.
- 9.5.55** I have found the F10 form for the 2012-2016 Primary Refurbishment works {ART00006493} which states that “*This is an Initial Notification*” and was signed by Keith Bushell on “30/05/2014”, some 6 months after the *pre-construction information*, but only 7 days following the request from Mr Lawrence.
- 9.5.56** I do not know why the *pre-construction information* states “*An F10 Notification has been sent to HSE*”.
- 9.6** **Artelia’s proforma *health and safety file* document**
- 9.6.1** Much later in the project, on 12th February 2015, Keith Bushell (Artelia) {ART00003575} issued an empty proforma *health and safety file* {ART00006293} to Ms Williams (KCTMO).
- 9.6.2** In the email Mr Bushell states {ART00003575}:

“*I have attached the Artelia H&S File proforma for your information.*

I have also marked (in yellow) the elements on your list that would be covered in the H&S File. The others would be a Council requirement that would need to be compiled separately.

The other information would be available from the contractor/design team or O&M manuals”
- 9.6.3** I have compared this proforma with the Artelia *health and safety file* document produced for the *pre-construction information* issued for the Primary Refurbishment works at Grenfell Tower {RYD00092644}, specifically with the contents provided at:

Section 6 The health and safety file

Section 6.3 The Basic Content of the File.

9.6.4 While some titles have been changed and sections moved around, I have found no material difference between the two.

Table 9.8: Comparison of the contents of the Artelia proforma *pre-construction* information {RYD00092644} and the Artelia proforma *health and safety file* {ART00006293}.

Section 6.3 of the Artelia proforma pre-construction information.	Corresponding sections of the Artelia proforma health and safety file
Section 1.00 General Information	1.0 General Information
1.1 Important notice	1.1 Important Notice
1.1.1 Statutory Requirements	1.1.1 Statutory Requirements
1.1.2 Purpose of the Health and Safety File	1.1.2 Purpose of the Health and Safety File
1.2 File Maintenance	1.2 File Maintenance
1.2.1 Keeping and Maintaining the File	1.2.1 Keeping and Maintaining the File
1.2.2 Amendments to the File	1.2.2 Amendments to the File
Section 2.00 Project Particulars	2.0 Project Particulars
2.1 Brief Description of Project	2.1 Brief Description of the Project
2.2 Address of the Project	2.2 Address of the Project
2.3 Nature of the Project	No corresponding section
2.4 Project Dates	2.3 Project Dates
2.5 Project Directory	2.4 Project Directory
Section 3.00 Design (Description of the Works)	3.0 Design Criteria
3.1 Lead Designer - concept	3.1 Lead Designer
3.2 Architectural	3.2 Architectural
3.3 Structural	3.3 Structural
3.4 Building Services	3.4 Building Services
3.5 Key Design Principles	3.5 Design Solution Statements
3.5.1 Access statement	3.5.1 Access Strategy Statements (e.g. pedestrians, vehicles, emergency, access to plant and equipment, work at height, confined spaces etc.)
3.5.2 Special arrangements for lifting (cladding panels)	3.3.3 Special arrangements made for lifting, etc. (note – this is within 3.3 Structural) 3.4.2 Detail bespoke/ special arrangements made for repairs and maintenance, lifting and replacement of plant or equipment installed (note – this is within 3.4 building services).
3.5.3 Safe access to plant and equipment	See 3.5.1 above
3.5.4 Firefighting services and integrity of structure	3.5.2 Firefighting strategy including details of installed services and measures taken to protect the integrity of structure

Section 6.3 of the Artelia proforma pre-construction information.	Corresponding sections of the Artelia proforma <i>health and safety file</i>
Section 4.00 Records	No corresponding section
4.1 Surveys and Investigation Reports	5.8 Surveys and Investigation Reports
4.2 Planning and Building Regulations Approval Documents	5.9 Planning and Building Regulation Approval Documents
4.3 Schedule of Record Information	No corresponding section
4.4 Record Drawings	Appendix 3 – As Built Drawings
Section 5.00 Residual Hazards and Risks	Section 4.0 Residual Hazards and Risks
5.1 Residual Hazards	4.1 Residual Hazards
5.2 Residual Hazardous Materials (Update Asbestos register in conjunction with client)	4.2 Residual Hazardous Materials
Section 6.00 Maintenance and General Details	5.0 Maintenance & General Details
6.1 Contractors Operation and Maintenance Manuals Contents.	Appendix 1 – Building (O&M) Manual Contents and Manufacturers Literature
6.2 Environment and disposal of waste materials and products.	5.4 Environment and Disposal of Waste Materials and Products
6.2.1 Waste Disposal Legislation.	5.4.2 Waste Disposal Legislation
6.2.2 Waste Disposal Certificates.	No corresponding section
6.2.3 Clearance Certificates.	No corresponding section
6.3 Future Demolition or Dismantling.	5.5 Future demolition or dismantling
6.3.1 Special requirements.	No corresponding section
6.4 Maintenance Strategy.	5.1 Cleaning and Maintenance Strategy / Statement
6.4.1 Special requirements.	5.3 Cleaning and Maintenance Provisions – Special Requirements
6.5 Cleaning Strategy.	5.1 Cleaning and Maintenance Strategy / Statement
6.5.1 Special requirements.	5.3 Cleaning and Maintenance Provisions – Special Requirements
6.6 Plant Replacement Strategy.	3.4.2 Detail bespoke/ special arrangements made for repairs and maintenance, lifting and replacement of plant or equipment installed. (note this is within section 3.4 Building Services)
6.6.1 Special requirements.	No corresponding section
6.7 Fire Strategy.	No corresponding section
6.8 Commissioning reports and test certificates.	5.6 Commissioning reports and test certificates

9.7 Evidence of Artelia discharging *CDM co-ordinator* duties: up to 6th April 2015

9.7.1 In this Section I review evidence relevant to how Artelia discharged their duties as *CDM co-ordinator* under the CDM 2007 Regulations, up to 6th April 2015.

9.7.2 After 6th of April 2015, the *transitional and savings provisions*, detailed within Schedule 4 of CDM 2015 were applicable, and I address this time period in Section 9.8

9.7.3 Evidence of Artelia producing a *health and safety file* for Grenfell Tower

9.7.4 At the beginning of the 2012-2016 Primary Refurbishment works, *pre-construction information* prepared by Artelia states at Section 3.14 that there is no existing *health and safety file* for Grenfell Tower {RYD00092644}.

9.7.5 KCTMO should have had a *health and safety file* available for Grenfell Tower before the start of the Primary Refurbishment that had been “*revised as often as may be appropriate to incorporate any relevant new information*” to comply with Regulation 17(3) of CDM 2007.

9.7.6 As I have set out in Section 8.6 by the end of the flat front entrance door replacement works they had no such file.

9.7.7 When one considers Regulation 20 (2) (e) regarding the general duties of the *CDM Co-ordinator* this Regulation acknowledges the situation when no *health and safety file* exists but places the duty to prepare the file with the *CDM Co-ordinator*, relevant to the new project works:

“(e) prepare, where none exists, and otherwise review and update a record (“the *health and safety file*”) containing information relating to the project which is likely to be needed during any subsequent construction work to ensure the health and safety of any person, including the information provided in pursuance of regulations 17(1), 18(2) and 22(1)(j); and

(f) at the end of the construction phase, pass the *health and safety file* to the client.”

9.7.8 It is my opinion for an existing building, the Regulation does not make clear if the *CDM Co-ordinator* is required to prepare the *health and safety file*, before the contractor is appointed, i.e. as part of pre-construction information duties.

9.7.9 It is clear the *CDM co-ordinator* must prepare, review and update the *health and safety file* throughout construction phase, such that a file containing information relating to the project which is likely to be needed during any subsequent construction work is available.

9.7.10 It is the final revision of that file that the *CDM co-ordinator* must pass to the client at the end of the construction phase

- 9.7.11 Once work progressed, it was Artelia's duty as *CDM co-ordinator* to create a *health and safety file* to comply with CDM 2007 as Regulation 20(2)(e) requires.
- 9.7.12 Artelia as *CDM co-ordinator* therefore should have been provided with any existing health and safety information about Grenfell Tower, from the *client* through their activity in preparing the *pre-construction information*.
- 9.7.13 Thereafter, Artelia had a duty to continue to collate additional information for inclusion in the *health and safety file* - from the *designers* and the *principal contractor* - from the date Artelia were appointed and through the *design* and *construction phase* of the project.
- 9.7.14 This continuing role is as described in the ACOP for CDM 2007 L144 (bold emphasis added by me):
- "79 As soon as a CDM co-ordinator is appointed, clients should discuss and agree a suitable, user-friendly format for the file and what type of information it should contain. At the end of the construction phase, normally at practical completion, the file must be finalised and given to the client by the CDM co-ordinator. In some cases, for example where there is partial occupation or phased handover of a project it may be needed earlier to inform other work. For this to happen, CDM co-ordinators need to make appropriate arrangements **at the beginning of the project to collect and compile the information that is likely to be needed for the file as work progresses.**"*
- 9.7.15 Further to this, Regulation 18(2) of CDM 2007 states:
- "18(2) The designer shall take all reasonable steps to provide with his design sufficient information about aspects of the design of the structure or its construction or maintenance as will adequately assist the CDM co-ordinator to comply with his duties under these Regulations, including his duties in relation to the health and safety file."*
- 9.7.16 Regulation 22(1) of CDM 2007 also states (bold emphasis added by me):
- "22.(1) The principal contractor for a project shall—*
- ...*
- (j) identify to each contractor the information relating to the contractor's activity which is likely to be required by the CDM co-ordinator for inclusion in the health and safety file in pursuance of regulation 20(2)(e) and ensure that such information is **promptly provided** to the CDM co-ordinator;"*
- 9.7.17 Additionally, paragraph 261 of the CDM 2007 ACOP made it clear that KCTMO as client *"should make sure that the CDM co-ordinator compiles the file"*.
- 9.7.18 In paragraph 210 of his witness statement {ART00006544} Simon Cash lists examples of Keith Bushell discharging his *CDM Coordinator* duties prior to

April 2015. I have excerpted the documents issued by Mr Bushell relevant to the health and safety file below:

“(i) On 13 December 2012, he sent Studio E a CDM Risk Register and a CDM Report (see SC/343, SC/344 and SC/345).

...

(v) On 12 February 2015, he sent the TMO a Health & Safety file proforma (see SC/357 and SC/358), showing what would need to be included in the file.

(vi) On 23 March 2015 (see SC/359, SC/360 and SC/361), he sent a colour coded draft Health & Safety file to the TMO, Rydon and the design team, identifying the areas where they needed to respond.”

9.7.19 I have investigated this statement as follows.

9.7.20 On 13 December 2012, Keith Bushell sent Studio E a CDM Risk Register {ART00006547} and a CDM Report {ART00006170}.

9.7.21 The CDM risk register was marked “in progress” with the only item relevant to fire safety being the hazard “*retain access route and means of escape*” the “*risk control measure*” being “*strategy to be agreed and documented*”.

9.7.22 On the 12th February 2015, Keith Bushell (Artelia) issued the empty proforma *health and safety file* {ART00006293} to Ms Williams (KCTMO). This proforma *health and safety file* has no content specific to Grenfell Tower.

9.7.23 On this same date, Mr Bushell emailed his colleague Nick Valente (Artelia UK, in his capacity as Assistant Employers Agent) asking “*Is there any H&S File information in place yet?*” {ART00009283}.

9.7.24 Mr Bushell did not, as would be expected at that date (i.e. over 2 years after their appointment and over eight months after the initial F10 notification form dated 30th May 2014 stated that works were to start on site) {ART00006493}, refer to having collated any Grenfell Tower specific information for inclusion in the *health and safety file* for the Tower.

9.7.25 On 23rd of March 2015, Mr Bushell (Artelia) sent an email to representatives of Rydon, KCTMO, Curtins, Max Fordham, Studio E, and Churchman Landscape Architects Limited {ART00009286}. The subject of this email is “*Re: H and S file*”.

9.7.26 In this email Mr Bushell states:

“Dear all

I have highlighted the sections in the above document that will need information from the various disciplines.”

9.7.27 Only Chris Churchman (Churchman Landscape Architects Limited) and Matt Smith (Max Fordham) replied to this request for information; on the 23rd and 26th of March respectively ({ART00009286}, {ART00009287}).

- 9.7.28 Mr Churchman stated that “*we have not been part of the KLAC [sic] and Grenfell team for over two years now*” with no further information provided {ART00009286}, and Mr Smith states “*as Rydon have taken on the design responsibility for Grenfell Tower we would expect them/JS Wright to provide the M+E information*” {ART00009287}.
- 9.7.29 I have not found in the evidence available to me, any further work to “*prepare, where none exists, and otherwise review and update*” the *health and safety file* undertaken by Artelia in this period.
- 9.7.30 Again paragraph 261 of the CDM 2007 ACOP made it clear that KCTMO as client “*should make sure that the CDM co-ordinator compiles the file*”.
- 9.7.31 I have found no evidence of that activity either.
- 9.7.32 **Evidence of Artelia preparing for transition to CDM 2015**
- 9.7.33 The initial F10 form stated the duration of the works was 62 weeks (up to 10th August 2015). As the works were scheduled to finish before the end of the transition period on the 6th October 2015, KCTMO originally did not need to appoint a *Principal Designer*.
- 9.7.34 In that time frame, Artelia would have been responsible to comply with Paragraph 5 of Schedule 4 of CDM 2015 setting out the “*Duties of CDM co-ordinator during transitional period*” until August 2015.
- 9.7.35 When the third F10 form was issued {ART00006529} on the 23rd of March 2015 the duration of the works had been extended to 73 weeks (up to 26th October 2015). This meant the project would not complete before the end of the transition period.
- 9.7.36 It became KCTMO’s duty under Paragraph 4(2) of Schedule 4 of CDM 2015 to “*appoint in writing a principal designer for the project before 6th October 2015 unless the project comes to an end on or before that date.*”.
- 9.7.37 The first email I have available to me in which employees of Artelia identified that a *principal designer* would be required for the Grenfell Tower project under the transition from CDM 2007 to CDM 2015, is dated the 12th of February 2015 {ART00009283}, a few weeks before the 3rd F10 was signed by them.
- 9.7.38 In this email Mr Burrows states that:

“*as the project will not get PC before October 6th KCTMO will have to appoint a Principal designer to take over the CDM role*”.
- 9.7.39 I note that the email exchange above was internal to Artelia.
- 9.7.40 Mr Burrows did not at that time state whether or not Artelia would consider taking on this new *principal designer* appointment.
- 9.7.41 I have found no evidence of Artelia informing KCTMO at that time about the looming transitional period and the need for change. Nor if it was Artelia’s

position that they were considering transferring into this new *principal designer* role.

9.7.42 The significance of this is that if Artelia were not prepared to do this, KCTMO were now in a position where they needed to appoint another company into this role.

9.7.43 The first evidence I have identified where Artelia explicitly state to KCTMO that by the 6th October 2015 the *Client* must appoint a *principal designer* was in a series of emails sent between the 20th and 21st of July 2015. I discuss this in Section 9.8

9.8 Evidence of Artelia discharging CDM co-ordinator duties during the transitional period 6th April 2015 to 5th October 2015

9.8.1 In this Section I review evidence I have identified relating to how Artelia discharged their duties as *CDM co-ordinator* under the *transitional and savings provisions* detailed within Schedule 4 of CDM 2015.

9.8.2 This states in Paragraph 4(3) that:

“the client must appoint in writing a principal designer for the project before 6th October 2015 unless the project comes to an end on or before that date”.

9.8.3 Evidence of Artelia producing a health and safety file for Grenfell Tower in this time period

9.8.4 Following Mr Bushell’s departure from Artelia (at the end of March 2015), I have identified an email from Ms Williams (KCTMO) to Mr Burrows (Artelia) {ART00006299} on 21st April 2015.

9.8.5 Ms Williams (KCTMO) stated:

“I understand that you have taken over from Keith in getting our H&S file sorted.

I have just noticed you were not included on the below email, which Keith sent out to get the ball rolling.

Can you please confirm that you are up to date on this, and that you are getting appropriate feedback ?

I have just seen that I O U some of the information, so please feel free to nudge me too!”

9.8.6 Ms Williams was referring to Keith Bushell (Artelia) issuing the proforma *health and safety file* to members of the 2012-2016 Primary Refurbishment works; as I list in Section 9.7.25, with an aim to collect information for the *health and safety file* {ART00009286}.

- 9.8.7 Mr Burrows (Artelia) replied to this email on 28th of April 2015 {ART00006299}, stating that he “*will be managing the process, but this may be completed by one of my colleagues*”.
- 9.8.8 Mr Burrows also states that:

“*to date I have not received any information, but to be honest, it is rare to receive information during the project – it usually comes through at the end when there is little or no likelihood of it changing*”.
- 9.8.9 I have not identified any further evidence of collation of information by Artelia for the *health and safety file* during the transitional period between CDM 2007 and CDM 2015 from 6th April 2015 to 5th October 2015.
- 9.8.10 On 11th of September 2015, the Clerk of Works from John Rowan and Partners International; Jon White, emailed Andrew Malcolm of Artelia, with Rydon, Artelia, and KCTMO cc’d {ART00009330}.
- 9.8.11 This email was to arrange a site meeting, and stated that:

“*I am on site today, and having spoken to Rydons safety officer, Rydons are a bit behind in there [sic] paper work. On the same theme, has anyone checked that Rydons are regularly updating the Health & Safety file? Maybe Rydons could have the file available for your CDM coordinator to inspect?*”
- 9.8.12 Based on Mr Burrows’ (Artelia) email on 28th of April 2015 and Jon White’s email on 11th of September 2015 there appeared to have been uncertainty about any ongoing process.
- 9.8.13 The *principal contractor*, and so Rydon in this case, is required to (bold emphasis added by me):

“(j)identify to each contractor the information relating to the contractor’s activity which is likely to be required by the CDM co-ordinator for inclusion in the health and safety file in pursuance of regulation 20(2)(e) and **ensure** that such information is **promptly** provided to the CDM co-ordinator” as per Regulation 22(1) of CDM 2007.
- 9.8.14 Artelia was required to “review and update a record (“the health and safety file”)” during the construction phase of the project.
- 9.8.15 Progress reports issued on 20th January 2014 {ART00006311}; 15th August 2014 {ART00006355}; 12th September 2014 {ART00006387}; 21st October 2014 {ART00006516} have sections titled “*Health and Safety*” yet there is no discussion of the status of the *health and safety file* nor any actions attributed to relevant parties in terms of collating any information to be “**promptly** provided to the CDM co-ordinator”.
- 9.8.16 I note this also contradicts Rydon’s Construction Phase plan {TMO00869734} which states (bold emphasis added by me):

*“2.2.2 PROJECT REVIEW The Project **will be reviewed at regular intervals with the CDM Coordinator/ Client/Client Representative and Rydon’s own Site Management Team. As a result of this we will:***

Pass information to the CDM Coordinator/Client for the SHE File”

- 9.8.17** On that basis I have to conclude by September 2015, and so almost at the end of the transition period, I have found no evidence that Artelia were either preparing a *health and safety file*, nor keeping a *health and safety file* up to date.
- 9.8.18** I have not found evidence either, that Artelia were preparing to pass any *health and safety file* over to the *principal designer* at the end of the transition period.
- 9.8.19** **Evidence of Artelia preparing for the transition to CDM 2015**
- 9.8.20** I have been provided with extensive correspondence within Artelia and from Artelia to the KCTMO relating to the transition from CDM 2007, under which Artelia were appointed as CDM coordinator, to CDM 2015.
- 9.8.21** The witness statements of Simon Cash {ART00006544}, and Claire Williams {TMO00853697} of KCTMO also refer in detail to this transition.
- 9.8.22** In the following sections I set out relevant excerpts in chronological order.
- 9.8.23** On 18th of June 2015 {ART00006231} KCTMO and Artelia discussed the change in CDM Regulations with regard to the safe access arrangement as part of the design of the Crown, but neither party referenced the looming need for the appointment of a *Principal Designer*.
- 9.8.24** On 13th July 2015 Paul Burrows (Artelia) sent an email internally to Colin James (Artelia) copying Neil Reed (Artelia) stating:
- “As this finishes after the 6th October, a Principal Designer needs to be appointed. If we are not in control of the design process, then we cannot accept this role.*
- 9.8.25** This email was forwarded as part of a chain to Claire Williams (KCTMO) on 20th of July {ART00006286} with the only text in the top email stating *“Revised F10 attached”*.
- 9.8.26** The email stating *“principal designer needs to be appointed”* and that *“we [Artelia] cannot accept this role”* was five emails below, and in the internal Artelia email chain, which was forwarded externally, with the F10 form.
- 9.8.27** In response to receiving the updated F10 form Ms Williams stated, *“I am not sure that Artelia should be the designer on the latest F10 form”* and that *“Artelia are an unlikely designer!”* {ART00006286}.
- 9.8.28** I note that Colin James (Artelia) responded to Ms Williams (KCTMO) email later that day on 21st July 2015 {ART00009321} stating (**my emphasis in bold**):

*“The 2015 CDM Regulations have replaced the CDM Co-ordinator with Principal Designer and the new F10 uses this title. Existing F10’s will also change to the new format when they are revised, as is the case here. **By to the 6 October 2015 the Client must appoint a PD under the new Regulations for all new projects and existing projects that extend beyond that date.**”*

9.8.29 Later that day on 21st July 2015, in an internal Artelia email {ART00009321} from Neil Reed to Colin James and Paul Burrows, Mr Reed stated:

“Specifically I need you to:

- 1. Alert the client to the changes required for this project*
 - a. What they could/ might mean*
 - b. What we recommend TMO does”*

9.8.30 In a series of internal Artelia emails between 10th and 15th of September, Andrew Malcolm raised a series of actions with Neil Reed including *“Who is PD in less than a month 06/10 when the transition period concludes? We need to make recommendations to Claire cognisant that I don’t think Artelia can provide this role”* and that *“Claire must appoint someone in writing by this date otherwise she is the PD”*.

