# OPUS 2 INTERNATIONAL 

Grenfell Tower Inquiry

Day 14

March 16, 2020

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(10.00 am)
SIR MARTIN MOORE-BICK: Good morning, everyone, and welcome
    to today's hearing.
        As you can see, I'm here on my own this morning, and
    that's because the Inquiry learned quite late last night
    that Ms Istephan has been taken ill and will be unable
        to attend today's hearing.
            Some of her symptoms seem to be similar to those
        that we have been led to expect of COVID-19, but it 's
        too early to know whether she has contracted the virus,
        and we shan't know that for a little while.
            She is, however, able to follow the proceedings
        remotely, and she is able to communicate with
        the Inquiry by email.
            In those circumstances, any vulnerable individuals
        or those who may be concerned about COVID-19 should
        obviously feel free not to attend any hearings in
        person -- and I see that there are very few members of
        the public here today -- and should instead follow the
        proceedings remotely on the live stream.
            But I would like to reassure you that stringent
        cleaning measures have been put in place at the
        premises, including over the weekend, and will continue
        for as long as is necessary. In addition to the
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    installation of hand sanitiser throughout the venue, we
    have increased daily cleaning activity to ensure that
    all surfaces in the public areas are wiped regularly
    with an appropriate form of disinfectant, and I'll talk
        to you a little later about our thoughts about how we
        continue from here.
        Before I do that, I understand that Mr Williamson
        wants to address me.
        Yes, Mr Williamson.
        Submissions by MR WILLIAMSON101112
    MR WILLIAMSON: Good morning, sir. Thank you for this opportunity. As you will recall, I appear on behalf of Team 2 of the bereaved, survivors and residents.

Self-evidently, the COVID-19 position has changed considerably since we last met on Thursday. Since then, numerous responsible organisations have taken steps additional to those which the Government has prescribed; for example, universities are stopping face-to-face teaching, many businesses have told their staff to work from home, many businesses and other organisations are screening visitors, football matches have been postponed and so on. I should say that, with regard to this Inquiry, as I think is evident in the room, some of the law firms involved and many of the core participants involved have now taken the view that they cannot
responsibly require their staff to attend.
Clearly, the Inquiry cannot simply carry on as if nothing is happening, nor can it, with respect, shelter behind the assertion that it will follow Government advice. The Inquiry needs itself to consider, and to announce publicly the results of such consideration, as to what it considers should be done to protect the health of those involved.

It seems to us that there are three issues now. The first is the news which we received very late last night as to the unfortunate illness of Ms Istephan. Clearly the news that she may have the virus is very concerning for her and others. Until her position is clarified -and, I should say, that may not be easy due to the lack of testing facilities -- we do not see how the hearing can proceed in any event, with a panel of two members, one of whom is unfit to attend. There is also obviously the question of those with whom she has been in contact.

Secondly, the Inquiry needs to consider, as are all other responsible organisations, whether there are additional steps that can be taken at the premises to make them safe; for example, the screening of attendees, additional cleaning that's been referred to, staff rotation and so on. It seems to us that the Inquiry needs to consider those matters, tell the core

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participants what is proposed, and to listen carefully to any comments.

Thirdly, and more generally, it seems highly unlikely for numerous reasons that the hearing is going to be able to proceed for very long, if at all, at this venue, and so we need to consider what can be proposed by way of virtual or remote hearings so that we can take instructions from our clients on any such proposals.

It does seem to us that the Inquiry needs to consult with the core participants on this issue, and to take careful account of their comments. Clearly, in all of this, the bereaved, survivors and residents need to be consulted and they need to be at the centre of the process. This Inquiry was set up to review an avoidable tragedy; it should not itself be the source of further avoidable tragedy.

So I would finally urge you, sir, to listen carefully to what I have said, and to take some time to respond. Simply to carry on with the next witness as if nothing is happening is not an option, in our respectful submission.

Thank you.
SIR MARTIN MOORE-BICK: Before you go, Mr Williamson, you won't be surprised to hear that we have been having these things very much in mind, and of course we didn't
know until quite late yesterday evening that Ms Istephan was unwell and we still don't know, as I said, what the problem is. But we have been giving consideration to means by which the hearings can continue, at least for the time being, one of which we might talk about in a moment, which is limited-attendance hearings.

Could you help me, first of all, on your first point, which is you adumbrated, but you passed over quite quickly, that we couldn't continue without Ms Istephan.
MR WILLIAMSON: Well, it's a panel of two which is now reduced to one.
SIR MARTIN MOORE-BICK: Well, yes and no. Ms Istephan is apparently -- we have been in contact with her this morning. She is able to follow the proceedings on the live link, she is able to communicate with us by email and, I imagine, telephone if that were necessary.

Are you suggesting there is what I might call a constitutional problem here, or is it just a matter of finding a sensible procedure which will enable her to participate to the appropriate extent?
MR WILLIAMSON: We obviously don't know, nor indeed anybody, exactly what's wrong with Ms Istephan, but clearly she must be able to participate fully in the hearing, and if that is possible, then that may be a resolvable problem.

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SIR MARTIN MOORE-BICK: We have the live stream. MR WILLIAMSON: Yes.
SIR MARTIN MOORE-BICK: And I had a message from her this morning saying that she was intending to follow proceedings on the live stream. The recording can be viewed at any time from any location, so the evidence can be reviewed.
MR WILLIAMSON: Except that while Relativity is down, I don't think it's possible elsewhere, is it, to review the documents?
SIR MARTIN MOORE-BICK: I think the live stream is available on YouTube. That's my understanding. I'm looking at Mr Millett for some help. I don't think it's dependent on Relativity .

Do we know the answer to that?
MR MILLETT: Yes, Ms Istephan has access to the live stream, even though Relativity is down.
SIR MARTIN MOORE-BICK: Thank you. So she can follow the proceedings.

I mean, I have myself been thinking about whether her presence at the hearing is essential to the continuation of the Inquiry, and I am provisionally coming to the view that, providing we can be satisfied that she can view all the evidence and communicate with us if necessary, that would be adequate. But if you
want to say otherwise, I would welcome your views.
MR WILLIAMSON: Well, the message that we got last night was simply -- and it was very late last night -- that Ms Istephan was ill, and clearly illness can take many forms. It may be that she is being precautionary or it may be she is actually under the weather. One doesn't know.
SIR MARTIN MOORE-BICK: So can I take it, then, that you would be minded to accept that provided she can and of course does view the evidence in its entirety, that would be adequate?
MR WILLIAMSON: Sir, I'm receiving information -- this is not a criticism, because obviously events are unfolding almost faster than the human mind can catch up with, but I'm receiving information on the hoof and I don't want to make policy on the hoof, so I will want to take instruction on that point.
SIR MARTIN MOORE-BICK: But this is really a point of principle, isn't it? In another context, you might say that -- take an arbitration panel as an example -- it can't sit without a full complement of arbitrators. We are not in quite that situation. I sense from what you were saying that you would probably not argue that the same principle applied here.
MR WILLIAMSON: Well, I don't think there is necessarily 7 a technical point.
SIR MARTIN MOORE-BICK: That's really what I wanted to flush out.
MR WILLIAMSON: I think the test is whether Ms Istephan is both fit to proceed and is able technologically to take as much part from wherever she is -- presumably at home -- as she would if she were here.
SIR MARTIN MOORE-BICK: If she were not well enough today but could view evidence, if any were given today, tomorrow on the live stream, would that not do? It wouldn't be a live stream, of course, it would be a recording, but ...
MR WILLIAMSON: Sir, with respect, I think that does slightly shade into the other points which I was making. If the assumption is that we are going to carry on in the current set-up indefinitely, that is one situation, but that, with respect, seems highly unlikely.
SIR MARTIN MOORE-BICK: Yes.
MR WILLIAMSON: I think our overall position is that there needs to be a pause for reflection -- that may cause inconvenience to the next proposed witness -- reflection and consultation, and to decide on what might be described as a medium-term strategy.
SIR MARTIN MOORE-BICK: Do you want to make any suggestions at this stage about medium-term strategy, or indeed

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    short-term strategy?
MR WILLIAMSON: I think we need to know from you what is
    technologically possible -- not from you personally, but
    from your team -- and then we need to take instructions
    on that. Because there will obviously be a tension
    between health on the one hand and participation on the
    other.
SIR MARTIN MOORE-BICK: I think one thing that certainly has
    been passing through my mind, and is technologically
    feasible, subject to people's agreement, is that we hold
    limited-attendance hearings, in this room but with
    attendance limited to those whose presence is essential,
    which would, apart from the panel and counsel, be
    obviously the witness, but also all those who support
    our functions: the shorthand writers, the ushers,
    technicians and so on. That might involve actively
    excluding most, if not all, of the lawyers and all the
    public.
    Is that something you have given any thought to?
MR WILLIAMSON: We haven't thought about the exclusion
        issue. We have obviously thought about the remote
        working issue.
SIR MARTIN MOORE-BICK: Well, yes, but it depends what you
        mean by remote working.
MR WILLIAMSON: I haven't personally considered the option
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        you have just put, which is sort of a hybrid between
        carrying on and a fully remote hearing. I think there
        is a potential route which involves taking as many
        people out of this building as possible, provided that
        those who are in dialogue with Counsel to the Inquiry
        can continue that dialogue, and that is going to need
        some adjustment to our methods of working.
    SIR MARTIN MOORE-BICK: Right.
    MR WILLIAMSON: For example, we have been considering
        document access and also, as it were, virtual access to
        Mr Millett and his team. For example, one might say,
        when a witness -- and I'm just thinking out loud here --
        finishes the evidence that Counsel to the Inquiry wish
        to extract, one might then have a slightly longer pause
        than we have had heretofore. There could then be
        a telephone conference between, for example, Mr Millett
        and those who are interested in which there can be
        discussion of any additional points that need to be put,
        in addition, obviously, to the use of email and so on
        for more formal communications.
    SIR MARTIN MOORE-BICK: All right, thank you. That's
helpful.
Is there anything else you want to add to that?
MR WILLIAMSON: No. But I should say my instructions as
such are limited to the suggestion that we should all
pause to reflect how we move forward, so I'm not in a position to commit my clients to any particular way of moving forward, and that does seem to us to involve a dialogue.
SIR MARTIN MOORE-BICK: Thank you.
Is there anyone else who would like to make any observations about this?

Ms Barwise, do you want to come and say something? MS BARWISE: Sir, if you wouldn't mind.
SIR MARTIN MOORE-BICK: Of course, come on.
Submissions by MS BARWISE
MS BARWISE: Obviously I have just heard what my learned friend said, sir, but for our part we would very much prefer your hybrid option of continued participation by those who are able and willing to do so, which hopefully includes yourself and the Counsel to the Inquiry team and those staff that you might need to help you.

We appreciate, obviously, that you are and will be addressing how you continue. For our part, we feel it's terribly important the Inquiry does continue as best it is able, but obviously bearing in mind the needs of health and safety, your own included, sir.

So we leave it in your hands, but we should most welcome carrying on today as we are, given we're all here, the witness is here. We wish to carry on. We

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would suggest that if it becomes necessary in due course even to cross-examine by videolink, that might be possible, and I'm sure that your minds will all be turning to those questions over the coming days.

But, again, we default to the position that we don't want to pause now unless it becomes absolutely inevitable.
SIR MARTIN MOORE-BICK: So do I understand this correctly: you don't wish to argue that the absence of Ms Istephan's personal presence in the room is a fatal bar to continuing?
MS BARWISE: Absolutely not, sir. I think her physical presence is, with the greatest respect to her, completely irrelevant, because if she is able to participate with you --
SIR MARTIN MOORE-BICK: It's a second-best to have to view it on the live link or recording, but it's reasonable. All right.
MS BARWISE: It's reasonable, and she can see the documents that the operator puts up. There is no disadvantage, save that you can't immediately communicate with her.
SIR MARTIN MOORE-BICK: You wouldn't have any objection to what I have called limited-attendance hearings?
MS BARWISE: No, sir.
SIR MARTIN MOORE-BICK: We might need to have a discussion,
if we were to take that course, as to how limited the attendance should be.
MS BARWISE: Indeed.
SIR MARTIN MOORE-BICK: Because it might be necessary to exclude actively some people who might be willing to be here but whose presence isn't really essential.
MS BARWISE: Yes, I understand that, sir, and it may be -probably would be -- that that is in fact a responsible course, given we can all participate, and perhaps the only thing I would say is that if you were to adopt that course, it might be wise to allow slightly longer breaks when you break for the witness --
SIR MARTIN MOORE-BICK: Oh yes, of course.
MS BARWISE: -- to facilitate email communication with Counsel to the Inquiry, because obviously I'm conscious that's a difficult process.
SIR MARTIN MOORE-BICK: I gather it has been going on already, so it just needs to be a bit more refined.
MS BARWISE: It has indeed, we have been bending ears, but we would like the option to do that by email.
SIR MARTIN MOORE-BICK: Thank you very much.
Does anybody else want to say anything about this? No? All right.

Now, you all know, I think, that we have witnesses waiting to come on who have travelled from the north of

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England, and that's something we need to take into consideration.

I'm going to rise for a moment to just consider what's the best way forward for today, and once we have decided that, we can then consider how we should take things forward thereafter.

It won't come as a surprise to any of you to know that at least two people in this room might not be able to be here if the Government decides that over 70s should be banned from going out. Mr Mansfield and I certainly fall into that category. I don't think anyone else does, but if you do, well, same problem.

All right, I'm going to rise for a few minutes now. Thank you.
(10.20 am)
(A short break)
(10.30 am)

SIR MARTIN MOORE-BICK: Well, I'm grateful to counsel for their submissions.

It seems to me that there are, in principle, three options: one is to carry on regardless until people become ill, in which case we would have to suspend the hearings anyway; the second is to continue hearings as far as we can on a limited basis, ensuring that the minimum number of people whose presence is necessary are
here; the third would be to suspend hearings altogether for an indefinite period.

The first is obviously, I think, not a responsible course. We have to have regard to the health of all those who take part in the hearings and support them. We are, however, keen to continue making progress, because we think it's important and in the public interest for us to do so, and to lose as little time as we reasonably can, so suspending the hearings at this stage does not seem to be sensible if there is a reasonably satisfactory alternative.

We have already consulted core participants. Yesterday evening, the Solicitor to the Inquiry wrote to the legal representatives of core participants setting out the different possibilities and inviting their views on the best way forward. I think we asked to receive responses by the end of today and, in the light of those responses, when we've received them, we shall take a decision about what to do over the immediately coming days.

But it's right to say that we are giving serious consideration to what I identified as the second course, which is limited-attendance hearings at which, subject to the agreement of all those who support the Inquiry, we should continue to take evidence from witnesses,

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provided, of course, it's reasonable to ask the witnesses to come here, whilst excluding from the room all those whose presence is not strictly necessary.

As I say, we shall not take a decision on that until we have received responses from core participants, but that is the way that our minds are currently working at the moment.

As I mentioned earlier, we have witnesses from the north of England who have come down to give evidence today, and it would seem sensible to take their evidence today on the basis that, although this will not be formally a limited-attendance hearing, in the sense that we shall exclude actively those whose presence is not essential, I would encourage anyone who is reluctant to be here to go home or to go back to your office or wherever and watch the proceedings on the live link. Certainly you will cause no offence by doing that, and if the room empties when I have finished speaking, I shall understand why.

On that basis, I have reached the conclusion that the best thing is to carry on on the basis that I have indicated today. At the end of the day, we shall review the position and decide whether to institute limited-attendance hearings tomorrow on the basis that we shall not allow in those whose attendance is not
necessary for the purpose.
So, Mr Millett, do we have a witness who is ready to come and give evidence?
MR MILLETT: Yes, Mr Chairman, we do. We have Cate Cooney from Exova who is ready to give evidence.
SIR MARTIN MOORE-BICK: Right. Thank you.
If anyone wants to go, please feel free to do that. MS CATE COONEY (affirmed)
SIR MARTIN MOORE-BICK: Thank you very much, Ms Cooney. Sit down, make yourself comfortable.
THE WITNESS: Thank you.
SIR MARTIN MOORE-BICK: Yes, Mr Millett.
Questions from COUNSEL TO THE INQUIRY
MR MILLETT: Ms Cooney, good morning.
A. Good morning.
Q. Thank you very much for attending today to give evidence.

Could we start, please, by your telling the Chairman your full name?
A. Catherine Cooney.
Q. If you have any difficulty understanding the questions that I'm going to ask you, then please say. I can either repeat the question or I can put the question in a different way.

If you feel you need a break at any point, please
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let me know.
One other thing, please, if you wouldn't mind keeping your voice up so that the transcribers, who sit there to your right, can get down what you're saying, that would be very helpful.

Now, you have made one statement for the Inquiry, if I could please take you to that. It's in the folder in front of you on the desk, but it will appear also on the screen, because we're going to be going to it, and it's probably better to follow it on the screen, but if you would prefer, then please do follow it in the paper form in front of you.

It's dated 28 September 2018. If we could have that up, please, on the system \{EXO00001590\}.

Could you please identify that formally as your witness statement?
A. It is.
Q. Could you please go to page 8 \{EXOOOOO1590/8\}. You will see there at the bottom of page 8 a signature over the date, 28 September 2018. Is that your signature?
A. It is.
Q. Just for the record, that is Relativity reference \{EXO00001590\}.

Ms Cooney, have you read this statement recently?
A. I have, yes.
Q. Thank you. Can you confirm that the contents are true?
A. Yes.
Q. Have you discussed your evidence that you are going to
give today with anybody before coming here this morning?
A. Yes, with my solicitors .
Q. Right.
Now, there are a number of exhibits to the statement
which are shown on the schedule, which we will just have
up as well, please. That's \{IDX0056\}.
$\quad$ Could you just confirm, please, for us that that is
a list of the exhibits attached to your statement?
A. It is.
Q. Thank you very much.
$\quad$ Now, Ms Cooney, I'm going to start, if I may, by
asking you some questions about your background and
experience, all right? I'm just going to summarise for
you what you say in your statement.
$\quad$ You began, I think, working in the construction 19
building surveying practices to start off with, then I moved into building control within a couple of years of that.
Q. Right. Roughly what year did you move into building control?
A. It was December 2003.
Q. Right.

Now, you studied for a degree in building surveying, which I think you completed in 2005; is that right?
A. I did, yes.
Q. Where did you undertake that study?
A. That was at the University of Salford.
Q. I think you say that you had experience working in the building control departments at Lancaster Council for 18 months.
A. Yes.
Q. And then at Manchester City Council.
A. That's correct.
Q. I think you stayed at Manchester City Council for some six and a half years.
A. Yes.
Q. Then I think you moved to Exova in 2011.
A. That's correct.
Q. Right.

Can I ask you: what post did you hold within the
building control department of Manchester City Council?
A. At Manchester I started as an assistant surveyor and then moved on to a full area surveyor.
Q. Right. And how long were you in post as a full area surveyor?
A. I think I moved into that post approximately 2007, 2008 maybe.
Q. Okay, so you had that role there for some three and a half to four years before moving to Exova?
A. I would have to check the date, but it was quite soon after I started at Manchester.
Q. When you worked there, were you a member of any professional bodies?
A. Not until 2008, when I joined the RICS.
Q. You joined the RICS in 2008?
A. Yes.
Q. Are you still a member of the RICS?
A. I am, yes.
Q. At paragraph 2 of your statement -- if we could have that up, please, it's \{EXO00001590/2\} -- you say that your work in the Manchester building control department included reviewing building control approvals applications for a variety of Building Regulations processes. That's correct, is it?
A. It is.

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Q. Can we take it that you became very familiar with building control approvals processes, at least prior to the time you left in 2011 and went to Exova?
A. Yes.
Q. Can we also take it that you became very familiar with the Building Regulations and the related approved documents?
A. Yes.
Q. Did you specialise in fire safety as a building control officer?
A. No, I didn't specialise until I moved to Exova.
Q. I see. Did you have some experience of or exposure to
fire safety when you were working at building control?
A. Yes.
Q. Right.

Can I take it that you were or became familiar with Approved Document B?
A. Yes.
Q. Thank you.

Now, if you look at paragraph 2.3 of your statement, towards the top of page 2 , you say in the second sentence:
"While employed by Exova I have obtained a Master of Science degree in Fire and Explosion Engineering from the University of Leeds."

## When did you complete that degree?

A. 2015.
Q. So while you were working at Exova?
A. Yes.
Q. I see. Was that a part-time course or a full -time course?
A. It was part-time over three years.
Q. Now, at the time of your involvement in the Grenfell Tower project, which was the summer of 2012, were you based in Exova's offices in Warrington?
A. I was.
Q. Was that your permanent place of work?
A. Yes.
Q. Right.

At the time of your work on the Grenfell project in that year, I think you were a senior consultant at Exova; is that right?
A. That's correct.
Q. You're now, I think, a principal consultant at Exova; yes?
A. I left the company last April, but I was a principal before leaving.
Q. I see. When were you appointed a principal within Exova?
A. I would have to check the dates, but I think it was

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2015, maybe early 2016. It's in that six-month period after graduating, I was made principal.
Q. Yes, I see, okay.

Can you tell us where you work now, please?
A. I work in Lancaster for an approved inspector company.
Q. Right. So essentially in building control?
A. In building control, yes.
Q. Now, can you just help us understand the hierarchy of positions within Exova? So, for example, when you were a senior consultant, who would you be directly answerable to?
A. So the structure was essentially there was a senior consultant, above that there was a principal consultant, and then associate, and then director. So I was answerable to anybody who was above me, really, in the --
Q. I see. Okay.

Who would be junior to you?
A. Consultant engineers and graduates.
Q. I see, okay.

Can you explain what your role as a senior consultant at Exova typically involved?
A. Typically it was looking at designs for fire safety where there may be slight variation or variations from Approved Document B or other guidance where
brought in people who were -- who dedicated -- it was an independent assessment, if you will, from Exova.
I can't remember the names of the guys that were there.
I think one of the assessors was an ex-fire and rescue chief, kind of high-level fire service at Manchester.
Q. Right.
A. A guy called Andy Howard.
Q. Right.
A. Who was --
Q. Who chose the assessors to conduct that assessment?
A. I don't know.
Q. I mean, was it an Exova choice as to who to go to to conduct it or was there a system?
A. I don't know.
Q. What did they assess you on, do you remember?
A. They assessed me on general fire safety design, the Regulatory Reform Order, and various risk assessment approaches.
Q. Did they assess you on ADB or the Building Regulations more generally?
A. Not specifically to the Building Regulations, that's part of a larger package of fire safety knowledge you would be expected to have to be FRACS registered.
Q. Did you actually look at ADB and the Building Regulations more generally as part of your Master's?
A. I think so.
Q. -- first issued on 7 August 2012.
A. Okay.
Q. Is that --
A. That sounds about right, yes.
Q. We have a document to that effect .
A. Okay.
Q. Perhaps I' ll show it to you, just so you can confirm it . It is \{INQ00011331\}, please. Can you identify that as your FRACS certificate issued on 7 August 2012?
A. Yes, yes.
Q. Yes?
A. Sorry, yes.
Q. Okay, thank you.

In order to obtain that certification, did you have to be assessed?
A. Yes, I did.
Q. Who by?
A. The assessors were external to Warringtonfire, so they
A. ADB and the Building Regulations are kind of the baseline, if you will. They are deemed to satisfy -the approved document is deemed to satisfy the regulations. We looked at it, but the degree was more technical in terms of the engineering side of things.

## Q. I follow.

Just one more question on this document. You can see that the certificate was issued on 7 August 2012.
How long before that date, do you remember, did you undertake the assessment?
A. I don't know, I can't recall.
Q. Okay.

I'm now going to turn to your role at Grenfell in the project.

If you look, please, at paragraph 3.3 of your statement on page 2 \{EXO00001590/2\}, you say that Clare Barker, a principal consultant at Exova, tasked you with producing the existing fire safety strategy, or the existing FSR, we can call it, for the Grenfell Tower building.
A. Yes.
Q. Can you remember when you received that instruction?
A. It will have been in the early August, I think, or late July of 2012.
Q. Right.

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A. I can't remember a specific date.
Q. Now, your draft existing fire safety strategy, which we will look at in some detail shortly, was dated 16 August 2012. Do you remember, even roughly, how long before that you remember being instructed by Ms Barker to produce it?
A. It was a small amount of time. I remember it was quite -- we were asked to produce a document under fairly short order. I think it was a matter of three, maybe four weeks.
Q. I see.
A. So that's as accurate as I can be, I'm afraid.
Q. All right. Let's look at some documents.

First, please, can you be shown \{EXO00001613\}. If we look at the top email and then the second one down on page 1, the top email is an email to you from Dr Barker, Clare Barker, on 7 August 2012. Do you see that?
A. Yes.
Q. She sent you, it seems, some documents. You see the attachments? Underneath that, she said "See below", and underneath that, the below email is from Bruce Sounes at Studio E on 30 July 2012 to Clare Barker, and he says:
"Dear Clare,
"I wanted to thank you for coming to the Project Meeting last Thursday. I appreciate it can seem like

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you occupy a very small part of the agenda and therefore an expensive use of your time but Thursday was the first time since May that we've managed to assemble the whole team, including the client and the contractor and it was an invaluable briefing for everyone. I would not expect to need another meeting with Exova before we submit for Planning, and possibly not again until we're in negotiation with Building Control.
"Please see attached the specification for the smoke exhaust/ventilation to the residential lobbies.
"We are more than happy to continue working with you in Warrington, but if someone else in London is going to pick it up we would like to know as soon as possible. Please could you get back to me?"
I have read you the full email just to try and prompt your recollection.
It looks from this that your first involvement is this email from Clare Barker to you on 7 August attaching the documents and forwarding Mr Sounes' email of 30 July; is that right, do you think?
A. It seems to be right, yes.
Q. Right. So can we proceed on the basis that this date, 7 August, was the first time that you became involved?
A. Yes.
Q. Okay.
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What was the context in which Dr Barker sent you this email?
A. Dr Barker asked me to prepare a draft report for the existing building, and essentially to start the process of the existing fire safety strategy. At the time, Clare actually sat adjacent to me, so we will have discussed, you know, the parameters for that and the information that we might have had. But that's essentially how it started.
Q. So she sent you this email on the 7th with virtually no information in it other than what was attached, so was there a conversation between you and Dr Barker on or prior to 7 August before this email was sent to you?
A. I would imagine so, though I can't recall any specific conversations at that time.
Q. I see.

Did she give you a document when she first asked you to prepare the existing fire safety strategy which set out what she wanted you to do?
A. I don't recall specific documents from that time. I know that the information that I had was very limited, so I contacted the architects myself.
Q. Right. Okay. Well, we will come back to that in a minute. Can we just proceed through the documents and see how we go.

Could you please be shown \{EXO00001618\}. This is an email from Bruce Sounes to Clare Barker on 30 July . The second one down is the email I've just shown you, which relates to the specification to the smoke exhaust and ventilation to the residential lobbies. We have just looked at that.

Now, let's look at her response to Bruce Sounes the same day, at the top, 30 July 2012. Do you see that?
A. I do.
Q. "Good afternoon Bruce."

Then just looking at the third paragraph, if we can -- we may come back to the second one, but looking at the third one -- she says:
"In terms of allocating resources to this project I am happy to work on the fire strategy for the existing Grenfell Tower from the Warrington office and will aim to get the report to you before the deadline of the 16th August."

You see that?
A. Yes.
Q. I'll come back to deadline in a moment, because I want to ask you a question about that. Before I do, I just want to show you another document a little bit later.

Can you please go back to the document we were looking at before, \{EXO00001613\}. This is the email

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where she sent you the first of the emails of 30 July, namely Bruce Sounes' email to Dr Barker, but not her response back to him. We looked at that a minute ago. So you have got, I think, all the documents I need you to see.

My question is: what information or briefing did Dr Barker give you other than what is set out in the email from Mr Sounes to Dr Barker and the attachments to the email to you from Dr Barker?
A. Other than the information that's already attached to the email, I don't recall. I do recall reading a document in relation to the ventilation which was a proposed document, but other than that, I don't recall reading anything more specific. So I would say I don't recall particular documents from that time.
Q. Do you remember whether Dr Barker sent you her response to Bruce Sounes of 30 July which we have just looked at, which said that she would provide the report by the deadline of 16 August?
A. I can't recall whether she sent me the email. I do recall that there was a deadline.
Q. When did she tell you that, do you think?
A. I would be -- I would be guessing, but I would assume that it was at that time -- around that time that she passed over the work.
Q. Right, I see.

Did she tell you why there was a deadline of 16 August?
A. Not that I can recall, no.
Q. Right.

Did you feel that you were under some kind of pressure of time to produce the fire strategy that Dr Barker had asked you to do?
A. I suppose it became the priority at that time. In terms of pressure, not specifically -- not particularly, no more than I would normally feel.
Q. Can I ask you then to go back to the email we looked at a minute ago, \{EXO00001618\}. We can see from Dr Barker's email to Bruce Sounes dated 30 July at 3.28 , namely the top one on that page -- I showed you the third paragraph, but if we look at the second paragraph, she says:
"With regard to the two fee proposals that were issued by Exova, we have received an email today from David Hale at Appleyards accepting the fees for the upgrade of the building [and she gives a reference]. I telephoned him to tell him that he had accepted the wrong fee and he is going to email us the right fee acceptance to us tomorrow, so once that arrives we can get started."

## Do you see that?

A. I do.
Q. You may not have seen this email at the time, Ms Cooney, but did you know who Appleyards were?
A. I didn't.
Q. Who did you think was the client for the purposes of the report which Dr Barker had asked you to prepare?
A. The architectural practice, Studio E.
Q. Studio E?
A. Yes.
Q. Did you think they might have a client, a lay client?
A. Yes. I would have -- there would have been a longer chain, yes, but the contact that I was given was with Studio E.
Q. Right. Did you take any steps ever to find out who Studio E's client was?
A. No, not that I recall . No.
Q. Would it not be important to you to know that?
A. At that particular time, then I -- whether it was one client or another client would not be material to my -at this time. But once we actually got into the work itself, then I was aware that KCTMO were the client.
Q. I follow. Do you remember when that was or how far into the work that was?
A. It would have been shortly after we started. So it was
gathering information, essentially, so I would have been aware then.
Q. Yes, I see.

When we come to look at the existing fire safety strategy which you drafted, we can see that the client at the bottom of each page is KСТМО, or Kensington and Chelsea TMO, to be accurate. To be clear, that was, was it, your understanding throughout the time you were actually preparing the report?
A. Yes, I was working with Studio E, yeah.
Q. I see.

Within Exova, whom did you report to during the time you did the work?
A. Dr Barker.
Q. Anybody else?
A. At the time, no. Not that I recall.
Q. You say, "At the time, no". That rather suggests there might have been another time.
A. So it was quite a short period of time. So with it being in the middle of the holiday season, there were staff on holiday, so I will have -- I will have gone back to Clare on various items. I don't recall speaking to anybody else other than members of staff in the London office about it. So James ... I don't recall speaking to Mr Ashton, but I may well have done.

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Q. Right. You mentioned James a moment ago. Is that James Lee?
A. It is, yes.
Q. We will come to look at his involvement shortly.

Can I take you back, please, to your witness statement and go to page 2 \{EXO00001590/2\}. Shall we look together, please, at paragraph 3.

You say in the second sentence that you were based in the Warrington office, and you say you believe you were chosen to carry out the work in the Warrington office because the London office was not able to resource it at the time because of its workload. Do you see that?
A. Yes.
Q. Was it at the time unusual within Exova to have consultants prepare fire safety strategy reports for projects that were not geographically close by?
A. Yes, there was quite a lot of office interworking, but I think this particular project came to Warrington because of the time of year, with members being on --
Q. So can we take it from that answer that normally the London office would have done this report?
A. Yes.
Q. Yes.

Did Exova have any internal policies or guidelines
at this time which guided staff in positions such as yours as to how to carry out a fire strategy report for an existing building?
A. I'm not-- I don't know of one for that specific type of work. They were more generic than that, so it would have been for a fire safety strategy generally.
Q. I see, so there was a policy or guidance within Exova for doing fire strategy reports, just not for existing buildings?
A. That's right.
Q. Yes, I see.

What about guidance for the obtaining of information from the building owner or responsible person?
A. Not that I am aware of.
Q. Okay.

How much experience of preparing fire safety strategy reports for existing buildings did you have prior to doing the one you did for Grenfell Tower in August 2012?
A. In the format of a fire safety strategy, I wouldn't be able to give you a number. A small number of existing fire strategies within the workload that I had done since joining Exova.
Q. Right. So you had done some before?
A. I think so, yes.

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Q. Had you ever done a fire safety strategy report for a high-rise residential block?
A. I don't know, is the answer. I would be surprised if it was -- if I hadn't, but I haven't checked.
Q. Right.

At the time you were given the role by Dr Barker, what CPD or other professional development had you done to guide you on carrying out the Grenfell Tower instruction?
A. In terms of CPD, it's a process of many years of development, with refreshers through the CPD, rather than learning just as a module. Obviously having worked in the industry for a number of years, and in quite a densely populated urban environment in Manchester,
I was involved with both looking and assessing and inspecting a number of residential buildings, a number of those over 18 metres.
Q. I follow.

Would you agree with this proposition: a fire safety engineer sets the agenda regarding the life safety requirements for a project?
A. I probably wouldn't couch it in that way. I would say that the regulations set the agenda, and for a building such as this, it's really making sure that the principal elements, the key elements, are present and that the
design meets with the guidance.
Q. Would you agree with this proposition: standard-setting is a key component of the work needed from a practising fire safety engineer?
A. Could you --
Q. Yes. Standard-setting is a key component of the work needed from a practising fire safety engineer?
A. Yes.
Q. You do.

Can I look briefly with you, please, at precisely what a fire safety strategy is. This may seem a rather simplistic question, but let metry it anyway.

Can I ask you, please, to be shown \{BSIO0001716\}.
Now, this is a British Standard published document, PD 7974, from 2002 entitled:
"Application of fire safety engineering principles to the design of buildings -- Part 0 : Guide to design framework and fire safety engineering procedures."

Do you see that?
A. Yes.
Q. Are you familiar with this document?
A. I am.
Q. Were you familiar with it, do you think, in August 2012?
A. Yes.
Q. Right.

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Let's look, then, at paragraph 3.16 on page 7 \{BSI00001716/7\}, please. This defines, if you look at the top of the page, a fire safety strategy as a:
"Combination of fire safety measures that has been shown by reference to prescriptive codes or a fire engineering study to be capable of satisfying the specified fire safety objectives."

Do you see that?
A. Yes.
Q. Does that reflect your understanding of what a fire safety strategy was as at August 2012?
A. Yes.
Q. And it reflects your understanding as at that time, does it?
A. Yes.
Q. Yes.

Now, let's look at page 44 \{BSI00001716/44\}, please, which is part 9.7 on page 44 itself .

That says, towards the top of page 44:
"Fire safety strategy.
"The fire safety strategy for the building will be based on the successful trial design and is likely to comprise a range of physical fire safety measures and management procedures. A description of these measures should be provided, together with performance
specifications and any recommended deviations from the relevant system codes ..."
Does that reflect your understanding as it was at August 2012?
A. Yes. It's a very all-encompassing definition, and the range of work that goes into fire safety strategies is bespoke to a particular building. So if I could give you an example, a building which has no management presence but may have ad hoc visits, such as a high-rise residential, the management procedures are important, but in terms of the fire safety design of the building, they are kind of overlapping but separate.
Q. I see. I see.
Can I ask you to look at page 10 \{BSIO0001716/10\}, then, please, which is back in the document earlier on. Let's go to paragraph 4.3.6, at the foot of the page. It says:
"The accuracy of many FSE calculations is unknown."
That's a quotation, because it is one of a number of common misconceptions which you can see the title of a third of the way down that page, 4.3. Do you see that?
A. Yes.
Q. One of the common misconceptions is the accuracy of many FSE calculations is unknown. Then it goes on to say:
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"The accuracy of the calculation procedures presented in the PDs supporting BS 7947:2001
[et cetera] ... will generally be sufficiently accurate for engineering design purposes if they are used within their limits of applicability ."
Then this:
"However, the old adage of 'garbage in-garbage out' applies and, in most cases, uncertainties in the calculation procedures will be outweighed by any errors in the initial assumptions (eg the rate of fire growth)."
Were you conscious in August 2012 of that principle in general terms?
A. In general terms, I was. The PD 7974 series of documents, which this is one of, are more on the, shall we say, engineering calculation side of fire engineering, whereas the codes are more on the fire safety guidance side, if you will. So there is a slight -- there's quite a large difference between the two.
Q. Yes, I follow that. But in general terms, can we take it that the general principle -- garbage in, garbage out -- and what that means was something that you would have had in mind when preparing your existing fire safety strategy report for Grenfell Tower?
A. It 's not something I would have had in mind because we didn't use fire safety engineering principles for the strategy. So fire safety engineering using these codes used specific empirical calculations to work things out, like the rate of fire growth or the safe time for evacuation, et cetera, et cetera, whereas a guidance-based approach wouldn't go into the calculation side of things.
Q. Yes, I see.
A. So there's no -- there are no garbage in, garbage out kind of parameters for it, because you're not actually carrying out calculations as such for the vast majority of the work, it's guidance-based. So ADB-based, essentially .
Q. But where guidance required you to make calculations --
A. If I would have done, yes, then I would have been aware of that for --
Q. Can I take you to the FIA or Fire Industry Association guidance note which addresses it's scope of work for a fire engineer. That's \{INQ00011219\}, please. Are you familiar with this document?
A. I am, yes.
Q. Now, to be fair to you, this is a document that was produced by the FIA in May 2015 --
A. It was, yes.

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Q. -- which was towards the end of Exova's overall involvement with the Grenfell Tower project, and three years or so -- perhaps two and a half years or so -- after your involvement in the existing fire strategy for the building, to put it in time context, but you are familiar with it.

Have you read it before?
A. I have read it. I've not read it cover to cover, but I am aware of the document.
Q. Okay.

Would you accept that the FIA guidance note reflects
common practice in the construction industry before May 2015?
A. It 's much more structured. No, would be the answer.
Q. No? Right.
A. It's one way of following guidance, I suppose.
Q. I see, okay. Let's see how we go with this.

Can I ask you to turn to page 4 \{INQ00011219/4\} of this FIA guidance. Under "General", you can see it says:
"The fire engineer's overall role will be to provide advice in relation to the fire safety aspects of the design in order to provide reasonable confidence that the design that is developed, as well as the completed building, should achieve an acceptable standard of fire
safety, comply with the client's objectives and meet all relevant legal fire safety requirements."

You see that?
A. Yes.
Q. Would you agree that, as at August 2012, this was an accurate summary of the overall role of a fire engineer?
A. Yes.
Q. Can I invite you just also to consider: would the contents of this document as a whole reflect good practice or best practice, perhaps, of a fire safety engineer as at August 2012?
A. I would say it was best practice.
Q. Best practice.

Can I ask you to look at page 4 at the bottom. That sets out some bullet points; do you see?
A. Yes.
Q. It says:
"The fire strategy should cover all relevant
fire safety design issues, in particular ..."
And then there are seven of them:
-" Design, location and protection of escape routes.
-" Identification and specification of all fire safety systems that are required.
-"Surface spread of flame requirements for surface 45
materials.
-"Structural fire resistance requirements.
-" Fire compartmentation requirements including fire-stopping and cavity barriers.
-" External fire spread.
-" Access and facilities for fire services."
Looking at that list, and recognising that you weren't preparing the fire strategy for the refurbishment works, Ms Cooney -- we understand that entirely -- would you accept that any fire strategy for a building as existing would need to cover all of those elements?
A. Yes, they are the standard B1 to B5 requirements of the Building Regulations, so ...
Q. Yes.

Would you agree that a fire strategy for a building, an existing building, is an important source of narrative information about how to keep people in that building safe in accordance with the RRO, the Regulatory Reform (Fire Safety) Order?
A. I think it's part of the job. It really depends on the focus, I suppose. The existing fire safety strategy focuses on the design of the building, and brings in a sufficient amount of management so that the building can be appropriately used. So in general I would agree,
but with some caveats.
Q. Right. I'm just trying to understand the caveats.

You say, "I think it's part of the job and depends on the focus". Can you just explain to me again what the caveats are?
A. So obviously every building is different, and every strategy that is written has its own bespoke requirements. When you're looking at an existing fire safety strategy for a building that has been up for a time which pre-dates modern-day guidance, then there is some assessment that you need to consider to see whether you're meeting those objectives or not, and that kind of would change the emphasis in certain parts more than in another document for an existing fire safety strategy. It depends on the building, essentially .
Q. I see. Does that mean -- and correct me if I have misunderstood your evidence -- that where the existing building doesn't meet modern-day guidance, then that's something that the building owner should understand and know about and take into account when formulating a strategy to comply with the RRO?
A. I think --
Q. I don't want to put words in your mouth, but I just want to understand your evidence.
A. I think when the strategy is retrospective, so we're

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looking at an existing structure and existing conditions within a building, absolutely they need to understand if those conditions are not safe or don't meet the threshold, if you will, the benchmark of modern guidance. However, it's not just a gap analysis between how it was constructed and what would today be acceptable; it's is that condition safe, effectively.
Q. I see.

Would you also agree that the fire strategy is the primary and definitive source for the specification of the relevant performance criteria that would enable a building to be demonstrated as complying with part B of the Building Regulations?
A. Yes, I would agree, insofar as those performance requirements are high level.
Q. Right. When you say "are high level ", what sort of performance requirements would not be high level, which would mean that you wouldn't have to or wouldn't be able to enable a building to be demonstrated as compliant with part B?
A. So taking the existing fire safety strategy, where elements aren't known or certain materials or construction methods, et cetera, aren't evident, then it wouldn't be wise to, you know, look at particular elements individually within the building, different
materials, but as a specification under
British Standards, for example, then that's the kind of level I'm talking about when I talk about high level. We wouldn't go into NBS standards and things like that to specify things for a fire safety strategy.
Q. No. But just so I understand, where you thought that an element was unknown or where that element needed to comply with the Building Regulations, would you point that out to the client normally in your report?
A. Yes.
Q. Would you also agree that a retrospective fire strategy for an existing building provides an opportunity for the client to investigate fully the current condition of the building and the guidance or regulations to which it was originally designed in order to provide a qualitative and also a quantitative risk assessment of the fire risks that might result from any differences between the original design and the current guidance?
A. I would agree generally. I wouldn't agree that it is a fire risk assessment. That's something quite separate, in my understanding.
Q. Would you agree also that a retrospective fire strategy such that I have just asked you about would allow the person who was responsible under the RRO to understand their building thoroughly and thereby know what general 49
fire precautions might be required in order to comply?
A. When we're looking at a building from a point of view of the design, that's what would be understood by the client. I think if we then go into management and other types of elements within that, it's kind of becoming a hybrid between a fire risk assessment and a fire safety strategy, which isn't a typical fire safety strategy, really. It focuses on the design of the building rather than a risk assessment, which would look at the building in use, et cetera.
Q. I see.

Just on that, can we take it that in order to prepare a full and proper existing fire safety strategy, you would need to understand and have read the most up-to-date fire risk assessment for the building?
A. It's one of the documents that we would require, yes. Q. Yes.

Can I then turn to a slightly different topic, which is the fee proposal and the scope of work, which is at \{TMO10037721\}, dated 11 June 2012.

Now, you can see that this is an Exova document sent to Mr Sounes at Studio E on 11 June 2012. Have you seen this document before?
A. Yes.
Q. If you go to page 3 \{TMO10037721/3\}, you will see that
it 's signed by James Lee, consultant at Exova, and was reviewed by Terry Ashton, associate. You see that?
A. Yes.
Q. Can I ask you to go back to page 1 \{TMO10037721/1\} and look at the project brief, then, please. It says underneath "Project Brief":
"The Grenfell Tower is an existing residential building in London. Exova Warringtonfire has been invited to produce a fire safety strategy report for the existing condition of the building. This fee proposal covers the production of a review of the existing fire safety arrangements for the building."

Do you see that?
A. Yes.
Q. If you look a little bit further down, you see there is "Company Profile". Then on page 2 \{TMO10037721/2\} you can see there is "Proposed Scope of Work". We will come back to that in a moment.

Before I do, can I take you into your statement, and look at paragraph 3.4 on page 2 \{EXO00001590/2\}. You say there at 3.4 :
"I do not recall whether I saw the fee proposal at the time, though I note that it covers: (1) Means of escape; (2) fire safety systems, (3) any smoke ventilation provided; and (4) access and facilities for 51
the Fire Service."
You see that?
A. $\mathrm{Mm}-\mathrm{hm}$.
Q. Doing the best you can, when do you think that you first saw this document? If you want me to put it back up on the screen, I'm happy to do that.
A. No. Obviously I've seen these documents as part of the ... preparing for the Inquiry and discussing with solicitors post-fire. I don't recall seeing it at the time.
Q. Right.
A. I'm not sure when I first saw it. Perhaps around the witness statement time.
Q. If you hadn't seen it at the time, how would you know what was being asked of you by Dr Barker?
A. I was asked to do an existing fire safety strategy on an existing high-rise residential building with some documentation. Clare sat adjacent to me, so we will have had discussions around what was expected at the time. I just -- it's so long ago, I can't recall the content of --
Q. Right.
A. I can guess at it, but I don't recall specific conversations at that particular time. But certainly we will have discussed what was required.
Q. Right.
If you hadn't seen it at the time, can you help me,
how would you have known what the scope of the work was for the report that you were to produce?
A. Again, I'm assuming here that it was laid out in -- from Clare and in the documents, which were to start to inform the process of preparing the document -- the strategy itself .
Q. Did you ask Dr Barker to give you the fee proposal that contained the scope of work so you could see in black and white what it was?
A. I don't recall.
Q. Right.
A. I genuinely don't.
Q. At the time, how would you have normally been told the scope of work for a report that you had been instructed to prepare?
A. Typically, we would sit down and go through the project, essentially, of what was being done, so that's gathering all the information and looking at -- looking how we're going to actually set out the works and what we needed to do to do that.
The fee proposal in some instances, yes, that provides a baseline, but obviously you build on that kind of understanding from looking at the project

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documentation as well.
Q. Now, you say, " Typically, we would sit down and go through the project, essentially, of what was being done". Was that done on this occasion with Dr Barker?
A. I would assume so, considering the lack of emails, et cetera, that there is, and the fact that Clare sat adjacent to me. So -- but I genuinely don't recall the contents of conversations. I know that we will have had them.
Q. Yes.
A. We worked quite closely together on several projects, so that's ... that was our usual --
Q. So, again, doing the best you can with your recollection -- and I don't want to put words in your mouth -- do you recall anything of her explaining the scope of the project to you?
A. Yes, I -- yes, I know we had conversations about it, I just don't recall the specific content of them, you know, as a ... I know we discussed various matters, but I couldn't recall very specific -- it's too long ago.
Q. At any rate, you don't recall being shown the fee proposal?
A. No, I don't.
Q. Right.

Now, staying with paragraph 3.4 of your statement, you go on to say:
"I was not involved in deciding on this scope, but it is a basic standard agenda to include in
a fire strategy report for an existing building. Each item would be broken into a number of sub-issues, depending on the nature of the building which was being reported on."

What would the specific sub-issues be for a residential high-rise building?
A. So it would be broken down, essentially, into the five key elements of fire safety regulation. So, for example, we would look at travel distances, compartmentation, firefighting facilities, and that would include firefighting stairs, dry risers, lifts, et cetera. Then within the compartmentation side of things, we would look at things like cavity barriers and requirements for various separations in the building, lobbies, et cetera.
Q. Right.

If you go to page 2 of the fee proposal, please, which is back at \{TMO10033721/2\}, can you see, "The scope of the work for the project would include"? Do you see that there?
A. Yes.

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Q. A site visit, and then the compilation of a fire safety strategy report. You see that?

Then a few paragraphs down -- in fact, the last-but-one paragraph before "Fire Engineering Team", it says:
"In developing the report, we would use our expert knowledge of fire safety design codes. The report for the building will consider the following items:
-" means of escape;
-" fire safety systems;
-" any smoke ventilation provided;
-" access and facilities for the Fire Service."
You see that?
A. Yes.
Q. Would those be included in your basic sub-issues?
A. Yes.
Q. Did you, when you did your work, check that you had covered all of those?
A. In as far as I was able to do so with the information we had at the time. The document that we produced was only a draft, so there will have been extra things to put in. But at the time, yes, I think they were generally covered.
Q. So when in your statement you refer to "It is a basic standard agenda to include in a fire strategy report for
an existing building", are you referring to those four bullet points as the basic standard agenda?
A. Yes.
Q. I see.
So were you, do you remember, content to proceed to draft the fire safety strategy without seeing the fee proposal because you were confident that the basic standard agenda had been set out in it and that's what you would follow?
A. I would presume so, yeah.
Q. But you can't recall?
A. I can't recall directly, but yes, it --
Q. Fair enough.
I know you didn't draft the proposal, and you may or may not have seen it at the time of your work, you can't remember, so I bear that in mind, but I still want to ask you one or two questions about it.
First, can I ask you to look at the proposed scope of work on page 2, where we are, where it says under the heading "The aim of the work", do you see? It says:
"The aim of the work would be the production of a retrospective fire safety strategy report for the existing building. This report will serve to inform the fire safety risk assessment and fire risk management plan for the building. The design of the building will

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be assessed against relevant design codes relating to the statutory requirements on the design of the building under the Regulatory Reform (Fire Safety) Order 2005, and also under Section 20 of the London Building Acts (Amendment) Act 1939 if the building falls within the size criteria specified by that legislation."

Now, I've shown you all of that because I have a number of questions about it.