9.8.31 Simon Cash responded to this email {ART00006347} stating:

“I thought that this question had already been raised with Claire and we had advised her that Artelia are not in a position to take on the Principal Designer role and that the TMO should approach Rydon”.

9.8.32 On 15th September 2015 Artelia chaired Progress Meeting 15. Claire Williams (KCTMO) is marked in the meeting minutes as in attendance {ART00006731}. This meeting was three weeks before the deadline of 6th October 2015.

9.8.33 Item 7.3 of the minutes for Progress Meeting 15 {ART00006731} on 15 September 2015 states:

7.3. CDM2015 – CW to appoint a Principal Designer from the TMO’s new Consultancy Framework.

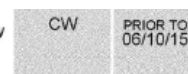


Figure 9.9 Excerpt from Minutes for Progress Meeting 15 {ART00006731}

9.8.34 The meeting minutes state that it is Claire Williams action to appoint a *Principal Designer*.

9.8.35 Claire Williams makes no reference to this meeting in her witness statements therefore at this time I do not know if she was aware that this action had been assigned to her.

9.8.36 In an email from Neil Reed (Artelia) to Paul Burrows (Artelia) and Simon Cash (Artelia) on 23rd September 2015, Mr Reed states:

“Claire will be appointing the CoW organisation JRP who tell me all there CDMCs are simply [sic] becoming PDs and they see no issue with this transition.”

- 9.8.37** The next available evidence is an email on 24th September 2015, when Mr Burrows (Artelia) emailed Ms Williams (KCTMO) stating that he *“will be consolidating the CDMC document for the Artelia project so that it can be issued to the Principal Designer under CDM 2015”* {ART00009339}.
- 9.8.38** Mr Reed (Artelia) replied (to Mr Burrows and Ms Williams, with Mr Cash and Mr Malcolm Cc'd) on 25th September with: *“Just from my perspective here we would like the new PD to attend a Handover/ Completion Meeting on Thursday 8th October”* and *“Claire – will the new appointment be in place before then?”* {ART00009339}.
- 9.8.39** Ms Williams (KCTMO) replied to Mr Reed's (Artelia) email, also on 25th September stating: *“...Are you retaining the principal designer role, and just asking us to get a CDM Compliance Advisor?”* {ART00009339}.
- 9.8.40** Mr Reed (Artelia) forwarded this email internally to Mr Burrows (Artelia) and Mr Cash (Artelia), requesting that Mr Burrows: *“make contact with Claire and explain what is [sic] that needs to happen and the role we will/ will not play”*.
- 9.8.41** Later, on 25th September 2015, Paul Burrows (Artelia) emailed Claire Williams (KCTMO) stating:
- “Under CDM 2015 the CDMC role terminates at close of 5th October. The role of CDMC has been abolished, and a new role created – that of Principal Designer.*
- Unlike the change to CDM 2007, the role is not a change of name, but a change in duties and expected competencies. The focus is now on designers designing out risks, and where this is not possible, identifying the type of mitigation they envisage to be used by others working on the structure at a later date (maintenance, alteration, demolition)*
- We will prepare all of the documents we currently hold to hand over to the Principal Designer.*
- To assist you to understand the roles of the different duty holders under the new Regulations, please find attached a chart identifying them.*
- If you have any questions, please do not hesitate to contact me for clarification on any items”*
- 9.8.42** Following this email Mr Cash and Ms Williams had a phone call discussing options for the appointment of a Principal Designer, as referenced to in paragraph 222{ART00006544} and 16 {TMO00853697} of their respective witness statements.

- 9.8.43 Mr Burrows advised *“that her first port of call for this should be Rydon”* and that *“Studio E would be the next option”*.
- 9.8.44 Ms Williams (KCTMO) then contacted Rydon on 25th of September asking *“if Rydon would be able to take on the role of Principal Designer for Grenfell, or whether you would look to contract this out to Studio E”* {ART00009340}.
- 9.8.45 Rydon and Studio E both declined to accept the role in repose to Ms Williams email (ART00006174) on 25th September 2015.
- 9.8.46 Next, Ms Williams (KCTMO) sent an email to Mr Reed (Artelia) on 1st October 2015 (prior to the end of the transition period between CDM 2007 and CDM 2015) {ART00009343} covering her *“top issues”*.
- 9.8.47 One of these issues was the *“CDM Regulations change”*, where Ms Williams (KCTMO) states that *“As long as the project team agree the Design is fundamentally complete then we believe the provisions within the legislation allow KCTMO to request the Principal Contractor to compile the H&S File and issue direct **without the formal appointment of a Principal Designer**. Can we get this put into the meeting next week – and check that the team agree the design is ‘fundamentally complete’, and get this minuted?”*
- 9.8.48 Note that without the formal appointment of a *principal designer* under CDM 2015, KCTMO as *client* would become the *principal designer*.
- 9.8.49 It should be noted that Regulation 12 of CDM 2015 states:
- “(8) If the principal designer’s appointment concludes before the end of the project, the principal designer must pass the health and safety file to the principal contractor.*
- (9) Where the health and safety file is passed to the principal contractor under paragraph (8), the principal contractor must ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.*
- (10) At the end of the project, the principal designer, or where there is no principal designer the principal contractor, must pass the health and safety file to the client.”*
- 9.8.50 It is therefore specifically written into the CDM Regulations that where the *principal designer’s* appointment has concluded before the end of the project, they must pass the *health and safety file* to the *principal contractor*.
- 9.8.51 The principal contractor then takes ownership of the *health and safety file*.
- 9.8.52 In response to Ms Williams’ email, on 2nd October 2015 Paul Burrows (Artelia) sent an internal email {ART00006300} to Neil Reed (Artelia) stating *“the only thing to remember is that the Client will be acting as PD”*.

9.8.53 This is the last correspondence I am aware of prior to the end of the transition period regarding the appointment of a *Principal Designer* for the Primary Refurbishment works at Grenfell Tower.

9.8.54 **Summary of CDM compliance at the end of the transition period**

9.8.55 In summary, by the end of the transition period on 6th October 2015:

- a) Artelia first identified within their own organisation, on 2nd of February 2015, that KCTMO had to appoint a *Principal Designer* {ART00009283}
- b) KCTMO was informed about the requirement to appoint a *Principal Designer* on 21st July 2015 {ART00009321} however that Artelia had decided not to take on this role was only explained eight emails below in a series of internal Artelia emails.
- c) Between 21st July and 25th of September KCTMO did not appoint a *Principal Designer*.
- d) On 25th of September Artelia specifically informed KCTMO in a phone call (paragraph 222{ART00006544} and 16 {TMO00853697}) that they would not take on the *Principal Designer* Role.
- e) Studio E and Rydon both declined to accept the position of *Principal Designer* on 25th of September after being asked by KCTMO if they would accept the position.

9.8.56 Based on the evidence set out above, there was no appointed *Principal Designer* prior to the end of the transition period. Therefore, under paragraph 6(3) of Schedule 4 *Transitional and saving provisions* of CDM 2015, KCTMO assumed the duties of the *Principal Designer*.

9.9 **The condition of the *health and safety file* provided by Artelia as CDM co-ordinator**

9.9.1 Before the end of the transition period Artelia as *CDM coordinator* were required to produce, per Schedule 4 Section 5(j) of CDM 2015, a *health and safety file* taking into account “*the work and any changes that have occurred*”, and “*all other relevant health and safety information in the CDM co-ordinator’s possession*” and to make this available to KCTMO as *principal designer*, “*as soon as is practicable after the appointment*”.

9.9.2 In paragraph 210 of his witness statement Simon Cash lists examples of Keith Bushell discharging his CDM Coordinator duties. As I identified in Section 9.7 the only items that are relevant to the *health and safety file* are a CDM Risk Register {ART00006547}; a CDM Report {ART00001277}; a Health & Safety file proforma {ART00006293}; and a colour coded draft Health & Safety file {TMO00869748}.

9.9.3 All of this information was either out of date or essentially blank hence did not take into account “*the work and any changes that have occurred*”.

- 9.9.4** Other than the list contained in Simon Cash’s witness statement, I have found no other evidence of Artelia discharging any duties in terms of issuing *health and safety file* documentation to KCTMO.
- 9.9.5** I am aware of a later email where Paul Burrows (Artelia) had collated “*the only information we have*” {ART00004949} in relation to the *health and safety file* however I have no evidence that this collated information was ever issued to KCTMO.
- 9.9.6** A meeting between KCTMO, Cofely, JRP, Rydon and Artelia took place on the 8th of October 2015 two days after the transition period had ended. The minutes are titled “*Handover Countdown Meeting #1*” {ART00009350} and state:
- “AM [Andrew Malcolm] noted that a Principal Designer needed to be appointed formally in writing. It was further noted that under the new regulations, if no formal appointment was made the client would be seen to undertake this role”, and item 4.3 states “CW [Claire Williams] advised that she was expecting a handover pack from Artelia as CDM-C under 2007. AM [Andrew Malcolm] to investigate”.
- 9.9.7** The deadline for this investigation into the “*handover pack*” was “15/10/15”.
- 9.9.8** On 23rd of October, eight days after the deadline for Mr Malcolm’s investigation {ART00009350} into the “*handover pack*”, Ms Williams sent an email to Mr Malcolm.
- 9.9.9** In this email Ms Williams states {ART00004949}:
- “Also Andrew – can you update me pdq on the situation with the F10. I attach the latest one I have on file – perhaps getting it updated could be in the *handover pack*?”
- 9.9.10** It is not clear if Ms Williams is requesting the final *health and safety file* when she refers to the “*handover pack*”; as she had requested in the handover meeting on 8th October.
- 9.9.11** Either way it is clear that almost 3 weeks after KCTMO became the de facto *principal designer* for the 2012-2016 Primary Refurbishment works they had received no *health and safety file* information of any kind from Artelia.
- 9.9.12** Following receipt of Ms Williams’ (KCTMO) email, Artelia had a number of internal discussions {ART00004949} (also on 23rd October) regarding who held the “*handover pack*” information.
- 9.9.13** Mr Malcolm (Artelia) stated to Mr Reed (Artelia) that “*apparently you have all the CDM Information*”.
- 9.9.14** Mr Reed (Artelia) replied to Mr Malcolm on the same date stating: “*I don’t have anything guys. And whatever is being issued needs to come from Paul and /or via Simon does it not?*”

- 9.9.15** Mr Cash (Artelia) responded to this exchange stating “*Paul Burrows is responsible for all matters relating to CDM and the action is with him to sort out what is going on. No one else is qualified to deal with this*” {ART00004949}.
- 9.9.16** Mr Burrows responded to this email exchange on 26th October 2015 stating that “*the only information we have is attached*” {ART00004949}. Mr Burrows email contained 11 attachments, incorporating a total of 22 documents.
- 9.9.17** I have seen no evidence to date that any of these eleven attachments were subsequently issued to KCTMO.
- 9.9.18** As I stated above, based on my investigation of disclosed emails and paragraph 210 of Simon Cash’s witness statement, the only information relevant to the *health and safety file* that I am aware of that Artelia issued to KCTMO was the colour coded proforma *health and safety file* a CDM Risk Register and a CDM Report.
- 9.9.19** Of the eleven attachments to Mr Burrows’ email the only documents relevant to the *health and safety file* were the Artelia Health and Safety File blank proforma {ART00004956} and a CDM Risk register {ART00004953}.
- 9.9.20** The Artelia *health and safety file* proforma {ART00004956} has not been filled in and therefore contained no relevant health and safety information for Grenfell Tower. This document had previously been issued by Artelia on 13th December 2012 {ART00006547} and was unchanged.
- 9.9.21** The CDM Risk register {ART00004953} is watermarked “in progress”. The only information contained in the document relevant to my investigation regarding fire safety is under section 2.1. This states for the “HAZARD” of “*Retain[ing] access route and means of escape*”, the “*RISK CONTROL MEASURE*” was for a “*Strategy to be agreed and documented*”.
- 9.9.22** This document had previously been issued by Artelia on 12th February 2015 {ART00006293} and was unchanged.
- 9.9.23** Subsequent to Paul Burrows’ email, {ART00004949} there were a further series of internal Artelia emails relating to the status of the *health and safety file*.
- 9.9.24** These commenced with an email from Mr Malcolm (Artelia) to Mr Burrows (Artelia) on 26th October 2015, stating {ART00009351}:
- “*We have not discussed nor briefed the client in a CDM capacity other than to explain that we cannot act as PD*”, and that despite Mr Malcolm “*explaining that we need to have a process for handing over the CDM ‘bundle’ and its associated components to the client*” that “*this has not happened – despite the HSE deadline*”
- 9.9.25** Mr Malcolm (Artelia) requested Mr Burrows (Artelia) “*that either you, or Colin James (or anyone from Artelia who is qualified or competent in areas*

of CDM) arrange... either a face to face handover meeting or even a call, with the client, ahead of any cold emails. This is so that the CDM 'bundle' is passed complete with explanation of the associated components",

9.9.26 Mr Malcolm (Artelia) closed this email stating that *"I personally want to stop looking daft at client meetings for missing a deadline we (royal-Artelia-we) had 6 months+ to sort out, let alone any regulatory implications that may or may not have repercussions against Artelia...."*

9.9.27 There are further emails within Artelia. Mr Burrows (Artelia) stated to Mr Malcolm (Artelia) that {ART00009352} *"as a Project Manager in the construction industry, I would expect you to have a background knowledge of the new Regulations, particularly considering this is one of the key pieces of legislation which affects your work as a PM"*.

9.9.28 Mr Burrows (Artelia) also offers to speak with Ms Williams (KCTMO) in an email of 26th of October {ART00009352}, stating *"I am quite happy to meet the Client and discuss what they need to do going forwards – please let me have contact details."*

9.9.29 Mr Burrows as *CDM co-ordinator* had duties to co-ordinate with the *client* under CDM 2007, and the transitional arrangements of CDM 2015. It is unclear why Mr Burrows as *CDM co-ordinator* did not therefore have the contact details of the *client*.

9.9.30 The following day, Mr Reed emailed Mr Cash {ART00009356} stating that *"further to a completion meeting today it transpires that Claire has had no call from Paul"* and that regarding the transition to CDM 2015 that *"Claire considers Artelia's efforts in this regard appalling"*.

9.9.31 Highlighting that *"Andrew and I were quite embarrassed by the lack of professional closure that I think we all expected and planned for from Paul"*, highlighting that *"as of today we have an expired F10 and a client expecting a handover of documents to inc a partial H&S File. Someone will need to help compile a completed H&S File so there remains scope for Artelia to see extra fee."*

9.9.32 On 28th October 2015 Mr Malcolm (who was Mr Reed's assistant - paragraph 230 of Mr Cash's witness statement {ART00006544}) escalated matters to Ian Bailey and Philip Boulcott both directors at Artelia {ART00009357}.

9.9.33 In this email Mr Malcolm (Artelia) states that *"the current F10 has expired – works are still ongoing (for another few months...)"* and *"the HSE changeover date was earlier in the month (and the client is still non-the wiser)"*.

9.9.34 Mr Malcolm (Artelia) goes on to state that:

"The client is now at risk due to our non-performance and therefore I suspect we are at risk as there is a comeback to us."

I have tried on numerous occasions to get Paul to do this. To this end - I have just checked in with Claire (the client) - only to discover that still nothing has happened.

Claire has expressed disappointment at the service from Artelia. I have apologised on Artelia's behalf and promised that the matter will be escalated and resolved soonest (i.e. now/today).

- 9.9.35** There is no further correspondence from Artelia regarding their handover of CDM coordinator duties to KCTMO as *Principal Designer* that I am aware of.
- 9.9.36** Therefore, in the evidence available to me I have no information that a *health and safety file* was provided to the KCTMO by Artelia.
- 9.9.37** Paragraph 261 of the CDM 2007 ACOP made it clear that KCTMO as client “*should make sure that the CDM co-ordinator compiles the file*”. Therefore, it is my opinion that KCTMO were also responsible for the lack of a *health and safety file* at the end of the transition period.
- 9.9.38** As Artelia had failed in their duties to provide the *health and safety file*, it subsequently fell to KCTMO as the *principal designer* to create a *health and safety file* when CDM 2015 came into force in full after 6th of October 2015.
- 9.9.39** KCTMO did then take action however in the sense they subsequently appointed Rydon to prepare a *health and safety file* rather than undertake this duty themselves as I discuss below.

9.10 The arrangements made, after the transitional period was completed

- 9.10.1** Rydon issued “Progress report 16” on Grenfell Tower on 16th October 2015 {ART00006482} stating “*Client is not appointing PD but is taking on the role themselves*”.
- 9.10.2** In the minutes for Progress Meeting 17 on the 17th November 2015 {ART00006185}, it was noted that:
- “it was agreed that Rydon are not the PD (Principal Designer) under the CDM Regulations 2015. The TMO as the client are to undertake this role*
- It was further agreed that Rydon would be responsible for collating and presenting the H&S file information in accordance with the Employer’s Requirements and the PCI and present to the TMO as PD.”*
- 9.10.3** Although it was clear from this meeting that Rydon were not the *Principal Designer*, hence not responsible for producing the *health and safety file*, KCTMO made the decision to rely on them to collate and present the information for the *health and safety file*.
- 9.10.4** The “*Purpose and Objectives*” of Handover meeting 3 (17th November 2015){ART00005188}; 4(15th December 2015){ART00005276}; and 5 (26th

January 2016){ART00005306} were “*To agree what is required by who and when*” in regards to sign offs and deliverables including the “*H&S file*” however the minutes themselves do not reference the status of the file or whether any progress had been made in collating information of the *health and safety file*.

- 9.10.5** The minutes for Progress meeting 18 (15th December 2015) {ART00005273}; 19 (26th January 2016) {ART00005313}; and 20 (23rd February 2016) {ART00005408} each state:

“It was agreed that Rydon are not the PD (Principal Designer) under the CDM Regulations 2015. The TMO as the client are to undertake this role.

It was further agreed that Rydon would be responsible for collating and presenting the H&S File information in accordance with the Employer’s Requirements and the PCI and present to the TMO as PD.”

- 9.10.6** There is no further reference to the progress Rydon had made in collating this information in the meeting minutes for the progress and handover meetings between 17th November 2015 and 26th February 2016.

- 9.10.7** On 26th February 2016 when Gary Martin (Rydon) emailed Sonia Angele (All Group Holdings) {RYD00069120} with the subject title “*Grenfell Tower O&M Manual*” stating:

“Hi Sonia

Following our conversation earlier please find attached the project document tracker with the files we have collated to date

Kind regards”

- 9.10.8** Sonia Angele (All Group Holdings) responded on 29th February 2016 {RYD00071352} with a fee proposal, and this was accepted on 11th March 2016 David Hughes (Rydon) {RYD00071352}.

- 9.10.9** Subsequently, on 1st of March 2016 Gary Martin (Rydon Site manager) sent Neil Reed (Artelia) “*pricing for O&M manual collating and writing*”

- 9.10.10** On 11th of March 2016 Andrew Malcom (Artelia) asked Steve Blake (Rydon) “*is this for the H&S File or the O&M Manual?*” which Steve Blake (Rydon) responded it was for the “*H+S*” noting in a later email Steve Blake clarifies it is for the “*preparation*” of the health and safety file.

- 9.10.11** Neil Reed (Artelia) then responded:

“Morning Steve,

With respect, this is already part of your contract works.

Section 6.1 of the PCI infers:

“The CDM Coordinator will be responsible for the preparation of the Health and Safety File.

The Principal Contractor shall provide all elements of information as required for the Health and Safety File for each section of the work prior to completion of that section.”

The document then goes on to explain format, number of copies etc. and the basic content of the file (page 17 in the attached for your ease of reference).

Whilst CDM 2015 has effectively changed CDM Coordinator (Artelia) to Principal Designer (KCTMO). KCTMO are only responsible for the preparation of the file. The provision of information still remains with the Principal Contractor (Rydon).

Can I therefore request that the information is provided to KCTMO in-line with the guidance set out in the PCI? It is my opinion that Rydon are obliged to do so without the need for further instruction.

Kind regards,

Andrew”

9.10.12 Steve Blake (Rydon) then responded stating

“Yes I understand.

*This charge is for the **preparation** of said file.*

We have made the commitment anyway.

Many thanks”

9.10.13 My review of what was prepared, now follows in Section 10.

10 The *health and safety file* prepared at the completion of the Primary Refurbishment

10.1 Rydon's contractual duties regarding *the health and safety file*

10.1.1 Rydon were contractually required to prepare a Building Manual, which was also required to contain the *health and safety file*.

10.1.2 Part 2A preliminaries, Pages 2A/77-2A/81 of Rydon's Contract with KCTMO {RYD00000001} was concerned with: '*Operation/maintenance of the finished works*' in particular Clauses 110 to 160A inclusive required Rydon contractually to produce a Building Manual for KCTMO.

10.1.3 Paragraph 110 of Part 2A preliminaries of the contract identifies the purpose of the building manual as follows:

- 110 THE BUILDING MANUAL
- Purpose: The Manual is to be a comprehensive information source and guide for owners and users of the completed Works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.
 - Scope:
 - Part 1: General: Content as clause 120.
 - Part 2: Fabric: Content as clause 130.
 - Part 3: Services: Content as clause 140.
 - Part 4: The Health and Safety File: (prepared and supplied by the CDM Coordinator). Content as clause 150.
 - Part 5: Building User Guide: [Content as clause 151]
 - Responsibility: The Building Manual is to be produced by the Contractor and must be complete no later than 2 weeks prior to Completion Date.

Figure 10.1 Excerpt from Part 2A of Rydon's Contract with KCTMO {RYD00000001}

10.1.4 In accordance with items 110 two copies of the building manual were to be supplied to the client on completion of the works.

10.1.5 As stated in the scope section of Paragraph 110 of Part 2A preliminaries of the contract Rydon had to include *the health and safety file* in their building manual, but they were not originally to be contractually responsible for preparing the file. This was to be prepared and supplied by the CDM coordinator.

10.1.6 Rydon were contractually required to provide the CDM co-ordinator with information for inclusion into the *health and safety file*. Paragraph 150A of Part 2A preliminaries of the contract states (Note Section 6 of the PCI is 6.0 *The health and safety file of Pre-construction information for the Royal Borough of Kensington and Chelsea Tenant Management Organisation (TMO) enhancements and improvements to Grenfell Tower* {ART00006395}):

150A CONTENT OF THE BUILDING MANUAL PART 4: THE HEALTH AND SAFETY FILE

- Content: obtain and provide the following, including all relevant details not included in other parts of the manual, including:
 - all information in accordance with Section 6 of the PCI.
- Information prepared by others: Details: To be confirmed.
- Timescale for completion: 2 weeks prior to completion.
- Submit to: CDM Coordinator.

Figure 10.2 Excerpt from Part 2A of Rydon's Contract with KCTMO {RYD00000001}

10.1.7 I note that providing the CDM coordinator with relevant information for inclusion in the *health and safety file* is an existing duty on *principal contractor* under Regulation 22(1)(J) of CDM 2007:

"22.—(1) The principal contractor for a project shall

(j) identify to each contractor the information relating to the contractor's activity which is likely to be required by the CDM co-ordinator for inclusion in the health and safety file in pursuance of regulation 20(2)(e) and ensure that such information is promptly provided to the CDM co-ordinator"

10.1.8 The information in the *health and safety file* was contractually required to be "*in accordance with Section 6 of the PCP*" as stated in Paragraph 150A of Part 2A preliminaries of the contract {RYD00000001}.

10.1.9 "*Section 6 of the PCP*" contains three subsections, as follows:

"6.1 Responsibilities

The CDM Coordinator will be responsible for the preparation of the Health and Safety File.

The Principal Contractor shall provide all elements of information as required for the Health and Safety File for each section of the work prior to the completion of that section.

6.2 Information Required for the Health and Safety File

Refer to the Register of Information Required for the Health and Safety File.

Format: Electronic/ PDF No. of copies: 2 (CDs or equivalent)

6.3 The Basic Content of the File"

10.1.10 Therefore, until the 6th October 2015, and also up to 17th November 2015, Rydon had no contractual or legal duty to create and maintain the *health and safety file*, only to provide the CDM co-ordinator with relevant information for inclusion into the file.

10.1.11 This arrangement changed when Rydon took on the contractual responsibility for collating and presenting the *health and safety file* as recorded in the

Progress Meeting 17 on the 17th November 2015 {ART00006185} as discussed in Section 9.

10.2 Rydon's appointment of a third party to prepare *the health and safety file*

10.2.1 I have identified evidence that Rydon instructed a third party, All Group Holdings, "*to proceed with the O&M manual / H+S file for Grenfell Tower*".

10.2.2 Steve Butler (All Groups Holdings Director) has given two witness statements to the Metropolitan police ({MET00012822}; and {MET00064876}).

10.2.3 He states:

"We were contacted by a David HUGHES who is a contract manager for RYDONS which is a main contractor in the construction industry asking if we would like to provide a quote for work in producing a building manual for work they were involved with at GRENFELL TOWER.

We have been successful in winning the work which we completed between FEBURARY 2016 and SEPTEMBER 2016 in which we produced the building manual for the main building, boxing gym and nursery with the information supplied to us by RYDONS. For this work we have charged £2400 (two thousand four hundred)."

10.2.4 Sonia Angele (All Group Holdings) wrote on 29th February 2016 {RYD00071352}:

"Good Morning Gary

Please find attached our proposal for the H&S File, O&M Manual for the landlord and common parts of the Grenfell Tower. Please note we are on leave from Tuesday 1 till Sunday 6th March 2016, but will commence document preparation and liaison with all parties upon our return. If you have any queries regarding the scope and nature of our appointment during that time please feel free to call me on my mobile for any clarifications ect [sic]

Many thanks

Sonia"

10.2.5 This proposed *health and safety file* did not follow the format of the "*Basic Content of the File*" contained in Section 6 of the Artelia proforma *pre-construction information* {RYD00092644} as was contractually required by Paragraph 150A of Part 2A preliminaries of Rydon's contract {RYD00000001}. I discuss this further in Table 10.2.

10.2.6 On 11th March 2016 David Hughes (Rydon) emailed Sonia Angele (All Group Holdings) stating "*Please accept this e-mail as confirmation to proceed with the O&M manual / H+S file for Grenfell Tower*" {RYD00071352}.

10.2.7 My understanding of this is that Rydon appointed a third party to produce a *health and safety file* (in addition to the other Parts of the Building Manual), and, as recorded in the minutes of the Progress Meeting 17 on 17th November 2015 {ART00006185}, this activity was on behalf of KCTMO who were ultimately responsible as the *principal designer*.

10.2.8 After their appointment on 11th of March 2016, All Group holdings proceeded to collate and obtain information for inclusion in the Building Manual and discuss the contents of the Building Manual with TMO and Rydon as discussed in Section 16.3 of my Phase 2 Regulation 38 report.

10.2.9 I note specifically on 6th of June 2016 Steve Butler emailed Steve Blake (Rydon) cc-ing Claire Williams (TMO) and Neil Reed (Artelia) stating {TMO00869771}:

I'm also producing a H&S File from the information I already have as the Client doesn't seem to think it's their responsibility under the CDM Regs (it is!)

It will be on the USB stick I'll bring to the meeting

I just want to fill in the gaps where necessary so you can get your handover

10.2.10 And on 7th June 2016 Steve Butler sent Claire Williams (TMO) {RYD00080302} the following email:

“Claire,

Please see attached the proposed H&S File for Grenfell Tower

Best Regards

Steve”

10.2.11 I provide my review of the *health and safety file*, as created by All Group Holdings, in Section 10.3.

10.3 My review of the *health and safety file* prepared by All Group Holdings

10.3.1 Issued version of the *health and safety file*

10.3.2 As explained in the introductory section of this report, I have had to produce this Version 2 of my Phase 2 report, because on 11th February 2020 the Inquiry provided to me, a memory stick provided to them by KCTMO.

10.3.3 Please refer to Section 17 of my Phase 2 Version 2 Regulation 38 report where I set out in full the chronology of the versions of Building Manual provided to me.

10.3.4 On the basis of that assessment, I rely herein on the version of the Building Manual provided to me on 11th February 2020.

10.3.5 This is because the evidence shows this was the version provided by Rydon to Claire Williams of KCTMO around the time of the handover of the Primary Refurbishment project; although the date this occurred is not clear from the evidence available to me.

10.3.6 I provide my review of the *Health and Safety file*, Part 4 of the Rydon Building Manual as I received on 11th February 2020 below.

10.3.7 Contents of Part 4 of the Rydon Building manual

10.3.8 The “Part 4” folder of the Rydon *Building Manual*, contains 4 separate PDF files (A1, A2, A3, B2), one word file titled Grenfell Tower – H+Sfile.doc {TMOM00001932}, and two folders named D2 and J2.

10.3.9 Figure 10.3 below is a screen shot of the folder arrangement within Part 4 of the Rydon Building Manual.

Local Disk (M:) > Part 4

<input type="checkbox"/> Name	Date modified	Type	Size
D2	20/12/2017 14:27	File folder	
J2	20/12/2017 14:27	File folder	
._DS_Store	11/08/2016 16:41	DS_STORE File	4 KB
._A1.pdf	11/08/2016 16:41	PDF File	4 KB
._A2.pdf	11/08/2016 16:42	PDF File	4 KB
._A3.pdf	11/08/2016 16:42	PDF File	4 KB
._Grenfell Tower - H&S File .docx	11/08/2016 16:42	Microsoft Word D...	4 KB
._DS_Store	11/08/2016 15:50	DS_STORE File	11 KB
Grenfell Tower - H&S File .docx	07/06/2016 17:32	Microsoft Word D...	28 KB
A3.pdf	07/06/2016 13:29	PDF File	39 KB
A2.pdf	07/06/2016 13:26	PDF File	43 KB
A1.pdf	07/06/2016 13:17	PDF File	44 KB
B2.pdf	06/04/2016 17:47	PDF File	544 KB

Figure 10.3 Contents of part 4 of the Rydon Building manual

10.3.10 The word file {TMOM00001932} has no stated author or date of publication in the main body of the text however the metadata in the word file states that Steve Butler is the author. Steve Butler is a director of All Group Holdings {RYD000093983}.

10.3.11 This word file has one title heading

Health & safety file

10.3.12 It then contains the following 14 headings:

“Introduction

Record of issue

Revision/amendment record

A Brief Project Description & Project Team

B. Architectural Design

C. Structural Design

D. Hazardous Materials

E. Removal & Dismantling of Plant

F. Equipment Provided for Cleaning & Maintenance (Not Applicable to Scheme)

G. Emergency Procedures

H. Nature, Location & Markings of Significant Services

I. Building & Services

J. Fire Management

K. Testing & Commissioning”

10.3.13 Each of these headings then contains cross references to the “Building Manual” referring the reader to obtain the relevant information that is not contained in the Part 4 folder.

10.3.14 I have used those reference numbers as provided, to seek out the referred to documents in the relevant Parts of the Building Manual.

10.3.15 The summary results are presented in Table 10.1 below.

Table 10.1 Review of subheadings in the word document contained in Part 4 of the Rydon Building manual {TMOM00001932}.

Subheading	Review of information provided in the Rydon Building Manual
A Brief Project Description & Project Team	No cross references provided. Files named A1, A2 and A3 are included in the Part 4 folder.
B1 Architects As Built Drawings	Cross reference to Part 2 – Section 2.1.2.2 however this section does not exist in the Rydon Building Manual
B1 PCI Information	Cross reference to Part 2 – Section 2.1.2.2 however this section does not exist in the Rydon Building Manual
C1 Structural Engineer As Built Drawings	Cross reference provided to Part 2 – Section 2.1.2.3 however this section does not exist in the Rydon Building Manual
C2 Deconstruction Information	Cross reference provided to Part 2 – Section 2.1.3.1 however this section does not exist in the Rydon Building Manual
D1 Asbestos	Cross reference provided to Part 1 – Section 1.3.4 however this section does not exist in the Rydon Building Manual
D2 Hazardous Construction Materials (MSDS)	No cross references provided. A sub-folder named D2 is included in the Part 4 folder.
E1 Mechanical	Cross reference provided to Part 3 – Section 1.0-2 Part 3 Section 1.0 does exist and contains a 1.1 and 1.2 but no folder number No. 2
E2 Electrical	Cross reference provided to Part 3 – Section 2.0-1 however this section does not exist in the Rydon Building Manual Note Section 2.0 does exist but contains subfolders with no numeric reference i.e. folder 1 does not exist
F Equipment Provided for Cleaning & Maintenance (Not Applicable to Scheme)	No information provided
G. Emergency Procedures	Cross reference provided to Part 1 – Section 1.3.3 however this section does not exist in the Rydon Building Manual.
H1 Mechanical	Cross reference provided to Part 3 – Section 1.0-11. Part 3 Section 1.0 does exist and contains a 1.1 and 1.2 but no folder number No. 11.
H2 Electrical	Cross reference provided to Part 3 – Section 2.0-1. Section 2.0 does exist but contains subfolders with no numeric reference i.e. folder 1 does not exist.

Subheading	Review of information provided in the Rydon Building Manual
I1 Building Components	Cross reference provided to Part 2 of the Rydon building manual. This contains 1,670 files in 94 folders.
I2 Services	Cross reference provided to Part 3 of the Rydon building manual. This contains 246 files in 90 folders.
J1 Fire Strategy & Design	Cross reference provided to Part 1– Section 1.3.2. This section does not exist in the Rydon building manual.
J2 Intumescent Products	No cross references provided. A sub-folder named J2 is included in the Part 4 folder.
J3 Certification	Cross reference provided to Part 2– Section 7.1.2.3 & 7.1.3.2. These sections do not exist in the Rydon building manual.
K1 Mechanical	Cross reference provided to Part 2– Section 7.1.1. This Section does not exist in the Rydon building manual.
K2 Electrical	Cross reference provided to Part 2– Section 7.1.2. This Section does not exist in the Rydon Building Manual.

10.3.16 It can be seen in Table 10.1 that the majority of the cross references do not exist or link to incorrect sections of the Building Manual.

10.3.17 I note that the guidance document L135 by the HSE states regarding the health and safety file:

*“There should be enough detail to allow the likely risks to be identified and addressed by those carrying out the work. However, the level of detail should be proportionate to the risks. The file should not include things that will be of no help when planning future construction work such as pre-construction information, the construction phase plan, contractual documents, safety method statements etc. **Information must be in a convenient form, clear, concise and easily understandable.**”*

10.3.18 Based on the inaccuracy of the referencing alone, and also the scale of documentation provided where the referencing is correct, in my opinion this *health and safety file*, is not in a convenient form, nor clear or concise, nor easily understandable.

10.3.19 **Contractual requirements - The contents of the “Part 4” folder of the Building Manual**

10.3.20 As I have set out in Section 10 information in the *health and safety file* was contractually required to be “in accordance with Section 6 of the PCI” as

stated in Paragraph 150A of Part 2A preliminaries of the contract {RYD00000001}.

10.3.21 I have compared the headings in the word file {TMOM00001932} contained in Part 4 of the Building Manual with paragraph 150A of the preliminaries schedule in Rydon’s building contract {RYD00000001}, as presented in Table 10.2 below.

10.3.22 As I have explained earlier in this Report, this paragraph requires the Health and Safety File to include “*all information in accordance with Section 6 of the [Pre-Construction Information].*”

Table 10.2: Comparison of the contents of Artelia’s document {RYD00092644} and the word document in Part 4 of the Rydon Building Manual {TMOM00001932}.

Section 6.3 of the Artelia proforma pre-construction information (the structure required by Rydon’s contract {RYD00000001})	Corresponding sections of the word document in Part 4 of the Rydon Building Manual {TMOM00001932}
Section 1.00 General Information	
1.1 Important notice	
1.1.1 Statutory Requirements	
1.1.2 Purpose of the Health and Safety File	
1.2 File Maintenance	
1.2.1 Keeping and Maintaining the File	Record of issue (noting this section is blank in {TMOM00001932})
1.2.2 Amendments to the File	Revision / amendment record (noting this section is blank in {TMOM00001932})
Section 2.00 Project Particulars	A Brief Project Description & Project Team
2.1 Brief Description of Project	A1 Brief Project Description
2.2 Address of the Project	Project address is on the header of the <i>health and safety file</i> ({TMO10013708}/{TMOM00001932}).
2.3 Nature of the Project	
2.4 Project Dates	
2.5 Project Directory	A2 Main Parties Contact List A3 Sub Contractors Contact List
Section 3.00 Design (Description of the Works)	
3.1 Lead Designer – concept	
3.2 Architectural	B Architectural Design B1 Architects As Built Drawings
3.3 Structural	C Structural Design C1 Structural Engineer As Built Drawings

Section 6.3 of the Artelia proforma pre-construction information (the structure required by Rydon's contract {RYD00000001})	Corresponding sections of the word document in Part 4 of the Rydon Building Manual {TMOM00001932})
3.4 Building Services	H Nature, Location & Markings of Significant Services H1 Mechanical H2 Electrical I Building & Services I1 Building Components I2 Services
3.5 Key Design Principles	
3.5.1 Access statement	
3.5.2 Special arrangements for lifting (cladding panels)	
3.5.3 Safe access to plant and equipment	
3.5.4 Firefighting services and integrity of structure	J1 Fire Strategy & Design
Section 4.00 Records	
4.1 Surveys and Investigation Reports	
4.2 Planning and Building Regulations Approval Documents	
4.3 Schedule of Record Information	
4.4 Record Drawings	H. Nature, Location & Markings of Significant Services H1 Mechanical H2 Electrical
Section 5.00 Residual Hazards and Risks	D Hazardous Materials
5.1 Residual Hazards	
5.2 Residual Hazardous Materials (Update Asbestos register in conjunction with client)	D1 Asbestos D2 Hazardous Construction Materials (MSDS)
Section 6.00 Maintenance and General Details	
6.1 Contractors Operation and Maintenance Manuals Contents.	
6.2 Environment and disposal of waste materials and products.	
6.2.1 Waste Disposal Legislation.	
6.2.2 Waste Disposal Certificates.	
6.2.3 Clearance Certificates.	
6.3 Future Demolition or Dismantling.	C2 Deconstruction Information
6.3.1 Special requirements.	
6.4 Maintenance Strategy.	

Section 6.3 of the Artelia proforma pre-construction information (the structure required by Rydon's contract {RYD00000001})	Corresponding sections of the word document in Part 4 of the Rydon Building Manual {TMOM00001932})
6.4.1 Special requirements.	
6.5 Cleaning Strategy.	
6.5.1 Special requirements.	
6.6 Plant Replacement Strategy.	E Removal & Dismantling of Plant E1 Mechanical E2 Electrical
6.6.1 Special requirements.	
6.7 Fire Strategy.	G Emergency Procedures J1 Fire Strategy & Design J2 Intumescent Products J3 Certification
6.8 Commissioning reports and test certificates.	K Testing & Commissioning K1 Mechanical K2 Electrical

- 10.3.23** The structure of Part 4 of Rydon's Building Manual is therefore substantially different to the structure set out in Artelia's document {RYD00092466}.
- 10.3.24** Additionally, multiple sections of the contractually required *health and safety* file are missing. However, in my opinion these do not materially affect the fire safety information provided. And so, I provide no further comment herein.
- 10.3.25** If relevant to the Inquiry's work, a CDM expert should undertake an assessment of any wider impact of these omissions.
- 10.3.26** **CDM requirements regarding the contents of the *health and safety* file**
- 10.3.27** As I stated in Section 5.7.16 in my opinion the most relevant requirements relating to fire safety, from the recommended contents of the health and safety file listed in the CDM 2015 Guidance Document (L153) are:
- “(b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);*
- ...
- (g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
- (h) information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors).”*

10.3.28 Additionally, Paragraph 4 of Appendix 4 of the CDM 2015 Guidance Document (L153) states:

“Information must be in a convenient form, clear, concise and easily understandable.”

10.3.29 I will now specifically review each of these points in turn and identify if any relevant information was contained in Part 4 of the Rydon Building Manual.

10.3.30 Residual hazards

10.3.31 Part 4 the *health and safety file* in the Building Manual did not contain a Section with this title.

10.3.32 Section D of the *health and safety file* is called *Hazardous materials*.

10.3.33 It contains two folders D1 Asbestos and D2 Hazardous Construction Materials.

10.3.34 Folder D1 refers to Part 1 Section 1.3.4 of Rydon’s Building Manual, which does not exist.

10.3.35 The D2 folder contains 4 sub folders as indicated in Figure 10.4.

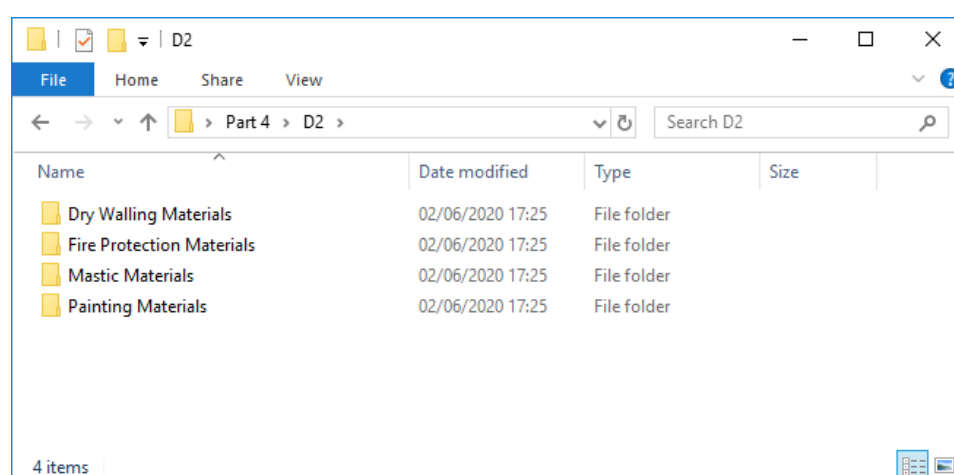


Figure 10.4: Content of folder D2 in Building Manual

10.3.36 As I explained in Section 9.9.21, Artelia had produced a “*CDM risk register*” of residual hazards (dated December 2012 {ART00004953}) however this document (or any further revision of this document by Artelia, KCTMO or Rydon) was not included in Part 4 of the Rydon Building Manual.

10.3.37 Part 4 the *health and safety file* therefore does not provide an explanation of the specific hazards that were not eliminated through the design and construction processes, nor how those hazards have been addressed by the completion of the works.

10.3.38 To provide some help in understanding why this is relevant, for my own work when I go to an existing building, I am required to ask for asbestos related

information, in preparing for my safe attendance on site; if I rely on this version of the *health and safety file*, I cannot make sufficient preparation.

10.3.39 The information is also not presented in: “*a convenient form, clear, concise and easily understandable.*”

10.3.40 **The nature location and marking of significant services**

10.3.41 Part 4 *the health and safety file* in the Building Manual contains a Section H titled “*Nature, Location & Markings of Significant Services*” which is subdivided into H1 Mechanical and H2 Electrical:

“*H1 Mechanical*

Please refer to the Drawings located in the Building Manual - Part 3 – Section 1.0 - 11

H2 Electrical

Please refer to the Information located in the Building Manual - Part 3 – Section 2.0 – 1”

10.3.42 Part 3 of the Building Manual contains at *Section 1.0 Mechanical Services*:

1.1 Mechanical Services O+M Manual

1.2 Smoke Ventilation System O+M Manual

10.3.43 And Part 3 contains a Section 2.0 Electrical O+M Manual.

10.3.44 I am assuming that is what the incorrect referencing set out in Part 4 *the health and safety file*, is attempting to direct the reader to.

10.3.45 These two folders (Section 1.0 and 2.0 of Part 3) contain extensive information about the mechanical and electrical systems in Grenfell Tower spread over 1,916 files contained in 184 separate folders.