The first question is: can you explain to us what you meant or what would have been meant by a retrospective fire safety strategy report?
A. So retrospective being that it is based on an existing building, so we are looking at the fire safety design for a building that is already there.
Q. I see. When it says, "The report will serve to inform the fire safety risk assessment and fire risk management plan", did you have in mind that this document that you would produce would then be given by the building owner to its own fire risk assessor in order to take forward what had to be done to comply with the RRO?
A. Not entirely, no.
Q. So can you explain -- and, again, I know you didn't draft it -- what you would have understood, had you looked at this document at the time, if you did, by the words "serve to inform the fire safety risk assessment
and fire risk management plan for the building"?
A. When a fire strategy is done for a new-build, then the purpose of the strategy really is to set out the fire safety design and all the component parts of that building as a new structure, and because at the end of that construction process a fire safety risk assessment would be required, it would then follow that -- it would inform a fire safety risk assessment for a new-build.

However, with an existing building, where there will already be a fire risk assessment, it is kind of backwards, if you will, it's retrospective, then I think the fire safety risk assessment also informs the fire safety retrospective strategy. So one serves to support the other, really. They should really be saying the same things.
Q. Right.

Would it be right, then, that you're looking, in doing your report, to assist the building owner in its management plan as well as looking at any design questions?
A. I think with an existing strategy, the focus is more on the design, for -- so in the context of the Grenfell strategy, it was really an informative piece of work to look at the fire safety design of the building for the design team rather than a holistic fire safety audit, if

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you will, which would involve much more than just compliance with the Building Regulations.
Q. Let's just be a bit more focused in my question.

You see the sentence which I have just read to you, the first sentence here, which refers to the fire risk management plan. Whose fire risk management plan was that?
A. It will have been for the end users, so the council. KCTMO would be the fire risk --
Q. Right. Therefore, can we take it that your work was to inform the KCTMO about its fire risk management plan?
A. I would disagree with that.
Q. Well, I just wonder why you disagree with that, given that we can see that clearly stated in the sentence?
A. And I can see that. That wasn't my understanding of the work that I was carrying out. I mean, with all of these kind of documents, there is certainly a ... an amount of detail which is in these documents which can advise building owners and risk assessors as to what is there in the building and you use those documents in kind of a joined-up way. So, as I said before, one would inform the other.

It does -- I suppose, reading the sentence, you inform the plan, but to a limited -- to a limited degree, I would say.
Q. Right.
A. They need to take those fire risks from the fire risk assessment along with the strategy to come up with their fire safety management plan for the building. So it's several documents would feed into that, really .
Q. Would I be right in thinking that Approved Document B actually sets out regulatory guidance about building management and not only about design?
A. It does, but in a very limited way.
Q. Right.
A. It's so that the building can be managed rather than -whereas a fire risk assessment will go more into detail on the management side of the detail, because it's a building in use at the time rather than a design ... a design guidance document, essentially .
Q. Going back to the sentence I've just read to you, does it come as a surprise to you -- because I know you say you can't remember reading this document --
A. Erm --
Q. Well, let me just ask the question. Does it come as a surprise to you that the report was going to serve to inform the fire risk management plan for the building?
A. It's not so much as a surprise, it 's -- the paragraph seems quite generic, to be honest. So the interlinked nature of all these documents, yes, it would inform, but

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it's not ... it's not something that would go into it in great detail.
Q. Can I ask you, please, to turn to \{CLG00000173/12\}.

This is part of Approved Document B, you see under
" Definitions ", on page 12, in the left -hand column at 0.13 , do you see, Ms Cooney --
A. Yes.
Q. -- there is a title that says "Management of premises"?

I'm not going to read it all out to you, but it says in the first part of it:
"This Approved Document has been written on the assumption that the building concerned will be properly managed.
"Building Regulations do not impose any requirements on the management of a building. However, in developing an appropriate fire safety design for a building it may be necessary to consider the way in which it will be managed. A design which relies on an unrealistic or unsustainable management regime cannot be considered to have met the requirements of the Regulations."

Then you can read the last paragraph as well, which is about once the building is in use, the management regime should be maintained, et cetera.

Were you familiar at the time with the principle enshrined in that paragraph?
A. Yes.
Q. If that's the case, why would it come as a surprise to you that the report that you were to draft would inform the fire risk management plan for the building?
A. I suppose it's a misunderstanding on my part of the word "inform". I mean, you design the building so that it can be managed, but we wouldn't go into the same kind of level of detail for that as you would in a fire risk assessment. I think that's the point I was trying to make.
Q. I see.

When you did your report, did you, just to get this clear, expect that your work would inform the fire risk management of the plan for the building?
A. Insofar as it is relevant to the fire safety design, yes, I suppose it does, yes.
Q. Okay.
A. Yeah.
Q. Who did you expect would actually carry out the risk assessment?
A. At that time, I had the fire -- well, I asked for the fire safety -- the fire risk assessment, so it was an ongoing assessment.
Q. Who did you expect would create or draft the fire risk management plan for the building?

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A. That's typically, you know, an end user, a responsible person's role.
Q. So in this case, it would be the ...?
A. Sorry --
Q. In this case it would have been --
A. KCTMO, yes.
Q. Did you expect Studio E, who were, after all, giving you instructions, to pass on your report or draft report -we will come to that later -- to the end user, as you describe them?
A. Yes.
Q. So did you understand that your report was intended to assist the person responsible under the RRO to discharge their duties under it?
A. I would have expected it to go back to the client, yes, so that they could use it.
Q. And also compliance with section 20 of the London Building Acts (Amendment) Act 1939?
A. As a relevant building, yes.
Q. Yes.

Now, if you go back, please, to the fee proposal, if we can just do that, which you will find at
\{TMO10037721/2\}, we can see immediately below the opening part of the fee proposal that it says, "The scope of work for the project would therefore
include" -- and we looked at this a moment ago -- site visit and the compilation of the report. We will come back to the site visit question in a moment, but can we agree, at least by reference to this document, Ms Cooney, that a site visit of up to half a day was envisaged and included as part of the fee proposal?
A. Yes.
Q. We can then see some caveats, I think, underneath that. Do you see what it says? It says:
"It is assumed that a suitable and sufficient fire risk assessment exists for the buildings in their current condition, and that any relevant findings of that risk assessment will be made available to Exova Warringtonfire."

Do you see that?
A. Yes.
Q. The fee proposal then goes on to say below that that the scope of works is based on:
"... the assumption that a detailed appraisal is not required of the structural fire protection to the loadbearing elements of structure or of the fire compartmentation within the building. However, if it should transpire during the site survey that such an appraisal is necessary, then the scope of works can be extended to cover this, subject to a separate fee

## agreement."

So you saw that.
So, first of all, was it your understanding, when you did your report, that a detailed appraisal wasn't required of the structural fire protection to the load-bearing elements of the structure or the fire compartmentation within the building?
A. That's right, not for this particular piece of work.
Q. Right.

I know you can't recall seeing this fee proposal at the time, but if you didn't, where did that understanding come from, or is that a standard basic element that you would essentially exclude a detailed appraisal of those matters?
A. It would be something which would be written in rather than written out. So the piece of work that I was given was essentially a desktop appraisal, a desktop study, on the information that was given to us. So the paragraph you're referring to there would relate to a much more detailed and maybe invasive kind of survey of the building.
Q. Yes. It goes on indeed to say:
"... if it should transpire during the site survey that such an appraisal is necessary, then the scope of works can be extended ..."

Can we take it that during the site survey an appraisal did not present itself as necessary?
A. So James liaised with -- I remember James liaising with me from site where he outlined various items within the building, so --
Q. Right. We will come back to that shortly .

Before I move down, can I just ask you to look within the same part of the proposal, where it says, just above the four bullet points:
"In developing the report, we would use our expert knowledge of fire safety design codes."

Which fire safety design codes would that have been referring to, do you know?
A. So as a benchmark it would have been Approved Document B.
Q. Approved Document B. Anything else?
A. Also ... section 20 would come into it as a relevant building.
Q. Yes.
A. Maybe the fire risk assessment guide for ... for residential buildings as well. But as kind of the keystone it would be Approved Document B.
Q. Now, if you go down the page, you will see a heading "Fire Engineering Team". Do you see that? In the second paragraph it says:

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"The fire safety team would be based in our London office. James Lee (Consultant) [and there is an email address and telephone number for him] would lead the project with assistance from others within the company as necessary. CVs of the fire safety team can be provided upon request."

So was it originally envisaged that staff in Exova's London office would do the work on this fire safety strategy?
A. That was my understanding, yes.
Q. Right.

Did it surprise you that you were being given the job of writing this report for a London building, given that you were based in Warrington at the time and not London?
A. No. No, it didn't surprise me.
Q. Did it surprise you that you would be writing it but James Lee would be leading the project from London?
A. No.
Q. Right.
A. No.
Q. Now, he was a consultant at the time; I take it that that was a more senior position to the one that you occupied at the time?
A. No, the consultant is a grade below.
Q. Oh, I see. You did say earlier . So he was junior to you, was he?
A. Yes, at the time.
Q. I see, he was junior to you. Was Terry Ashton senior or junior to him, do you remember? He was an associate.
A. Very much senior.
Q. Very much senior, okay.

SIR MARTIN MOORE-BICK: Mr Millett, I'm wondering if we're getting to a convenient point.
MR MILLETT: We are approaching a convenient point and I was hoping to get to that point at 11.45 .
SIR MARTIN MOORE-BICK: All right.
MR MILLETT: If I haven't, then I haven't, but let me -I think I can, if that's convenient to you, Mr Chairman, and to the witness.
SIR MARTIN MOORE-BICK: Yes, carry on.
MR MILLETT: Right
Let's look at the bottom of page 2, "Fee Proposal":
"The fixed lump sum fee, exclusive of VAT but inclusive of expenses for each stage of the fire safety work is $£ 2,865$."

Do you see that?
A. Yes.
Q. That's subject to the detailed standard terms and conditions in appendix A. You can see that there.

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At paragraph 3.5 of your statement $\{$ EXOO0001590/2\}, if we can please go back to it, you can see that you say:
"I understood that it was proposed that Grenfell Tower would be altered and refurbished, and that the purpose of the Existing FSR was to review the existing design and provide a baseline as to the compliance of the fire provisions with the current Building Regulations and guidance."

When you say "provide a baseline", what do you mean by a baseline? A baseline for what?
A. For the fire safety requirements. So to ensure that what was actually there in the building at the time was within the realms of what is acceptable for fire safety, as an informative piece of work, really.
Q. Right.

You say, "I understood that it was proposed that Grenfell Tower would be altered and refurbished", and then the purpose was this baseline; who told you that?
A. I remember being aware that the building was to be refurbished, however they wanted an existing
fire strategy for the design of the building as it stood.
Q. I see.
A. So not taking into account any of the proposed works.
Q. Right.

You see, one takes away from that paragraph the suggestion that there was going to be an alteration and a refurbishment to the tower for which the existing FSR was to be a baseline.

Let me try the question in a different way: what was the intended relationship, as you saw it, between the fire strategy report that you were going to do and the proposed refurbishment works?
A. As I've said, as an informative piece of work that shows that if, you know ... that the design of the building at that time would meet with the requirements of the Building Regulations going forward. So, for example, if it didn't have any smoke shaft at all, that would be, you know, something of a showstopper, it would be a major re-design, et cetera. So it was looking at what was actually -- actually there and whether that was feasible for the refurbishment without actually going into -- into what those elements were going to be.
Q. Yes.
A. What they were at the time.

MR MILLETT: I see, thank you very much.
Mr Chairman, that is a convenient moment for you, and it's convenient all round.
SIR MARTIN MOORE-BICK: Well, Ms Cooney, you might like to

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have a break.
THE WITNESS: Thank you.
SIR MARTIN MOORE-BICK: We will stop now and come back at 12 o'clock.
THE WITNESS: Thank you very much.
SIR MARTIN MOORE-BICK: While you're out of the room, please don't talk to anyone about your evidence or anything to do with it. All right?

Go with the usher, please.
12 o'clock, please. Thank you.
(11.48 am)
(A short break)
( 12.02 pm )
SIR MARTIN MOORE-BICK: All right?
THE WITNESS: Yes.
SIR MARTIN MOORE-BICK: Ready to carry on?
THE WITNESS: I am, yes, thank you.
SIR MARTIN MOORE-BICK: Mr Millett.
MR MILLETT: Thank you, Mr Chairman.
Ms Cooney, before looking at the draft fire safety strategy that you produced, I want to ask you some questions, if I may, please, about what information you had available to you when you were drafting it .

First of all, site visit. Did you ever visit the site yourself?
A. I didn't, no.
Q. Why is that?
A. It was my understanding that my colleague would be doing the site survey, and relay information back in that manner.
Q. You say it was your understanding that your colleague would be doing the site survey. Do we take it from that that you learnt that he was going to do it or she was going to do it before they went?
A. I would presume so, yes. I can't recall exactly what the timeline was, but yes.
Q. Who did the site survey?
A. James Lee.
Q. So did you have a discussion with him about your proposed work before he did the site survey?
A. I do recall speaking with James about checking the ventilation, so from that I would assume that it was prior to him going.
Q. Right, okay. We will come to that in just a moment. Is the reason why he did the site survey and you didn't because you were based in the Warrington office and he was based in the London office?
A. Yes.
Q. Right.
Was it usual for you, at the time, do you remember, 73
to prepare a draft fire safety strategy for a building without having visited it?
A. Erm ... both, yes and no. It depended on the building. So if it was a particular thing we had to see, then we would go to site. But many fire safety strategies are prepared from drawings.
Q. Right.
A. So ...
Q. Would it in this case have been useful, do you think, to have attended the site yourself?
A. It would have been, yes.
Q. Let's just have a look back at the fee proposal, please, \{TMO10037721/2\}. We looked at this earlier under the first bullet point on page 2, under "Proposed Scope of Work", site visit, and it says:
-" a site visit (expected to take no longer than half a day) to survey the building's architecture and fire safety systems."

Do you see that?
A. Yes.
Q. Now, from what we have seen, Mr Lee undertook a site visit on 29 May 2012. Do you recall that?
A. I don't, no.
Q. He says it in his statement, and I don't think we need to call that up, but just for the transcript it's
\{EXO00001740/3\} at paragraph 3.6.
Now, do you know whether he ever took any other site visits other than the one he did on 29 May 2012?
A. I think I recall that he did, yes.
Q. Right.
A. Because I remember speaking to him about it, so --
Q. Right.
A. Specifically in relation to the shaft dimensions.
Q. Okay.

Now, just to get the dates right, he says he did his site visit on 29 May. The site visit took place -- that site visit, at least -- before the fee proposal dated 11 June. But you're saying you think he did another one, a later one, after 11 June?
A. I think so. I can't absolutely guarantee it, because it 's so long ago, I don't remember the timeline, but I was under the impression that he had, yes.
Q. The site visit specified in the proposal is only for one, "a site visit (expected to take no longer than half a day)". Are you saying that there was another site visit, even though the fee proposal specified a single visit?
A. There may well have been. That's not terribly unusual.
Q. Right.

Do you know why the quotation only quoted for one
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site visit if one had already been done?
A. I don't. I don't know.
Q. Right.

Now, you say you spoke to him. When you spoke to him, roughly when was that?
A. Well, it will have been after I was asked to take the piece of work on, so I would assume it was between Dr Barker giving me the piece of work and producing the draft document. So within that two or three weeks.
Q. You see, we have been told that Mr Lee, James Lee, left Exova on 30 July 2012.
A. Okay.
Q. So if he left Exova on 30 July 2012, do you know why he was speaking to you from site, as you say, about this work after you were tasked with the preparation of the report?
A. That's how my memory remembers it. Like I say, the actual timeline I don't recall precisely. It's in and around that time. So I suppose that's a question for Mr Lee. But I do recall speaking to him.
Q. Now, you say in paragraph 3.7 of your statement, if you can go back to that, \{EXO00001590/3\}, at paragraph 3.7 in the last sentence there:
"I also discussed the layout with Mr Lee, who had been on site, in order to understand the layout."

| Earlier this morning you said -- this is |  |
| :--- | :--- | ---: |
| \{Day14/67:6\}, you don't need to go back to it -- that he | 1 |
| liaised with you from site . Do you remember whether he | 2 |
| liaised with you from site or after he had been to site? | 4 |
| A. I don't know whether he was actually in the building at | 5 |
| the time or whether he was in the vicinity or in the | 6 |
| office, I suppose. It was on the phone, so I couldn't | 7 |
| accurately say where he was. But I do -- what I recall | 8 |
| is the conversation about the building and specifically | 9 |
| the ventilation. | 10 |
| Q. Do you recall even roughly how soon after you were asked | 11 |
| by Ms Barker to do this report you had the conversation | 12 |
| with Mr Lee? | 13 |
| A. I don't recall it to that kind of level. Possibly in | 14 |
| the first week afterwards. | 15 |
| Q. Right. | 16 |
| Just sticking with paragraph 3.7 you say you | 17 |
| discussed the layout with Mr Lee, who had been on site, | 18 |
| in order to understand the layout. | 19 |
| A. Yes. | 20 |
| Q. It's logical , isn't it, that that must have been before | 21 |
| he left Exova? | 22 |
| A. Absolutely, yes. | 23 |
| Q. Right. | 24 |
| A. Yes. | 25 |

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Q. If that's right, then your recollection about when you were first asked to prepare this report must be wrong, because he left in July.
A. Erm --
Q. At the end of July.
A. I would have to check the dates when he left, and the dates -- if there's any other correspondence which pre-dates what I've seen. That is my understanding of the timeline, but it is some time ago, so memory can jump around a little bit.
Q. All right.

Your recollection in your statement at paragraph 3.7
is that you discussed the layout with Mr Lee in order to understand the layout. Was your discussion with Mr Lee limited to the layout?
A. No.
Q. What else did you discuss?
A. I do recall speaking to him about the ventilation, as I've said, and just the general elements of the building. So I think we spoke about how the stair enclosure kind of came through the building and down the building to the final exit door, the last door out the building. I don't remember specifics other than those kind of things.
Q. Right.

When you had the conversation with Mr Lee about the enclosures and the final exit door, the matters you've just referred to, was he reporting to you about what he had found on site or were you asking him questions arising out of concerns you had had from looking at the documents with which you had been provided?
A. I remember being quite perplexed by the layout of the lower floors, because it didn't seem to flow on the drawings that I had received, which were quite grainy. So I think I asked him if he would look at certain elements for me and report anything back --
Q. Right, okay.
A. -- on those.
Q. We will come back to Mr Lee in a moment. Can I ask you to go back, please, to paragraph 3.6, because I think I would like to take Mr Lee in a slightly more ordered way. 3.6 in your statement, page 3 , you say:
"In producing the Existing FSR, I was initially provided with a limited amount of information. I recall looking at the original plans for Grenfell Tower on microfiche."

Then you say you assume they would have come from the architect:
"This is typical of the amount of information I would have expected to receive to carry out a fire

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strategy report on an existing building."
Just to be clear, was the information that you were provided with just the microfiches of the original plans for Grenfell Tower?
A. Originally, yes. Yes.
Q. How did you get those, do you remember?
A. I requested them from Studio E.
Q. Okay. Because you say, "I assume", but you can't remember, that they would have come from -- is that because you asked for them specifically?
A. I did ask.
Q. You did.
A. We had no working drawings of the existing tower to actually consider, and they were obviously the bench -the basics of what you would expect. So I requested them, yes.
Q. Did you ask for anything else from Studio E?
A. Erm --
Q. Other than the microfiches?
A. I asked for the -- I asked several questions, as I now remember from looking at documents, and the fire risk assessment for the building.
Q. Right.

You say that you were initially provided with a limited amount of information, and I'm stressing those
words. Can you explain why you say the initial information provided to you was limited to that material?
A. Yes, the drawings which we received, which had been taken from microfiche archives of the tower when it was first designed, came through on A4 layout, and the actual building lines were quite fuzzy, for want of a better term, they were quite blurred over time, and obviously the process of getting them onto a paper format rather than on a microfiche, that's what I recall looking at initially.
Q. Right.
You say the information was limited, and all you got was the microfiche, and you added to that just now. Why was the information that you got limited as opposed to all of the information that you would ask for and expect to get in order to be able to produce a report like this?
A. Just the quality of the drawings was very poor, so actually trying to determine the lines that surrounded the lobby, the firefighting stairs, the flats' layouts, et cetera, were quite difficult to determine, and I remember taking quite some time to assess the layout from the drawings themselves.
Q. Right.

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So if the quality of the drawings on the microfiche were so poor, as you say they were, why not get on the train and go down to Grenfell and look at it for yourself?
A. Erm ... it's a -- I could have done that, I suppose. I think having sat and studied and looked at them, the tower was -- you know, each floor was a replica of the one below it, so as long as I was pedantic about looking at those lines, I could see that that was the structure of the building at the time.
Q. You have answered my questions on paragraph 3.6 by referring to the quality of the outline of the drawings on the microfiche, which I understand, but the impression one gets from 3.6 is that you were initially provided with a limited amount of information, but that that amount of information would be typical that you would expect to receive to carry out a fire strategy report on an existing building.

Just so I understand your evidence, are you saying that the information about Grenfell Tower comprised in the plans on microfiche is all you would ordinarily get, or expect to get, in order to be able to carry out a fire strategy report such as this?
A. We would typically expect to see drawings for a building, it just was that the quality of these
drawings weren't the best. So typically for an existing building we would ask the responsible people, the people from the health and safety file, et cetera, for drawings, layouts of the drawing. Hopefully if they have a fire strategy drawing, we would ask for one of those, which would indicate various fire safety related matters. They really varied, depending on the age of the building and how it's been recorded over time. But to have archived documents isn't unusual.

I think the limited amount of information was due to the fact that they were quite -- it's quite small replicas of what was on the microfiche. So whilst you could kind of look at them and interpret them, it wasn't ... it wasn't without having to go through a process to be able to understand the layout, if that makes sense.
Q. Leaving aside the question of the quality of the drawings on the microfiche, would you normally carry out a fire safety strategy report on an existing building on such limited information as you have described here?
A. That's where we would start off, I think, yes. Yes.
Q. Right. Because you say in the last sentence:
"This is typical of the amount of information I would have expected to receive to carry out a fire strategy report."

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It rather suggests that that is all you would need in order to carry out a fire strategy report; is that right?
A. I think it could be read that way. I don't think that's the intent of it. I think it's ... it's certainly part of the basic information that you would expect to receive.
Q. What else would you expect to receive?
A. We would ask for as much information as we possibly could get.
Q. Right.
A. But certainly the fire risk assessment and any other pertinent information that was in the files that they had, we would go through.
Q. Going back to your discussion with Mr Lee that you recall, did Mr Lee give you any information relating to the fire safety systems present in the building?
A. Beyond the ventilation, I can't recall specifics on the ... I think there was some information about some detection.
Q. I see.

Would you normally ask your client or your instructing person to provide you with up-to-date drawings of all active and passive fire safety systems within the building?
A. Not necessarily. If the basic infrastructure is there, and the ongoing use of the building has maintained those, then we wouldn't necessarily -- we wouldn't interrogate that to the same level as a fire risk assessment would, with it being just a -- it would be focused on the design criteria.
Q. I'm not sure I understand why that is so. Surely you would want to see all accurate detailed drawings which demonstrated the up-to-date position of all active and passive fire prevention systems or mitigation measures in the building in order to do your report; no?
A. You would, if they were available, yes, but at the time we were asked to carry out the work, that package of information was all we received, all we had, and we did -- I do recall asking for information from Studio E, and that's where the fire risk assessment came from. But that's ... we could only work with the information that we had at that time, otherwise it would have ... it would have, I suppose, pushed a deadline further back, and as it was a draft report anyway, it was a first kind of pulling together of all the relevant information we had at that moment.
Q. Right.

You say in that last answer, which I think I need to just follow up on, "I do recall asking for information

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from Studio E, and that's where the fire risk assessment came from". We will come to the fire risk assessment later. I want to get clear: when did you ask for information from Studio E, over and above the request for the drawings, the microfiche?
A. I think I asked for it on an email. I think there's an email somewhere where I've asked --
Q. Did you actually specifically ask Studio E for the up-to-date drawings of all active and passive fire prevention or mitigation systems in the building?
A. Not in those words. But, yes, we asked for all the information that they had or could get on the existing building.
Q. Right.

You say at paragraph 3.7 of your statement:
"... I had difficulties trying to work out the layout of the lower floors from the information I had, so I requested drawings and photographs of Grenfell Tower from Studio E to assist me in visualising the layout."

Now, again, wouldn't it have been simpler to take yourself down to the site and look at it yourself and take your own measurements and photographs?
A. It's certainly something I could have done, yes.
Q. My question really is : why didn't you?
A. Because I was liaising with other members of staff who were more local than I was. I was asked to undertake a desktop-based study, so ... yes, I could have gone if ... if I felt like the information I was getting wasn't answering questions.
Q. Right.
A. Yes.
Q. I see.