10.3.46 Specific folders for fire safety related items are not provided, and therefore in order to understand what information is relevant, the reader must fully understand the content and structure of the folders. Refer to my separate Phase 2 report on Regulation 38 for my detailed review of the content of these sections of the Building Manual.

10.3.47 My experience is that typically the nature of firefighting services would also be described in the as-built fire strategy with the locations provided in relevant fire strategy drawings.

10.3.48 There is no as-built fire strategy provided anywhere in the Building Manual.

10.3.49 Section J1 Part 4 of the Rydon Building Manual {TMOM0001932} is titled “*Fire Strategy & Design*”. It states:

“Please refer to the Drawings located in the Building Manual - Part 1 – Section 1.3.2”

10.3.50 Part 1 Section 1.3.2 of the Rydon Building Manual does not exist.

10.3.51 The “*as built*” Fire strategy and Fire access drawings are instead included in Part 1 Section 1.2.4 of the Rydon Building Manual.

10.3.52 Two drawings are contained in this folder:

Table 10.3 Drawings contained in Section 1.2.4 of the Rydon Building Manual

Drawing title	Drawing Number	Issue	Status	Date	Relativity reference
Fire Access Plan	1279 (08)100	06	As built	11/01/2016	{TMOM00000006}
Fire strategy	1279 (08)101	05	As built	11/01/2016	{TMOM00000007}

10.3.53 I note that on 7th July 2016 Steve Butler (All Group Holdings) was sent a revised Fire Access Drawing (Version 07) by Rydon for inclusion in the manual {RYD00082334} however this was not included in the final manual.

10.3.54 The “*As built*” “*Fire strategy*” drawing 1279 (08) 101 issue 05 is dated 6 months prior to practical completion and provides information for “*mezzanine*”; “*walkway level*”; “*walkway +1 (new resi)*” and “*typical residential floor*”.

10.3.55 The “*Fire Access Plan*” drawing 1279 (08)100 Issue 06 is also dated 6 months prior to practical completion and provides information for Ground floor only.

10.3.56 In section 10.3.88 I have set out my detailed review of these 2 drawings (versions referred to above in Table 10.3).

10.3.57 In my review I conclude that the drawings do not reflect the as built condition of the building on the night of the fire, and do not clearly mark all of the relevant firefighting equipment (Item j) of BS 9999 Annex H.4.1).

10.3.58 No fire strategy drawings were provided for the plant areas in the basement and on the roof either.

10.3.59 The only other part of the *health and safety file* where I would expect the nature of firefighting services to be described would be Section G titled “*Emergency procedures*”. It states:

“Please refer to the Information located in the Building Manual - Part 1 – Section 1.3.3”

10.3.60 There is no Part 1 section 1.3.3 in the Rydon Building Manual.

10.3.61 Part 1.2.5 of the Building Manual is called *Emergency Procedures (Client)* and the folder in the Building Manual is empty.

- 10.3.62** In summary, extensive information is referred to from within the Part 4 *health and safety file* relating to the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc.
- 10.3.63** Should one happen to find some relevant information, it is in general not correct.
- 10.3.64** Further, given the volume of the information and the incorrect cross referencing provided, I conclude this information is not “*in a convenient form, clear, concise and easily understandable.*”
- 10.3.65** **Information and As-built drawings of the building, its plant and equipment**
- 10.3.66** Part 4 the *health and safety file* in the Building Manual does not contain a Section with this title.
- 10.3.67** I have considered the other folders provided in Part 4 to work out where else I might find *information and as-built drawings*.
- 10.3.68** First, there is a Section J Fire Management {TMOM0001932}, containing 3 main subfolders.
- 10.3.69** Section J1 is “*Fire Strategy & Design*”.
- 10.3.70** Sections J2 “*Intumescent products*” and J3 “*Certification*” are not relevant to as-built drawing information.
- 10.3.71** It is written at Section J1:

“*Please refer to the Drawings located in the Building Manual - Part 1 – Section 1.3.2*”
- 10.3.72** No reference is provided to any documents providing *information* relating to Fire Management as referenced at J1, such as an as-built fire strategy.
- 10.3.73** As I have set out in Section 10.3.51:
- a) Part 1 Section 1.3.2 of the Rydon Building Manual does not exist;
 - b) A fire strategy drawing {TMO00000007} and a fire access plan {TMO00000006} drawing were provided in section 1.2.4 of the Building Manual;
 - c) I provide my detailed review of these drawings in Section 10.3.88; and
 - d) The drawings do not reflect the as-built condition of the building on the night of the fire, and do not clearly mark all of the relevant firefighting equipment (Item j) of BS 9999 Annex H.4.1).
- 10.3.74** The second location I would seek as-built drawings in Part 4 the *health and safety file* in the Building Manual, is at Section H titled “*Nature, Location &*

Markings of Significant Services” as I have already explained in Section 10.3.40.

- 10.3.75** Section H of the Part 4 the *health and safety file* document identify mechanical drawings in Part 3, Section 1.0 of the Building Manual, and electrical drawings in Part 3, Section 2.0 of the Building Manual.
- 10.3.76** Notwithstanding the incorrect folder reference beyond Section 1.0 and 2.0 respectively, the folders referenced do contain subfolders that contain “*as fitted*” and “*record*” drawings for emergency lighting, lobby smoke control and dry riser provision in Grenfell Tower. Refer to my separate Phase 2 report on Regulation 38 for my detailed review of the content of these sections of the Building Manual.
- 10.3.77** I would also go to the Architect’s drawings. Part 4 the *health and safety file* refers to *Architects As Built Drawings* in Section B1 as follows:

“*Please refer to the Drawings located in the Building Manual - Part 2 – Section 2.1.2.2*”
- 10.3.78** Part 2, Section 2.1.2.2 does not exist in the Building Manual.
- 10.3.79** The Architect’s drawings are contained in Section 2.1.1.2 of the Building Manual. Section 2.1.1.2 includes duplicates of the fire strategy {TMOM00000007} and fire access plan {TMOM00000006} drawings.
- 10.3.80** It also includes the general arrangement drawings for levels Ground to 3rd floor in order to set out fire resistance performance of partitions and provides incorrect locations for the dry rising main outlet on Mezzanine, Walkway and Walkway +1 levels.
- 10.3.81** Section 2.1.1.2 of the Building Manual also includes a door schedule which identifies fire door performance, where relevant.
- 10.3.82** Part 4 the *health and safety file* refers to *Structural Engineer As Built Drawings* in Section C1 as follows:

“*Please refer to the Drawings located in the Building Manual - Part 2 – Section 2.1.2.3*”
- 10.3.83** Part 2, Section 2.1.2.3 does not exist.
- 10.3.84** Structural drawings are included in the Building Manual in Section 2.1.1.3. However, these drawings provide no information specifically relating to fire safety in Grenfell Tower.
- 10.3.85** The Part 4 *health and safety file* therefore does provide as-built drawings.
- 10.3.86** However:
- a) The cross references provided in Part 4 are incorrect;
 - b) A single location is not provided that draws all fire safety related drawings together; and

c) Some of the drawings have errors.

10.3.87 Therefore, this information is not presented in “*a convenient form, clear, concise and easily understandable.*”

10.3.88 **My review of the Fire Access Plan {TMOM00000006} and Fire Strategy drawing {TMOM00000007}**

10.3.89 In this Section 10 I refer frequently to the two drawings provided in the Building Manual, in multiple locations; and also referred to from within Part 4 *the health and safety file*.

10.3.90 I provide my analysis of these drawings here.

10.3.91 Table 10.4 sets out my detailed assessment of the Fire Access Plan {TMOM00000006} and Fire Strategy drawing {TMOM00000007} to identify if “*information and as-built drawings of the structure, its plant and equipment*” was provided for all of the active and passive systems I identified in the Section 3.4 of my Phase 1 report.

10.3.92 The following points set out a summary of the key omissions I have found:

- a) The two drawings ({TMOM00000006}, {TMOM00000007}) in Section 1.2.4 of the Rydon Building Manual were titled “*As built*”, but were issued up to six months prior to practical completion of the building and were, upon review, an incomplete representation of the ‘*As-built*’ condition;
- b) No drawings are provided for the basement or the rooftop plant room;
- c) The drawings do not include the new service riser constructed in the lobbies on Levels 4 to 23 (inclusive) to contain the new water pipes and control equipment for the refurbished smoke control system;
- d) The drawings do not identify the control locations for the human interface panel, lobby key switches, or any primary or subsidiary control panels for the lobby smoke control system;
- e) The drawings do not identify accurate locations for the dry riser outlets on any floor between Level 1 and Level 23;
- f) The drawings do not identify the location of the fire service override controls for the lifts or the access control door at the main entrance and inside the entrance lobby;
- g) The “*Fire Access Plan*” in the Rydon Building Manual does not include what appears to be the final revision of the drawing. The final version appears to be version 7 {SEA00003480} (However, I note that Issue 07 of the Fire Access Plan does not contain any substantial differences to the Issue 06 version that was included in the Rydon Building Manual).

Table 10.4 review of fire safety information provided in “*Fire Access Plan*” 1279 (08)100 dated 11th January 2016 and “*Fire strategy*” drawing 1279 (08)101 dated 11th January 2016 with respect to the active and passive fire protection measures

Fire safety measure	Type of system	Review of information provided in “ <i>Fire Access Plan</i> ” 1279 (08)100 Issue 06 {TMOM00000006} and “ <i>Fire strategy</i> ” 1279 (08)101 Issue 05 dated 11 th January 2016 {TMOM00000007} for items (b), (g) and (h) of paragraph 263 of the 2007 ACOP (L144)
Fire rated staircase of a specific width and head height	Passive	Width and height of stairs not marked. Staircase incorrectly shown as “ <i>60 minute rated construction line</i> ” when the stair was required to achieve 120 minutes fire resistance
Fire rated lobbies of a specific travel distance	Passive	Travel distances are indicated on Walkway +1 level but in no other common lobby
Fire doors	Passive	Fire doors on typical residential level (levels 4-23 i.e. the existing flats) are incorrectly referenced as FD60S doors whereas they were only ever specified as FD30 doors
Fire protected gas service and installation pipes	Passive	Location of the gas services are not indicated on either drawing
Flights and landings constructed of materials of limited combustibility	Passive	No information provided in either drawing
Protection to critical electrical circuits	Passive	Electrical services are not indicated on either drawing
Refuse chute separated from the lobby by fire resisting construction	Passive	Refuse chute is shown as being enclosed in <i>60 minute rated construction line</i> as required however the ventilation is not indicated.
Protected stair way with nothing other than lift well or electricity meter within	Passive	Protected stair is indicated on the drawing
Vehicle access to fire main	Passive	Shown on Fire Access Plan 1279 (08)100 07
Fire protection to cupboards in the common lobby	Passive	New risers in common lobby of Levels 4 to 23 not shown on any of the drawings
The external walls of the building shall adequately resist the spread of fire over the walls having regard to the height, use of the building.	Passive	No information provided in either drawing

Fire safety measure	Type of system	Review of information provided in “ <i>Fire Access Plan</i> ” 1279 (08)100 Issue 06 {TMOM00000006} and “ <i>Fire strategy</i> ” 1279 (08)101 Issue 05 dated 11th January 2016 {TMOM00000007} for items (b), (g) and (h) of paragraph 263 of the 2007 ACOP (L144)
The roof of the building shall adequately resist the spread of fire over the roof and from one building to another, having regard to the use and position of the building.	Passive	Roof level not included on either drawing
The loadbearing elements of structure of the building are capable of withstanding the effects of fire for an appropriate period without loss of stability; Structural Stability	Passive	No information provided in either drawing only compartmentation
The building is sub-divided by elements of fire-resisting construction into compartments; Compartmentation	Passive	Compartmentation lines indicated on ground; mezzanine; walkway; walkway+1 and for the common lobby and stair on the typical residential levels. However, the fire rated party walls between flats on the typical residential levels are not indicated. The fire rated lines of the protected corridors on the flat on the “mezzanine”; “walkway level”; “walkway +1 (new resi)” levels do not align with the locations of the walls Drawings of the basement and roof levels are also not provided.
Any openings in fire-separating elements (see Appendix E) are suitably protected in order to maintain the integrity of the element (i.e. the continuity of the fire separation); Fire stopping	Passive	Not indicated on either drawing
Any hidden voids in the construction are sealed and sub-divided to inhibit the unseen spread of fire and products of combustion, in order to reduce the risk of structural failure and the spread of fire, in so far as they pose a threat to the safety of people in and around the building. Cavity barriers	Passive	Locations of cavity barriers are not indicated on either drawing
Fire alarm for individual flats	Active Systems	Not indicated on either drawing

Fire safety measure	Type of system	Review of information provided in “Fire Access Plan” 1279 (08)100 Issue 06 {TMOM00000006} and “Fire strategy” 1279 (08)101 Issue 05 dated 11th January 2016 {TMOM00000007} for items (b), (g) and (h) of paragraph 263 of the 2007 ACOP (L144)
Interface between fire detection and fire alarm systems and other systems	Active Systems	No information provided on either drawing
Smoke control in the lobby	Active Systems	Method of lobby ventilation indicated. The location of the fire and rescue override switches on every floor not shown on the drawings.
Emergency lighting	Active Systems	Locations of emergency lighting is not indicated on either drawing
Permanent vent for refuse chute lobby	Active Systems	Not indicated on either drawing
Fire main	Active Systems	Fire main outlet location indicated on Ground; Walkway; Walkway +1 but location inaccurate. Fire main outlet location not indicated on typical residential level for level 4-24.
Firefighting lift [fire man’s lift] Including lift controls	Active Systems	Lifts are not indicated on either drawing as fire man’s lift. Location of lift controls are not indicated on either drawing.
Minimum of one hydrant	Active Systems	Hydrant location not indicated on either drawing.
Environmental fan auto off in the event of fire	Active Systems	Control Panel not shown in ground floor lobby.
Vent at the head of the stair	Active Systems	Not indicated on either drawing.
Emergency lighting and signage	Active Systems	Not indicated on either drawing.
Open state cavity barriers which intumesce in the event of fire	Active Systems	Not indicated on either drawing.

10.3.93 I also offer for consideration to the Inquiry, the fact that the flat numbering scheme for Grenfell Tower is not provided on any of the drawings in the Building Manual. This is specifically relevant to the *health and safety file* as the asbestos reports (located in Part 1, Section 1.2.6 of the Building Manual) are identified by flat number.

10.3.94 I acknowledge that Regulation 12(5) of the CDM Regulation 2015 states:

“... which is likely to be needed during any subsequent project to ensure the health and safety of any person.”

10.3.95 And therefore, links the requirements of the *health and safety file* directly to future construction works. Similarly, Section 114 and Appendix 4 of the 2015 guidance document (L153) also link the purpose of the *health and safety file* to future construction works.

10.3.96 However, I also note that Regulation 4(5)(b)(iii) requires that the *health and safety file*:

“... is kept available for inspection by any person who may need it to comply with any relevant legal requirements”

10.3.97 Therefore as I have set out in Section 1.3.7 it is my opinion it is entirely reasonable to assume that the information in a *health and safety file* could be used in the absence of a formal fire safety manual.

10.3.98 With respect to the purpose of the fire safety manual for a building, Annex H.3 of BS 9999 states:

“The fire safety manual should be made available for inspection or tests by auditors and regulators and for operational purposes by the fire and rescue service.”

10.3.99 From Table 10.4, it can be seen that the drawings referenced by Section J1 of the *health and safety file* do not communicate the location of the key fire-fighting equipment to fire fighters arriving at the building for operational firefighting.

10.3.100 I note specifically that KCTMO staff were required to add handwritten notes on drawings identified as being to assist the police on 15th June 2017 {TMO00870575} and {TMO00870866} in order to clarify the floor numbering scheme and the flat numbers, as drawings were not available with that information already shown.

10.4 *Evidence of the principal designer reviewing the health and safety file*

10.4.1 As I have set out in Section 9.8, no *Principal Designer* was appointed prior to the end of the transition period on 6th October 2015 hence under paragraph 6(3) of Schedule 4 *Transitional and saving provisions* of CDM 2015 KCTMO assumed the duties of the *Principal Designer*.

10.4.2 KCTMO’s decision to formally take on the duties of *Principal Designer* is recorded in the minutes of Progress report 16 on the 16th October 2015 {ART00006482}.

10.4.3 It was therefore the responsibility of KCTMO under Regulation 12(6) of CDM 2015 to:

“ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.”

- 10.4.4** Whilst KCTMO relied on Rydon to produce the *health and safety file* (through Rydon’s sub contractor All Group Holdings) ultimately, they were still responsible as *Principal Designer* over the quality of the file.
- 10.4.5** I have found in the evidence that KCTMO received draft versions of Sections of the Manual to review between March 2016 and August 2017.
- 10.4.6** For example:
- a) On 24th May 2016 Claire Williams (KCTMO) states: *“I have just had my link to the dropbox for the O&M manual!”*, which I assume is the Rydon Building Manual {MAX00006280} {ART00005562};
 - b) On 26th May 2016 Claire Williams (KCTMO) sent comments to Steve Butler (All Group Holdings) on missing asbestos information in Part 1 of the Building Manual {TMO00869768};
 - c) On 1st June 2016 Claire Williams (KCTMO) emailed Steve Blake (Rydon) {TMO00869769} stating she was *“talking to Steve Butler re the O&M manual and am getting the latest version on digital media from him later this week.”*;
 - d) On 6th June 2016 Steve Blake (Rydon) emailed Steve Butler (All Group Holdings) cc Claire Williams (KCTMO) {TMO00869771} referring to a meeting on Wednesday 8th June 2016 to present the contents of the manual during a *“progress meeting with Client team.”*;
 - e) Claire Williams (KCTMO) was sent *“the proposed H&S File for Grenfell Tower”* (Part 4 of the Building Manual) on 7th June 2016 by Steve Butler (All Group Holdings) {RYD00080302}; and
 - f) Rydon emailed Artelia copying Claire Williams (KCTMO) stating *“The full manuals will be submitted for final approval on Mon 27/6/16”* {MAX00006327}. I have not found evidence indicating that the Manual was in fact handed over on this date.
 - g) I have identified an email on 8th August 2016 from David Hughes (Rydon) to Claire Williams (KCTMO) cc Steve Blake (Rydon) {TMO00869784} stating *“Steve Butler should be issuing the entire O+M this week”* then on 16th August 2016 David Hughes (Rydon) emailed Claire Williams (KCTMO){TMO00869786} with the subject title *FW: Grenfell Tower O&M manuals*, however the email is blank
- 10.4.7** Therefore, throughout the period of time that the Building Manual was being created, KCTMO were sent multiple drafts for review.
- 10.4.8** In my opinion the most significant of these relevant to the *health and safety file*, was that on 7th of June 2016 Steve Butler (All Group Holdings) emailed the draft version of the *health and safety file* for Claire Williams (KCTMO) to review.

10.4.9 I have not found evidence of any comments from Ms Williams after receiving this draft to review. Nor is there evidence of any amendments or additions she may have requested, having reviewed the file as she was required to do in the KCTMO's capacity as *Principal Designer*.

10.4.10 In Section 10.3.18 I set out how the contents of the health and safety file was substantially different to the structure set out in Section 6 of Artelia's PCI document {RYD00092466} which was the contractual requirement for the *health and safety file*. I do not know how KCTMO as the *principal designer* dealt with those differences and omissions when they reviewed the *health and safety file* provided to them.

10.5 Concluding points

10.5.1 Again, I conclude this whole arrangement did not comply with the CDM Regulations, as presided over by the KCTMO.

10.5.2 In this case, formal duty holders were correctly appointed by the KCTMO, but the information requirements of CDM were not carried out in full by any party, resulting in a *health and safety file* at the end of the Primary Refurbishment works that did not comply with the CDM Regulations.

10.5.3 As I set out in Section 10.3, the *health and safety file* should contain information about:

- a) Residual hazards
- b) Nature, location and markings of significant services
- c) Information and as-built drawings of the building, its plant and equipment

10.5.4 This information must also "... *be in a convenient form, clear, concise and easily understandable.*"

10.5.5 I have concluded that the *health and safety file* as it existed at the end of the 2012-2016 Primary Refurbishment was substantially non-compliant with these items as follows:

- a) No residual hazard registers are provided and therefore the reader cannot understand what hazards may remain that must then be managed over the future life of the building;
- b) Extensive information is referred to by the *health and safety file* with regard to building services, however, the cross references are either incorrect or unclear and no structure is provided to clearly identify the information that relates to fire safety systems; and
- c) With respect to information and as-built drawings, again the cross references provided in the *health and safety file* are either incorrect or unclear and some of the drawings provided have errors and therefore are not effective as "as built" information.

- 10.5.6** The *health and safety file* in the Building Manual is provided in a “signposting” format.
- 10.5.7** It therefore could not be read as a standalone document; it was simply a reference document for a reader to seek out relevant information in an extensive building manual. This method was expressly permitted by Section 264(h) of the ACOP for the 2007 CDM regulations (L144), however it is not identified as an appropriate method in the 2015 guidance document (L153).
- 10.5.8** An important test of the *health and safety file* is to identify how it could enable the persons responsible for the next project works in Grenfell Tower to understand the condition of the building and the hazards and risks taken forward from the previous project.
- 10.5.9** I have used the information in the Building Manual in two forms in my work on this Inquiry. Firstly, I used it during the planning of my site visits in November 2017. Secondly, I have reviewed it extensively in the preparation of my expert reports for Phase 1 and Phase 2 of this Inquiry to understand the active and passive fire protection measures in the Grenfell Tower and how they were intended to operate individually and together.
- 10.5.10** Both of these uses are equivalent to the kind of interrogation of the information that would be undertaken by a party looking to use the *health and safety file* for its stated uses.
- 10.5.11** I have found the format and the content of the *health and safety file* and the Building Manual as a whole to be very difficult to understand and to use.
- 10.5.12** As I set out in Section 11 I have seen no evidence that the *health and safety file* for Grenfell Tower was ever made available to Cadent or tRIIO at the start of the 2016 Gas Riser Replacement works. Therefore, I have no evidence either, of how this *health and safety file* may have been considered by others who carried out works on the building after the Primary Refurbishment.
- 10.5.13** By reference to Appendix 4, Paragraph 4 of the 2015 guidance document (L153) it is therefore my opinion that the *health and safety file*:
- a) Does not provide “enough detail to allow the likely risks to be identified and addressed by those carrying out the work”
 - b) Does not enable the reader to understand if the level of detail provided is “proportionate to the risks.”
 - c) Includes information that should not be present in a *health and safety file* as it refers to *pre-construction information* under Section B1 (noting that the cross reference does not exist in the Building Manual, but is the same reference as provided for the Architect’s as-built information)
 - d) Fundamentally does not provide information in a convenient form that is clear, concise and easily understandable.
- 10.5.14** It is a matter for the Inquiry to decide if that fulfils the purpose of the CDM Regulations.

11 2016–2017 Gas Riser Replacement works

11.1 Summary of work

11.1.1 Between 2016 and 2017 a new residential gas supply, replacing one of the 6 existing residential gas risers, was installed in Grenfell Tower.

11.1.2 The 2016-2017 Gas Riser Replacement works were undertaken to rectify a gas leak discovered in 2016. The project had not been completed at the time of the fire on 14th June 2017 as I describe in Appendix K1.6.37 - K1.6.39 of my Phase 1 {BLAS0000032} expert report.

11.1.3 As the project had not been completed on the night of the fire, Grenfell Tower was in fact an active construction site in an occupied building and the health and safety of those occupants was dependent on the *construction phase health and safety plan*.

11.1.4 For that reason, I have added an additional section titled *Evidence of a construction phase plan* in this Section 11

11.2 Applicable CDM Regulations

11.2.1 The gas leak was discovered on 30th September 2016, “*the initial design was drawn up by tRIIO Design Team in November 2016*”, whereby “*Work commenced in December 2016 to install the new riser system as per the design*” (paragraphs 21 and 22 of {CAD000000004} respectively), therefore the planning and undertaking of the 2016-2017 Gas Riser Replacement works were undertaken when the CDM 2015 Regulations were in force.

11.3 Appointed CDM duty holders

11.3.1 An F10 “*notification of Construction Project form*” {TRI000001784} issued by tRIIO to the HSE confirms that National Grid Gas Distribution were the appointed *client* under CDM 2015 for the 2016-2017 Gas Riser Replacement works; and tRIIO were the appointed *principal contractor* and *principal designer* for the project.

11.3.2 In his witness statement Stephen Mason (Head of GDSP Contract East, Cadent Gas Limited) {CAD000000004} confirms that at the time the works started, National Grid Gas plc’s gas distribution business had been transferred to Cadent Gas Limited, but that the name was not changed to 02 May 2017:

“By an agreement dated 30 September 2016, all assets and liabilities relating to National Grid Gas plc’s gas distribution business were transferred to a new company, National Grid Gas Distribution Limited. On 2 May 2017, National Grid Gas Distribution Limited changed its name to Cadent Gas Limited. Throughout this statement I will refer to all matters as if all actions and activities had been undertaken by Cadent.”

- 11.3.3** I will refer only to Cadent in this report when describing how National Grid Gas/Cadent discharged their duties under CDM 2015.
- 11.3.4** It is important to note however that the F10 “*notification of Construction Project form*” {TRI000001784} is not specific for the 2016-2017 Gas Riser Replacement works at Grenfell Tower.
- 11.3.5** For example, the “*Description of construction work*” on the F10 “*notification of Construction Project form*” {TRI000001784} is stated as:
- “tRIIO 2017/18 Project National Grid Gas Distribution North London Network”.*
- 11.3.6** The “*Address of the Construction site*” on the F10 “*notification of Construction Project form*” {TRI000001784} is stated as:
- tRIIO
Brunel House
Uxbridge Road
SLOUGH
Berkshire
SL2 5NA
- Figure 11.1: “*Address of the Construction site*” on the F10 “*notification of Construction Project form*” {TRI000001784}
- 11.3.7** This appears to be tRIIO’s office address, not the address of the construction site.
- 11.3.8** The HSE provides advice on how to fill in F10 forms online. Specifically, the “*How to Fill in the F10 e-Form*”³ states that:
- “You should enter the details of the main site and then provide a description of other locations in the ‘Briefly describe the project and the construction work it contains’ text field on page 2.”*
- 11.3.9** The F10 form was therefore not filled in correctly and hence is not compliant with Schedule 1 of CDM 2015 which states “*The address of the construction site or precise description of its location.*”
- 11.3.10** Stephen Mason confirms the *client, principal designer* and *principal contractor* roles for the 2016-2017 Gas Riser Replacement works at Grenfell Tower as:
- “As the new replacement scheme was ‘construction work’, it was to be undertaken in accordance with the Construction (Design and Management) Regulations 2015 (CDM). Under CDM, Cadent as the initiator of the works and the company paying for them was the ‘Client’. CDM requires that Cadent as ‘Client’ appoint a Principal Designer to manage the design phase of the*

³ <https://www.hse.gov.uk/forms/notification/f10-step-by-step-guide-to-fill-in-eform.pdf> - Accessed online 18/10/2019

project and a Principal Contractor manage the construction phase of the works. Cadent appointed tRIIO to undertake both of these roles.”

11.3.11 From Stephen Mason’s witness statement {CAD00000004} and tRIIO’s position statement {TRI000001793}, I have identified the following companies that tRIIO subcontracted with for the construction work and were therefore *contractors* under CDM 2015:

- a) T & S Environmental Limited (Asbestos works)
- b) Globe Scaffolding Ltd (Scaffolding contractor)
- c) LAB UK (Asbestos Survey)
- d) K & S Pipe Contractors LLP (Installation of new riser and laterals)
 - i. London Operational Gas (Surveyor of existing building)
 - ii. Holland Gas Engineers Ltd (Reposition meters, re-connect, and certify internal gas supply to cooking facilities)
 - iii. Price Brothers surfacing (In-ground reinstatement works)
 - iv. Angles Inspection (Weld inspector for riser and laterals)
- e) Express Building Contractors Ltd (Assisted Holland Gas Engineers Ltd fitters)
- f) Cape Electrical (Lighting in stairwell and communal areas)

11.4 *Was a health and safety file required?*

11.4.1 Paragraph 45 of the 2015 guidance document (L153) states:

“A health and safety file is only required for projects involving more than one contractor”

11.4.2 I have identified at least ten companies that were involved in the 2016-2017 Gas Riser Replacement works. The works therefore involved more than one *contractor* hence a *health and safety file* was required to comply with CDM 2015.

11.5 *Evidence of pre-construction information*

11.5.1 Regulation 4(4) of CDM 2015 states:

“(4) A client must provide pre-construction information as soon as is practicable to every designer and contractor appointed, or being considered for appointment, to the project.”

11.5.2 This is further explained in Appendix V *How different types of information relate to and influence each other in a construction project involving more than one contractor: A summary of the CDM 2015 guidance document L135:*

“The Client and principal designer (PD) must work together to:

assess adequacy of existing information (e.g. existing health and safety file from earlier project or asbestos survey);

agree arrangements to fill gaps in existing information;

provide sufficient information to designers and contractors”

11.5.3 Therefore, to comply with Regulation 4(4) of CDM 2015 Cadent were required to work with tRHO to formulate this *pre-construction information*.

11.5.4 Regulation 2 of CDM 2015 defines *pre-construction information* as:
“means information in the client’s possession or which is reasonably obtainable by or on behalf of the client, which is relevant to the construction work and is of an appropriate level of detail and proportionate to the risks involved, including—

(a) information about—

(i) the project;

(ii) planning and management of the project;

(iii) health and safety hazards, including design and construction hazards and how they will be addressed; and

(b) information in any existing health and safety file;”.

11.5.5 Therefore, *pre-construction information* should have been “*reasonably obtainable*” by Cadent, from KCTMO, about Grenfell Tower, including “*any existing health and safety file*” i.e. the file that had been created at the end of the Primary Refurbishment works.

11.5.6 Appendix 2 of the CDM 2015 guidance document (L153) states that the following should be included as part of the *pre-construction information* (bold emphasis added by me):

“5 When pre-construction information is complete, it must include proportionate information about:

*(a) the project, such as the **client brief** and key dates of the construction phase;*

(b) the planning and management of the project such as the resources and time being allocated to each stage of the project and the arrangements to ensure there is cooperation between duty holders and the work is coordinated;

(c) the health and safety hazards of the site, including design and construction hazards and how they will be addressed;

*(d) any relevant information in an **existing health and safety file**.”*

11.5.7 Regulation 11(6) of CDM 2015 states

“(6) The principal designer must—

(a) assist the client in the provision of the pre-construction information required by regulation 4(4);”

11.5.8 I have found a document titled “*Riser Request Proforma*” {CAD00003003}, dated 1st October 2016. This is described as (bold emphasis added by me):

*“This document is classed as the **Client Brief** and supports the ongoing compliance to The Construction (Design and Management) Regulations 2015. The information contained in this document has been prepared to the best knowledge of the Client and in accordance with **Regulation 4(4)**”*

11.5.9 As I have stated above Regulation 4(4) is the requirement for the client to provide pre-construction information.

11.5.10 *Client brief* is defined in the CDM 2015 guidance document L135:

“32 Clients should take ownership of these arrangements and ensure they communicate them clearly to other duty holders. Clients could prepare a clear “client’s brief” as a way of setting out the arrangements. The client brief normally:

- a) sets out the main function and operational requirements of the finished project;*
- b) outlines how the project is expected to be managed including its health and safety risks;*
- c) sets a realistic timeframe and budget; and (d) covers other relevant matters, such as establishing design direction and a single point of contact in the client’s organisation.”*

11.5.11 The document was issued by Cadent to tRIIO, as detailed in paragraph 28 of the witness statement of Steve Mason {CAD00003005}.

11.5.12 Additionally, the “*Riser Request Proforma*” contained information, including:

- a) The property address and building name;
- b) The names of the “*dispatcher*”, “*team*”, “*supervisor*”, and “*Band C*”;
- c) The status of the gas supply, with comment stating “*VALVE TURNED OFF*”;
- d) The height of the building, number of floors, and number of properties affected by the works;
- e) A table detailing flat numbers, occupier names, contact details, whether any vulnerabilities were identified (such as young children), lettered gas supply, the main gas use, and appliances used.

11.5.13 The “*Riser Request Proforma*” did not contain (d) any relevant information in an existing health and safety file of the list above from Appendix 2 of the 2015 guidance document (L153).

- 11.5.14 I have also identified a document titled “*tRIIO MOBS Pre-design Hazard Information*” {TRI000000024}. This was issued internally within tRIIO on 3rd October 2016. The document is a standard tRIIO form with sections provided to indicate if the following risks were possible onsite including Physical violence; Threatened physical abuse; Sexual harassment, Racial abuse, Alcohol / substance abuse; Dangerous animal / pet.
- 11.5.15 This form is not relevant to the recommended *pre-construction information* listed in Appendix 2 of the CDM 2015 guidance document (L153).
- 11.5.16 I have identified no correspondence available in the evidence at this time, of tRIIO or Cadent asking for or having been given the existing *health and safety file* for Grenfell Tower.
- 11.5.17 I therefore do not consider the “*Riser Request Proforma*” on its own, to be sufficient to comply with CDM 2015 in terms of the *pre-construction information*. And I do not have any other evidence of *pre-construction information*.

11.6 Evidence of a *construction phase plan*

- 11.6.1 The Tower was an active construction site, in an occupied building on the night of the fire, by means of the Gas Riser Replacement works not being completed.
- 11.6.2 The works therefore presented a risk to both the contractors working onsite and the occupants of the Tower.
- 11.6.3 Regulation 12 of CDM 2015 states (bold emphasis added by me):
- “12.—(1) ***During the pre-construction phase, and before setting up a construction site, the principal contractor must draw up a construction phase plan, or make arrangements for a construction phase plan to be drawn up***
- (2) *The construction phase plan must set out the health and safety arrangements and site rules taking account, where necessary, of the industrial activities taking place on the construction site and, where applicable, must include specific measures concerning work which falls within one or more of the categories set out in Schedule 3.*
- (4) *Throughout the project the principal contractor must ensure that the construction phase plan is appropriately reviewed, updated and revised from time to time so that it continues to be sufficient to ensure that construction work is carried out, so far as is reasonably practicable, without risks to health or safety.”*
- 11.6.4 Appendix 3 *The Construction Phase Plan* of the 2015 guidance document (L153) states:
- “What is a construction phase plan?”

2 A construction phase plan is a document that must record the:

- (a) health and safety arrangements for the construction phase;*
- (b) site rules; and*
- (c) where relevant, specific measures concerning work that falls within one or more of the categories listed in Schedule 3.*

3 The plan must record the arrangements for managing the significant health and safety risks associated with the construction phase of a project. It is the basis for communicating these arrangements to all those involved in the construction phase, so it should be easy to understand and as simple as possible.

4 In considering what information is included, the emphasis is that it:

- (a) is relevant to the project;*
- (b) has sufficient detail to clearly set out the arrangements, site rules and special measures needed to manage the construction phase; but*
- (c) is still proportionate to the scale and complexity of the project and the risks involved.*

The plan should not include documents that get in the way of a clear understanding of what is needed to manage the construction phase, such as generic risk assessments, records of how decisions were reached or detailed safety method statements.

5 The following list of topics should be considered when drawing up the plan:

- (a) a description of the project such as key dates and details of key members of the project team;*
- (b) the management of the work including:*
 - (i) the health and safety aims for the project;*
 - (ii) the site rules;*
 - (iii) arrangements to ensure cooperation between project team members and coordination of their work, eg regular site meetings;*
 - (iv) arrangements for involving workers;*
 - (v) site induction;*
 - (vi) welfare facilities; and*
 - (vii) fire and emergency procedures;”*

11.6.5

I have identified a document titled “Construction Phase Plan For Multiple Occupancy Buildings (MOBs)” {TRI000001774} dated 11th of October 2016.

11.6.6 This document is generic to all of the Multiple Occupancy Buildings (MOBs) that form part of tRiIO's "*Gas Distribution Strategic Partnership contract with National Grid across the North London, East Anglia and East Midlands gas distribution areas*". The document contains no specific information in relation to Grenfell Tower.

11.6.7 As I have identified above Appendix 3 *The Construction Phase Plan* of the 2015 CDM guidance document states:

"In considering what information is included, the emphasis is that it:

(a) is relevant to the project;"

11.6.8 Irrespective of this I have excerpted the information relevant to fire safety below.

11.6.9 Section 2.4 *Extent and locations of existing records of "Construction Phase Plan For Multiple Occupancy Buildings (MOBs)"* {TRI000001774} states:

"The MOBs Site Manager shall ensure that all relevant existing records will be included in the site construction pack issued to each team leader on the commencement of individual projects, as set out in the Construction Pack Contents (TRI -60.05 F01).

Records that will be included in the pack are: (this is not an exhaustive list and may be added to in the works information)

- *Design Surveys;*
- *Flora Fauna. Archaeology, Contaminated land, Asbestos, Invasive Species etc. (as required);*
- *Construction Survey;*
- *Design Risk Assessment (Including temporary works design risk assessments);*
- *Flood Risk Map;*
- *For Construction Drawings;*
- *Gas Maps (including IGT maps);*
- *Preconstruction information;*
- *Risk Map;*
- *Site Specific Works Instruction;*
- *Temporary Works Design; (as required);*
- *Traffic management Plan*
- *Underground Utility Drawings;*
- *Utility Drawing Check List;*

- *Vandalism/security information; and*
- *Vulnerable customer information.”*

11.6.10 Section 3.3 Area safety, health and environment management structure

“3.3.2 Fire Marshal

- *Staff nominated to be fire marshals for the site are responsible for ensuring;*
- *Fire escapes are clear of obstructions;*
- *Known routes which Emergency service vehicle could use are kept clear;*
- *Alarm call points are clear and visible;*
- *Fire points are clear and extinguishers in place;*
- *All flammable gases/liquids/materials are correctly stored;*
- *Rubbish is not accumulated; and*
- *All escape routes are sufficiently lit;*

On hearing the evacuation alarm each Fire Marshal, if safe to do so, will check the area for which they are responsible to ensure it has been evacuated and report to the muster point for further instructions.

Where safe to do so the fire marshals, with assistance, will aid in extinguishing small fires which can be extinguished with use of one fire extinguisher or less.

Full details of Fire Marshal duties will be included in the site specific Fire and Emergency Plan for the site. This should be formally briefed to all Fire Marshals prior to them commencing works onsite.

3.3.10 Emergency coordinator

Area management team member nominated to undertake the role of emergency coordinator is responsible for:

- *Carrying out a Fire Inspection and Risk Assessment for all relevant areas and buildings;*
- *Producing a Fire and Emergency Plan, review it regularly and ensure it is clearly understood and complied with by everyone on site;*
- *Nominating fire marshals as appropriate, ensuring they are instructed as to their duties;*
- *Ensuring that all personnel (including visitors) receive instruction in fire precautions, action and evacuation in the event of fire;*

- *Ensuring that there are adequate and suitable fire-fighting equipment provided in readily accessible locations and maintained in a serviceable condition.*
- *Ensuring that fire exit routes, fire/smoke doors are clearly signed and that written fire instructions are displayed at suitable points about the premises;*
- *Conducting weekly inspections of escape routes, fire brigade access, fire-fighting facilities and work areas and check that the requirements of the site Fire and Emergency Plan are being followed;*
- *Arranging that fire drills are carried out at least once per project and carry out weekly tests on all alarm and detection devices installed on site;*
- *Maintaining a written record of all checks, inspections, tests, fire patrols and fire drill procedures;*
- *Liaising with security personnel where they are employed; and*
- *Where required by the Fire and Emergency Plan, ensure that a system using hot work checklist is established and check that it is followed.”*

11.6.11 And Section 13.4 *Fire and emergency arrangements* – see *Site Emergency Plan* for specific site plans states:

“The minimum standard fire and emergency arrangements for all sites are set out in the site Fire and Emergency Plan; if an activity requires additional arrangements to be put in place these shall be detailed in the task related Method statement and Risk assessment for that activity. A site Fire and Emergency plan will be developed and briefed out to all site attendees which will detail the full site plans in addition to the below.

Fire – (for in-ground works) a minimum of two 9kg Dry Powder fire extinguishers will be deployed within the immediate work area at all times to facilitate an escape from the excavation should a fire occur. Further requirements may be detailed in the task related Safe System of Work.”

11.6.12 tRiIO therefore provided a detailed *construction phase plan* setting out their emergency procedures and fire safety procedures generic to all MOBs.

11.6.13 I have not found any evidence of tRiIO actually implementing the *construction phase plan* at Grenfell Tower in that I have no evidence of:

- a) A site construction pack for Grenfell Tower containing preconstruction information such as relevant information from the existing *health and safety file* produced during the 2012-2016 Primary Refurbishment;
- b) An appointed fire marshal for Grenfell Tower;
- c) An appointed emergency coordinator;

- d) A Fire Inspection and Risk Assessment for Grenfell Tower;
- e) A site specific Fire and Emergency Plan for Grenfell Tower that dealt with the safety of the residents also (noting a draft version of the plan was emailed on 5th December 2016 {TRI000000486});
- f) Evidence of weekly inspections of escape routes, fire brigade access, fire-fighting facilities and work areas at Grenfell Tower;
- g) Evidence of a fire drill having been undertaken;
- h) Evidence of weekly tests of alarm and detection devices.

11.6.14 Cadent also had a responsibility as client to ensure the adequacy of the *construction phase plan* as set out in Appendix 3 of the CDM 2015 guidance document:

“8 The client must also ensure that:

(a) when it is drawn up, the plan adequately addresses the arrangements for managing the risks; and

(b) the principal contractor (or contractor) regularly reviews and revises the plan to ensure it takes account of any changes that occur as construction progresses and continues to be fit for purpose.”

11.6.15 I have identified further documents that set out construction phase risk identification and mitigation measures titled: *“CDM Design Risk Register”* ({TRI000001769}, {TRI000001218}, and {TRI000001300}) that were produced by tRIIO for the 2016-2017 Gas Riser Replacement.

11.6.16 On 16th July 2018, by letter submitted to the Inquiry on behalf of tRIIO from Addleshaw Goddard {TRI000001796}, tRIIO confirm the process they used for completing CDM Design Risk Registers and CDM Design Risk Assessments, as follows:

“The Design Risk Register (DRR) was completed by a tRIIO designer... A residual risk score of 17 was then generated based on the risks and activities identified for this project.

A full Design Risk Assessment (DRA) is required for projects scoring 18 or more.

...

Whilst the DRR score was still 17, the designer opted to override this manually and to complete a DRA.”

11.6.17 Therefore, *“Design Risk Registers”* are completed for projects. If the resulting *“residual risk score”* is below 18 then a full *“Design Risk Assessment”* is not required. However, a tRIIO *“designer”* can override this, and complete a *“Design Risk Assessment”* where they deem necessary.