Did you feel in any way that you were constrained by the budget of just under $£ 3,000$ ?
A. Not particularly, no.
Q. Right.
A. No.
Q. Did Mr Lee give you any notes that he had made about his site visit?
A. I don't recall receiving anything written.
Q. Did you ask him for any?
A. I don't recall that I did, no.
Q. Why is that?
A. I do recall discussing with him on the telephone the various things, so I will have made my own notes from that up in Warrington to incorporate into the report.
Q. Right. Are you saying that you made a note of your telephone discussion with Mr Lee?
A. I would have done, probably, as is my general -- when

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I'm trying to gather information, it would have been on the back of a drawing or something like that.
Q. Right. Do you keep a notebook for each project --
A. I don't. I do now, but at the time, I didn't, no.
Q. Was that general practice within Exova, for people in your position, when instructed to do a report, not to make notes of important matters?
A. No, it was ... it was various. So I know that Dr Barker was quite fastidious about notebooks, but other members of staff would be more reliant on their emails or other -- memories, et cetera, rather than documenting every single matter. Yeah.
Q. Just to be clear, you're saying to us, are you, that you took a note of what Mr Lee said on the call and you wrote that down on the plans or on the back of the plans?
A. It will have been -- that was my general -- where I kept all my information, and then obviously once that information has been kind of dealt with, the report has been prepared, then I would have put it in a pile with the other stuff to be dealt with, kind of as a filing system, if you will.
Q. You say "as a filing system, if you will". Do you know where those plans or those notes went?
A. I genuinely do not know what happened post carrying out
the report, where -- they would have been probably with a stack of completed paperwork which -- I don't know what I will have done with those. If I'm perfectly honest, they probably would have been disposed of at some point.
Q. Would it be normal at Exova to maintain a project file for a project such as this?
A. It's normal to have a digital file, so --
Q. Right.
A. We didn't keep -- well, I didn't. As I say, other members of staff work in different ways, as everybody does, but I didn't keep a paper project file .
Q. Was there a document management system or a quality control system which actually made the system uniform across the organisation --
A. Yes.
Q. -- for maintaining documents?
A. Yes, there's a digital based filing system, if you will. But the notes that I will have incorporated within the strategy are then in the strategy, so I wouldn't have kept the original handwritten notes from the telephone conversations.
Q. Have you been asked to provide those notes or identify or assist in identifying those notes from the project file or digital system, as you call it, in order to be

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able to assist the Inquiry?
A. Yes, every last piece of information in the office and on the computer systems was trawled through, so --
Q. Okay.

Now, do you remember, casting your mind back to the conversation, whether Mr Lee made any comment on whether, during his survey, or surveys, as it now turns out, an appraisal of the structural fire protection to the load-bearing elements of the building or fire compartmentation within it was required?
A. Sorry, could you rephrase that?
Q. Yes.

Did Mr Lee make any comment to you about whether, during his site survey, he thought that an appraisal of the structure was required, either in relation to the load-bearing elements or in relation to the compartmentation?
A. I don't recall whether he did. I do know that we put that into the report for it to be checked.
Q. Right. Did you see the photographs that he took?
A. I do recall some photographs, yes.
Q. Right. Let's just have a look at one or two, if we can. \{EXO00001749\}, please. These are some photographs. There are 24 of them, I think. If you could just be shown those with a quick scan through some of them at

## the beginning.

Are those photographs that are familiar to you, do you think?
A. Yes.
Q. You think those are the photographs?

What use would those photographs have been to you -and some of them may be more useful than others -- when you received them?
A. So that I could get a physical look at the materials of the building and its general scale and layout.
Q. Right.
A. Some are, like you say, more useful than others, but ...
Q. Now, did you have any discussion with Mr Lee about whether he had been told about the TMO's intended budget for Exova's work on Grenfell Tower?
A. Not that I -- no.
Q. No?
A. No.
Q. Did Mr Lee or anybody else give you a reason to think that the job was being done on an extremely tight budget?
A. No.
Q. Going back to this question of the baseline for compliance that we looked at earlier -- you remember, where you said in your report that the fire safety

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strategy was to be a baseline -- did you think at the time that it was essential that your report should be entirely accurate because, if it wasn't entirely accurate, then that might have a knock-on effect on the fire strategy that was to be done for the refurbishment?
A. I don't think I ever looked at it from those -- that point of view. It would be as accurate as I was able to make it, with the information we had at that time, and as a report on which other matters may well refer back to, to see what the existing condition was.
Q. Now, is it right that you carried out substantially all the work on the existing fire safety strategy for the tower except the site visit?
A. Yes.
Q. So nobody else helped you with it?
A. Not that I recall, really, no.
Q. Now, can I ask you to look at an email, please, \{EXO00001279\}. This is your email to Andrew Martyn on 17 August 2012 at 12.09. The time may become important later in your evidence. We will come back to that this afternoon.

Just to orientate you in your recollection in terms of the chronology, this was 17 August, so the day after your existing fire safety strategy report was signed off by Clare Barker.

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A. Okay.
Q. Yes?
A. Okay, yes.
Q. Right.
Take a chance to look at it. It's an email that you are probably familiar with --
A. Yes.
Q. -- by now, because it was referred to by various people during the opening, and it has some fairly colourful language in it, so it might trigger a recollection.
A. It does, yes.
Q. We will come back to that part of it later, but was this at a time when you were about to go on holiday?
A. It is, yes.
Q. Was this basically a handover email to Andrew Martyn?
A. I wouldn't be as complete as saying it was a handover.
I was expecting Bruce to get back to me --
Q. Right.
A. -- having issued the strategy, and it was really for him just to field any calls that may come in whilst both myself and Dr Barker were on leave.
Q. Okay.
A. And -- yeah, it's ...
Q. Okay. Can I just focus with you, then, on the sentence just below the middle of the paragraph, which says:
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> "James has been to site ..."
Do you see?
A. Yes.
Q. "James has been to site and given some advice, but I don't know what he's said, but it would appear not much."
A. $\mathrm{Mm}-\mathrm{hm}$.
Q. Just focusing on that, can you just explain why you're writing that, if you have had a conversation with Mr Lee that you now recall about the detail of what's in the building, including the state of the exits, et cetera?
A. As far as I'm -- you know, I don't know what -- so this email, to put into context, is in relation to an email I had been sent by Terry, I think it was, who was asking my opinion on a proposal from the architects on one of the options for the layouts of the lower floors in the refurbishment package. So it's not -- it's not related to the existing strategy at all. So they were looking at the layout of those new floors containing some residential accommodation.

So I know that James had been to site, he had spoken to the client, but I don't -- he didn't -- maybe because he had left or was imminently leaving, but I don't know actually what he had actually said to the architects or, indeed, if he had any contact with the client.
Q. I see.

Do you know or did you discover what James Lee had actually said during the conversation you record him having had with somebody before you submitted the draft report to Dr Barker for her peer review the day before?
A. I don't know what James had discussed on site with others, no.
Q. Did you not think to ask him?
A. In the context of what we were looking at here, I think there are some layout drawings somewhere that he was looking at some compartment lines and requirements for fire resistance, and I think that's where it's come from, because it didn't really detail much more than that to me.
Q. Right.

When you wrote this in your email, what were you going on when you said that he had given some advice, "I don't know what he has said, but it would appear not much"? Were you looking at an email or were you referring to something that somebody told you?
A. I think it was to do with the email of the proposed layout of the residential proposals at the lower floors.
Q. But you say he has "given some advice, but I don't know what he's said". Who told you that he'd given some advice?

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A. I don't remember the context of formulating that particular sentence.
Q. You go on to say, "it would appear not much". What would that appear to you from, do you remember?
A. Again, just not having the information in front of me to see what's happened on site.
Q. Who are you in contact with at all about Grenfell Tower, other than a conversation with James Lee about or from site and Dr Barker?
A. The only contact I recall having with -- outside of Exova was with Bruce at Studio E.
Q. Right. I see.
A. I know there were some emails from KCTMO with the fire risk assessment, but I didn't actually speak to -- it was just a received email.
Q. Right.

Did you know at this point that James Lee's visit had only lasted two hours?
A. No, I didn't know.
Q. Would you agree that two hours would be insufficient in order to make a meaningful appraisal of the building for the purposes of preparing a fire strategy for an existing building such as Grenfell Tower, which is a pretty substantial tower block?
A. I think if you have assessed the layout of the building
in terms of fire safety design of that type of a building, it is a short amount of time, but it's not an unmeaningful amount of time, where you can determine the various components of the building fairly quickly.
Q. Now, according to the evidence that Mr Lee has given, he left Exova, as I said before, on 20 July 2012, which is more than two weeks before you started work on the existing building fire safety strategy. Indeed, he had left almost a month before you sent the email to Andrew Martyn that we have up here on the screen. What steps did you take to ensure that you had obtained all the relevant information from James Lee regarding his site visit before he left?
A. Just from the conversation that we had, really. There was no reason for James not to give me all the information. Did I -- I didn't specifically ask the question, "Is that all the information?" because it's not the kind of question you would necessarily ask. You would have that discussion and that would be, you know, the assumption that your colleague is giving you everything that you need to have.
Q. Okay. We will come back to this email later on.

Going back to your statement, if I can, please, page 8 \{EXO00001590/8\}, paragraph 6.4, you say halfway down the paragraph:

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"I had reviewed the existing Fire Risk Assessment provided prepared by CS Stokes Associates Limited, dated 29 December 2010, which had been sent to me by Janice Wray of КСТМО ... and that had raised no concerns regarding compartmentation so would have informed my assumption."

Just so you're clear about the context, you're talking about the level of compartmentation which you said you expected to be high.
A. Mm-hm.
Q. Can we assume together that the risk assessment that you're referring to is the fire risk assessment by Carl Stokes dated 29 December 2010?
A. Yes.
Q. Yes.
A. It was.
Q. Okay, we're going to come to that in just a moment.

Can I show you one document before we get there. First of all, \{TMO10037740\}. This is an email, if we look at the top email, from Paul Dunkerton to you on 13 August 2012, copied to Janice Wray. You can see just below it, the second email on the page, Janice Wray had sent to Paul Dunkerton something called "Attached". Do you see that?
A. Yes.
Q. We will come to the attached in a moment. Then Paul Dunkerton sends it on to you:

## "Cate,

"Please find attached information requested."
Do you see that?
A. Yes.
Q. That was in response to something the same day.

Can I ask you to look at the attachment. This is \{TMO10037743\}. This is the fire risk assessment of 29 December 2010 done by Carl Stokes for Grenfell Tower. So that was what was attached to the email.

Do you remember seeing this attachment?
A. I do, yes.
Q. Yes.

Did you take any steps to verify that the fire risk assessment was accurate? We can see that it's dated December 2010 and this is now almost two years later.

So the question again: did you take any steps to verify that the FRA, the fire risk assessment, was accurate?
A. No. As a professional document, I didn't feel the need to dissect it beyond what it is .
Q. Okay.

If you look at page 1, you can see that there are some areas not covered.

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## A. $\mathrm{Mm}-\mathrm{hm}$.

Q. Do you see that at the foot of the page?
A. (Witness nods).
Q. Yes?
A. Yes, yes.
Q. And it includes the boxing club, the nursery, access to the upper ground floor and upper ground floor level offices .

What steps did you take, if any, to request the fire risk assessments for those non-residential areas which were excluded from Mr Stokes' report?
A. I didn't request anything beyond this, and I think the principal reason for that is that those areas are -whilst relevant to the RRO, will have their own fire risk assessments individually, if they are tenanted out, for example. The layout of the building and the structure of the building didn't ... didn't bring any cause for concern, it's a very substantial in situ concrete reinforced frame, so I didn't ask for any further information on that.
Q. Why is that?
A. Probably at the time because I didn't think it was necessary for the draft that was going out.
Q. Why wouldn't it be necessary for the draft?
A. Principally because of the construction of the building.

You know, looking at it in hindsight, yes, it would have been a good idea to ask for it. However, the
information that would have come back from that, I can't see that it would have added a great deal extra information that I couldn't already have gathered from the layouts of the drawing -- layouts themselves.
Q. But they would have told you that this was a building which had a single staircase but was shared by a wide range of different uses, so sports, leisure, childcare, and residential, and also the electrical substation. So it would have given you that information in detail, wouldn't it?
A. They may well have given more detail, but I was already aware that it was a mixed use on the lower floors.
Q. If you look at the very foot of the page, it says:
"The significant findings and action plan of this
Fire Risk Assessment are inserted next with this document continuing on page 2."

Did you note that when you read this FRA after Mr Dunkerton had sent it to you?
A. I did, yes.
Q. Did you ask Mr Dunkerton for the significant findings and action plan referred to on page 1 there?
A. I don't recall that I did, no.
Q. Why is that?

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A. Because the reason I was looking for the fire risk assessment wasn't necessarily to look at the specific discrete items. For example, many fire risk assessments might look at the -- more at the condition of things or the management of the building, combustibles in escape routes, et cetera, et cetera, whereas I was looking at the design of the building principally for the draft.
Q. Were these significant findings and action plan not an important outcome or outcomes for you to see so that you could be sure about your baseline?
A. Well, in any fire risk assessment, any suitable and sufficient one, any action plan, any findings on the action plan, should also be inherent in the report. So anything in the action plan should be drawn from the content of the report itself . It's a, I suppose, summary of findings, isn't it? So the information should already be in there in any event.

So I suppose the answer to that is it should be in the report in any event, rather than as a separate -something new in the conclusion or the action plan.
Q. So do I take from that answer that you were proceeding on the assumption that the report reflected all the significant findings and the action plan, such that you didn't trouble yourself to read it?
A. I don't think it's a matter of I didn't trouble myself.

I think if the information had been there, of course I would have looked at it, but it should be in the body of the report in any event.
Q. Right.

Would you normally use or read a fire risk
assessment that referred, well-signposted, to
significant findings and an action plan, without actually reading the significant findings and action plan?
A. It would have been -- it would have been informative to have them, absolutely, but based on the scope of the work that I was doing at the time, I must have felt that the report gave me sufficient information to be able to base the existing fire safety strategy on.

With hindsight, yes, I probably would ask for it now. At the time, I must have been satisfied I had enough information to go on.
Q. My question really is: how could you be satisfied that you had enough information to go on without double checking the information you did have in the report against the significant findings and action plan which formed an integral part of that report?
A. Again, I would say that the information should be in the report, so just to look at the summary at the end isn't ... isn't where my focus would have been on. It

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would have been on the actual ... on the content of the descriptions and the detail which the risk assessor had put in the report itself.
Q. Going back to the question I asked a minute ago, because I'm not quite sure I got an answer, Ms Cooney, would it be normal for you to use or read a fire risk assessment that signposted significant findings and an action plan without reading them?
A. Like I've said, in hindsight, yes, I would ask for it. But ... I suppose that's your answer, isn't it? I would ask for it now. At the time, I obviously didn't have it. Whether I did or didn't ask specifically for it, I honestly can't recall.
Q. No.
A. But I would assume that I didn't.
Q. No. My question is: would it have been normal at the time not to have read the significant findings and action plan?
A. No, I don't suppose it would have been normal, but that's the information we had.
Q. Now, you sent an email to Bruce Sounes on 9 August 2012 asking him for further information, and we can see that at \{EXO00001592\}, please.

We can see that at the top of page 1 is an email from you to Bruce Sounes on 10 August, where you thank

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him for the information.
I would like you just to go to page 3
\{EXO00001592/3\}, bottom of the chain on page 3. You start the chain on 9 August; do you see? You say to him, "Hello Bruce", and then you ask him some questions. You say:
"Is the single stair serving the residential levels pressurized or is it only the lobbies to the flats which have ventilation provision?
"Is there a dry riser?
"Is there a fire fighting lift?
"Do you know the construction of the riser doors ie whether they provide 2 hours fire resistance?
"With an existing building I appreciate some information does vapourise over time. Any information you can provide would be useful."
First of all, can I just ask you: what is a riser door? Is that the door to the dry riser or wet riser?
A. Yes, it's a riser door, service risers, any doors that give access into the protective shafts.
Q. I see.
If you had done a half-day site visit, would you ordinarily have been able to establish the answers to those questions?
A. Nominally, yes. Yes.
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Q. You say nominally?
A. Nominally. So with a 40 -year-old door or a 30 -year-old door, we would be looking at it for its general construction and to see whether it looks and feels like a fire door, essentially. There's no -- if you don't have a certification for it, we couldn't pinpoint exactly what door it was. But, yes, we would look at the doors as part of that walk around site.
Q. Right.

Why hadn't you gleaned this information from James Lee when you spoke to him?
A. I don't recall whether we discussed the doors. I do know that we did put a requirement in the strategy to check the fire resistance of the cores and doors, the fire resistance of the building generally.
Q. If you knew that in an existing building some information would vaporise, as you put it, over time, wasn't it all the more important for you to go down to site, look at the condition of the building and assess the active and passive fire safety measures in the building?
A. With James going to site, James is an experienced fire engineer, I don't think it makes it more important that I would go down. I would expect that information to come -- you know, for him to make those kind of
assessments when he's walking around the building to see that they are fire doors and the fit, et cetera.
Q. But he clearly hadn't, had he, otherwise you wouldn't be asking these questions?
A. We wouldn't know necessarily the fire resistance of a fire door. We can go off the width, you can go off the strips and seals of a door to kind of guide you towards what the door might be, but without any markings on the doors, you're not necessarily going to find out whether it's a one-hour or 90-minute door or whatever it needed to be.
Q. Can we take it that, at this time, you had to ask Bruce Sounes these questions because Mr Lee had not been able to give you the answers, or had not given you the answers?
A. Possibly, yes, I would --
Q. Do you remember what --
A. That would be an assumption, yes.
Q. Do you remember what prompted you to ask these questions of Mr Sounes?
A. I think I was looking for the component parts to see whether they had any information on them, so ...
Q. I see.

If we look, please, at the response that comes from Mr Sounes on 10 August, it's at the foot of page 1

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\{EXO00001592/1\}, 10.51, to you, copied to Paul Dunkerton and indeed others. He says:
"Dear Cate,
"Yesterday was the project meeting for Grenfell. I will answer your questions as best I can. Paul Dunkerton might be able to forward to the right person in the TMO if you need further clarification ."

Then he answers your questions, do you see?
Over at the bottom, he goes on to the next page, and there is a plan on page 2 \{EXO00001592/2\}, and underneath the plan, do you see, it says "Fire fighting lift -- no"; do you see that?
A. $\mathrm{Mm}-\mathrm{hm}$.
Q. Then he says:
"Fire rating -- not sure but the lifts were refurbished a few years ago. Paul, might you be able to clarify .

Then he says:
"IMG 5870 -- Existing lift doors."
Do you see that?
A. Mm-hm.
Q. Now, that told you at least that the lifts were refurbished a few years ago. Did Mr .

Dunkerton ever clarify the information about that with you?
A. Not to my knowledge, no.
Q. Did you chase it up from him?
A. I don't -- I don't believe I did, no.
Q. Why is that?
A. Because I think in the risk assessment there were quite a number of -- quite a number of references to a firefighting and evacuation lift, which, being the fire risk assessment and being done by somebody who is competent in fire safety, you would take to be the case.
If they had been refurbished, again, we wouldn't assume that they had been done in anything but a competent manner, as you would do as a responsible person, so I'd ... if the lifts were indeed refurbished, then ... then it wouldn't cause any alarm bells to go off particularly.
Q. You see, we know that you emailed Paul Dunkerton on 13 August, three days later than this, in order to ask him for the FRA. We have seen that. My question is: why didn't you follow up the question about the lifts with him when asking him for that information?
A. I don't -- I don't know. I don't know. Possibly because I was looking for answers from the assessment. I can't recall. It's --
Q. Did you ask Mr Sounes or anybody else for any further information before starting work on your draft strategy?

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A. I can't recall. I know I had several conversations with Bruce, but timeline, I wouldn't be able to tell you.
Q. Did you request any fire safety policies?
A. No, I don't think so.
Q. Did you request any fire safety management policies or procedures?
A. No, I didn't --
Q. Did you request any maintenance records, such as records for the AOV or the lifts?
A. I didn't, but I wouldn't normally ask for maintenance records for a fire safety strategy, looking at the design of the building principally.
Q. I don't understand. If you are looking at the existing fire safety strategy for the building, why don't you want to know whether the lifts are working or not?
A. We're looking at a building in terms of its component parts for fire safety principally in the desktop study that I was requested to do. With that information and the fire risk assessment and management documents that the responsible people hold, all those documents come together to form a suite of documents to which they can refer .
It was never my understanding and it was never the intention of the document to be a holistic fire safety audit of the building. That's something quite
different, and certainly not something that was in the scope of works that was to my understanding when I started doing it.
Q. If, for example, the AOV, the smoke vent system, was there but very old and not working, is that not something you would want to know when crafting your strategy?
A. With these items, the items that we didn't have enough information on, we do -- as I recall, having read it further recently, the fire strategy does ask for things -- items such as that to be checked and investigated, so that, you know, we would have the confidence to say that those items could be part of the building, I suppose. But --
Q. Indeed
A. You know, so it was in the strategy that we needed to check these things.
Q. So my question really again: why didn't you ask for, for example, the maintenance records for the AOV?
A. Because we asked for -- it was my understanding at the time, having read some of the information which was sent through to us, that the shaft was to be upgraded or maintained or some areas of the shaft were being refurbished. So I suppose, in a way, it would have negated any maintenance records for that, because it was

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going to be refurbished. But as it stood at the time, we asked for it to be checked.
Q. You at the time, as we have seen from the 17 August email, to which we will return, didn't know very much about the refurbishment strategy.
A. No.
Q. So you weren't able to make a decision not to explore the maintenance records of, for example, the AOV, were you?
A. Well, I do know that some of that information did relate to the mechanical shaft. I think that's why in the strategy there's quite a lot of information on the shaft and does mention the refurbishment to it, so ...
Q. But that would all be in the future. You were asked to provide an existing fire safety strategy for the building.

My question quite simply is: how could you produce a reliable safety strategy for the client so that the occupants of the building would be safe without, for example, knowing whether the AOV system worked properly?
A. My answer to that really is because the document wasn't intended to look at the maintenance of the building; that was for the fire risk assessment, which is clear in the fire risk assessment that that's -- the maintenance

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and management and operation of the building is an integral part of that process, that's what you do in a fire risk assessment. But a fire safety strategy looks at the design of the building and whether that building can then be managed successfully for that design, rather than looking at it from a point of view of the management procedures and the maintenance.
That's -- it almost becomes a hybrid, if you will, with a fire risk assessment, which is why I'm kind of differentiating between what we were doing for a strategy and what I would consider to be part of a full audit, which it was never intended to be.

So that's why we wouldn't have asked for those matters.
Q. The fire risk assessment that you had on 13 August was dated 29 December 2010, so it was nearly two years out of date by the time you got it .
A. Okay.
Q. We can see that, 20 months or so out of date.

Would you not have wanted to have had updating maintenance information about, for example, the lifts or the AOV system so that you knew the current state of those fire safety devices or measures from which you could build a reliable safety strategy?
A. Again, I would say that as long as we had the

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infrastructure and that infrastructure was being, you know, maintained by the responsible people, which is -- you know, was one of the assumptions of the strategy, then we wouldn't delve into the service records, et cetera, of various individual components of the building.
Q. Does that explain why you didn't ask for training materials?
A. Yes, it's the same principle.
Q. Or the fire safety organisational structure for those responsible for the building?
A. That's a matter for the fire risk assessment.
Q. Or a full list of active and passive fire protection measures and their status?
A. Again, that's part -- that would be part of the fire risk -- fire safety strategy, and they are component parts of it. But the others, no, we wouldn't necessarily ask for those in that depth.
MR MILLETT: Mr Chairman, just two more questions, if I may, before the break.
SIR MARTIN MOORE-BICK: Mm-hm.
MR MILLETT: Did you request information about the current evacuation policy at the time?
A. Was this post or after I had received the fire safety -fire risk assessment?
Q. At the time you sent your draft report to Dr Barker on 15 August for her to --
A. Yes. So, yes, my understanding was that it was a remain-in-place strategy for the resi and would have been simultaneous for the rest of the building.
Q. Did you understand what it relied on, the stay-put strategy?
A. Yes.
Q. What was that?
A. A high degree of compartmentation and various fire safety measures in relation to the fire service facilities and ventilation of the lobby.
MR MILLETT: I see, thank you.
Ms Cooney, Mr Chairman, that is a convenient moment for a break. I have come to a new topic.
SIR MARTIN MOORE-BICK: Good, thank you very much.
Ms Cooney, we are going to have a break now, so you and others can get some lunch.

We will resume at 2 o'clock, please, and please don't talk to anyone about your evidence or anything to do with it while you are out of the room.
THE WITNESS: I won't. Thank you.
SIR MARTIN MOORE-BICK: Thank you. Would you like to go with the usher, thank you.

Good, 2 o'clock, please. Thank you.
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(1.03 pm)
            (The short adjournment)
(2.00 pm)
SIR MARTIN MOORE-BICK: All right, are you ready to carry
    on?
THE WITNESS: Yes. I am, thank you.
SIR MARTIN MOORE-BICK: Thank you.
        Yes, Mr Millett.
MR MILLETT: Thank you, Mr Chairman.
        Ms Cooney, thank you. Just a couple of follow-up
        questions flowing from the topic we were examining
        before lunch.
            First of all, did you ever ask Mr Sounes or
        Dr Barker for a history of the previous fires at
        Grenfell Tower?
A. No.
Q. Why is that?
A. It wouldn't be normal in something that you would pick
up in a fire safety strategy. It would be more -- that
is a standard question for a fire risk assessment.
Q. Just generally, as at 2012, what was your awareness in general of the history and experience of fires in high-rise residential buildings?
A. Generally in line with what you might expect from somebody doing the job I was doing. So, yes, I was
aware of various landmark fires.
Q. Any landmark fires stand out in your mind?
A. Lakanal. There was -- I believe there was a couple of cladding fires, quite a big one in France, there was one in Scotland as well, was there?
Q. Yes, indeed.
A. Various fires I was aware of, yes.
Q. You mention Lakanal. From the fire safety engineer's perspective, what was the big lesson learned from the Lakanal House fire?
A. The -- from my understanding of it, there were two major causes of the fire: that's the external walls, spread over the external walls of the building, and there were compartmentation defects because of the scissor stairs.
Q. There were. But what was the takeaway, if I can use that expression, for a fire safety engineer such as yourself?
A. Takeaway was to ensure that the building materials were appropriate for the building, and that any defects, repairs, et cetera, were ... well, shouldn't happen in the first place, but --
Q. Well, never mind that.
A. -- if they -- were mediated.
Q. Can I ask you, then, to look at your draft existing fire safety strategy. That's \{TMO10001925\}. There it is.

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Have you read it recently?
A. Yes, I have.
Q. So I can take it, can I, that you're familiar with it?
A. Yes.
Q. Okay.

Now, it's dated, as we can see at the bottom of page 1, 16 August 2012, and it's marked as a draft, watermarked as such, across the front and indeed all other pages.

We can see from the second page \{TMO10001925/2\} that it 's prepared by you and reviewed by Dr Clare Barker, principal consultant. Do you see that?

I'm going to come back to that review process later, but can I just show you something above that box. There is a smaller box which says, "Reason for revision ", and it's issue number D01. Is the D draft?
A. It is, yes.
Q. Right. And, "Reason for Revision: First Draft ".
A. Yes.
Q. Does that tell us that what you produced, this document, was -- clearly it is a first draft, but that there was intended to be perhaps a further draft and then a final version?
A. Typically that would be the process, yes.
Q. Right.

Can you explain why the document was issued with the word "draft" over it if it was the final version?
A. It wasn't the final version.
Q. Have you seen -- I'm so sorry.
A. Sorry, I don't know whether that's what you understood by my last response, but it was just a first draft.
Q. Did you ever do a further draft?
A. No.
Q. Do you know whether anybody else ever did a further draft?
A. Not that I'm aware.
Q. Have you ever seen a final version of this document?
A. No, I haven't.
Q. Would it be usual for you, as the draftsperson of this document, not to see a final or the final version of the document that went to the client?
A. It really depends on feedback, to be honest. So a document would remain as a draft until all parties were satisfied that it covers everything it needs to cover.
Q. Very well. We will come back to that in due course.

We see on page 3 \{TMO10001925/3\} the contents page, if we can just look at that, and you can see there that from part 3 onwards you have addressed the main functional requirements, B1 to B5; yes?

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A. Yes.
Q. From B1 to B5 at parts 3 through to 7 .

Now, despite the fee proposal referring to section 20 of the London Building Act 1939 and also the RRO, as we talked about earlier, there is no mention of those in the contents page, is there?
A. There isn't, no.
Q. Do you know why that is?
A. I think principally because when we're looking at a fire safety strategy, whilst it does ... there are large overlaps with the RRO, and obviously the local Acts such as the London Act and others, which have now been repealed, would be ... there's quite a lot of overlapping requirements, so the information in terms of what we had for those elements, I probably didn't have enough information to really complete a full section on those at that time.
Q. I see.

If you go, please, to page 5 \{TMO10001925/5\} we can see the introduction, and you can see what's set out there. In the fourth paragraph of the introduction, do you see it says:
"It is expected and therefore assumed that the existing building has been built to the prevailing standards of the day ..."

Do you see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Can you just read the rest of that paragraph to yourself.

\section*{(Pause)}
A. Yes.
Q. Now, on what basis did you form that expectation or assumption?
A. On the basis that the building having been long-standing in the same use as it was constructed to be used for, and the very stringent adherence to Acts such as the London Act, section 20, et cetera, and the requirement for a fire risk assessment being in place for several years prior to, I think it was a reasonable assumption to assume that any works that had been carried out had been done in a workmanlike manner, and that there was no significant deviations from the guidance.
Q. Did you take any steps to ask the TMO or investigate with them or indeed Studio E whether the existing building had been built to the prevailing standards of the day?
A. No.
Q. Why is that?
A. Because the layout of the buildings -- the building, from the information we had, gave that information

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within it in enough detail.
Q. Right. So can I take it from that answer that you took no steps to verify that the existing building had indeed been built to the prevailing standards of the day?
A. I didn't ask for certification or anything like that, no, I didn't.
Q. If you look at the fifth paragraph, the existing fire safety strategy states:
"It is assumed that the various provisions required by ... the above legislation have been maintained since the building was constructed and subsequent amendments have been carried out with the approval of the regulating authority of the day."

Do you see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. When you talk about various provisions being maintained, what do you mean?
A. So if there's -- compartmentation, so if there's works been carried out which creates holes, that they have been properly sealed; that everything's been maintained as it should be, so lifts, risers, dampers, any kind of system which relies on maintenance detection systems, things of that manner.
Q. Just to be clear, do you mean there that it was assumed that the building had been maintained to comply with the
prevailing standards at the time of construction?
A. No, so maintain so that they would meet their performance requirements to -- for the time that they were put in, or as amended, I suppose.
Q. Right.

On what basis did you make these assumptions that you set out here?
A. Reasonable good practice.
Q. Right. Again, am I to take it that you didn't ask the TMO or Studio E as to whether those assumptions were sound?
A. I did ask some questions about the ventilation and the detection systems, and we asked quite extensively for checks to be made on the existing compartmentation and cavity barriers, if present, in the external or internal of the building. There were quite a number of recommendations within the report to look at these items that assumptions are based on, yes.
Q. What steps, if any, did you take to verify that any amendments to the building satisfied the relevant legislation or guidance?
A. I didn't take any. Like I said, I didn't ask for any certification or completion certificates . Whether they were even available, I don't know.
Q. Right.

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Would it be normal, in your practice, to proceed to provide a draft fire safety strategy for an existing building by making assumptions of that nature?
A. Yes, I think it's reasonable to assume various things.
Q. I didn't ask you whether it was reasonable, I asked you whether it was normal for you.
A. It's normal if it's reasonable, yes. I mean, one does make assumptions on various things, and that is normal. There was nothing unusual or not normal about the layout of the building.
Q. Right. So the answer to my question is: it was your normal practice to proceed on assumptions such as those without investigating them?
A. Yes, if I assumed it to be reasonable, yes. It depends what it was, but yes.
Q. I see.

Now, you haven't, I think, anywhere in this introduction identified what the current safety legislation and guidance is, for example the Building Regulations 2010 or the provisions in the guidance in ADB, Approved Document B. We can see that you haven't done that. Can I ask why not?
A. Because the building is existing, really . So the whole of the construction of the building pre-dates any -- it pre-dates modern building regulation, and as we
discussed earlier this morning, where we have an existing building, just because it doesn't follow the letter of current guidance doesn't make it unsafe, and it 's not a gap analysis between the two; it's a bringing together of all that information and a consideration of whether it is safe or not, rather than trying to push something into guidance which is more modern than the building itself.
Q. Okay, I think that's an answer to a different question. Let me try to get at it a different way, if I can, Ms Cooney.

You frequently refer in this report -- and we will see them in due course -- to current regulatory standards, but you don't identify what they are. The question is: why don't you do that? Why don't you say "Building Regulations" and set out the provision?
A. They were the current legislative standards. It could have been clearer, I suppose, but I didn't ... I didn't put it in because they were the prevailing standards of the day, I suppose.
Q. I see.

What expertise, experience or knowledge were you assuming on the part of your reader when referring to current regulatory standards?
A. As it was a document to inform the design team and

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essentially our London office, a reasonable level of knowledge.
Q. Right.

Now, in the sections which follow this introduction, can you see halfway down the page, you give a brief description of the building and you start with
level \(1 /\) ground, and you then go up, level \(2 /\) mezzanine, level 3/walkway/deck. I just want to pick up a couple of those.

In level 2, mezzanine, do you see, you say in the third sentence:
"All accommodation on the ground and mezzanine
levels are assumed to be under the same management."

\section*{You see that?}
A. Yes.
Q. Then you say under the next level, level 3/walkway/deck, in the fourth line you say:
"This is assumed to be separated from the
fire fighting lobby with 2 hour construction and 1 hour fire doors."

I take those together, Ms Cooney, for the sake of speed, but on what basis did you make those assumptions, do you think?
A. The fact that it was a building run by a large organisation, and having a very substantial residential
element to it. So whether or not the accommodation at the lower levels was within the same management, organisation, that is of the residential areas or not, it would have to meet the higher standard. So we would apply the higher -- the higher standard of fire safety to it.
Q. Well, maybe, but just so I understand your evidence, are you saying you assumed -- taking the second of those passages I've shown you -- that the external stair would be separated from the firefighting lobby with two-hour construction and one-hour fire doors because the TMO was a large organisation and the building had a substantial residential element to it; is that what you are saying is the basis of the assumption?
A. No.
Q. What is the basis of that assumption?
A. If I could just read this.
Q. Please do.
(Pause)
A. I'm not quite sure why you're drawing the two items together. Is that something I could ask for clarification on, please?
Q. What was the factual basis or informational basis on which you made the assumption that you have set out there?

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A. Because the building was over a certain height, that would require that level of fire resistance, both under modern-day guidance, contemporary guidance, as far as I was aware, and the London Act. So you would assume a building of that long-standing nature would have that level of fire resistance. Whether that was under the same management or not, you would expect the building to have been built in a robust manner.
Q. So is the answer to the question that you assumed that the building was compliant without further investigation in that respect?
A. Again, I don't think it's a ... it's a reasonable assumption for such a robust constructional method to provide that level of fire resistance.
Q. Ms Cooney, I'm sorry to be difficult . It may or may not be a reasonable assumption, that's not a matter I'm asking you about, and it's not, with great respect, a matter for you to tell us about. What I'm after is what happened at the time.

I'm going to ask the question once more.
Did, in fact, at the time, you assume that the building was compliant in this respect without further investigation?
A. In respect of its elements of structure, yes, I would, given its construction.
Q. Now, can I ask you to look at page 7 \{TMO10001925/7\}, please. You set out three purpose groups there. Do you see?
A. Yes.
Q. Residential, assembly and offices. I don't think you provide any information there about the characteristics of the occupants under any of those purpose groups, do you?
A. Could you clarify what you mean by characteristics?
Q. Yes, I can. So for residential, we don't see any information there, either given or requested or identified as missing, about the characteristics of individual occupants of the residential premises?
A. That is inherent in the purpose group. So Approved Document B breaks buildings down into different purpose groups and applies different levels of various fire safety matters to each purpose group. For example, an office building would be generally assumed to have awake and familiar occupants in it, that is inherent in the purpose group, whereas residential 1A would be flats, where you would expect people to possibly be asleep and be familiar with the building. So they are inherent in those purpose groups.
Q. When you did this report, did you consider specific issues relating to the management of fire safety for
people who might need assistance in the event that they had to escape from a fire?
A. I recall not having really had sufficient information for the lower floors, but for a residential building with a stay-put policy, the place of refuge or the manner of evacuation for all people is to remain in the flat where they would be -- given, you know, the design scenario of flats generally, where they would be in a place of safety for a defined period of time.
Q. Right, okay. We will come back to stay-put shortly .

Can we start, then, with requirement B1, "Means of Warning and Escape". This is dealt with on page 8 \{TMO10001925/8\} and following at paragraph 3.2. Do you see? You set out there whether there are adequate facilities for the early warning of fire.
A. Yes.
Q. Would it be fair to say that in this section you have said that a lot of information is unknown and you have made a number of assumptions, just generally?
A. There are a number of assumptions, yes.
Q. Let's look at some of them.

For example, levels 1 and 2 in paragraph 3.2.1, do you see there, you say:
"It is unknown whether the community areas and nursery are covered by an automatic fire detection
system (AFD) or a manual system triggered by manual call points."

Do you see that?
A. Yes.
Q. Is that not something that you could have found out?
A. Yes, and it's information that will probably have informed a further draft, but the fire risk assessment didn't cover those areas, so at that point we didn't have enough information to say yes, it's one thing or another. It is therefore written in that manner.

There are areas where there wasn't sufficient information, and, you know, we would have expected some feedback from that.
Q. Right.

Let's just look a little further down, then.
Perhaps we can take this quickly.
3.2.3 at level 4:
"It is unknown whether the office/doctors levels are covered by AFD, again this may not have been required." Do you see that?
A. Yeah.
Q. Again, that's something that you could have found out, isn't it?
A. We could have found out, yes, but the -- again, for the point of which this draft was prepared, and it is only

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a draft, so there are going to be areas which require
further clarification, we didn't have that information at the time. So it's not unusual to have that as a holding statement, if you will, until we have further information.
Q. I see.

Just pursuing this further, 3.2.4, "Individual Apartments":
"All apartments on the residential floors contain an entrance hallway. It is assumed that the apartments include smoke detection to at least the protected entrance hall, but it is unknown whether this is a mains operated AFD ..."

Again, that's something that you could have found out, isn't it?
A. The risk assessment, as I remember, wasn't particularly clear on this, whether it was -- it seemed to be a little bit of an ad hoc provision, and the report does later say to upgrade it if it's not to a current standard. So with matters such as this where it is a key element of the design, it is brought up later in the report.
Q. These are all matters that you could have found out for yourself, either by a site visit or by asking Mr Sounes or the TMO, before you signed off on this draft and sent
it to Dr Barker.
A. Some of the information we could have done, but there was a deadline for the first draft to go out, so that's probably why that information wasn't there at that time.
Q. Right.

You haven't identified any of these as matters for the client to verify and bottom out so that they could then come back to you for the next draft. Why is that?
A. I don't agree with that. There are several recommendations within the report that they actually do check various matters and, if they don't comply, to either upgrade or, you know, we need more information to see what the state of play is with that, so ...
Q. I'm talking about these ones, these three. You just leave it on the basis that it's unknown. You don't say, "These matters need to be verified before a final report is signed off and sent out".
A. No, I didn't put it in those terms, but in order for this document to move on, they are elements which we would require further information on, and that is detailed --
Q. We may be able to cut things short, then, because I have a number of questions about assumptions, but am I to take it from that answer, based on the three examples I've shown you on this page, that where we see "it is 133
unknown" or "it is assumed", those were, in your language, placeholders to be verified by the client so that the final version would have the accurate and up-to-date information in it?
A. Generally. Generally, yes, but I can only give information on -- I can only make assumptions if I don't have sufficient information to work from.
Q. At what stage would that verification and second draft which would identify these matters occur?
A. Usually, typically, normally, whichever word you want, feedback from the design team would advise various matters where there is some uncertainty within a report, and then that would be incorporated in the report and we would move on to the next iteration, until everybody was happy with it.

So can we assume that that's the case? Possibly, yeah, without going through them all one by one.
Q. So when you sent this report on 15 August to Dr Barker, why didn't you say to her something like, "You will see that this report contains a huge number of unknowns and assumptions that I have had to make, we need to sort these out with the client before we finalise the report"?
A. I don't know whether we discussed that afterwards or we didn't. Like I said before, I sat adjacent to Clare, so
we did do a lot of communicating just verbally between us, so I wouldn't necessarily have put that in writing.
Q. Would that verification process with the client and further draft happen before or after she signed off on your draft?
A. Typically after, because it's draft 1 . So that iteration would go out to the client for their comment and feedback. We would assess that and discuss it and we would move on to the next -- the next draft. It 's not unusual for there to be several drafts before the document is issued.
Q. Right.

Can I just ask you to look at something. It's something called PAS 911 of 2007, "Fire strategies -guidance and framework for their formulation". Have you heard of something like that?
A. I don't -- I'm not familiar with that particular --
Q. I'll show it to you. It's BSI00000066. That's it.

This is the first page of it. It is not
a British Standard, it's a PAS. You know the difference between the two?
A. Publicly available specification.
Q. Exactly, thank you, and it's promulgated by the BSI and some people called Kingfell .

Can I ask you to go to the bottom of page 2
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\{BSI00000066/2\}, please. You will see there it's published in August 2007. Do you see?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Is this a document that you and others at Exova would have used at the time?
A. No.
Q. It 's not?
A. No.
Q. Okay.

If I could just ask you one or two questions on it, then. Page 31 , please, which is actually page 37 of the digital \{BSI00000066/37\}, page 31 internally, paragraph 7.1.3, this sets out fire strategies for existing buildings. Do you see?
A. Mm-hm.
Q. It says:
"For existing buildings, all the Fire Strategy Inputs given in Figure 1 [which we don't have to worry about] will be applicable to a greater or lesser extent. Where no other guidance exists, the flow chart given in Figure 7 could be followed. This covers the following ..."

Then it sets out a list of things, including d) "Site Activities", do you see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
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Q. "For existing buildings this will incorporate audits and surveys of the building, occupants, services, systems, etc."
I know you may not have seen or didn't use this guidance at the time within Exova, but would that set out a general principle to which you would adhere when producing an existing fire safety strategy report?
A. Insofar as it is applicable to the scope that we're doing, yes.
Q. Right.
Looking at 7.1.3, e ), "First Review", bottom of the page:
"Collation and review of information received with relevant stakeholders. Where the information is found insufficient or ambiguous, further investigations may be required. This may include, for instance, the requirement for system health checks. This will involve one or more meetings with stakeholders."
Again, I preface the question by recognising that you may not have used this precise policy at the time within Exova, but would that represent a general principle when going about producing an existing fire safety strategy such as the one you did for Grenfell Tower?
A. Erm ... yes, to -- as a general principle . As a general

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principle, yes.
Q. Okay.

Now, we can put that away and go to the back to the report, please, \{TMO10001925/8\}, subsection 3.2.1, "Levels 1 and 2". You say there:
"It is unknown whether the community areas and nursery are covered by an [AFD] ..."

We have looked at that a moment ago.
Now, it is right, isn't it, that at the time you sent this in draft form to Dr Barker, the TMO had provided you with the FRA from Carl Stokes? We saw that earlier today.
A. Yes.
Q. Let's look at that. It's at \{TMO10037743/12\}, please. You will see that there is a box which refers to AFD in the staff kitchen; do you see that?
(Pause)
Sorry, I should point it out. It's the top box, second paragraph:
"There is suitable automatic fire detection in this area to give early warning to a fire situation, there is no extraction system in the cooking area ..."

Do you see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. When you wrote your report, where you say it is unknown
whether the community areas or nursery are covered by an AFD, had you not read this page of the FRA which refers to an AFD in the staff kitchen?
A. I will have done.
Q. Can you account for why the report doesn't identify that or why you say it's unknown whether the community areas and nursery are covered by an AFD?
A. It only relates to a certain area. I don't know how extensive the automatic fire detection is, what standard it's at, so rather than ... I mean, it's a partial piece of information, so --
Q. Yes. Again, isn't this something that you could have, once the question had arisen, found out for yourself, either by picking up the phone to the TMO or Mr Sounes or sending an email, or collating all these unknowns and assumptions and coming down for a site visit?
A. Absolutely, you know, we can ask for all of that information. I think at the time -- and, again, I keep coming back to this point -- it was a draft 1 report. So the report in and of itself was, you know, as it stood at that particular time, and, as I say, there will be bits -- areas which can be further added to and made clearer and assumptions can be confirmed.

But at that time, I must have felt that there wasn't sufficient information to say that it was -- you know,

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to know what that detection system actually meant.
Q. Did you ask James Lee, when you had access to him, if he had noted on his site visit whether automatic fire alarm and detection was provided?
A. I do remember speaking about detection in the common areas of the residential areas. There was detection in there. I don't know whether he went into the other areas, whether they were available to him at the time that we attended.
Q. Right. Okay.

I mean, going back to the question before last and the answer you gave about it only being a draft, I can understand that it's only a draft, but my question is: did it need to be so draft in circumstances where you could have picked up the phone to the TMO or to Mr Sounes or done a site visit?
A. There's always extra information which you can glean from this kind of point forward. I suppose the question here was that we had a deadline that Studio E wanted some form of a document for, so we did a draft 1 . That's specifically why it is, you know, a lot of assumptions.
Q. Yes, I see. Yes, thank you.

Going back to your report under 3.2.5, "Common Areas", page 8 \{TMO10001925/8\}, you say:
"An audible fire alarm is not required to commonareas of residential buildings."
Then you go on to say in the second paragraph:
"Evacuation of flats beyond the dwelling of fire origin would be carried out under the control of the attending fire service if necessary."
What guidance were you applying when you made that statement?
A. It's not specifically guidance.
Q. What would you call it, then?
A. When you have a stay-put policy in a building, it is not typical to have an all-out evacuation. That's the way that these buildings are designed and have been designed for many, many years. So in order to evacuate the building, it's typically the fire service or management, if they have a presence on site, that would initiate a full evacuation.
Q. Were you aware at the time you wrote this that the statutory guidance, so Approved Document B, required that the building design should be such that there is no reliance on the fire service?
A. That's what it says in Approved Document B, and I'm aware of that. But -- however, if there is the need for an evacuation, then that is typically undertaken by the fire service advice.

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Q. I see.
So on what basis, then, did you make the statement that evacuation of the flats beyond the flat of origin would be carried out under the control of the fire service?
A. Whilst it is a ... the design of the building doesn't rely on the fire service. If there is one, then that is -- that is the way that buildings are evacuated, on the advice of the fire service or if the management see fit.
Q. Did you give any thought to how the building as it stood at the time might support evacuation of the occupants from flats beyond the dwelling of fire origin?
A. Yes. Yes, of course.
Q. And?
A. That is part of the fire safety design of residential buildings, particularly where we have excessive height. The core of the building has a specified fire resistance, depending on height. It has the smoke control, which should maintain tenability for that fire scenario, and therefore people who aren't directly on the floor of fire origin should be able to make an evacuation of the building.
Q. Right. We may come back to that when we look at stay-put.

Coming back up the page to 3.2 .3 , we looked at the question of whether the office or doctors' levels are covered by AFD, you say it 's unknown, and you have explained why you didn't seek to find out.

Were you aware of the TMO's statutory obligation under Article 8 of the RRO?
A. Sorry, the ... I don't know the RRO articles off by heart. Which article are you referring to?
Q. Article 8. I'll just give you a little bit of it: to take such general fire precautions as will ensure, so far as reasonably practicable, the safety of any of the building owner's employees, or responsible person's employees. You were aware of that?
A. Yes.
Q. Were you aware of the TMO's duty under Article 13:
"Where necessary ... in order to safeguard the safety of relevant persons, the responsible person must ensure - that
"(a) the premises are, to the extent that it is appropriate, equipped with appropriate fire - fighting equipment and with fire detectors and alarms."

You knew about that?
A. Yes.
Q. Having said it's unknown whether those areas are covered by AFD, did you think about how the TMO were going to

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fulfil their duties as a responsible person under the RRO without providing them with some specific guidance on those matters?
A. I suppose, without further information, it's not something that I could have had a firm opinion on. The -- again, the general fire precautions that are applied to a building under the RRO are bespoke and, you know, dependent on the building itself . So whilst it may say automatic fire detection, the extent of that varies between buildings. So some buildings may need nothing other than a manual call point system, which is, you know, the break glass and a sounder. Others might need more detection.

So when looking at the RRO, it's really a matter of applying it to a specific set of circumstances. So, as we didn't know, I haven't specified a category or anything along those lines.
Q. Looking at 3.3.1, please, on page 9 \{TMO10001925/9\}, moving on. "Means of Escape, Evacuation principals", you say there.

To your knowledge, was there any evacuation strategy that was already in place?
A. As far as I would be aware, and guided, I suppose, by the fire risk assessment again and general escape principles for that type of purpose group within the
building, you would use a simultaneous evacuation approach.
Q. How did you envisage a simultaneous evacuation approach would be managed?
A. That falls -- the duty falls on the responsible persons for those areas, whether they're tenanted or an ad hoc use of space, it would fall down to the people who are responsible for the people that are in that area.
Q. Was it not your thinking at the time that the responsible person would want to be able to use your report in order to inform what evacuation strategy they should adopt?
A. Yes, in conjunction with the fire risk assessment. I think there's quite a blurry line here between the two document types and purposes. So, yes, having that suite of documents, the general escape strategy would advise it, advise the principle for escape.
Q. Your strategy doesn't contain any information or guidance or advice as to how a simultaneous evacuation strategy would be managed, does it?
A. No, it doesn't, but we wouldn't extent the actual management provisions within a design document. Again, it 's that suite of documents. It's the strategy, the fire risk assessment and the management documentation held by the responsible persons that would bring

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together all these parts to be able to run a safe building.
Q. You call it a design document, and I note from your evidence this morning that that was an expression you used. Could you just explain to me what you mean exactly when you say "design document"?
A. So when buildings are being constructed, to ensure fire safety, whether it be a change of -- change of any kind of -- you know, an alteration to a building or a new building, whatever it may be, there are design parameters which we use ADB for principally to ensure an adequate level of safety.