- 11.6.18** The first tRIIO “*CDM Design Risk Register*” {TRI000001769} is dated 15th November 2016. This register shows a residual risk score of 17. Therefore, based on the letter above {TRI000001796} a full “*CDM Design Risk Assessment*” would not be required to be undertaken by the tRIIO designer.
- 11.6.19** The second tRIIO “*CDM Design Risk Register*” {TRI000001218} is dated 24th March 2017. This register shows a residual risk score of 17, but the tRIIO designer has ticked the box “*Manual DRA override needed?*”, with the Comment/Reason for this being “*WELDED RISER SYSTEM AND SPECIFIC VENTILATION REQUIREMENTS*”.
- 11.6.20** The reason for this is explained in the letter submitted to the Inquiry on behalf of tRIIO from Addleshaw Goddard {TRI000001796}:
- “On 21 March 2017, tRIIO was made aware that flanged compression joints had been installed onto the pipework rather than welded joints, as per the design. The flanged joints would allow the residents to have their gas supply reinstated more quickly. As a result, on 24 March 2017, the tRIIO design team completed a further DRR. Whilst the DRR score was still 17, the designer opted to override this manually and to complete a DRA so as to include comments regarding the design change. Hence, a DRA was completed in March 2017, but not in November 2016.”*
- 11.6.21** The “*Gasworks Design*” to which reference is made is the March 2017 amended design. It was included within the electronic disclosure provided to the Inquiry by tRIIO in January 2018 (reference PI-001-01232).
- 11.6.22** This document therefore also contains a “*CDM Design Risk Assessment*” (Page 4 of {TRI000001218}). This is excerpted below:

<p>This Design Risk Assessment (DRA) provides a balanced and consistent approach to hazard identification and risk assessment. Through a desktop exercise, the Designer has utilised National Grid systems, as well as other 'free to use' internet based search facilities, to obtain suitable and sufficient information to produce a reasonably practicable approach to risk assessment for this project.</p> <p>Where significant hazards have been identified, a survey may have been conducted at the discretion of the Design Engineer to supplement the desktop exercise.</p> <p>This DRA is to be used in conjunction with the Operational Risk Assessment process.</p>		<p>Project RAG Status based on Residual Risk Score</p> <p>The 'Hazard/Op Overall Risk RAG Status' automatically calculates the residual risk score (and colour).</p> <p>8</p> <p><15 Issue to Ops; No Hazid/Op Handover Meeting Required</p> <p>>15 &/or Penalty Full Hazid/Op Handover Meeting Required</p>		<p>Individual Risk</p> <p>Likelihood</p> <p>Rating 0 = Zero to very low Rating 1 = Very unlikely Rating 2 = Unlikely Rating 3 = Likely Rating 4 = Very Likely Rating 5 = Almost certain</p> <p>Severity</p> <p>Rating 0 = No injury or illness Rating 1 = First aid injury or illness Rating 2 = Minor injury or illness Rating 3 = "3 day" injury or illness Rating 4 = Major injury or illness Rating 5 = Fatality, disabling injury</p> <p>Risk = Likelihood x Severity</p>		<p>CDM Design Risk Assessment</p> <p>Project: Grenfell Towers</p> <p>Project Ref: IMGM170186</p> <p>Doc Ref: TRI EHS 60.04.01 F05 Design Risk Assessment V3.6</p> <p>Date: 24/03/2017</p> <p>Designer: Mark Behm</p> <p>Authoriser: Stephen Johnson</p> <p>Signature: </p>					
No.	Hazard Area / Hazard Identified	Identified Present by Designer	Risk	Risk		Design Action / Control Measures <i>Eliminate, Reduce, Isolate, Control, PPE, Discipline</i>		Residual Risk		Description of Action to be taken	
Permitry Hazards			Permitry Risks	L	S	Risk		L	S		
1	Scaffold Systems / Mobile Towers / Mobile Elevating Work Platforms (MEWP)	<input type="checkbox"/>									
2	Temporary Works / Structures	<input type="checkbox"/>									
Gas Specific Hazards			Gas Specific Risks								
3	Gas Systems HP / NTS Pipelines / IP / MP	<input type="checkbox"/>									
4	Special Engineering Difficulty	<input type="checkbox"/>									
5	Governor Profiling Sense Point on GBNA	<input type="checkbox"/>									
6	Syphons & Valves	<input type="checkbox"/>									
7	CSEP Point on GBNA	<input type="checkbox"/>									
8	SEED/ALARP/Condition Pipe Structural Collapse	<input type="checkbox"/>									
9	Railway, Tram, Metro, Underground Lines, Crossings (incl. embankments)	<input type="checkbox"/>									
10	Schools, Nurseries, Community Centres, Nursing Homes	<input type="checkbox"/>									
Utility Hazards			Utility Risks								
11	Fibre Optic Cables	<input type="checkbox"/>									
12	HV (incl. substations), Water Pumping Stations, Reservoirs	<input type="checkbox"/>									
13	Oil Pipelines, Esso, OPA etc	<input type="checkbox"/>									
14	Overhead Electrical / Power Services, Pylons, Poles, Masts, Towers	<input type="checkbox"/>									
Environmental Hazards			Environmental Risks								
15	Work Over / Under & Near Water (e.g. canal / river / stream)	<input type="checkbox"/>									
16	Asbestos Containing Materials (ACM's), Pipework, Cladding, Insulation, Gaskets	<input type="checkbox"/>									
17	Contaminated Land (incl. holder sites, brown field sites redevelopment)	<input type="checkbox"/>									
18	Sharps	<input type="checkbox"/>									
MOBs Specific Hazards			MOBs Specific Risks								
19	Breach of Fire Compartments	<input checked="" type="checkbox"/>	Loss of fire containment as a result of breach	2	4	8	Procedural Control	1	3	3	Follow Building Regulations & Fire Safety Order, Seal compartments accordingly
20	Failure Mode - Expansion, south facing pipework & thermal expansion	<input type="checkbox"/>									
21	Inadequate ventilation	<input checked="" type="checkbox"/>	Asphyxiation, Confined space, Flame through mixture, Overpressure explosion	4	5	20	Procedural Control	1	5	5	Generic statement to design for Operations to enable ventilation review on site, Gas Safe Engineer review
H Codes			H Code Risks								
22	H Codes	<input type="checkbox"/>									
Additional Hazards			Additional Risks								
23		<input type="checkbox"/>									
24		<input type="checkbox"/>									
25		<input type="checkbox"/>									
Review / Comments / Additional Information											
Breach of Fire Compartments			WELDED INTERNAL RISER SYSTEM, STAIRWELL CONSIDERED A SHAFT IN G5, COMMON AREAS TO BE VENTED BACK TO SHAFT, ADDITIONAL FIRE PROTECTION BOXING REQUIRED FOR PROTECTION OF VALVES AND FLANGES IN SHAFT AREA								
Inadequate ventilation			SEE GASWORKS DESIGN FOR SPECIFIC VENTILATION REQUIREMENTS. SEALED BOXING AND INTUMESCENT VENTS TO BE FITTED								
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
Additional Comment Only											
MOBS Design Amendment Length Allowance		Variance	Input Total System Length in Meters	Site	Designers Comments						
Design Amendment with Total System Length		8%	0	0							
Or Design amendment with Specific Length Per Riser (large systems)		6%	0	0							
Or Design amendment with Specific Length Per Lateral (large Systems)		6%	0	0							
Add as required		8%	0	0							

Figure 11.2 “CDM Design Risk Assessment” (Page 4 of {TRI000001218})

- 11.6.23** I note the table states that *“This DRA is to be used in conjunction with the Operational Risk Assessment Process”*. I have not identified an operational risk assessment for Grenfell Tower.
- 11.6.24** The *“Hazard Area / Hazard Identified”* under number 19 of the list in the assessment is for *“Breach of Fire Compartments”*, with the risk identified as *“Loss of fire containment as a result of breach”*, the *“design action / control measure”* being *“procedural control”*, and the *“description of action to be taken”* stated as *“Follow Building Regulations & Fire Safety Order ,Seal compartments accordingly”*.
- 11.6.25** In the *“Additional information”* section it also detailed for the *“Breach of Fire Compartments”* as *“Welded internal riser system, stairwell considered a shaft in g5, common areas to be vented back to shaft, additional fire protection boxing required for protection of valves and flanges in shaft area”*.
- 11.6.26** Further comments are also provided in the *“Additional information”* section under the hazard of *“inadequate ventilation”*, which states that *“Sealed boxing and intumescent vents to be fitted”*.
- 11.6.27** Whilst the assessment acknowledges that there will be breaches in the compartmentation, and that these should be sealed accordingly, it does not detail where the penetrations are, how many there are, or how they are to be sealed.
- 11.6.28** Nor were drawings provided, detailing where the unprotected penetrations were, or the detailing of fire resisting boxing for any completed works.
- 11.6.29** The impact of this on the existing building risk profile which was already occupied and would remain so during the works, was not recorded.
- 11.6.30** I note that the residual risk *“after mitigation”* was given a number of 8 hence *“No Hazid/Op Handover Meeting Required”*.
- 11.6.31** The third tRIIO *“CDM Design Risk Register”* {TRI000001300} is dated 3rd April 2017. This register shows a residual risk score of 10, but the tRIIO designer has ticked the box asking, *“Manual DRA override needed?”*, with the Comment/Reason for this being *“ASBESTOS FOUND”*. Note this is different to the reason given in the 24th March 2017 version which was *“Welded riser system and specific ventilation requirements”*.
- 11.6.32** It is unclear why the residual risk score has dropped from 17 from the first and second registers to 10 in the third.
- 11.6.33** Page 3 of {TRI000001300} is titled *“CDM Design Risk Assessment”*. The fire safety information that had been included in the 2nd version of {TRI000001218} has been removed.
- 11.6.34** This meant the information on breaches of compartmentation, and on the intumescent vents, were deleted from the 3rd version produced.

11.6.35 It is not clear why this information was removed –as I explained in my Phase 1 evidence, incomplete compartmentation was present the night of the fire.

11.7 Evidence of a *health and safety file*

11.7.1 Unlike preceding version of the CDM Regulations, CDM 2015 is very clear about when a *health and safety file* must be prepared.

11.7.2 To comply with Regulation 12(5) and 12(6) of CDM 2015 tRIIO as the appointed *Principal Designer* were required to:

“(5) During the pre-construction phase, the principal designer must prepare a health and safety file appropriate to the characteristics of the project which must contain information relating to the project which is likely to be needed during any subsequent project to ensure the health and safety of any person.

(6) The principal designer must ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.”

11.7.3 I have found no evidence from any of the CDM 2015 duty holders that the *health and safety file* specific to Grenfell Tower, was obtained by either Cadent or tRIIO from the KCTMO, so that it could be relied upon by tRIIO for the 2016-2017 Gas Riser Replacement works.

11.7.4 Nor is there evidence that tRIIO prepared a new *health and safety file* appropriate to the characteristics of the project.

11.7.5 I would expect that Cadent and the KCTMO would clearly communicate with each other, regarding the existing *health and safety file* for Grenfell Tower, such that tRIIO could take the most up to date information, to enable them to discharge their own project specific duties.

11.7.6 Although the works were not finished on the night of the fire the *health and safety file* should have been a live document, based on the progress of the works; in accordance with Regulation 12 (6) which states:

“The principal designer must ensure that the health and safety file is appropriately reviewed, updated and revised from time to time to take account of the work and any changes that have occurred.”

11.7.7 To be clear, it is my opinion the file could have been one that Cadent had obtained from KCTMO and made available to tRIIO as *principal designer*, or instead a file tRIIO created themselves for Grenfell Tower.

11.7.8 Regardless, tRIIO were required to make any updates, in accordance with Regulation 12(6).

11.7.9 And regardless, Cadent as the client had to ensure it was being and updated. As set out in paragraph 5 and 12 of Appendix 4 of the of the CDM 2015 guidance document (L153):

“5 The client must ensure that the principal designer prepares the health and safety file for a project. As the project progresses, the client must ensure that the principal designer regularly updates, reviews and revises the health and safety file to take account of the work and any changes that have occurred. The client should be aware that if the principal designer’s appointment finishes before the end of the project, the principal designer must pass the health and safety file to the principal contractor, who then must take on the responsibility for the file.”

- 11.7.10** The works by tRIIO involved the installation of new gas supply equipment and the creation of a new fire rated enclosure in the escape stair, work which was only partially completed at the time of the fire.
- 11.7.11** tRIIO should have updated the existing *health and safety file* (albeit I note that I have found no evidence they ever received the file from the KCTMO via Cadent), or created their own file, to include information on how the information provided about any completed works complied with items b), g) and h) from the list of “*health and safety file information*” set out in Appendix 4 of the 2015 guidance document (L153).
- 11.7.12** However I have found as just one example, no evidence of the fire strategy or fire access drawings in the existing *health and safety file* being updated by tRIIO during the *construction phase* of the 2016-2017 Gas Riser Replacement works to include the progress of their works; and the resulting impact on the single means of escape stair. Nor how those works were being mitigated in the final as-built condition.
- 11.7.13** As a minimum I would expect to find a simple record on the *health and safety file* setting out how those changes to the single protected escape stair were being mitigated, in what was a fully occupied building; and how the final condition complied with the Building Regulations, and enabled compliance as relevant, under the RR(FS)O.
- 11.7.14** I will investigate how tRIIO interacted with Carl Stokes and the KCTMO, regarding their respective separate and ongoing duty to update the fire risk assessment for Grenfell Tower, due to the changes to the means of escape stair and lobbies, in a separate Phase 2 report.
- 11.7.15** By not recording these changes in the *health and safety file*, the as built drawings were out of date on the night of the fire and not representative of the condition of the means of escape.
- 11.7.16** This also meant, for future relevant parties relying on the file, as they are required to do, there was no accurate record of the gas supply and equipment in Grenfell Tower. I discovered this for myself when I went to rely on the *health and safety file*, when preparing for my own site inspection of Grenfell Tower.

11.7.17 Concluding remarks

- 11.7.18 The 2016-2017 Gas Riser Replacement works were undertaken to rectify a gas leak discovered in 2016. The project had not been completed at the time of the fire on 14th June 2017 as I describe in Appendix K1.6.37 - K1.6.39 of my Phase 1 {BLAS0000032} expert report.
- 11.7.19 The Tower was therefore still an active construction site in an occupied building on the night of the fire. This presented a risk to both the contractors working onsite and the occupants of the tower.
- 11.7.20 Regulation 12 of CDM 2015 required that tRIIO had produced a *construction phase plan* to mitigate the risks that this posed.
- 11.7.21 I have identified that tRIIO provides a detailed and comprehensive format *construction phase plan* {TRI000001774} however this was generic to all MOBs and contained no specific information for Grenfell Tower. Further to this tRIIO do not seem to have carried out the requirements of their own *construction phase plan*, as I have set out above.
- 11.7.22 Additionally, I have not found any evidence of a *health and safety file* being produced for the 2016-2017 Gas Riser Replacement works. Nor any evidence that the *existing health and safety file* was being reviewed or updated.
- 11.7.23 I conclude therefore the CDM Regulations were not complied with, at Grenfell Tower for the 2016-2017 Gas Riser Replacement works.
- 11.7.24 Again, this situation was presided over by KCTMO, and as a result another project in breach of the CDM Regulations was carried out at Grenfell Tower.
- 11.7.25 It is important to bear in mind that there are wider duties here – emanating from the KCTMO’s duty under the RR(FS)O and Cadent’s corresponding duties under the RR(FS)O.
- 11.7.26 This is caused by Grenfell Tower being classified as a premises occupied by persons other than those carrying out the Gas Riser Replacement works, when those works were under way
- 11.7.27 CDM 2015 advises that the enforcing authority for CDM 2015 *Regulation 30 (emergency procedures)*, *Regulation 31 (emergency routes and exits)* (so far as those regulations relate to fire) and *Regulation 32 (fire detection and firefighting)* (my emphasis in bold):
- “...in respect of a construction site **which is contained within or forms part of premises occupied by persons other than those carrying out construction work**, or any activity related to this work, is—
- a) in England and Wales, the enforcing authority within the meaning of article 25 of the Regulatory Reform (Fire Safety) Order 2005(1) in respect of premises to which that Order applies; ...”

11.7.28 I will deal with any additional statutory breaches caused by the Gas Riser Replacement works, in my Phase 2 report about the RR(FS)O.

11.7.29 I stress this here, because fire risk information and fire risk mitigation measures, were required under two different Regulations, yet despite this dual duty, were still not provided appropriately for these works at Grenfell Tower.

12 Status of the *health and safety file* on the night of the fire

12.1 The contents of a compliant *health and safety file* as required the night of the fire

12.1.1 I have explained that the 2004-2006 Lift replacement works; 2011-2013 Flat Entrance Door Replacement works; 2012-2016 Primary Refurbishment works and 2016-2017 Gas Riser Replacement works all required the relevant duty holder to prepare, review, and update the *health and safety file* for Grenfell Tower, handing this back to the *client* upon completion of the *construction phase* of the works to meet the specific duties I have presented in Sections 3, 4, and 5 of this Report.

12.1.2 Accordingly, on the night of the fire, there should have been a document for Grenfell Tower containing all of the following up to date information as outlined in the 1994/2007 ACOPs (HSG224/L144) and 2015 guidance document (L153):

“(a) a brief description of the work carried out;

(b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);

(c) key structural principles (e.g. bracing, sources of substantial stored energy – including pre- or post-tensioned members) and safe working loads for floors and roofs;

(d) hazardous materials used (e.g. lead paints and special coatings);

(e) information regarding the removal or dismantling of installed plant and equipment (e.g. any special arrangements for lifting such equipment);

(f) health and safety information about equipment provided for cleaning or maintaining the structure;

(g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;

(h) information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors).”

12.1.3 The contents of the *health and safety file* should have substantially comprised the information Rydon had contractually agreed to produce for the 2012-2016 Primary Refurbishment works, on behalf of KCTMO.

12.1.4 Additionally, Appendix IV of L135 states:

“There should be enough detail to allow the likely risks to be identified and addressed by those carrying out the work. However, the level of detail should be proportionate to the risks. The file should not include things that will be of

*no help when planning future construction work such as pre-construction information, the construction phase plan, contractual documents, safety method statements etc. **Information must be in a convenient form, clear, concise and easily understandable.***

12.1.5 tRIIO as *principal designer* of the ongoing 2016-2017 Gas Riser Replacement works, which impacted the single means of escape route, should have been keeping the *health and safety file* up to date.

12.1.6 Further KCTMO should have been fully aware of the file, its contents, its location (if for example they gave it to tRIIO on a USB stick to take off site), and that it was being updated, when relevant to do so, by tRIIO.

12.1.7 It is reasonable to expect that KCTMO could provide the most up to date documentation immediately upon request as was their statutory duty under Regulations 2(2) and 4(5) of CDM 2015 as follows (bold emphasis added by me):

“2(2) Any reference in these Regulations to a plan, rule, document, report or copy includes a copy or electronic version which is—

*(a) **capable of being retrieved or reproduced when required; and***

(b) secure from loss or unauthorised interference.”

12.1.8 And

“4(5) A client must ensure that—

...

(b) the principal designer prepares a health and safety file for the project, which

(i)complies with the requirements of regulation 12(5);

(ii)is revised from time to time as appropriate to incorporate any relevant new information; and

(iii)is kept available for inspection by any person who may need it to comply with any relevant legal requirements.”

12.1.9 This is explained further in Appendix 4 of the 2015 guidance document (L153) as:

“7 The client must then retain the file and ensure it is available to anyone who may need it for as long as it is relevant – normally the lifetime of the building – to enable them to comply with health and safety requirements during any subsequent project. It can be kept electronically, on paper, on film, or any other durable form.”

12.1.10 Therefore, I think it is reasonable to expect this was information that KCTMO could make available to the fire and rescue services when they requested such information that night.

- 12.1.11** Additionally, as I explain in my Phase 2 Report regarding Regulation 38 of the Building Regulations 2010, the more extensive *fire safety manual* is required to be available for the fire and rescue services at any time.
- 12.1.12** When the fire safety manual is separate from the *health and safety file* required by CDM 2015, the information from the *health and safety file* should be duplicated in *the fire safety manual*, by reference to BS 9999 Annex H.
- 12.1.13** This states:
- “NOTE Depending on circumstances, the fire safety manual might need to be separate from the safety plan required by the Construction (Design and Management) Regulations 2007, in which case the information from this should be duplicated in the fire safety manual.”*
- 12.1.14** At Grenfell Tower, the *health and safety file*, could not be read as a standalone document, it was substantially a reference document for the reader to seek out relevant information in an extensive building manual.
- 12.1.15** However, as I have identified in Section 10.3 the majority of these cross references were incorrect. I do not think this can be categorised as information *“in a convenient form, clear, concise and easily understandable”*.
- 12.1.16** Additionally, it is my opinion that it is reasonable to expect that if the fire safety manual was not available for the fire and rescue service, even though it was required to be, the *health and safety file* could be made available instead; and vice versa.
- 12.1.17** For Grenfell Tower, these documents were intrinsically linked, and could only be read together, to find relevant fire safety information.

12.2 Location of the *health and safety file* on the night of the fire

- 12.2.1** In Ms Williams witness statement {TMO00853697} she describes collating pre *construction information* to hand over to the CDM-C as follows:

39. These documents came from various TMO systems. It was my understanding that there was in effect an “unwritten constituted” health and safety file for every building incorporating building specific documents on various systems. The data for these Health and Safety files will be updated as the buildings are used. The TMO several systems for information storage, because of the numbers of properties and amount of data required. These would mostly be:

40. KCTMO Asset data storage system, called Keystone. This system kept data on various components of the buildings, such as walls, window and roofing. This would be my first place to look to understand age of the building, building type and any ancillary information. This database was used to inform planned programmes of work. The stock condition surveys were uploaded into this database. For example, the new Grenfell Tower electrical certificates were uploaded onto this system in specifically named files so they could be identified and retrieved.

41. Assets and Regeneration/Contracts Team database: This would have information/schedules of equipment and servicing updates for things like boilers, communal entryphone, lighting. For example I recall giving the Contracts team information on the new boilers, which their service contractor would be taking over this information.

42. The shared drive for the Asset and Regeneration Team contained the Building Manuals/O&M manuals for projects where work had been completed, such as the various kitchen and bathroom renewal programmes and cyclical decoration.. The Grenfell Tower refurbishment O&M manual was uploaded onto this system

43. The asbestos database: Janice Wray kept this. I provided these reports to her on works carried out by Rydon when they needed to test panels when they identified concerns when carrying out works within flats - usually bathroom or fanlight panels.

Figure 12.1 Excerpts from Claire Williams witness statement {TMO00853697}

12.2.2 I have not been provided with evidence to independently verify this approach.

12.2.3 However, prior to the 2012-2016 Primary Refurbishment works, the *health and safety file* appear to have been split across three separate TMO electronic systems.

12.2.4 When discussing receiving the completed *health and safety file* from Rydon in 2016, Ms Williams goes on to state:

57. I have never compiled a Health and Safety file previously. I recall receiving a memory stick from Rydon containing the Health and Safety file and looking at how the files on it were categorised, however I would not have had the technical expertise to assess whether it complied with the statutory requirements. Rydon had told us that they were passing it to a specialist. I had no reason to doubt that it would not be done properly.

Figure 12.2 Excerpts from Claire Williams witness statement {TMO00853697}

12.2.5 It is important to note that at the point Ms Williams received the *health and safety file*, KCTMO were the *principal designer*, and ultimately the regulatory requirement to produce the file was theirs, hence KCTMO were responsible

for the quality of what All Groups Holdings had produced on behalf of Rydon (Please refer back to Section 10 of this Phase 2 report).

12.2.6 I also note that Regulation 8 of CDM 2015 states:

*“8.—(1) A designer (**including a principal designer**) or contractor (including a principal contractor) appointed to work on a project **must have the skills, knowledge and experience**, and, if they are an organisation, the organisational capability, **necessary to fulfil the role that they are appointed to undertake**, in a manner that secures the health and safety of any person affected by the project.”*

12.2.7 It is of concern that KCTMO accepted the role of *Principal Designer* when Claire Williams retrospectively acknowledges at paragraph 57 of her witness statement {TMO00853697} *“I would not have had the technical expertise to assess whether it complied with the statutory guidance”*.

12.2.8 In paragraph 42 of her witness statement (bold emphasis added by me):

*“42. The shared drive for the Asset and Regeneration Team contained the Building Manuals/O&M manuals for projects where work had been completed, such as the various kitchen and bathroom renewal programmes and cyclical decoration.. **The Grenfell Tower refurbishment O&M manual was uploaded onto this system”***

12.2.9 I note that Ms Williams to date, makes no reference to Cadent or tRIIO having been given a copy of the *health and safety file*, in preparing for their work, nor references any updates to the file, to reflect the gas refurbishment works at Grenfell Tower.

12.2.10 I do not know either if or how those companies were provided with the *health and safety file*, noting it was the Client duty to “*ensure*” they received it.

12.2.11 I have found no evidence that any party relied on the *health and safety file* (Part 4 of the Building Manual provided by Rydon to the KCTMO) during those works.

12.2.12 Therefore on the night of the fire my understanding is that the *health and safety file* was either contained on the memory stick that Rydon gave the TMO (and I don’t know where that memory stick was located), or the information had already been uploaded onto any of the four separate TMO computer systems.

12.3 Actual contents of the *health and safety file* on the night of the fire

12.3.1 The *health and safety file* produced by All Group Holdings for Rydon as part of the 2012-2016 Primary Refurbishment works (reviewed in Section 10.3) contained limited background information on the works undertaken during the 2012-2016 Primary Refurbishment, and substantially cross-referenced to

information elsewhere in the Rydon Building Manual. It was not a “stand alone” *health and safety file*.

12.3.2 As I have explained in detail in Section 10, the majority of the cross-references are inaccurate as they refer to either the wrong part of the Rydon Building Manual or parts of the Rydon Building Manual that do not exist.

12.3.3 As set out in the Chairman’s Phase 1 report, in Volume IV Section 7(2)(d) visits and the Operational Response Database:

“On the night of the fire AC Andrew Roe was particularly exercised by the absence of any plans of the tower until very late in the incident. Had the LFB maintained a proper ORD for, and ensured that the TMO had provided it with plans of, the tower, AC Roe would not have had cause to complain on that score.”

12.3.4 And at Volume IV Section 3 Arrangements for Inter-agency Communications:

“30.124 An enduring feature of the incident was that the LFB had no floor plans or drawings of the tower. There was no information of that kind on the ORD and the building had no premises information box. These fundamental failings by the LFB and the TMO175 have been addressed at Chapter 27 of the Report. The consequence was that the LFB was forced to seek plans from the LALO and from the TMO, but could only do so once the relevant staff had arrived.”

12.3.5 I will not provide any expert opinion on ORD nor premises information boxes here. But offer the following relevant information, on the subject of the availability of plans of Grenfell Tower in Section 12.4 below.

12.3.6 It is my opinion there were two additional sources these drawings were required to be contained within and available from (1) the *health and safety file*, as required by CDM; and (2) the fire safety manual as required by the Building Regulations.

12.3.7 It is on this basis I provide the following evidence and opinion.

12.4 Availability of the *health and safety file* to LFB on the night of the fire

12.4.1 The drawings provided to AC Roe

12.4.2 On the night of the fire, LFB requested the plans for the building on a number of occasions, as I have set out from the evidence presented in Table 12.1 below.

Table 12.1: Timeline of drawing requests – formulated using {MET00005404} only

Time plans were requested	Transcript of decision logging and tactical coordination meeting minutes for Incident Commander AC Roe {MET00005404}	Record of Actions – AC Roe {MET00005405}	Witness statement LFB – AC Roe {MET00007520}
03:20		<i>“I asked for plans from the LA.”</i>	<i>“I requested plans from the Local Authority, which I did not get”</i>
04:51		<i>“I asked the CU crew why we still didn’t have plans of the building, they confirmed again there were none on ORD but there were meant to be a set in a premises information box in the lobby of the tower according to the ORD entry. I asked for this information to be relayed to the fire sector and made a note to ask for a set from the LA at the meeting again.”</i>	<i>“I asked CU crew why we still didn’t have plans of the building and they confirmed again there were none on ORD (mapping system) but there were meant to be a set in a premises information box in the lobby of the tower according to the ORD entry. I asked for this information to be relayed to the fire sector and made a note to ask for a set from the LA at the meeting again.”</i>
04:53	<i>“Cu staff report building plans should be in fire box in lobby”</i>		
06:13	<i>“DSE District surveyor... will attempt to locate plans”</i>	<i>“I asked him for plans and he said he would personally find someone on the LA to supply them”</i>	<i>“I got an update from the DSE at 0613 hrs explaining he could not get back into the building safely but had assessed it was unlikely that the floor plates would fail leading to a pancake collapse. I asked him for plans and he said he would personally find someone in the LA to supply them”</i>
07:13	<i>“Andy Roe requests plans from Local Authority LALO is Mr Rumble”</i>	<i>“Once again I formally requested plans from the LA who had not yet produced any.”</i>	<i>“I once again formally requested plans from the LA who had not yet produced any”</i>


- 12.4.3** Further to Table 12.1 above, in his witness statement, AC Roe stated that he “asked for 5 hours for the building plans from the Local Authority. I would have wanted these a lot earlier to get a better understanding of the building” {MET00010065}.
- 12.4.4** The information in Table 12.1 has been derived solely from AC Roes witness statements to the inquiry and the Metropolitan Police.
- 12.4.5** I am aware of Paragraph 30.124 to 30.131 of Volume 4 of the Grenfell Tower Inquiry Phase 1 report which states:
- “The evidence is not entirely clear about when the LFB started asking for plans of the building.....”.*
- “On balance, I think that AC Roe probably had asked someone to obtain plans of the tower before the fourth TCG meeting at 07.10 but that he had done so in a less formal context than the earlier TCG meetings which Nickolas Layton had attended”*
- “I think it likely that the LFB were provided with plans of the building between 07.35, when the fourth TCG meeting ended, 187 and around 08.00. The evidence suggests that the plans were probably provided by the TMO, although RBKC had by then been able to find them in its files. It would therefore have been able to make them available at about the same time, but not any earlier”*
- 12.4.6** I do not know why AC Roe was asking the local authority for the drawings and not the responsible person (i.e. KCTMO) as they were the party required to be in possession of both the Building Manual and the *health and safety file*.
- 12.4.7** As I have explained throughout this Report, KCTMO had the statutory obligation to have the *health and safety file*: “capable of being retrieved or reproduced when required”, and “available for inspection by any person who may need it to comply with the relevant legal requirements.”
- 12.4.8** I note that on the night of the fire, as the gas works were not completed, tRIIO would have been the latest party keeping the file up to date; but it is my opinion the relevant staff at the KCTMO should have been entirely familiar with the location and status of the file.
- 12.4.9** The testimony of AC Roe (Day 49, Page 102), states:

- 1 **A. I can't remember the exact time, but I know we did**
2 **receive a set of plans. I don't know whether it's**
3 **recorded in a TCM. I can't remember the detail of my**
4 **own log. But we certainly did receive plans of the**
5 **floor plate.**
6 Q. Since you mention it, it is recorded. It's 08.45. If
7 you go to page ... forgive me, I have a wrong reference
8 there.
9 The thing I want to show you, then, is the plans
10 themselves. If you go to LFB00001968, let's try it this
11 way. Go, please, to pages 49 and 51.
12 Are those the plans that you received at some point?
13 **A. Yes, I think they are, because I saw them briefly. I do**
14 **have a memory of that. So that seems familiar to me,**
15 **yes.**

Figure 12.3 Excerpt from testimony of AC Roe (Day 49, Page 102)

- 12.4.10** My understanding is therefore that AC Roe received two drawings: page 49 and page 51 of {LFB00001968}.
- 12.4.11** Page 49 of {LFB00001968} is a plan drawing titled "*Fire strategy*".
- 12.4.12** The plan drawing shows the "*mezzanine*"; "*walkway level*"; "*walkway +1 (new resi)*" and "*typical residential floor*".
- 12.4.13** In Figure 12.4, I have compared the drawing boxes of Page 49 of {LFB00001968} and drawing 1279 (08) 101 Issue 05 contained in Part 1 Section 1.2.4 of the KCTMO Building Manual {TMOM00000007}.

05	11/01/16	Scheme Updated
04	23/02/15	Scheme Updated
03	13/02/15	Scheme Updated
02	10/11/14	Scheme Updated
01	24/10/14	Scheme Updated



AS BUILT

STUDIO E ARCHITECTS LTD

111 Upton House, 164/180 Upton Street
London E2 1UH

GRENFELL TOWER
REGENERATION PROJECT

PROJECT

FIRE STRATEGY

DRAWING

1:100@A1 24/10/13

SCALE DATE

1279 (08) 101 05 BS

DWG. NO. ISSUE CHECKED

05	11/01/16	Scheme Updated
04	23/02/15	Scheme Updated
03	13/02/15	Scheme Updated
02	10/11/14	Scheme Updated
01	24/10/14	Scheme Updated



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PROJECT

FIRE STRATEGY

DRAWING

1:100@A1 24/10/13

SCALE DATE

1279 (08) 101 05 BS

DWG. NO. ISSUE CHECKED

Page 49 of {LFB00001968}

1279 (08) 101 Issue 05 contained in Part 1
Section 1.2.4 of the TMO Building Manual
{TMOM00000007}.

Figure 12.4: Comparison of Page 49 of {LFB00001968} and 1279 (08) 101 Issue 05 contained in Section 1.3.2{TMOM00000007} of the Rydon Building Manual

- 12.4.14** From the comparison in Figure 12.4, the drawing received by LFB on the night of the fire appears to be the “*fire strategy*” drawing 1279 (08) 101 Issue 05 dated 11th January 2016 which was one of the two drawings contained in Part 1 Section 1.2.4 of the *Building Manual* {TMOM00000007} (with additional copies of the drawing contained in Part 2 Section 2.1.1.2{TMOM000000078}; Part 5, Section 2, Sub-section 2.4{TMOM00002070}; Part 5, Section 2, Sub-section 2.4{TMOM00002195}), noting the cross reference from *the health and safety file* to these drawings was incorrect.
- 12.4.15** Next, on Page 51 of {LFB00001968} is the second drawing provided to AC Roe. This is a “*proposed Residential Plan*” drawing (1279 (04) 105

Revision A Dated 13th August 2013). This drawing is an architectural general arrangement and does not show any fire safety features of Grenfell Tower.

12.4.16 This drawing is not contained in any part of the *Building Manual* disclosed by KCTMO hence could not be referenced by the *health and safety file* in Part 4.

12.4.17 Note “*Proposed Residential Plan*” 1279 (04) 105 Rev A dated 13th August 2013 that AC Roe received had been superseded by 1279 (04) 105 Rev 00 dated 9th November 2013 {SEA00010474}.

12.4.18 This later version was sent to RBKC Building control by Neil Crawford (Studio E) on 24th September 2014 {RYD00018742}.

12.4.19 Therefore, the “*Proposed Residential Plan*” 1279 (04) 105 Rev A, AC Roe received on the night of the fire was not an as-built drawing and was not even the final version of drawing 1279 (04) 105, which was Rev 00 {SEA00010474}.

12.4.20 The drawings made available to the fire service, which should have been provided by the KCTMO, were required to be as-built drawings representing the final condition of the 2012-2016 Primary Refurbishment works; which some updates by tRHO as part of their ongoing 2016-2017 Gas Riser Replacement works.

12.4.21 This is not what was provided to AC Roe.

12.4.22 I do not know who gave AC Roe these drawings.

12.4.23 Evidence that KCTMO issued drawings during the fire incident

12.4.24 The first evidence I am aware of KCTMO issuing drawings to LFB was at 1212 on 14th of June 2017, the day of the fire {TMO00870864}, as referenced by Claire Williams in her 5th witness statement {TMO00870592}.

12.4.25 This email was subsequently forwarded to LFB at 1539 by Peter Maddison (KCTMO) {TMO00870864} as it appears Ms Williams had misspelled Chris Line’s (LFB) email address in her original email.

12.4.26 Ms Williams’s original email {TMO00870864} was sent almost four hours after LFB had obtained the plans elsewhere (based on the timings in Table 12.1 and paragraphs 30.124 to 30.131 of Volume 4 of the Grenfell Tower Inquiry Phase 1 report).

12.4.27 In her email Ms Williams states {TMO00870864}:

“Hello

Here are the floor plans of Grenfell Tower.

This shows the flat numbering of the new floors, as well as how the existing floors from 4th floor upwards are numbered.

Flat 11 on the fourth floor has flats 21, 31, 41 etc above it.

Flat 12 on the fourth floor has flats 22, 32, 42 etc above it – the numbering is standardised.”

12.4.28 The drawing {TMO00870866} attached to the email {TMO00870864} is shown in Figure 12.5 below:



Figure 12.5 Drawing {TMO00870866} attached to 1212 email sent by Claire Williams to LFB on the 14th of June 2017, the day of the fire {TMO00870864}

- 12.4.29** The drawing {TMO00870866} that Ms Williams attached appears to be a scanned copy of the *fire strategy drawing* from Part 1 Section 1.2.4 of the *Building Manual* {TMOM00000007}, noting the cross reference from *the health and safety file* to these drawings was incorrect.
- 12.4.30** Due to the quality of the scan it is not possible to observe the title box of the drawing.
- 12.4.31** Flat numbers have been hand marked on to the drawing. This was not included on the original drawing in the Building Manual {TMOM00000007}.
- 12.4.32** Later that day at Claire Williams emailed Janice Wray at 1607 {TMO00870875} attaching a pdf titled *1279_PL010_Existing Floor Plans (002)* {TMO00870876}. The file appears to be corrupted in the version disclosed to me however I have identified an alternative at {TMO00835555}.
- 12.4.33** This is shown in Figure 12.6.

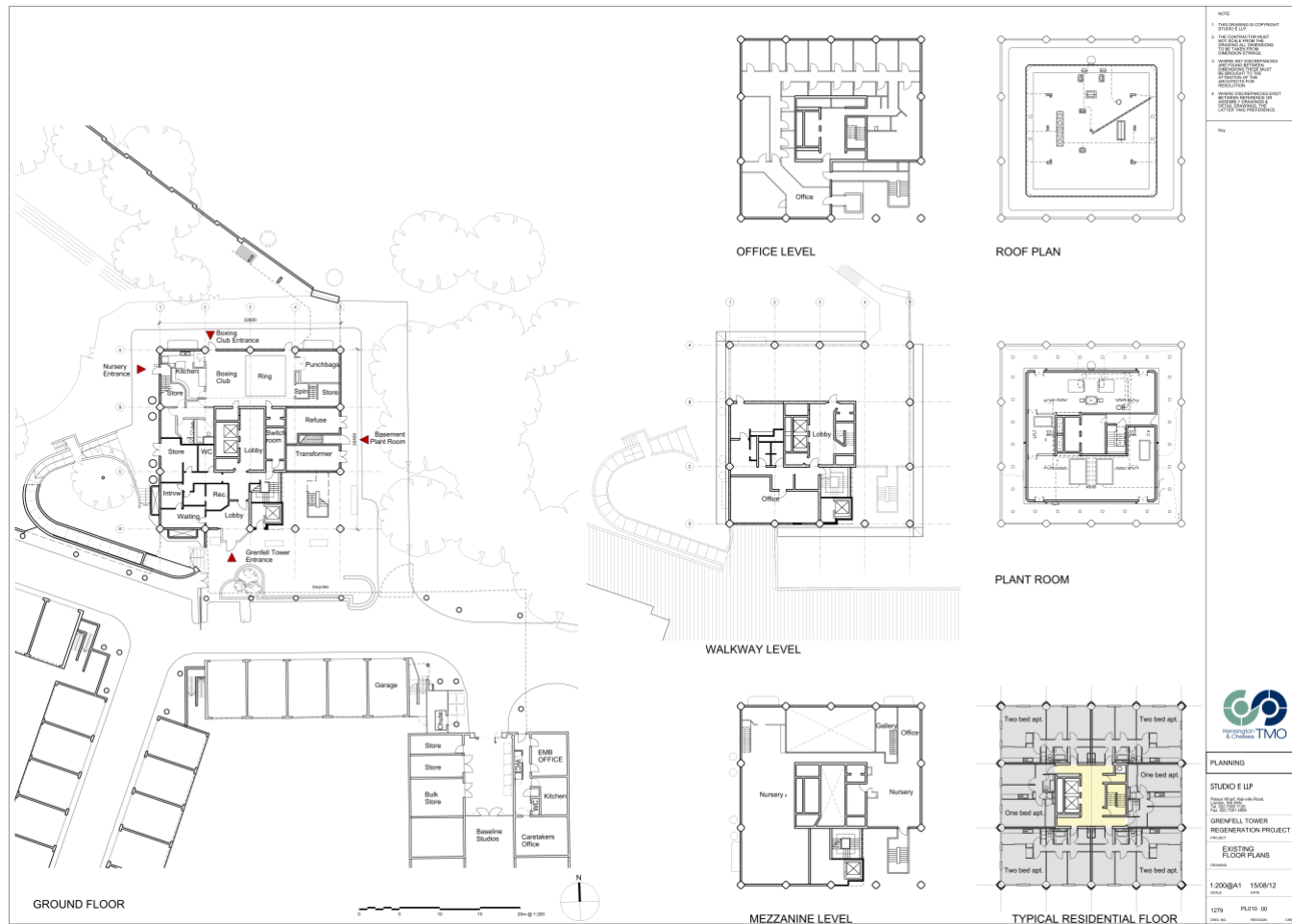


Figure 12.6 Alternative source {TMO00835555} of Drawing {TMO00870876} attached to 1607 email sent by Claire Williams (KCTMO) to Janice Wray (LFB) on the 14th of June 2017, the day of the fire { TMO00870875}

- 12.4.34** From Figure 12.6 it can be seen that *1279_PL010_Existing Floor Plans (002)* only contains information relating to the existing building prior to the 2012 to 2016 Refurbishment.
- 12.4.35** The following day at 0954 Claire Williams emailed the Borough Emergency Control Centre {TMO00870868} again attaching *1279_PL010_Existing Floor Plans (002)* {TMO00870876} and the fire strategy with handwritten over marking of the flat number Drawing {TMO00870866} as she had previously sent to Janice Wray and LFB respectively.
- 12.4.36** Because in my opinion, the KCTMO were substantially in breach of their fire safety information related duties under the CDM Regulations, they could not as a result, provide relevant information to the LFB from their *health and safety file*. I am of the opinion they should have been in the position to do so.

13 Conclusions

13.1 The relevance of the *health and safety file* from a fire safety perspective

13.1.1 First, I want to be clear that the purpose of the CDM Regulations is related to construction work, and is described in the explanatory memorandum to the most recent CDM 2015 Regulations:

“2.1 This instrument (“the 2015 Regulations”) is intended to protect persons from health and safety risks arising from construction work through the establishment of a systematic framework for management of those risks.”

13.1.2 However, when construction work occurs in an existing building, as was the case for Grenfell Tower, this means it is not just construction workers who require protection. It means any building occupant requires protection. From a fire safety perspective, CDM for that condition, then refers out to the RR(FS)O. Through these two regimes, in combination, protection is provided to those persons not at work on the construction site.

13.1.3 In my opinion this does mean there is an additional level of care when construction work occurs in a building occupied by several hundred residents; all sharing the same fire protection features, as was the case at Grenfell Tower on several distinct occasions. I have explained those works in this Report.

13.1.4 A definitive and clear understanding of the shared fire protection features and their condition is therefore essential to: (a) ensure the construction work environment in itself is safe; (b) to ensure the construction work does not degrade the fire protection features upon which all the other building occupants rely; and (c) when the works do impact the fire protection measures, mitigation can be put in place, to protect both the construction workers and the other building occupants.

13.1.5 That is why I have produced this report about the role of the *health and safety file*, when considering fire safety matters.

13.1.6 I have reviewed four packages of work that took place at Grenfell Tower, for compliance with the relevant CDM Regulations:

- a) 2004-2006 Lift replacement works;
- b) 2011-2013 Flat entrance door replacement works;
- c) 2012-2016 Primary refurbishment works; and
- d) 2016-2017 Gas riser replacement works.