So those matters which are referred to under B1 to B5 of ADB are design parameters, they're not management parameters. They're parameters which, if -- once they have all come together as a design, should be able to be managed effectively. But it doesn't go as far as to say what those management parameters ought to be, as long as it is reasonable to be able to manage that building for that -- for the design. So that's where the other documents come in.
Q. Yes.

Is what you're saying actually the existing fire safety strategy for this building would be based on an up-to-date fire risk assessment and informed by it,
so that your client could have in its hands a single document, read either with the up-to-date fire risk assessment or, if one wasn't available, some pointers from you, so as to know exactly whether or not the building was compliant, in what respects it wasn't and what it should do about it?
A. As a suite of documents, that's essentially -- with the existing management strategies and provisions that the organisation holds, those all come together to do that, yes.
Q. Right. Okay, let's move on.

Looking at 3.3.2, you discuss occupancy of the boxing club. Page 9, 3.2.2. Do you see the second paragraph?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. You see there in the second paragraph you talk about the square footage or metreage of the boxing club and how it's served, and then travel distances to the exit. You say:
"An additional exit would be required for an occupancy exceeding 60 people. The use of this room is therefore limited by the omission of an alternative escape route."

That's what you say for the boxing club.
You don't mention any other calculations of
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occupancy for any other non-residential parts of the building, do you?
A. I don't think I do, no.
Q. Why is that?
A. That's a question which is kind of a little bit fuzzy in my mind, to be honest. I do remember there being some discussion about areas not being in use at that time, and there wasn't ... on the plan they weren't large areas. So when you -- I think the reason I've picked out the boxing club at this point is because it was quite a large floor area, and therefore the ability to have a number of people in there was greater than any of the other areas of the building. So I think that's probably why I've pulled out the boxing club as a ... and looked at the occupancy of it.
Q. Okay.
3.3.3, just a bit lower down page 9 , in the first paragraph there, you identify, I think, contradictory information in respect of the lift landing doors as between the original construction drawings and the existing drawings that were provided. I'm summarising there, but that's right, isn't it?
A. If I may read the paragraph?
Q. Yes. Let me take it more simply.

First paragraph under 3.3.3, second sentence:
"There is no access to the stair or lifts in the central core shown on the original construction drawings, however lift landing doors appear to be shown on the existing drawings provided."

You see that?
A. Okay.
Q. Did you attempt to verify which drawings were correct? (Pause)
A. I don't know. I don't know. I would have to look into that in a bit more detail to actually -- and look at the drawings that I had.
Q. Let me ask you this way: do you remember trying to get to the bottom with somebody of which drawings were correct?
A. I don't recall, to be honest, there was --
Q. Right.
A. I don't recall.
Q. Okay. Let me just pursue that a little bit.

Is that something that you asked James Lee about, do you think?
(Pause)
A. I can't -- I can't remember.
Q. No.
A. I can't remember.
Q. No.

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Is there any reason why you didn't or couldn't have asked Studio E or insisted on going down for a site visit in order to sort that out and resolve the contradiction?

\section*{(Pause)}
A. Whilst there is a contradiction there, the lift landing doors being shown in the lobby wouldn't have been a non-compliance, for want of a better term. Either ... (Pause)
With the lift landing doors being shown, it wouldn't have been a concern. It would still have been satisfactory for them to open into the lobby.
Q. It would have been good to know the answer to the question, though, wouldn't it, before signing off on this?
A. It would have clarified that sentence, yes, but I don't think it would have any material difference to the design of the building.
Q. All right.

I think it's right that nowhere here, in this part of the report or in general, do you make any reference to or provide any discussion of the fabric making up the compartment walls?
A. The ... I seem to recall that there are references to the fabric of the internal walls being masonry.
Q. We will see how we go, but you don't do it here.
A. Okay.
Q. Would this not be an appropriate place to identify it?
A. Erm ... it's part of the -- of the many layers of
fire safety within a building, so it could -- it fits
well in lots of different places, to be honest, but ...
Q. All right.
A. It's --
Q. Are you -- sorry, do you want to --

SIR MARTIN MOORE-BICK: Have you finished?
A. Sorry, yeah, I'm sure that information is in the document somewhere.
MR MILLETT: Right.
I think it's right, though, that you made no recommendation anywhere in this report for an invasive test or investigation?
A. No. I don't think I do, no.
Q. Just --
A. Sorry, I do make references to various items being checked, yes. But -- so in that respect, yes, I made quite a few recommendations on the construction of the building.
Q. Yes.

Looking at the first sentence of the second paragraph, you say:

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"If the accommodation communicates with the fire fighting shaft/lifts, then the core in this area should be protected to 2 hours fire resistance and 1 hour fire doors."

Just on that, you weren't able to say whether those walls satisfied the requirements for fire resistance unless you knew what the build-up was.
A. No, we didn't -- well, I had the information of the original drawings. The information from just looking at the photographs themselves, the thickness of the walls and the general appearance of the walls do look masonry. But, again, I am certain that that recommendation is also within the report, to check the fire resistance around the cores.
Q. Right.

Are you familiar or were you familiar at the time with diagram 52 of ADB ?
A. You will have to remind me.
Q. Okay. It's \{CLG00000173/116\}, please. Here it is. It has a and b, and I would like to look at a.

I don't think you mention diagram 52 anywhere in your existing fire safety strategy, do you?
A. No.
Q. Diagram 52a, just looking at it, does it make it clear that a minimum of 120 minutes of fire resistance should

\footnotetext{
be provided to a lobby separating non-residential areas from a firefighting shaft?
A. From that design, yes.
Q. Yes.

That being so, if you could go back to section 3.3.3 of your report we were just looking at a moment ago, page 9 -- we may need to have these in parallel, but just go back to that for the moment -- that being so in diagram 52, why do you say in 3.3 .3 of your report:
"As there is a single escape route from the building at this level, the exit should be lobbied to provide a minimum of 30 minutes fire resisting construction and there should be no combustible materials contained within the entrance lobby."

I'm interested in 30 minutes; why did you say that?
A. The exit refers to the door rather than -- so if -going back to diagram 52, the diagram on the right, where we have a firefighting shaft within a residential occupancy, the door between the ... between the lobby and the firefighting shaft --
Q. Would you just go back? Sorry, I appreciate you're trying to answer. I would like to go back to diagram 52 so everybody can see what you are referring to.

Yes, so sorry, do you want to go back and repeat the answer?
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A. Okay. So going back to what you were saying before, if you look at the left -hand drawing, where you have the firefighting shaft and the 60-minute doors -- 60-minute fire resistance within the shaft itself and the 30 -minute doors within the -- so the door that is in the hatched line would be an hour and the door that's on the internal line would be half an hour, though it's a one-hour wall.
Q. I see.

But if you have accommodation, just looking at a, "Any building", and looking at "Firefighting lobby", you can see the doors on the left -hand side, those walls should be 120 minutes' resistance and 60 minutes' --
A. From the accommodation, yes.
Q. So if the accommodation is behind the doors leading into the firefighting lobby on diagram 52a, they shouldn't be 30 minutes, should they, they should be 60 ?
A. For that door, yes, but into the stair would be 30 .
Q. Into the stair would be 30 .
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. I can see that.
A. Yeah.
Q. So the question again -- you say:
"As there is a single escape route from the building at this level, the exit should be lobbied to provide a
minimum of 30 minutes fire resisting construction ..."
A. Could I look at the report?
Q. Yes, of course. 3.3.3, page 9 \{TMO10001925/9\}, please.
A. Okay, so we're looking here at level 4 , which is the office accommodation, isn't it?
Q. Yes.
A. Yes.
Q. You say in the second sentence:
"As there is a single escape route from the building at this level, the exit should be lobbied to provide a minimum of 30 minutes fire resisting construction ..."

I'm really putting to you that it shouldn't be 30 ; it should be 60 .
A. No, it should be 60, that's quite correct, yeah. That's a mistake, yeah.
Q. Just before I leave that, are you accepting that that's an error and instead of --
A. That is an error, yeah, I accept that.
Q. Thank you very much.
3.3.4, page 10 \{TMO10001925/10\}, you discuss evacuation principles for the residential accommodation. Look with me, please, at the third bullet point. You say:
"Due to an assumed high degree of compartmentation and therefore a low probability of fire spread beyond

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the dwelling of fire origin, simultaneous evacuation of the building is unlikely to be considered necessary ..." Do you see that?
A. Yes.
Q. Now, I want to look with you at the words "an assumed high degree of compartmentation and therefore a low probability of fire spread".

What information did you rely upon to assume a high degree of compartmentation?
A. The inherent fire resistance within such a robust structure would give you a high degree of compartmentation. The ... there were no, for want of a better term, red flags within the fire risk assessment that showed that compartmentation wasn't as you would expect it to be, and essentially the design of the building being to -- at its time of construction was higher than it would need to be for current regulation. So, again, it is an assumed high degree, but it 's ... it 's a reasonable assumption to make, I think.
Q. You started off that answer by saying "The inherent fire resistance within such a robust structure ".
I understand what that might mean, but my question really is: what investigation did you perform to satisfy yourself that there was an inherent fire resistance within such a robust structure?
A. Like I've said, we didn't undertake invasive surveys to find out, but we did recommend within the report that it was checked.
Q. So, to be perhaps colloquial, you looked at it, it was a big 1970s concrete building and you assumed that it was robust?
A. With the advice to check it, yeah. So it's -- I mean, it 's --
Q. With the advice to check it.

So, first of all, did you cross-reference that assumption with Carl Stokes' risk assessment?
A. I -- obviously we looked at the fire risk assessment and the construction and the compartmentation of the building didn't give us any cause for concerns.
Q. Right.

At paragraph 6.5 of your witness statement -- let's just have that up, if we can, please. That's \{EXO00001590/8\}. You say in the second sentence:
"A compartmentation survey is a separate piece of work, which we were not instructed to carry out. At the time, compartmentation surveys were not commonly undertaken, though in my experience they have become more common since the fire at Grenfell Tower."

The fact that a compartmentation survey hadn't been carried out, would that not be all the more important

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a reason for you to carry out some kind of risk assessment, even if just examining the thickness of the walls making up the compartment?
A. I think that was a matter which obviously we caveated and which is for the fire risk assessor to ensure is maintained. The building as it stood was, as you say, a very robust 1970 s concrete tower, and there is a great degree of fire protection in that type of construction. So whilst, yes, we say, "Make sure and check", it's not unreasonable to assume that that -- the nature of that construction is going to give you what you require.
Q. I think I'm right in saying that nowhere in your strategy do you advise the reader to verify the assumption or the basis of the assumption that the building contained a high degree of compartmentation.
A. We didn't ask for it to be verified, no, but, again, it goes back to that iterative process of drafts. It's ... with hindsight, yes, I could have made a list of -I wanted various things, but at the time we went off the information that we had available to us.
Q. Were you aware at the time that the regulatory requirement for the elements of structure comprising compartments in a building such as this was a minimum of 120 minutes of fire resistance?
A. Yes.
Q. But that's not something that you put in your strategy. Why is that?
A. I'm not sure. I would have to take your word for it . I was aware of that, and I'm not concerned with that not being achieved. I think with, you know, events that happened, that's not an unreasonable assumption to have made in hindsight, but I would have to again look at the strategy to see what I actually wrote about the 120-minute requirement, but --
Q. Okay. Let's move on, back to your report, please. Can I go back to page 9 \{TMO10001925/10\}. Look at the second bullet point under paragraph 3.3.4, "Evacuation principals -- residential ", do you see that?

You say there in the second bullet point:
"There is no reliance on rescue for evacuation, other than via the main core."

\section*{Do you see 1that.}
A. Yes.
Q. What did you mean by that?
A. That the ... that the stair in the building was the only means of escape. So that was the only route vertically through the building, so --
Q. How does that statement there relate to your earlier statement at paragraph 3.2.5 on page 8 that evacuation of flats beyond the dwelling of fire origin would be

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carried out under the control of the attending fire service if necessary? How do those two relate to each other?
A. The principle of the stay-put policy is that the people not on the -- not within the flat of fire origin should be able to remain within their apartment for a defined period. So it relates to the fact that because of the ventilation provisions within the common area, other people, should they feel they need to leave in that escape time, would be able to use the stair .
Q. Did you ever stand back and ask yourself: how, if evacuation of flats beyond the dwelling of origin were to be carried out by the attending fire and rescue service, they would get everybody out down the single staircase comprising the central core?
A. I didn't stand back from it from a point of view of a criticising the prevailing guidance at the time. That's for others to look at, I suppose, the guidance. But that is the standard to which buildings of this nature have been constructed since -- well, in its present format, since the mid-1980s, so --
Q. Did -- I'm so sorry.
A. So did I stand back and say: is that suitable? I would say this is the guidance which dictates the design of these buildings, so if it meets with that guidance, then
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I would deem it to be suitable. I wouldn't necessarily start to base my recommendations on opinions which haven't been ratified by government.
Q. Right.
Did it occur to you to think about a situation
where, if evacuation of the flats beyond the dwelling of origin had to be carried out by the attending LFB, and they had to use the central staircase, other fire mitigation and protection measures would be needed in order to assist that evacuation?
A. Not beyond the guidance which is in place to design those buildings.
Q. Right.
Going back to the third bullet point on page 10, where we were, we have looked at this before:
"Due to an assumed high degree of compartmentation ... simultaneous evacuation of the building is unlikely to be considered necessary ..."
Were there any conditions or situations in which you contemplated that simultaneous evacuation might be necessary?
A. Not given the parameters of fire safety design, which is reliant on many provisions kind of interlinking to provide a satisfactory level of fire safety. We don't rely on just a single point of failure. It's a layered

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approach. So with the robustness of the construction, the ventilation, the compartmentation, principally, the likelihood of a full evacuation is very, very small.

So simultaneous evacuation of the entire building has to be because there is a failure of one of those elements which is negating all the rest of them, really.
Q. Looking at 3.3 .6 on the same page, a little bit lower down, "Common Areas", in the third line, you say:
"The distance to the stairs from the flat entrance doors appears to be more than 7.5 m from the flats with entrance doors to the North of the lift shaft, the maximum [of] which is approximately 8.3 m (scaled from microfiche plans, to be checked on site ). This excessive distance of less than 1 m results in an increase in travel of less than 1 second and would be considered to be acceptable under current standards and risk assessment."

Now, you say the distance needed to be checked on site, or was to be checked on site ; what guidance were you referring to when you say that the travel distance exceeds 7.5 metres?
A. Relating to modern-day Approved Document B.
Q. Approved Document B, was it?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Right.

Did you intend to check this yourself or ask that it be checked before this draft was finalised and sent to Dr Barker?
A. No, hence why I've asked for it to be checked on site. I believe it was slightly more than that in the -- as it turns out, but it was scaled, as I say, from quite grainy drawings.
Q. Indeed. Therefore, who was going to check it on site?
A. I suppose James could have checked it when he was on site. I don't recall whether I asked him to do that or whether he did, but it was -- it's clear that it's something that needed to be checked so that we could put something more in the document.
Q. Sorry, Ms Cooney, I'm puzzled. You say you suppose James could have checked it when he was on site, but this here says "to be checked on site ".
A. Yes.
Q. You're not suggesting that you would ask Mr Lee to check it?
A. Not at that time, no.
Q. Yes.

Now, you know this building is a building with a single stair, and we know from parts of this report we're going to come to in a moment that the smoke control system was unsatisfactory from a modern

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perspective. You say that in the next section, which we will come to.

In those circumstances, how were you able to justify these excessive travel distances?
A. Principally because the travel distances were -- the excess in the travel distance was relatively small. Whilst we would design a ventilation system for a certain extract rate or a certain natural pull to today's standards, we ... you know, it would have had some effect, and I think later on in the strategy I do say that the suitability of the existing system is dependent on how the fans are working for a mechanical shaft at that time and for that to be checked.

But the excess in travel distance under normal design guidance is not unreasonable -- well, it's not something that would cause great concern.
Q. My question is really whether or not, in saying that you could afford the excess travel distance because of the fact that the time increase in travel was less than a second, you were dependent on a fully functioning AOV smoke extract system?
A. It's part of the package of measures, yes. I mean, when --
Q. Yes.
A. -- we have a design for a building, we assume that we're
going to have some smoke that leaks into the common area as the occupants leave the flat on fire, and that the ventilation system will start to clear that within a reasonable amount of time.

Now, the excessive travel distance is dependent on that smoke ventilation system working, and because we had limited information on how it all worked, that's why the emphasis on the smoke ventilation checks and design was put in the strategy.
Q. Yes.
A. So I feel it was brought out in the report quite strongly to check the ventilation.
Q. Well, let's look at smoke ventilation. This is the next section, section 3.4, just at the bottom of page 10.
SIR MARTIN MOORE-BICK: Mr Millett, I wonder if the witness might benefit from a break.
MR MILLETT: Mr Chairman, yes, that's probably sensible.
SIR MARTIN MOORE-BICK: If you are going into another part --
MR MILLETT: I'm just moving on, but yes, it's a different topic.
SIR MARTIN MOORE-BICK: Would that be a good idea? MR MILLETT: Yes.
SIR MARTIN MOORE-BICK: Now, Ms Cooney, we will have a short break now. Again, please don't talk to anyone about

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your evidence or anything to do with it while you are out of the room. We will come back at 3.25 , please.
THE WITNESS: Okay.
SIR MARTIN MOORE-BICK: Thank you very much. Go with the usher.

Right, 3.25 , please. Thank you.
( 3.15 pm )
(A short break)
( 3.25 pm )
SIR MARTIN MOORE-BICK: Right, Ms Cooney, ready to carry on? THE WITNESS: Yes, thank you.
SIR MARTIN MOORE-BICK: Thank you very much.
MR MILLETT: Ms Cooney, I'm going to ask you one or two
questions about the next section, "Smoke Ventilation".
Can I ask you, please, to be shown page 11
\{TMO10001925/11\} of your report. At the bottom there, in the penultimate paragraph, you say:
"The existing system is unsatisfactory ..."
Do you see that?
A. Yes.
Q. "... from a modern perspective, as the smoke extract shaft is significantly undersized ..."

Do you see that?
A. Yes.
Q. At the end you say:
"As the ventilation provision is critical to the stay in place evacuation principle, it is strongly recommended that the performance of the automatic system of mechanical ventilation as existing and as proposed is assessed in order to ensure that a satisfactory level of safety is provided to the residents throughout the tower."

Now, " satisfactory level of safety ", what guidance were you relying on to determine what a satisfactory level of safety would be?
A. Approved Document B would be the benchmark document for satisfactory level of safety.
Q. Right. So were you saying that the existing smoke control system in the building was not compliant with modern standards?
A. I think I'm saying that we don't know enough about it to be able to say that it is, and therefore we would assume it isn't.
Q. Right.

In your witness statement -- we can look at it if we need to -- you say you made a strong recommendation to the effect that you say it didn't meet current standards, and you said you make a "strong recommendation in that regard".

In fact, your recommendation was no more than the
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performance of the existing system be assessed.
A. Yes. The upgrade of the -- I think it says here, the upgrade would not meet the aspiration of achieving current standards, so that's why I made a strong recommendation for it to be looked at.
Q. But you are not recommending here that the smoke ventilation system be brought up to current standards, are you?

\section*{(Pause)}
A. No, I'm asking for it to achieve a satisfactory level of safety. So, as a benchmark, again, we go back to Approved Document B, which would be the current standard.
Q. Wouldn't you need to know whether it was compliant with current standards in order to be able to know whether what was proposed was a material alteration for the purposes of Approved Document B?
A. Yes. Yes, you would need to know what it is, and I think that's what we ask for. We ask for it to be checked so that we could apply, if you like, the parameters of a material alteration so that it's -- it is -- a satisfactory level of safety is achieved. Whether that is to modern standards is a matter for the M\&E designers, really, but it's a requirement to bring it up so it's -- it achieves a satisfactory level of
safety.
Q. Given the reliance on compartmentation, on stay-put, the single staircase and the excessive travel distances across the lobbies, wasn't it absolutely essential to spell out to the client that they needed to have an upgraded, modern, compliant AOV system, because otherwise the lives of the residents would be at risk?
A. I think we do spell out that it needs a thorough looking at. You know, we say it is critical to the stay-in-place evacuation principle. I don't think it could be much clearer than that.
Q. Well, a thorough looking at isn't the same as advice to change it out and replace it with something modern and compliant with modern current standards, is it?
A. It may or may not be the case. We're looking at something which we haven't got a performance criteria on. So as we don't know what its current state of affairs is, that's why it needs to be looked at. And then obviously if it's not achieving a satisfactory level of safety, then it needs to be remediated.
Q. When would this assessment take place? Would it take place prior to your draft becoming a final draft for the client, or at some stage after the final version had gone to the client?
A. It's part of the -- part of the raft of the
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recommendations in the document. Now, obviously that document, whether it's this draft or the next draft or when it finally gets to a final issue, the onus is on the responsible persons to be able to carry out those works to achieve that standard.
Q. A little bit above that sentence in this paragraph -it 's hard to read because the word "Draft" is smeared all over it, but if you can see it, it says:
"This also casts into doubt the justification on grounds of escape time, the excessive travel distance as outlined in 3.3.6 above."

Which we looked at just before the break, Ms Cooney.
So it's clear, isn't it, that the fire safety strategy in draft that you are putting forward is reliant very heavily on the smoke ventilation system to maintain tenable conditions in the building for means of escape purposes?
A. It is. It is a key component of the fire safety measures in the building, yes.
Q. Why didn't you make that clear in paragraph 3.3.6 itself, which should say, I suggest, that even though excessive distance was acceptable under current standards, you needed to take account of the unsatisfactory condition of the lobby smoke control system?
A. I think that it is clear in that paragraph, that it needs to be -- it needs to be assessed and, you know, make sure that it does meet a satisfactory level of performance. I don't think that it isn't clear or it isn't strongly enough worded.
Q. Right.

Can I ask you just to confirm with me: you didn't address anywhere in your report stair width, did you?
A. No.
Q. Nor doors onto escape routes.
A. Doors onto escape routes? The doors onto the escape routes was part of the core ... the consideration of the core materials in the building. So doors -- or whether it's a door or wall, it needs to meet a certain level of resistance, and that's --
Q. I don't think you did any investigation, you or anybody else at Exova, into the performance of the existing flat doors, stair doors or lift doors anywhere in the building.
A. No, no, that wouldn't be typical for what we were doing.
Q. Right.

Did you anywhere think to tell the TMO, as the ultimate client, that they needed to undertake an investigation and to what standard?
A. We -- again, it is one of the recommendations in the

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strategy, in the draft, to check the core, the fire resistance of the core, and that relates also obviously to doors, being part of the building fabric, and the walls and the floors, et cetera.
Q. I don't think you addressed anywhere in your report the lighting of escape routes, did you?
A. I don't recall it being in the report, no.
Q. No.

Can I just take you slightly into a siding on this one. Can I ask you to look, please, at \{CST00000091\}, which is Mr Stokes' record of his significant findings as part of his 29 December 2010 fire risk assessment.
A. Okay.
Q. It's got five pages. You see?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. I think this is a document you didn't read at the time, as you have confirmed earlier.
A. I've never seen this document, no.
Q. No.

Can I ask you to go to page 5 \{CST000000091/5\} please, and look at 23 e on that page.