13.1.7 I have presented the findings of my investigation in this report.

13.1.8 I conclude the following.

13.2 Lift Replacement works

- 13.2.1 The HSE *notification of project form* (pages 29-30 of {TMO00869718}) for the 2004-2006 Lift replacement works is dated 20th December 2004; with the works stated to start on 1st February 2005 for 52 weeks. CDM 1994 was therefore the relevant Regulations in force for the entirety of these works.
- 13.2.2 I have concluded from the evidence, that the KCTMO were *client*, Butler & Young Associates the *planning supervisor*; and Apex Lift & Escalator Engineers Ltd the *principal contractor*.
- 13.2.3 As the project exceeded 30 days of construction, it was therefore *notifiable*, and a *health and safety file* was required to comply with Regulation 14 of CDM 1994.
- 13.2.4 Butler & Young Associates as the *planning supervisor* had the duty to create and maintain a *health and safety file*, then deliver the *health and safety file* to the KCTMO upon completion of the works.
- 13.2.5 I have found 3 references to a *health and safety file* as follows:
- a) Apex letter dated 10th January 2005 {APX00000049}
 - b) Meeting minutes dated 23rd February 2006 {APX00004944}
 - c) Apex letter dated 24th February 2006 {APX00000050}
- 13.2.6 I have been unable to confirm if the specific *health and safety file* referred to from these 3 pieces of evidence, are also included in the evidence available to me.
- 13.2.7 I have found one file in the evidence available to me titled “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} produced by Apex, not by the *planning supervisor* Butler & Young.
- 13.2.8 This document has two front covers, the first titled *health and safety file*, and the second *health and safety plan*.
- 13.2.9 The information provided in this document is a collection of health and safety documentation relevant for compliance with the CDM Regulations for the pre-tender and construction phases of the project.
- 13.2.10 The information is not relevant to the final handover condition of the works, and therefore was a breach of the CDM 1994 regulations.
- 13.2.11 To comply with Regulation 14 of CDM 1994, Butler & Young Associates as the *planning supervisor* had a duty to create and maintain a *health and safety file* and then deliver the *health and safety file* to the KCTMO upon completion of the works.
- 13.2.12 I have found no evidence that Butler & Young Associates carried out this duty.

- 13.2.13** Nor have I found evidence that they reviewed the Apex document, which was sent directly to the KCTMO by Apex {APX00000050}.
- 13.2.14** I consider this arrangement to be a breach of the CDM Regulations also; and presided over by the KCTMO at the time.
- 13.2.15** I have also found in the evidence that the document: “*Health and Safety File for Grenfell Tower Lancaster West Estate, London W11 1TQ*” {TMO00869718} produced by Apex was later issued as part of the *pre-construction information* produced by Artelia for the 2012 to 2016 primary refurbishment.
- 13.2.16** The document was listed in Artelia’s tender package (p267 of {RYD00000001}) under the title “*Health and Safety Plan*”. However I also note that Artelia’s *pre-construction information* document {RYD00092644} for the 2012-2016 primary refurbishment stated that no *health and safety file* was available (see Section 9.5.37).

13.3 Flat Entrance Door Replacement works

- 13.3.1** I have not found an F10 *notification* form for the 2011-2013 flat entrance door replacement works, noting that these works were notifiable works to CDM 2007. This is because as I concluded in Section 8.1, irrespective of the method of measurement, the duration of the 2011-2013 Flat entrance door replacement works exceeded 30 days of construction.
- 13.3.2** The evidence regarding these works shows what appears to me to be a considerable lack of understanding on the part of relevant staff at the KCTMO, regarding KCTMO’s duties under the CDM Regulations which I set out in Section 8 and summarise below.
- 13.3.3** It is my opinion the works were notifiable in accordance with Regulation 2(3) of CDM 2007, and so the KCTMO had a duty to appoint a *CDM co-ordinator* and a *principal contractor* to comply with Regulation 14 of CDM 2007.
- 13.3.4** In Section 8.3, I have set out the documentation I have available as to the duty holders KCTMO appointed for the 2011-2013 flat entrance door replacement works.
- 13.3.5** The information is inconsistent as to whether the project was considered by the KCTMO as *notifiable*.
- 13.3.6** Additionally, based on the evidence available to me:
- a) KCTMO appointed Baily Garner as *CDM coordinator* up to the issue of the tender documents on 10th January 2011. However, KCTMO did not engage with Baily Garner any further after this time.
 - b) Baily Garner worked from the 4th to the 10th January 2011 and invoiced on the 31st January 2011 {BAG00000035}. I have found no evidence they were involved in the fire door replacement works after January 2011

(although there are contrary statements made by Abigail Acosta {TMO00862539}).

- c) Even though Robert Black of the KCTMO wrote a letter to Manse Masterdor expressing the intention to appoint them as *principal contractor* {MAS00000016}, KCTMO did not appoint Manse Masterdor as *principal contractor*, as the signed contract {MAS00000086} expressly removed this role.

13.3.7 I have concluded that the KCTMO did not create a process which complied with the CDM Regulations, and the evidence so far demonstrates they did not formally appoint any duty holders for the *construction phase* works, as required by CDM 2007.

13.3.8 Therefore, I conclude that the *client* for the works was the KCTMO. The *CDM co-ordinator* role also appears to have fallen to the KCTMO by means of no other appointment being made. Similarly, the *principal contractor* role became the KCTMO's role also.

13.3.9 KCTMO therefore entirely failed to discharge their duties under Regulation 14 "*Appointments by the client where a project is notifiable*" under CDM 2007.

13.3.10 Regarding the resulting *health and safety file* at the end of these works, Section 56.1 of the KCTMO tender brief "*Replacement flat front entrance doors and associated work specification*" {MAS00000039} issued on 5th January 2011 states:

"The Building Manual (incorporating the Health and Safety file and subtitled accordingly) is to be a comprehensive information source and guide for the Employer and end users, providing a complete understanding of the building and its system and enabling it to be operated and [sic] maintained efficiently and safely."

13.3.11 To comply with Regulation 20(2)(e) and (f) of CDM 2007 it was the duty of the *CDM co-ordinator* to create and then update the *health and safety file* then pass the *health and safety file* to the *client* KCTMO at the end of the *construction phase*.

13.3.12 I have found no such file, nor any evidence from either KCTMO or Manse Masterdor, that a *health and safety file* was created for the 2011-2013 Flat entrance door replacement works.

13.3.13 I conclude this whole arrangement was a breach of the CDM 2007 Regulations, again presided over by the KCTMO at that time.

13.4 Primary Refurbishment works

13.4.1 The initial HSE F10 notification of construction project form {ART00006493} which was issued by Artelia to the HSE confirms that Artelia UK were the appointed *CDM co-ordinator* under CDM 2007 for the 2012-2016 Primary refurbishment works.

- 13.4.2** The HSE F10 form also confirms that the KCTMO were the *client*; and Rydon were the *principal contractor* for the project.
- 13.4.3** Due to the Regulation change in 2015, a formal “*transitional period*” applied and therefore the requirements of Schedule 4 paragraph 4 of CDM 2015 applied regarding the transfer of duties of the *CDM co-ordinator* to the *principal designer*.
- 13.4.4** The primary refurbishment works were not complete by 6th October 2015 (the end of the “*transitional period*”) therefore the *client* was required to appoint a *principal designer* for the project under Schedule 4 paragraph 4(3) of CDM 2015, for the period 6th October 2015 to the end of the primary refurbishment works.
- 13.4.5** KCTMO became the *principal designer* but relied on Rydon to collate the information required for the health and safety file, by means of contractual obligations.
- 13.4.6** Rydon went on to rely on All Group Holdings from 11th March 2016 {RYD00071352}.
- 13.4.7** At the beginning of the 2012-2016 Primary Refurbishment works, *pre-construction information* prepared by Artelia states at Section 3.14 that there was no existing *health and safety file* for Grenfell Tower {RYD00092644}.
- 13.4.8** Therefore, it became Artelia’s duty as *CDM co-ordinator* to create a *health and safety file* to comply with CDM 2007.
- 13.4.9** This is also clear contractually from Paragraph 110 of Part 2A preliminaries of Rydon’s contract with KCTMO {RYD000000001} which states the building manual should contain “*The Health and Safety File: (prepared and supplied by the CDM Coordinator)*” where Artelia are listed on page 1 of the contract at the *CDM Coordinator*.
- 13.4.10** I have not found any evidence of a *health and safety file* having been produced or maintained by Artelia, under CDM 2007 for the duration of their appointment as *CDM co-ordinator* from 21st August 2012 to 6th October 2015. On that date CDM 2015 came into force in full and Artelia’s *CDM co-ordinator* duties then concluded.
- 13.4.11** Regarding Artelia’s handover to the KCTMO, the evidence shows no *health and safety file* was provided to the KCTMO at that time.
- 13.4.12** This failure was a breach of the CDM Regulations 2007, and the transitional provisions set out in Schedule 4 of CDM 2015.
- 13.4.13** After the 6th October KCTMO as *principal designer*, relied upon Rydon to provide the information for the health and safety file.
- 13.4.14** Rydon appointed a third party (All Group Holdings) to produce a *health and safety file* in addition to the Building Manual and instructed those works on 11th March 2016.

- 13.4.15** I set out in Table 10.2 how the *health and safety file* produced by All Group Holdings on behalf of Rydon differed substantially from the format and content required by Rydon’s contract with KCTMO {RYD00000001}.
- 13.4.16** I have reviewed the file in Section 10.3. As I explain in that section, the 2015 HSE Guidance Document (L153) sets out guidance for the content of the *health and safety file* and this was relevant to the file produced for the 2012-2016 primary refurbishment works as follows:
- “(b) any hazards that have not been eliminated through the design and construction processes, and how they have been addressed (e.g. surveys or other information concerning asbestos or contaminated land);*
- ...
- (g) the nature, location and markings of significant services, including underground cables; gas supply equipment; fire-fighting services etc;*
- ...
- (h) information and as-built drawings of the building, its plant and equipment (e.g. the means of safe access to and from service voids and fire doors).”*
- 13.4.17** In accordance with the 2015 HSE Guidance Document (L153), this information must also “... *be in a convenient form, clear, concise and easily understandable.*”
- 13.4.18** I have concluded that the *health and safety file* as it existed at the end of the 2012-2016 primary refurbishment was substantially non-compliant with these items as follows:
- a) No residual risk registers are provided and therefore the reader cannot understand what hazards may remain that must be managed over the future life of the building;
 - b) Extensive information is referred to by the *health and safety file* with regard to building services, however, the cross references are either incorrect or unclear and no structure is provided to clearly identify the information that relates to fire safety systems; and
 - c) With respect to information and as-built drawings, again the cross references provided in the *health and safety file* are either incorrect or unclear and some of the drawings provided have errors and therefore are not effective as “*as built*” information.
- 13.4.19** I have concluded that the format and the content of the *health and safety file* and the Building Manual as a whole was very difficult to understand and to use.
- 13.4.20** It is important to note that at the point Ms Williams (KCTMO) received the *health and safety file*, KCTMO were the principal designer, and ultimately the regulatory requirement to produce the file was theirs, hence KCTMO were

responsible for the quality of what All Groups Holdings had produced on behalf of Rydon (Please refer back to Section 10 of this Phase 2 report).

13.4.21 I also note that Regulation 8 of CDM 2015 states:

*“8.—(1) A designer (**including a principal designer**) or contractor (including a principal contractor) appointed to work on a project **must have the skills, knowledge and experience**, and, if they are an organisation, the organisational capability, **necessary to fulfil the role that they are appointed to undertake**, in a manner that secures the health and safety of any person affected by the project.”*

13.4.22 It is therefore of concern that KCTMO accepted the role of *Principal Designer* when Claire Williams retrospectively acknowledges at paragraph 57 of her witness statement {TMO00853697} *“I would not have had the technical expertise to assess whether it complied with the statutory guidance”*.

13.4.23 At the end of the 2012-2016 primary refurbishment works, as KCTMO were the *principal designer*, it was their responsibility to be in possession of an up to date *health and safety file*.

13.4.24 I conclude again, the whole arrangement for the primary refurbishment works was not in compliance with the relevant CDM Regulations and was presided over by the KCTMO.

13.4.25 I conclude this because of the well-defined role of *Client* in the HSE guidance for very many years. For example, CDM 2007 ACOP makes clear at 261:

“The client should make sure that the CDM co-ordinator compiles the file. In some cases, for example design and build contracts, it is more practical for the principal contractor to obtain the information needed for the file from the specialist contractors. In these circumstances the principal contractor can assemble the information and give it to the CDM co-ordinator as the work is completed.”

13.4.26 In the CDM 2015 guidance document at Appendix 4 it now states:

“The client must ensure that the principal designer prepares the health and safety file for a project. As the project progresses, the client must ensure that the principal designer regularly updates, reviews and revises the health and safety file to take account of the work and any changes that have occurred.”

13.4.27 Both duties are relevant to the requirements of the primary refurbishment works.

13.5 Gas Riser Replacement works

13.5.1 The 2016-2017 Gas riser replacement works were undertaken to rectify a gas leak discovered in 2016. The project had not been completed at the time of the fire on 14th June 2017.

- 13.5.2** The gas leak was discovered on 30th September 2016, “*the initial design was drawn up by tRIIO Design Team in November 2016*”, whereby “*Work commenced in December 2016 to install the new riser system as per the design*” (paragraphs 21 and 22 of {CAD00000004} respectively), therefore the planning and undertaking of the 2016-2017 gas riser replacement works were undertaken when the CDM 2015 Regulations were in force.
- 13.5.3** An F10 “*notification of Construction Project form*” {TRI000001784} issued by tRIIO to the HSE confirms that National Grid Gas Distribution (who became Cadent) were the *client* under CDM 2015 for the 2016-2017 Gas riser replacement works; and tRIIO were the appointed *principal contractor* and *principal designer* for the project.
- 13.5.4** I have identified at least ten companies that were involved in the 2016-2017 gas riser replacement works. The works therefore involved more than one *contractor* hence why a *health and safety file* was required to comply with CDM 2015.
- 13.5.5** I have found no evidence from any of the CDM 2015 duty holders that a *health and safety file* specific to Grenfell Tower, was obtained from the KCTMO, so that it could be relied upon by tRIIO as *principal designer*, for the 2016-2017 gas riser replacement works, nor that Cadent as *client* for those works in the Tower, ensured that one was prepared by tRIIO as *principal designer*, during the pre-construction phase as per Regulation 12(5) of CDM Regulation 2015.
- 13.5.6** I would expect that Cadent and the KCTMO would clearly communicate regarding the *health and safety file* such that tRIIO could take the most up to date information, to enable their own project specific duties to be met.
- 13.5.7** As the works were not finished on the night of the fire the *health and safety file* should have been a “live” document, being updated by tRIIO as *principal designer*. And Cadent should have made sure that it was prepared and updated, as set out in paragraph 5 and 12 of Appendix 4 of the of the CDM 2015 guidance document (L153):

“5 The client must ensure that the principal designer prepares the health and safety file for a project. As the project progresses, the client must ensure that the principal designer regularly updates, reviews and revises the health and safety file to take account of the work and any changes that have occurred. The client should be aware that if the principal designer’s appointment finishes before the end of the project, the principal designer must pass the health and safety file to the principal contractor, who then must take on the responsibility for the file.”

“12 The principal designer, in cooperation with other members of the project team, must also ensure that the file is appropriately updated, reviewed and revised to ensure it takes account of any changes that occur as the project progresses.”

- 13.5.8** I have not found any evidence of a *health and safety file* being produced at any point for the 2016-2017 gas riser replacement works.
- 13.5.9** The Tower was an active construction site, in an occupied building on 14th June 2017, by means of the gas riser replacement works not being completed.
- 13.5.10** The health and safety of the occupants therefore was dependent on the *construction phase health and safety plan*.
- 13.5.11** I have identified a document titled “*Construction Phase Plan For Multiple Occupancy Buildings (MOBs)*” {TRI000001774} created by tRIIO.
- 13.5.12** By means of this document, tRIIO provided a detailed *construction phase plan* process, setting out their typical emergency procedures and fire safety procedures. However, this was a generic format for all MOBs worked in by tRIIO.
- 13.5.13** I have not found any evidence of tRIIO implementing a specific *construction phase plan* at Grenfell Tower.
- 13.5.14** I conclude therefore that the CDM Regulations were also not complied with by any *duty holder* at Grenfell Tower for the 2016-2017 gas riser replacement works in relation to the *construction phase plan* or the *health and safety file* for Grenfell Tower.
- 13.5.15** Again, I conclude that this situation was presided over by KCTMO, acknowledging fully they were not the Client for these works, and as a result another project in breach of the CDM Regulations was carried out at Grenfell Tower.
- 13.5.16** That has been the case for every project at Grenfell Tower, as I have concluded from the evidence available to me.

13.6 Systemic issues and a culture of non-compliance

- 13.6.1** There are wider duties relevant here – emanating from the KCTMO’s duties under the RR(FS)O and the duties of any contractor carrying out works under the RR(FS)O.
- 13.6.2** This is because Grenfell Tower is classified as a premises occupied by *persons other than* those carrying out construction work, when those works were under way.
- 13.6.3** Regarding the primary refurbishment works, and the gas riser replacement works, it is important to note that CDM 2015 advises that the enforcing authority for CDM 2015 Regulation 30 (*emergency procedures*), Regulation 31 (*emergency routes and exits*) (so far as those regulations relate to fire) and Regulation 32 (*fire detection and firefighting*), is the fire and rescue authority.
- 13.6.4** This is made clear in Regulation 36 of CDM 2015 which states that the enforcing authority in respect of those Regulations (bold emphasis added by me):

“...in respect of a construction site which is contained within or forms part of premises occupied by persons other than those carrying out construction work, or any activity related to this work, is—

(a) in England and Wales, the enforcing authority within the meaning of article 25 of the Regulatory Reform (Fire Safety) Order 2005(1) in respect of premises to which that Order applies” [i.e. the fire and rescue service]; ...”

- 13.6.5** I stress this here, because the fire risk information and the fire risk mitigation measures required to protect all persons during construction, were required under two different forms of Regulation (i.e. CDM and RR(FS)O), both enforceable by the *fire and rescue service*, yet despite this dual duty, they were still not provided appropriately for the works at Grenfell Tower.
- 13.6.6** This goes to one of my primary conclusions, from my Phase 1 report {BLAS0000002} regarding a culture of non-compliance at Grenfell Tower.
- 13.6.7** Of substance also in my opinion, is that the consistent lack of the required *health and safety file*, enabled a thread of incorrect information about the existing building condition to be passed from project to project.
- 13.6.8** Taking one example - the existing lifts at Grenfell Tower - the whole purpose of a *health and safety file* is that correct information is available when the works are completed and passed on, in preparation for the next works project in the building. Yet by the night of the fire those lifts were characterised by KCTMO as firefighting lifts, when that was not the performance status of those lifts (Appendix 8 of {TMO00830598}).
- 13.6.9** As I have explained in this report, the absence of any compliant *health and safety file* at the end of each project, contributed to a failure to take account of the true condition of the existing building, each time a new project began.
- 13.6.10** In my opinion that is exactly what the CDM Regulations are intended to prevent. As stated in Appendix 4 of the HSE publication for compliance with CDM 2015:
- “The client must then retain the file and ensure it is available to anyone who may need it for as long as it is relevant – normally the lifetime of the building – to enable them to comply with health and safety requirements during any subsequent project.”*
- 13.6.10.1** I conclude that this level of protection was never provided at Grenfell Tower, during the projects I have reviewed.
- 13.6.11** I have made clear what the individual *duty holder* requirements were for each of the works at Grenfell Tower, and how the CDM Regulations were dealt with by each *duty holder*.
- 13.6.12** However, the common *duty holder* for all the works was the KCTMO and they consistently failed to create or enable a process that complied with the CDM Regulations.

13.6.13 Finally, I have no evidence that the HSE attended Grenfell Tower on an enforcement basis and I make no assessment of this in my Report.

14 Expert's declaration

I, Barbara Lane declare that:

1. I understand that my duty in providing written reports and giving evidence is to help the Court, and that this duty overrides any obligation to the party by whom I am engaged or the person who has paid or is liable to pay me. I confirm that I have complied and will continue to comply with my duty.
2. I confirm that I have not entered into any arrangement where the amount or payment of my fees is in any way dependent on the outcome of the case.
3. I know of no conflict of interest of any kind, other than any which I have disclosed in my report.
4. I do not consider that any interest which I have disclosed affects my suitability as an expert witness on any issues on which I have given evidence.
5. I will advise the party by whom I am instructed if, there is any change in circumstances which affect my answers to points 3 and 4 above.
6. I have shown the sources of all information I have used.
7. I have exercised reasonable care and skill in order to be accurate and complete in preparing this report.
8. I have endeavored to include in my report those matters, of which I have knowledge or of which I have been made aware, that might adversely affect the validity of my opinion. I have clearly stated any qualifications to my opinion.
9. I have not, without forming an independent view, included or excluded anything which has been suggested to me by others, including my instructing lawyers.
10. I will notify those instructing me immediately and confirm in writing if, for any reason, my existing report requires any correction or qualification.
11. I understand that;
 - a. my report will form the evidence to be given under oath or affirmation;
 - b. questions may be put to me in writing for the purposes of clarifying my report and that my answers will be treated as part of my report and covered by my statement of truth;
 - c. the Court may at any stage direct a discussion to take place between experts for the purpose of identifying and discussing the expert issues in the proceedings, where possible reaching an agreed opinion on those issues and identifying what action, if any, may be taken to resolve any of the outstanding issues between the parties;
 - d. the Court may direct that following a discussion between the experts that a statement should be prepared showing those issues which are agreed, and those issues which are not agreed, together with a summary of the reasons for disagreeing;
 - e. I may be required to attend Court to be cross-examined on my report by a cross-examiner assisted by an expert;
 - f. I am likely to be the subject of public adverse criticism by the judge if the Court concludes that I have not taken reasonable care in trying to meet the standards set out above.

12. I have read Part 35 of the Civil Procedure Rules, the accompanying practice direction and the Guidance for the instruction of experts in civil claims and I have complied with their requirements.
13. I am aware of the practice direction on pre-action conduct. I have acted in accordance with the Code of Practice for Experts.

STATEMENT OF TRUTH

I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

Signature

Date 9th June 2020



Name in full Dr Barbara Ann Lane