You can see here that Mr Stokes has given this high priority, hence the red colour in the column, and it identifies the risk under 23e:
"It is not known if the monthly occupiers checks are
being carried out on the building's emergency lighting system, final exit doors etc as per the caretakers check list."
Then you see the actions to be taken:
"It should be confirmed with the caretakers if they are carrying out all the monthly occupiers inspections and other checks as per the caretakers check list ."
Do you see that?
A. Okay, yeah.
Q. If you also look at the FRA, if we can just go to that, there is a reference to emergency lighting in that.
That's \{TMO10037743/17\}. If you look at item 15,
"Emergency escape lighting", he’s ticked, "Yes", "Yes",
"Yes", "Yes", under each of those items. Do you see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Unless you had read that part of the FRA alongside the record of significant findings, you wouldn't have known, would you, that the emergency lighting wasn't being maintained monthly?
A. No, I wouldn't know whether the checks were being undertaken, no.
Q. And it would have been helpful to know that in order to advise the TMO, wouldn't it, under your strategy?
A. Whether it's being checked or not is a management type

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of provision, so the -- that the managing team should carry out these checks in terms of the design of the building, and the expectation would be that it met a certain design criteria, which is noted here on -under "Comments or observations".
Q. Lighting of escape routes is one of those things that there is guidance in respect of under B1, isn't there?
A. Yes.
Q. Yes. Similarly, exit signs?
A. For -- yes, exit signs is under there, yes.
Q. Evacuation lifts ?
A. Evacuation lifts aren't a required feature for buildings.
Q. Right. Yet you haven't, I think, covered in your report either lighting of escape routes or exit signs.
A. I don't recall it being in there, no, it's not.
Q. Right. And why is that?
A. I don't know, if I'm perfectly frank. It's, again, an area of the report which needs further information into it, as a draft. But certainly it was -- it would be a key component of B1.
Q. Now, can I just ask you, then, about section 5, moving on to that, please, in your report. If you go back to that, \(\{T M O 10001925 / 13\}\), and look, please, at paragraph 5.1.3. I just want to ask you about
firestopping, if you go to that. 5.1.3, "Fire Stopping Within Concealed Spaces"; do you see that?
A. Yes.
Q. You say in the first sentence under this heading, in the second paragraph -- well, before I go to that, actually, there is a quotation:
"The building shall be designed and constructed so that unseen spread of fire and smoke within concealed spaces in its structure and fabric is inhibited."

That's a quotation, isn't it, from B3.(4) --
A. Yes.
Q. -- in fact. Then you say:
"There are limits to the extent to which any cavities can exist, for example between walls and cladding and between ceilings and roofs. Fire stopping via appropriate cavity barriers are assumed to be in place."

Do you see that?
A. Yes.
Q. Did you understand that there was a difference between cavity barriers and firestops?
A. Yes. Yes, there is a difference.
Q. What was that difference?
A. So ostensibly it's the difference between a fire resisting element and a compartment line, a compartment

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being a more robust element of fire resistance.
Q. Yes. I see.

Would you say that you went about firestopping with a cavity barrier?
A. It really depends on the location of what it is that is being stopped or a barrier, a cavity barrier. You know, the different areas need different -- it might need a firestopper, it might need a cavity barrier. When we refer to firestopping, it's not necessarily meaning firestopping on a compartment line; it means a material which is preventing the spread of fire between -through an element, which may only be a cavity barrier or a fire resisting wall for means of escape purposes or an element of structure. There's various uses of the words, really .
Q. Let's see if we can make this shorter.

Go to \{CLG00000173/144\}. This is ADB, and these are the definitions used in ADB, appendix E, page 144, and look with me, please, at the definition of "fire stop", which is on the right-hand side, second from the end. You see that? It's:
"A seal provided to close an imperfection of fit or design tolerance between elements or components, to restrict the passage of fire and smoke."

Do you see that?
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A. Okay.
Q. Did you understand that that was the definition of firestop at the time?
A. Yes.
Q. Then if you go back to page 143 \{CLG00000172/143\}, please, we see the definition of "cavity barrier". I've done it in this order deliberately. At the bottom of that page on the left -hand side:
"Cavity barrier. A construction, other than a smoke curtain, provided to close a concealed space against penetration of smoke or flame, or provided to restrict the movement of smoke or flame within such a space."
Given those are two clear and distinct -- well, I should ask you: are those two clear and distinct definitions of two different things?
A. They ... they are, but without wanting to be ... you can have a penetration through a cavity barrier, for example, above a fire resisting doorset, which then needs to be firestopped with a firestopping product.
Q. Yes.
A. So whilst they are two distinct definitions, we can use the word "firestop" for a generic manner of sealing penetrations through fire resisting elements.
Q. I wonder if you could just go back to page 13 of your report in section 5.1.3, \{TMO10001925/13\}. When you say

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" fire stopping via appropriate cavity barriers ", aren't you mixing up terminology dealing with the separate aspects of Approved Document B?
A. It could be clearer. I would admit it could be clearer. But the context and the general understanding is clear: there's a hole in a fire resisting element, it needs to be firestopped.
Q. Let me ask you this: what assumptions were you making about the familiarity that the reader of your report had with Approved Document B?
A. I would -- like I've said before, for the reader of this particular draft, I was expecting this to go through to the design team, and those in the team undertaking the next set of documents to be fairly knowledgeable about fire related matters.
Q. Did you expect the reader of this report, the ultimate end user as you referred to them earlier, to be more expert on ADB, as expert on ADB or less expert on ADB than you?
A. Less, I would assume.
Q. Given that you were expecting them to be less expert on ADB than you, wouldn't the expression "firestopping via appropriate cavity barriers" muddle them up and get them to think that one could firestop with cavity barriers? (Pause)
A. I suppose it can be read that way. I don't think it's necessarily a ... like I said, it could be clearer.
Q. Well, unless you knew the difference in definitions, and perhaps the acceptance of the difference in definitions which you have identified, you would think, wouldn't you, that you would firestop with a cavity barrier?
A. If the cavity barrier has -- so cavity barriers, whilst there is a certain understanding or requirement, the cavity barrier can have various fire resistances and various uses. Cavity barriers are prolific throughout buildings internally and externally, so ... like I say, yes, it could be clearer, but I don't think the intention is to necessarily confuse.
Q. Where in the building did you think that appropriate cavity barriers were in place?
A. So the prime places for cavity barriers are in excessive voids and to the external façade. The ... over various internal doorsets and down corridors. They can be anywhere in a building that requires fire resisting, really.

There's -- if it needs a cavity barrier to extend an element of fire resistance, for example a protective corridor or something along those lines within the non-residential areas.
Q. On the basis of your familiarity, such as it was, with

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this building, where within the building did you think cavity barriers were in place, according to the assumption you were making?
A. I didn't know where the cavity barriers were, which is, you know, I suppose the reason for the recommendation. But they can be, you know, anywhere in a building. So it would be anywhere above a suspended ceiling, for example, or ... again, in external façades or the lobbies within the accommodation, places such as that.
Q. You go on in the last sentence to say:
"... it is recommended that these elements are assessed within void flats to a level which would provide confidence in whether or not the provision is satisfactory ."

By what performance criteria were you telling or advising the ultimate end user of this report to --
A. Well, within the --
Q. -- measure satisfactoriness?
A. Within the whole firestopping section, what was being looked for there was basically penetrations and holes within the fabric between the enclosing walls of the flats internally and the adjacent spaces or flats.
Q. Yes. By what standard were you advising the reader of this report to judge whether the provision was satisfactory or not?
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A. It doesn't state it there.
Q. It doesn't?
A. It doesn't, no.
Q. It should have done, shouldn't it?
A. Again, firestopping comes in different periods of fire
resistance, so it could have been clarified there, but
typically it can be throughout the building. So, yes,
it would have been a good place to put that.
Q. Let's move very quickly into external fire spread. Very quickly. Go, please, to page 14 \{TMO10001925/14\} of this report, section 6, and you set out there the requirement of B 4 at the top, and the general philosophy and the external wall construction. Just to be clear on that, we have no complaint about that.
My question is: you didn't have anything in there about the external fire spread requirements in respect of the roof. We can see that it wasn't there. Why was that?
A. I don't think we had any information on the roof at that particular time, but I could have had, again, a holding spot.
Q. Right. There's no holding spot in respect of it. Does that mean you didn't consider the roof at all?
A. Erm ... I would have considered the roof. Obviously there's not a reason for concern on it, so I haven't put

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that holding spot in there.
Q. Right.

Just to be clear, although you haven't set out the basis on which, under 6.2, you said that the external surface over 18 metres should have a surface classification of class 0 , national, or \(B\), et cetera, European -- that's ADB, isn't it, clearly?
A. It is, yes.
Q. Diagram 40; yes?
A. Yes.
Q. The question is: why didn't you just set out that it was diagram 40 so that the reader would know that it was anchored in the regulation?
A. It wasn't common practice to replicate all these parts of Approved Document B and import various diagrams into a draft report, really.
Q. Can I take you to section 7, B5, "Access and Facilities for the Fire Service", page 15 \{TMO10001925/15\}. I just want to look at two short provisions, 7.1 and 7.3.

Under 7.1, you say in the second line there should be a dry rising main within the firefighting shaft. Do you see that?
A. Yes.
Q. To be fair to you, I think your point here is that the outlet should be in the stair and not in the lobby, but
that's an existing condition; is that right?
A. Yes, that's correct.
Q. I will come back to that in a minute, but I just want to focus on your advice that it should be a dry rising main.

Looking at 7.3 , if you look there, you say that the current guidance -- do you see, in that paragraph four lines up from the bottom -- should be for a wet rising main because the building is over 50 metres in height; yes?
A. Yes.
Q. Was this not contradictory advice, dry rising in 7.1 and wet rising in 7.3?
A. I don't think so, no. I think the -- so section 20 of the London Act asked for a main and it would have needed a wet riser. For whatever reason, we have a dry riser in the existing building. So in terms of the existing provision, it is satisfactory, based on having a single fire scenario, a flat on fire. Given the heavy level of construction fabric and compartmentation, I didn't think that the dry riser would be a significant reduction in standard over the wet for this type of a building, given that there was no works being carried out on those levels, as I understood it at the time.
Q. Right. Let me just try that one again.

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You say there should be a dry rising main, and then you say there should be a wet rising main. Which is it?
A. The current guidance would say that there is a wet rising main, but we have a dry rising main, and I go on to say that, given the provisions in the building, that should be satisfactory .
Q. You say in the sentence beforehand in 7.3:
"The fire risk assessment describes the provision of a fire fighting shaft and fire fighting/evacuation lifts with dry rising main."

You see that?
A. Yes.
Q. If you go to 7.1, you say the building should be provided with a firefighting shaft, and then you say one is provided. Do you see that?
A. Sorry, 7.1?
Q. Yes, 7.1 at the very top of the page.
A. Yes.
Q. You say:
"... one is provided (as stated in the current fire risk assessment)."

Was that a reference to Carl Stokes' 29 December FRA?
A. Yes.
Q. We have looked at the then current fire risk assessment
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from 29 December 2010. We can't find any reference to the tower being provided with a firefighting shaft.
I'm not going to sit here and comb through it with you, there isn't time, but do you remember taking any steps to verify that the fire risk assessment did actually say what you say it says?
A. Having a two-hour stair, dry rising main, fire evacuation lift, they are the key component parts of a firefighting shaft.
Q. Right.
Did you take any steps to check that it was correct with regard to the provision of a firefighting shaft?
A. I'm sorry, I don't understand the question.
Q. Did you check the fire risk assessment to --
A. Sorry, the fire risk assessment noted these component parts, which are integral to a firefighting shaft. So together they would form the shaft itself .
So with a residential building, which I hope we can come back on to later to pick up another point from before, but the constituent parts of a firefighting shaft are the stairs, the lift and the lobby approach and the firefighting main, whether that be wet or dry.
Q. What you are summarising just now is the essence of what diagram 52 I think shows.
A. It is a firefighting shaft, yes.

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Q. Now, you say in 7.1 that the fire main outlet should be sited in the stair.
A. Yes.
Q. You don't refer to diagram 52, but we looked at that.

We know that the fair main outlets are in the lobbies and that's an existing position, we've just been through that.

Why did you not include any discussion or assessment within your draft report about the impact on the operation of firefighting of the fact that the fire main outlets were in the lobbies and not in the stair, as required by diagram 52 ?
A. The outlets being in the lobby -- and I'm fairly sure on this -- were a requirement of section 20 at the time. Terry is probably your man to clarify that for you. But the section 20 Act asks for it to be in the protected lobby, rather than in the stair, so that's probably why it was originally constructed in that manner. As an existing condition of a provision that was put in specifically under firefighting legislation, it was considered to be satisfactory .
Q. Yes, that wasn't my question. My question wasn't about compliance, my question was about the absence of any discussion or assessment in your report about the impact of the fire main outlet being in the lobby as opposed to
the stair and its potential impact on firefighting operations. You don't mention anything in your report about that, and my question is: why didn't you do that?
A. We didn't do an assessment on it in terms of outlining how we came to that conclusion, but that process has been gone through and come to the conclusion we didn't -- I suppose I didn't feel it necessary to put it in if I'm ultimately going to say it was satisfactory .
Q. Because the ultimate reader of this report wouldn't know that having the fire main outlets in the lobbies as opposed to in the stair -- as required by Approved Document B, diagram 52 -- would have an impact on firefighting operations.
A. But then we are trying to push an existing building and its fire safety provisions into a current guidance document which is somewhat of a gap analysis, as we were discussing before, and that's not always necessary. So it doesn't make it unsafe; it's an existing provision under what was still then current legislative guidance, I guess.
Q. Right.

Firefighting lift. You deal at paragraph 7.3 on page 15 in the fourth line with that, and you say:
"The fire risk assessment describes the provision of a fire fighting shaft and fire fighting/evacuation lifts

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with dry rising main."
We looked at that before. You see that?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Can I ask you to look at Mr Stokes' December 2010 fire risk assessment, \{TMO10037743/4\}. Just to remind you, you got this on 13 August 2012. This is at the bottom of that page, and it says, do you see, in the bottom box under "Use and Layout of the Building", four lines up:
"The entrance lobby has two lifts which service all the floor levels, both are evacuation/fire-fighting lifts so can be used for disabled evacuation if needed."

You see that?
A. Yes.
Q. Then it goes on:
"Please see the attached plan ..."
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. "... showing the layout ..."
A. Okay.
Q. A little bit higher up the page, three-quarters of the way through the big box, just before the last paragraph break, Mr Stokes says:
"The two lifts in the building are both fire fighter/evacuation lifts, both of the lifts serve each floor level and run the height of the building."

You see that?
A. Yes.
Q. You recall I showed you this earlier, you had asked
Bruce Sounes on 9 August whether the lifts were
firefighting lifts, hadn't you?
A. I had, yes.
Q. And he had responded to you on 10 August saying, "No
firefighting lift ", do you remember that?
A. I do.
Q. We looked at it this morning. Then you wrote back to
him the same day saying, "Thanks, Bruce. That all makes
sense within the context of the existing building", do
you remember I showed you that?
A. Yes.
Q. We can look at it again if you like, but you remember
that?
A. Yes.
Q. My question is this : once you saw the December 2010 fire
risk assessment on 13 August, a few days after you had
responded to Mr Sounes, did you notice that it
contradicted what Mr Sounes had told you a few days
before in this respect?
A. Yes, I did notice a contradiction at that time.
Q. Did you go back to Mr Sounes and ask him why he had said
that there was no firefighting lift when in fact the FRA
said there was? 189
A. I don't recall whether I did.
Q. We don't have a record of you doing so and you don't cover it in your statement, and I don't think he covers it in his statement, so --
A. I don't recall doing so. But, as a fire professional, I suppose I took a judgement on the fact that Mr Stokes' fire risk assessment is littered with this information, and it being, you know, a regulatory document, the lifts are clearly noted throughout the document.

So given the difficulty that I had had getting information out of Studio E, because they didn't seem to have very much on the existing building, this was a more reliable source.
Q. Well, you say it was a more reliable source; you had actually asked Mr Sounes the question, he had given you a clear answer, so there was now a conflict, as far as you could see, between what Mr Sounes had told you and what the FRA had said.

So my question is: why didn't you simply send him an email or pick up the phone to him and ask him, "Well, I have the FRA, it says there are these firefighting lifts, why do you say there weren't?" and resolve the conflict in some way?
A. I don't have an answer to that. I don't know whether I did discuss that with him or I didn't. I just simply
can't recall whether I did
Q. Can I suggest an answer -- and please tell me if this is wrong -- that you were very short of time?
A. Well, we were short of time, yes, in terms of the deadline which Studio E wanted the draft document for, but I don't think that's necessarily why I didn't. I genuinely can't recall whether I did or I didn't.
Q. Did you think to sort the issue out with anyone from the TMO?
A. No, I don't recall having any contact with the TMO.
Q. Did you know that, as it turns out, the lifts were not firefighting lifts?
A. I learnt that post-fire, yes.
Q. So opting not to sort out the issue but opting instead to simply go on what Mr Stokes has said do you accept turns out to be a serious error in your work?
A. I think that the reliance on the fire risk assessment, which, like I say, is a regulatory document, is a reasonable thing to do in this set of circumstances, and given that it was, you know, the -- it was a draft document, that is there to be challenged by the design team. So whilst it transpired not to be the case, that was the information I was given and was reliant upon at that time.
Q. Well, you had had two conflicting sources of

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information: your instructing architect and the FRA. So why was the FRA any the more reliable than your instructing architect?
A. Well, you would assume -- the Regulatory Reform Order requires a suitable and sufficient fire risk assessment, and the presence of firefighting lifts and, indeed, he says evacuation lifts is throughout the document.
Q. Right.

Now, on page 16 \{TMO10001925/16\} of your draft report, you have set out your conclusions and recommendations.
A. Yes.
Q. You have identified three items that you say have significant consequences in the event of a fire for the means of escape and potential for breaches in compartmentation. You don't identify who is responsible for investigating those matters. Why is that?
A. From a point of view of this document, it would be going back to the design team, so these items would be picked up by the design team and investigated.
Q. By the design team, you mean Studio E, do you?
A. And the larger team, yes.
Q. So who is the larger team?
A. So in terms of the mechanical elements, it would be the people who were looking at the ventilation, et cetera,

\footnotetext{
et cetera.
Q. Right.

You don't identify a timeframe within which the investigations you have identified should be carried out. Why was that?
A. Again, it's a draft document, so it's really for -- this document is a draft for discussion, if you will. So --
Q. I see.
A. -- we rely on feedback to be able to move the document forward.
Q. I see.

How long would it normally have taken you to prepare a final draft, client-ready, for a fire strategy for an existing building such as Grenfell Tower?
A. A number of weeks. Solidly for a good number of weeks, I would have thought, if it was to meet all the requirements.
Q. Right.

Just to be clear, how long would it take you normally to prepare a first draft?
A. Again, it 's dependent on the amount of information we have.
Q. Right. Okay. Can I ask you --
A. Up to a week, I suppose.
Q. I'm sorry, I cut across your answer.

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A. Anything up to a week, a few days to a week, depending on the information we have.
Q. Can I ask you to be shown, please, the native version of \{EXO00001353\}. This, Ms Cooney, is a spreadsheet which has been disclosed by Exova showing the time you spent on this report. So just look at it with me.

I don't know if you have ever seen this document before. Would it be familiar to you?
A. I understand it, but I don't think I've seen it.
Q. If you look at it, under rows 49 to 52 -- I'm afraid you will have to go to this, timesheets, and then look at 49 to 52 .

Now, you can see at 49 to 52 , this is "Fire strategy for existing condition", "Cate Cooney", and if you look at column E, row 49, 9 August 2012, "Plans appraisal ", and then we have further dates, 10 August, 13 August, 15 August.
A. Okay.
Q. It went out to Dr Barker on 15 August, and therefore am I right in thinking that all the times between the 9th and the 15 th were spent working on this draft?
A. Yes, yes, yes.
Q. So adding up those hours, we get \(2,6,1\), and 6 , which by even my maths I think I get to 15 .
A. Mm-hm.
}
Q. So can we take it from this document that you spent 15 hours working on and producing this draft that you sent to Dr Barker?

\section*{(Pause)}
A. Yes, from that timesheet, which I may have spent more time on than that, but yes. That's what I've booked down to it.
Q. Would that be a normal period of time to spend on a document like this?
A. For a draft, it's essentially the best part of three days, so, yes. It's a ... for a first draft of this kind of ... with this kind of information, where there's a lot of caveats, I think -- it's not unusual, I don't think.
Q. Earlier on in answer to an earlier question I asked you, how long it would take to prepare a first draft, you said it would depend on the amount of information, you would say anything up to a week, depending on the amount of information. 15 hours isn't anything like a week, is it?
A. It's half a week, really, in terms of the way that we booked time, which was based on a ... essentially, you know, if you worked all day on it, you would typically book six hours down to it.
Q. To be blunt about it, it's not very long, is it?

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A. Well, it's quite an intensive piece of work, you know, you are working at it all day long. It's really a matter of gathering all the evidence which isn't -I don't think it's really accurately reflected in those hourly figures, and, again, knowing what I -- you know, what I know in terms of producing works to a standard that we can call it a draft, we might work more hours than that, but log less, depending on fees and other things going on at the time. So whilst it's a good indicator, it's not necessarily \(100 \%\) of the time that you have spent.
Q. Can I ask you to look at \{EXO00000302\}, which is an invoice of 27 September 2012. This is sent to the TMO, and you can see that it's dated 27 September. What is billed here is a fixed lump sum fee for \(£ 2,865\), that's the quote we saw in the fee proposal. Cumulative to date was \(£ 2,111.50\). Do you see that?
A. Yes.
Q. That meant that something like \(£ 753\)-odd remained to be invoiced from the lump sum fee quoted in the fee proposal.

Why did Exova invoice less than originally quoted?
A. I don't know. I wouldn't have been responsible for instructing the invoice.
Q. Given that the report had not progressed at this point
beyond the draft stage, would it be normal for Exova to invoice at that point?
A. Yes, the typical invoicing period was at the end of each month.
Q. Right.

Given that this was a draft, was the balance of the fee to be invoiced once the draft was turned into a final document and sent to the client?
A. Not necessarily, no. It depends. Some jobs you would use a fee quite quickly. Other jobs, there would be lots of fee there. It's really a matter of managing your workload. It's not necessarily an absolutely, you know, to the quarter of an hour logging system. There is an awful lot of work that doesn't actually. it 's a lump sum fee, so you do the work regardless of what the fee is .
Q. Would the fact that only \(£ 753\)-odd remained outstanding to be done indicate that the vast majority of the work had been done?
A. I think that the majority of setting out the report had been done, but there was obviously more information to follow.
Q. Yes. Okay.

I would like to turn next, please, to the review done by Dr Barker.

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A couple of preliminary questions. I think these are really yes or no answers, as far as you can recall.

Was Exova at the time certified under ISO 9001?
A. I don't know.
Q. At paragraph 3.8 of your witness statement, if we could please go back to that at page 3 \{EXO00001590/3\}, you say:
"The peer review process at Exova is part of the document quality control, and typically involves someone of equal or greater [seniority] to the drafter reviewing the report to ensure that there are no clear errors and that it is sound in its basis."

It was Clare Barker, I think, who reviewed your report, didn't she, Dr Barker?
A. Yes.
Q. If we look at what she said, it's \{EXO00000175\}, this should be a pair of emails, one from you to her and one from her to you, yours on 15 August, second email down, 15.37, to Dr Barker:
"Clare
"Please can you review the existing FSS for the above. I have printed out drawings if these help (they probably will !)"

She responds at 15.22 , just under exactly 24 hours later, on the next day, 16 August:

\section*{"Have reviewed it and it is fine." \\ Do you see that?}

\section*{A. \(\mathrm{Mm}-\mathrm{hm}\).}
Q. Did you and she have any actual discussion about your draft or was her statement that it was "fine" the extent of any discussion between you at the time?
A. It's very probable, although I don't recall any specifics of any conversation, but it is probable she's asked questions about it .
Q. Her comment, "Have reviewed it and it is fine ", was it usual for you to receive so little detail froma peer review of such a report?
A. It depends on the job and what it entails, really. It wasn't unheard of not to have any substantive comments back for -- you know, that's why I'm saying it 's probable we discussed it between us. So, yes, I mean, sometimes they came back with comments and sometimes they didn't, it depended.
Q. Would you usually expect some kind of feedback as part of the peer review process?
A. Yes, if there are questions that have been raised, then -- and they're not straightforward or you need to put some more information to them to put it in context, then a peer review will ask you questions, and if they don't need to then they won't. It really is dependent

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on the job.
Q. Normally, how long would a peer review on average take before coming back to you with a peer review report on your work?
A. Again, it 's down to workload, but if you're reading through it, it may take a couple of hours or so to review a report. The report was quite short, so I would have thought that Clare would have read it fairly quickly, maybe an hour or so. I don't know, you would have to ask Clare.
Q. I see. So you don't know how long she spent reviewing your draft during the 24 hours that elapsed between you sending it to her --
A. No, no, no, I don't.
Q. Did you send her any other documentation that you had reviewed in order to prepare your draft, other than the report you sent her?
A. And the drawings.
Q. And the drawings.
A. I think Clare had obviously the same amount of information I had from the beginning, so she may well have referred to those.
Q. Did you send her the Stokes FRA and the email correspondence that you had had with Mr Sounes?
A. I don't think I would have sent those documents.

I would have had them printed out somewhere, and probably just put them on her desk.
Q. Put them on whose desk?
A. On Clare's desk. So that was fairly typical.
Q. Did you alert her to the need to read them or did you not?
A. I can't recall. Again, it may have been a conversation we had.
Q. Okay.

You then say in your statement at paragraph 3.10 \{EXO00001590/3\}:
"After the peer review, reports are then sent to our administration team to produce in final form (although still marked draft until approved by the regulator or the client) before being circulated."

This was clearly intended to be sent to Studio E as a draft, wasn't it?
A. Yes. Yes.
Q. Was it ever sent to Studio E, or the TMO, for approval?
A. Yes, I sent it through to Studio E via email.
Q. You sent it to Studio E?
A. \(\mathrm{Mm}-\mathrm{hm}\).
Q. Would you then have followed up to make sure that
a final version was sent to the client?
A. For this particular project, because I was undertaking

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the draft strategy on behalf of the London office, then not necessarily. The project was being managed in London, so ...
Q. Now, we know from your statement that the version which we have looked at, the 16 August draft, marked "draft", was the only version of the existing fire safety strategy report ever created. Do you know why it was never finalised?
A. I don't, no.
Q. Was it usual for drafts not to be finalised ?
A. Erm ... no, not to this extent, no. No. Typically we would get some detail back from the design team and it would be updated.
Q. Did you never discuss the assumptions and unknowns in it so that a final draft could be produced?
A. With Studio E or with --
Q. Well, at all.
A. I discussed the assumptions, I must have discussed the assumptions with Clare, because I don't recall that in the timeframe, but I do know that Studio E did come back with some comments on it, so I don't know whether they were ever then followed through to produce another document. I was never requested to produce any further documentation on --
Q. Let's just chase this through. Could you please be
shown \{EXO00001396\}. This is your email sending draft 1, which is this draft, through to Mr Sounes on 16 August.
A. Okay.
Q. Do you see you say:
"Bruce
"Please find attached the draft 1 of the existing fire strategy for the Tower. I will be finishing to go on holiday on Friday. Please feel free to ring and discuss any of the content before then."

Now, 16 August was a Thursday, I've checked, so in fact you were going on holiday the very next day, weren't you?
A. Okay. Yes.
Q. Well, do you remember that?
A. I don't remember the specific dates I went on holiday.
Q. Okay. So you gave him at best 24 hours to review it and discuss it with you, didn't you?
A. Well, to discuss it with me personally, yes, but he obviously --
Q. Indeed.
A. -- would have discussed it with others.
Q. Can we go forward then in time, and a different document, \{SEA00000048\}. This is an email from Mr Sounes to Mr Ashton at Exova, copied to Clare Barker

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and Paul Dunkerton:
"Terry, we have a meeting planned for the afternoon ..."

Do you see that?
A. Yes.
Q. "... of the 6th, which is the date Cate returns (bounce back below)."

You can see the bounce-back at the bottom of the page:
"I am currently on annual leave and will not return until Thursday 6th September 2012."
A. Okay.
Q. Then he says this:
"She did offer to have someone come back with a markup of the plans forwarded 16/08 but we haven't received one yet. These have been developed as part of the preparations for the Planning Submission ...
"We need to go through the fire strategy (existing Draft) received 16/08 which has numerous recommendations, some of which may be unrealistic for an interim strategy. It is probably also a good time to make contact with the local fire officer to discuss the project."

Do you see that?
A. Yes.
Q. When did you offer Mr Sounes someone to come back with a mark-up of the plans?
A. I think the mark-up of the plans is relating to the layouts of the lower floors we looked at before.
Q. Do you recall a discussion with Mr Sounes about that topic on the Friday morning of 17 August before you went on holiday?
A. I don't recall the conversation, no.
Q. Do you know if there was ever a going through of the fire strategy?
A. I don't.
Q. Was it ever followed up with you?
A. No, it went back to -- obviously to others.
Q. Were you ever asked to discuss your recommendations, assumptions or other things you had left outstanding with anybody?
A. No. No.
Q. Did it not occur to you to find out from Dr Barker or Mr Sounes why that was and chase it up--
A. Erm --
Q. -- after you had got back from holiday?
A. No, because it was handed back to colleagues who were dealing with the project overall.
Q. Did Mr Ashton ever tell you or invite you to comment on the idea that a detailed interrogation of the draft

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fire strategy was required once you had got back from holiday?
A. No, no, I don't recall Terry --
Q. Do you know if Exova ever made any efforts to understand the draft strategy that you had provided in any detail?
A. Sorry, could you repeat that, please?
Q. Yes. Did anybody ever ask you -- I' ll try it differently -- to help Exova understand the existing situation and the draft fire strategy that you had produced?
A. After I sent the email to Bruce and once I had commented on the proposals, I didn't have any further involvement with the project, so no.
Q. Do you remember having a discussion with Mr Sounes on the morning of 17 August?
A. I don't.
Q. You don't?
A. I don't.
Q. I'm going to go back to an email we looked at earlier today, the email of 17 August 2012, at \{EXO00001279\}. This is your email to Andrew Martyn. Do you remember we looked at this before?
A. I do.
Q. It's the one with the colourful language in.
A. Yes.
Q. I'm not going to read it all out to you, but I take it
you're familiar with it?
A. I am.
Q. What was your purpose in sending this email?
A. The purpose was to basically advise Andy that if
somebody was to ring in relation to the project, kind of
an outline of what it was about, really, but as far as
I know Bruce never called and Andy didn't reply to it.
So it's just an internal email to a colleague.
\(\quad\) Yes, it has colourful language, but it was never
intended for anybody but Andy, really.
Q. I understand that.
\(\quad\) You say:
"They are now adding additional levels which merges
uses around a single stair . Not great."
Do you see that?
A. Yes.
Q. Did you explain your view about that to Mr Sounes when
you spoke to him?
A. This email, as I stated before, doesn't -- so this is in
relation to the refurbishment at an early design

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"Basically I have told him we can massage the proposal to something acceptable, with separation, lobbies etc but that there are approval risks to the project on the ff shaft/MOE [means of escape] front."

Were you suggesting to Mr Sounes that you could do something to get around the problem posed by building control being otherwise likely to reject the smoke ventilation and other proposals for the building?
A. Absolutely categorically not. The --
Q. So what do you mean -- so sorry.
A. So in the use of "massage", which, yes, it's a word -I could have used several other words, but what I intended by that is then followed on with separation lobbies. What it essentially means is design changes which would improve the layout from a fire safety perspective. So that's all that was intended by that.
Q. I see.

You go on to say, just jumping ahead, paragraph 5.3 of your statement \(\{\) EXOO0001590/7\}, that what you meant in that sentence was that, with some design changes, the proposal could be improved to a level where they would be satisfactory from a Building Regulations perspective. That's what you meant, is it?
A. Design changes to make it work essentially from a fire safety design point of view, yes.
\begin{tabular}{llr} 
Q. That's not what massaging normally means, is it? & 1 \\
A. It has several meanings and, as I've already said, yes, & 2 \\
I could have chose a different word. I didn't -- & 3 \\
there's no ... there's no intention to be anything other & 4 \\
than just design changing it, and that is all I meant by & 5 \\
it. & 6 \\
Q. Yes. What I'm really suggesting to you is that the use & 7 \\
of the word "massage" was really a deliberate one, & 8 \\
because what you were seeking to do was really just to & 9 \\
present matters in a different way so as to get it past & 10 \\
building control. & 11 \\
A. Absolutely not. & 12 \\
Q. And not to make any substantive changes to the design. & 13 \\
A. Absolutely not. & 14 \\
Q. You reject that, do you? & 15 \\
A. I absolutely reject it. & 16 \\
Q. I see. & 17 \\
\(\quad\) You say in the email, "we can massage the proposal & 18 \\
to something acceptable". Acceptable to whom? & 19 \\
A. Something acceptable in general terms, really . The & 20 \\
proposed design, as I remember it, was -- as I say, it & 21 \\
wasn't great. It took residents out of the single stair & 22 \\
back through the building, which we wouldn't allow to & 23 \\
happen without further measures being in place. & 24 \\
\hline Did you ever discuss your concern about merging of uses & 25 \\
\hline
\end{tabular} 209
round a single stair with Mr Ashton, do you remember?
A. I think I did, because it was Terry that asked me to look at that -- that layout, as I recall.
Q. Then you go on to say in the penultimate sentence:
"They are making an existing crap condition worse so it 's a matter of working the worse bits out and making the new stuff work."

Do you see that?
A. Yes.
Q. What did you mean exactly by "making an existing crap condition worse"?
A. From my understanding of the original layout, there were some non-residential areas off the single stair which, under modern-day guidance, wouldn't be what we would ideally be looking for. So to in fact negate the risk from those, we needed to introduce new measures to improve that situation. So whilst it was an existing condition, I suppose this is where you kind of try to improve on an existing condition when relevant works are being carried out.
Q. In what respects does the proposed refurbishment make the condition of the building as regards compliance with the Building Regulations worse?
A. From a point of view that they were adding additional flats to the building, they were changing the escape
routes for the residents, so it was ... it was a way of making sure that where, as I said before, the residents would come out of the single stair and through the building, to make sure that those new provisions were making it, you know, less satisfactory .
Q. What were the worse bits or worst bits?
A. I didn't like the non-lobbied approach that they had to other purpose groups, so ...
Q. Right.

Was this a conversation you had with Mr Sounes? Did you say to Mr Sounes that he was "making a crap condition worse", so it's a matter of working the worst bits out and making the new stuff work?
A. No, this was an internal email to Andy, and at that particular time there had been nothing concrete that had gone back to him, as far as I know. I had been asked to provide some thoughts on a design, and that was just really to say to Andy that it's not where it needs to be.
Q. Did you ever communicate to Mr Sounes the gist of your concern that you expressed colourfully here?
A. No, I didn't speak -- to my recollection, I didn't speak to Mr Sounes once I had been -- once I went on holiday. I can't recall --
Q. The only reason I ask you is you say in the first part

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of the paragraph, "I have just spoken to Bruce in relation to the attached".
A. Okay.
Q. So in the just speaking to Bruce, did you tell him words to the effect of, "They're making an existing crap condition worse"?
A. I wouldn't have used that terminology --
Q. I know that, but the gist of it.
A. -- with Bruce, but I can't recall the detail of the conversation with Bruce at all. I don't remember the conversation in any detail.

If there was -- if there was a likely ... you know, the way I would have told him is that there are approval risks and it needs to be -- you know, we need to look at separations, lobbies, things like that, to try and make the proposal work. But I don't recall specifics of the conversation with him.
Q. Right. You say at the end of that paragraph:
"LABC building control Kensington and Chelsea - do we have any contacts there?"

Did you in fact have any contacts within RBKC's building control department in relation to this project?
A. I didn't, no.
Q. What was the purpose of asking the question?
A. The purpose of asking the question really is to -- so
it's very normal to engage with building control as soon as you can to get their opinion and involve them in the project so that if there is anything that they have concerns over, we can at that stage incorporate those into the design, so that once the design reaches a finalised stage, we're all happy that it achieves what it needs to achieve.
MR MILLETT: Right.
Mr Chairman, it's gone 4.30.
SIR MARTIN MOORE-BICK: Well, I noticed that.
MR MILLETT: I noticed you noticing it. I am pretty much at the end of my questions for this witness, but I'm conscious that we need a take a few minutes so that I can just make sure that I've covered everything and also to see whether others in the room may have supplemental questions.

Given the exceptional circumstances of today and our later start, I wonder if I might trespass on your time.
SIR MARTIN MOORE-BICK: I'm sure Ms Cooney would like to finish her evidence this evening.
THE WITNESS: I would, yes.
SIR MARTIN MOORE-BICK: If we went on for another
ten minutes or so, would that trouble you?
THE WITNESS: Absolutely fine.
SIR MARTIN MOORE-BICK: Will that be enough, Mr Millett?
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MR MILLETT: I'm trusting it will be.
SIR MARTIN MOORE-BICK: I'm trusting it will be; you're telling me it will be.
MR MILLETT: Yes, usual way.
SIR MARTIN MOORE-BICK: Yes.
MR MILLETT: Thank you.
(Pause)
Can I ask you, please, to be shown \{EXO00000388\}. This is an email that you sent to Mr Ashton about the smoke control system at the tower on 10 September, just after your holiday. Do you see that?
A. Okay, yes.
Q. You say:
"Terry,
"As promised, my thoughts on the possible solution
to Grenfell Tower ..."
Do you see?
A. Okay.
Q. Do take some time to have a look at it. You deal with ground level, mezzanine, walkway level and office level.

In the last big paragraph before the bottom, you say:
"The existing ventilation system is questionable and the overall scheme theoretically makes the existing conditions worse by adding the additional risk of 2 No
extra residential floors to the building. It is proposed to upgrade the ventilation system, but the standard it will achieve is unknown. There are also no details on the terminal to the shaft.
"Generally, there is a significant approvals risk with the current proposals, particularly at walkway level."

If your task was limited to production of the existing fire safety strategy report, why were you sending Mr Ashton this email including your possible solution to Grenfell Tower?
A. So this email was the response, I think, to Terry's asking me to have a look at those layouts. So it's part and parcel of that.
Q. I see.

Then you go on at the bottom, "The existing ventilation is questionable", as I have shown you. What did you mean by the existing ventilation system being questionable?
A. Again, that goes back to the existing fire strategy where we questioned what was actually there, and to make sure that the overall scheme -- to make sure that it was up to the job of doing what we expect it to do, which was to provide adequate ventilation in the event of a design fire.

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Q. Had anybody actually assessed the existing ventilation system for its design or its maintenance between producing your draft report and the date of this email?
A. I don't know whether any of the work or any of the recommendations had been done by this point. I didn't have any involvement with it, unfortunately.
Q. Right.

Do you agree that, apart from this reference to the theoretical worsening of the smoke ventilation system, you made no reference here to the proposed refurbishment making existing conditions worse?
A. No, but in context, that statement was in relation just to this ... this email, essentially, this proposed layout from the architects. It doesn't relate in any other way to the ongoing scheme.
Q. Did you ever express your concern that a bad condition was to be made worse by the proposed refurbishment to Mr Sounes at Studio E or --
A. I don't recall speaking to Bruce following my holiday, I just don't recall that.
Q. Did you relay your concerns to Dr Barker?
A. I think Dr Barker was aware of the level of concerns and the caveats we had put in the report, and obviously that document was there for others to read as well.
Q. Go back, please, to \{EXO00001607\}. This is an email
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which I'm not sure we looked at. This is from Mr Sounes to Mr Ashton of 30 August. Do you see that?
A. Yes.
Q. He says:
"Terry,
"We have a meeting planned for the afternoon of the 6th, which is the date Cate returns ..."
Do you see that?
A. Yes.
Q. "... (bounce back below)."
We looked at this earlier on and I don't think
I looked at the last paragraph with you:
"We need to go through the fire strategy (existing Draft) received 16/08 which has numerous recommendations ..."
In the last sentence, Mr Sounes said:
"It is probably also a good time to make contact with the local fire officer to discuss the project."
Were you ever asked by Mr Sounes or Mr Ashton to make contact with the local fire officer or did you receive any information about that kind of contact?
A. No.
Q. Were you ever asked to discuss your recommendations further after you had come back from holiday?
A. No.

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Q. Did you or anyone else from Exova engage with the local fire officer?
A. I don't know. I assume so.
Q. Okay.
A. Just simply because it was an ongoing project. But I don't know.
Q. Did you ever take any steps to ensure that matters for further investigation were considered and addressed by the TMO? I may have asked you that before, but just to confirm it for me, please.
A. No. From here, it went on to others in the team.
Q. Yes, I see, okay.

Finally, can I ask you, please, to go back to paragraph 3.5 of your statement, page 2 \{EXO00001590/2\}. This is the paragraph which refers to the baseline. Do you remember we discussed that earlier this morning, Ms Cooney?
A. Yes.
Q. Was there any process whereby you took Terry Ashton through your report or draft and discussed it in detail so that he could use it as his baseline for his work on the refurbishment fire safety strategy?
A. There wasn't any process as such. I don't recall ever having done that. I don't recall Terry asking me to go through that with him. Obviously the document was there

                            Did you take any steps -- and I think the answer
    from the last question is no, but correct me if I'm
    wrong -- to ensure that the team responsible for putting
    together the fire safety strategy for the refurbishment
    works understood your proposals, concerns, assumptions,
    et cetera, in the existing fire safety strategy?
A. No. No, I --
Q. Is there a reason why you didn't?
A. I suppose if there was any ambiguity or any ... anything
        that they wanted to question, I was there to -- on the
        end of the phone to call. So I don't know. It's
        a fairly straightforward strategy, with straightforward
        recommendations, so I wouldn't necessarily expect it .
        But no, I didn't. I didn't follow it up with Terry, and
        I don't recall Terry asking any particular questions.
        One more question on a completely different topic.
        Are you aware of Exova ever having carried out
        a desktop study considering the compliance with
        Yes.
        -- of a rainscreen cladding façade for a high-rise
        building using Celotex insulation?
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    A. No, that's a completely separate part of the business.
    Q. It's a separate part of the business, is it?
    A. Yes.
    Q. Okay. Can you just help me, which part of the business
        is it?
    A. So in terms of assessments, it would be -- I don't know
    the name of the -- but I think it would fall under the
    certification business, but you would --
Q. I see, okay.
A. -- have to check on that.
MR MILLETT: Okay, that's very helpful.
        Mr Chairman, I think we should -- I have
        a two-minute credit, perhaps.
SIR MARTIN MOORE-BICK: Well, I'm not sure about that!
MR MILLETT: May I just break and just make sure that there
        are no other people in the room who want me to ask any
        further questions?
rise for a couple of minutes at this point to give Mr Millett a chance to see whether there are other questions that need to be put to you.

So I will ask you to go with the usher now and we will rise for a short time to see whether there are more questions for you.
A. That would be fine. I would like, if I have the opportunity, to go back to a question regarding I think it was 3.3.3, where I think I could offer a little bit more information.
SIR MARTIN MOORE-BICK: Was there something you wanted to complete?
A. Yes.

SIR MARTIN MOORE-BICK: Let's do that first then.
MR MILLETT: Yes, 3.3.3. That would be \{TMO10001925/9\}.
SIR MARTIN MOORE-BICK: First of all, is that the passage you had in mind?
A. It was. It was in relation to how we were talking about diagram 52 and firefighting shafts, et cetera, and I was -- whilst I was having a break, I was having a think of where that could possibly have come from and could it have meant anything else, and just given the way that it's written, in so much as the lobby is to provide a minimum 30-minute -- I think in that regard I was relating not to the firefighting shaft but
actually to a lobby off the firefighting shaft, to the accommodation, so -- which would typically be that. So I think that's where that has come from, I just wanted to clarify that.
SIR MARTIN MOORE-BICK: All right. Thank you.
Mr Millett, do you want to follow that up at all?
MR MILLETT: Yes, Mr Chairman, I don't want to follow up on that. Well, I might, but let's take a break, and if there is a spare question which comes crawling out of the woodwork, I will explore it .
SIR MARTIN MOORE-BICK: Ms Cooney, we will have the break now. If you would like to go with the usher, please.
THE WITNESS: Thank you.
SIR MARTIN MOORE-BICK: Right, Mr Millett, you let me know via the usher when you are ready.
MR MILLETT: Yes, it will not be long.
SIR MARTIN MOORE-BICK: You will not need more than a few minutes?
MR MILLETT: I will not.
SIR MARTIN MOORE-BICK: Right.
( 4.47 pm )
(A short break)
( 4.51 pm )
SIR MARTIN MOORE-BICK: Yes, Mr Millett. You have found something?

MR MILLETT: I have found some and some have been found.
SIR MARTIN MOORE-BICK: Yes. Will you ask Ms Cooney to come back in, please.

\section*{(Pause)}

SIR MARTIN MOORE-BICK: Ms Cooney, I'm afraid Mr Millett has
found a few more questions.
THE WITNESS: Okay.
SIR MARTIN MOORE-BICK: I hope they won't take too long.
THE WITNESS: That's fine.
MR MILLETT: Ms Cooney, I'm sorry to detain you further, but I have one or two minutes of further questions.

Can I ask you to go back, since you raised it, to section 3.3.3 of your report, which should still be on the screen, at page 9 \{TMO10001925/9\}. In the second-from-last paragraph, you say:
"As there is a single escape route from the building at this level, the exit should be lobbied to provide a minimum of 30 minutes fire resisting construction ..."

We heard your answer about that which you wanted to explain just before we rose a moment ago, but would it not be important to explain to the reader that, on any view, a 60 -minute fire resisting construction was required of the door into the firefighting shaft in accordance with diagram 52 ?
A. I could have stated the diagram number, but I think it

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already says that in the words. With this at the time being a level of non-residential accommodation, the firefighting shaft itself has a core which is protected to two hours and one-hour fire doors. As there is a single escape route from the building at this level -I think that's the relationship of the office with the firefighting shaft itself. So because it's a different purpose group, it should be lobbied off from the residential.

So that's the -- having read it back and thought about it, and having time to kind of wonder where it was I was looking at at the time, that to me would make much more sense than ... it's just with it saying that the exit ... it just raised a question in my head whilst I was on break, so I wanted to just --
Q. Yes, I can understand that. It is not the clearest and is apt to confuse, really, isn't it?
A. Well, coming back to it eight years later and not having the drawings in front of me, I -- you know, I needed a few minutes to look at it, so that's --
Q. Indeed, thank you.

Can I ask you, then, to be shown \{EXO00000388\}. It's an email we looked at just before the end of your questions, 10 September, the one you sent to Mr Ashton. I think I did ask you about the penultimate paragraph,
and touched on significant approvals risk in the last paragraph. I just want to focus one or two questions on that.

You say:
"Generally, there is a significant approvals risk with the current proposals ..."

To what extent were you concerned that the current proposals might not be safe?
A. With the proposals as they stood -- and I am not aware of what eventually was chosen -- the principle of once you're in a stair, you should descend in that stair to a final exit, was being varied. So the approvals risk is that if we are then bringing people out of that stair enclosure without adding additional fire precautions, then that represents a significant approvals risk from the regulators as well as not being satisfactory from our point of view.
Q. So is it right that you were concerned that the current proposals would not comply or might not be seen to comply with the Building Regulations?
A. They carried a significant approvals risk that the regulators would not be favourable with that design, so --
Q. Yes.
A. And the design needed to be changed.
Q. Yes, it's really what I wanted to understand by approvals risk. By risk, do you mean that there is a chance that building control might understand that it was actually non-compliant, or that they might misunderstand and think wrongly that it was non-compliant?
A. An approvals risk is a risk that the -- the risk of it being approved is diminished, so it may result in a refusal of that particular design.
Q. Right. If you were concerned that the current proposals might not comply with the Building Regulations, why didn't you say so expressly?
A. Well, I did, in the form of this email and the one to Andrew Martyn. I may well have had conversations around that as well, but I've certainly raised it in those two emails.
Q. Did you think that the current proposals didn't comply with the Building Regulations and there was a risk that building control would see that?
A. I think that the current layout, as it was shown, wasn't acceptable, which is why I asked for additional design changes to make sure that it could become a design which would provide the right level of safety, so in that way reduce the risk of it being rejected.
Q. You say "acceptable". Do you mean non-compliant?
A. The word "compliant" is, you know, compliant with what?
Q. With Building Regulations.
A. With Building Regulations. So, yes, essentially, if the regulator didn't feel that it met with the requirements of any of the parts of part B, then, yes, it was a risk that they could say no.
Q. Either it complies or it doesn't. Really what I'm trying to get at here --
A. Yes, either it complies or it doesn't, but the ways in which it can comply, you know, are subject to various design criteria, really, you know. There are several ways of compliance. It's not necessarily following a specific guide to the letter. That's -- you know, there are variations that can also be equally acceptable. So in terms of the approvals risk, it's a risk of the regulators saying, no, it doesn't meet with their requirements.
MR MILLETT: Thank you.
Ms Cooney, thank you very much, and thank you for your patience. I'm very grateful to you for coming down here today and helping us with our investigations. Thank you for your evidence.
THE WITNESS: No problem, thank you.
SIR MARTIN MOORE-BICK: I endorse that. We are very grateful to you for coming. Sorry the day has been

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rather longer than perhaps you had wished or hopes, but at least we got your evidence finished today. Thank you very much. So you are free to go.
THE WITNESS: Thank you.

\section*{(The witness withdrew)}

SIR MARTIN MOORE-BICK: Now, before we formally call an end to the today's proceedings, can I just do two things: one is to thank the transcribers and the document managers, because it's been a long day for you as well and your fingers, I suspect, get quite tired by this time, so thank you very much.

The other thing is briefly to say something about where we go tomorrow.

Overnight we will look at the responses we have received during the course of the day to the consultation note we sent out yesterday about the best way forward, and it may be I will be in a position to say something more concrete about that tomorrow. But I think for the purposes of tomorrow we should work on the basis that we will continue as we have today; in other words, a limited-attendance hearing, but on a voluntary basis.

I'm pleased to see that there are quite a lot of empty seats towards the back of the room, and I think it would be very desirable if tomorrow as many people

> absented themselves as is reasonably practicable and
> followed the proceedings online. But we have another
> witness who has come from the north of England to give
> evidence tomorrow, and I would like to take her evidence
> on the basis that we have as few people exposed to the
> risk of numbers as we can.
> So tomorrow we will go ahead on the basis of
> a limited-attendance hearing, but, as I say, on
> a voluntary basis, and then we will take it from there.
> All right? So 10 o'clock tomorrow, please. Thank
> you very much.
> (5.00 pm)
(The hearing adjourned until 10 am on Tuesday, 17 March 2020)

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