0
00:00:00.200 --> 00:00:03.700
Thank you very much. 3:30 hearings resumed.

1
00:00:03.700 --> 00:00:07.900
 We have two main items

2
00:00:07.900 --> 00:00:11.300
 left on the agenda 3 rather. The

3
00:00:10.300 --> 00:00:13.500
 next one Mr. Rigby will

4
00:00:13.500 --> 00:00:16.400
 be leading which will deal with the

5
00:00:16.400 --> 00:00:19.300
 battery energy storage system the best and

6
00:00:19.300 --> 00:00:22.700
 safety aspects of it and

7
00:00:24.400 --> 00:00:27.800
That leaves two items one is Water Resources flood

8
00:00:27.800 --> 00:00:30.600
 risk and drainage and the other is public rights way

9
00:00:30.600 --> 00:00:33.200
 and what I think it would

10
00:00:33.200 --> 00:00:36.200
 be useful to do bearing in mind.

11
00:00:36.200 --> 00:00:40.300
 The time constraints is to go

12
00:00:39.300 --> 00:00:43.600
 ahead with the next item and

13
00:00:42.600 --> 00:00:45.400
 here the

14
00:00:46.400 --> 00:00:49.600
issues about black battery energy storage system

15
00:00:49.600 --> 00:00:52.100
 safety in relation to

16
00:00:52.100 --> 00:00:56.400
 Water Resources flood risk and drainage. I think

17
00:00:56.400 --> 00:00:59.200
 it's right that the environment agency aren't here

18
00:00:59.200 --> 00:00:59.400
 today.

19
00:01:00.200 --> 00:01:05.200
Now it's my impression of to be

20
00:01:05.200 --> 00:01:09.000
 corrected that a lot of the outstanding issues have

21
00:01:08.800 --> 00:01:12.400
 been resolved on on those. I have

22
00:01:12.400 --> 00:01:14.900
 a few items to raise.

23
00:01:16.800 --> 00:01:19.400
So what might be

24
00:01:19.400 --> 00:01:22.800
 useful I think is that that particular item could

25
00:01:22.800 --> 00:01:25.600
 be taken offline and dealt with by written

26
00:01:25.600 --> 00:01:26.300

submissions.

27
00:01:28.600 --> 00:01:32.000
It helps you so we are the flood Authority

28
00:01:31.600 --> 00:01:34.400
 as such we don't have any particular issues

29
00:01:34.400 --> 00:01:38.900
 so that if that helps you to move things along and save time.

30
00:01:38.900 --> 00:01:40.600
 Thank you Mr. Mohammed.

31
00:01:41.300 --> 00:01:43.800
And Mr. Attorneys

32
00:01:45.800 --> 00:01:48.300
Because it for you we were going to stress that actually

33
00:01:48.300 --> 00:01:51.200
 if you get looking for a shortcut, although we've got the people here you can answer

34
00:01:51.200 --> 00:01:55.000
 questions if you'd like them to but I think that's the shortcut. Um,

35
00:01:55.600 --> 00:01:58.400
 let's go on with the with the battery because I think it's important that

36
00:01:58.400 --> 00:02:01.400
 that is seem to be dealt with and is

37
00:02:01.400 --> 00:02:04.500
 dealt with yes in the public forum as much

38
00:02:04.500 --> 00:02:07.200
 as possible. If we get time. I will

39

00:02:07.200 --> 00:02:10.400
 just check one or two things on the Water Resource.

40
00:02:12.700 --> 00:02:15.100
So I'm grateful for anybody who is

41
00:02:16.100 --> 00:02:19.700
still here and we'll

42
00:02:19.700 --> 00:02:23.300
 see how we'll see how we get on. Okay, so

43
00:02:23.300 --> 00:02:26.200
 I'll hand over then to Mr. Bigby to

44
00:02:26.200 --> 00:02:27.300
 go through the next item.

45
00:02:27.900 --> 00:02:30.200
Thank you very much, Mr. King. Good afternoon, everyone.

46
00:02:32.600 --> 00:02:35.200
nice and four quality in human

47
00:02:35.200 --> 00:02:35.400
 health

48
00:02:36.700 --> 00:02:39.900
on the agenda. We show battery energy

49
00:02:39.900 --> 00:02:43.000
 storage system safety, which is 0.1

50
00:02:42.300 --> 00:02:45.600
 farisque potential effects and mitigation.

51
00:02:46.400 --> 00:02:50.200
Point two explosion and effects point three Health

52
00:02:49.200 --> 00:02:52.100
 implications also be

53
00:02:52.100 --> 00:02:55.700
 emergency planning including evacuation plans. Now as

54
00:02:55.700 --> 00:02:57.100
 Mr. Keen said early we want

55
00:02:57.700 --> 00:03:00.200
work proposing to go into that today in anyway

56
00:03:00.200 --> 00:03:01.400
 death other than

57
00:03:02.700 --> 00:03:05.300
as it's a consequence of part a

58
00:03:05.800 --> 00:03:08.200
So hope that's okay with everyone makes sense.

59
00:03:09.300 --> 00:03:12.600
So if we go to Quality and human health

60
00:03:14.300 --> 00:03:17.700
and today I want to focus on the safety of the proposed battery

61
00:03:17.700 --> 00:03:20.700
 energy storage system, which I'll

62
00:03:20.700 --> 00:03:22.700
 refer to from now on as the best.

63
00:03:23.800 --> 00:03:24.500
and also

64
00:03:25.400 --> 00:03:28.600
in part indirectly as I say we will maybe get

65
00:03:28.600 --> 00:03:30.900
 to the touch on parts of emergency planning.

66

00:03:31.700 --> 00:03:34.300
I have some questions for the applicant pursuing

67
00:03:34.300 --> 00:03:36.400
 our first round of written questions execute one.

68
00:03:37.300 --> 00:03:40.600
And for each question, I'll invite the applicant to respond

69
00:03:40.600 --> 00:03:43.000
 and I'll then invite others presents.

70
00:03:43.600 --> 00:03:46.500
To respond if they wish if they have anything other points

71
00:03:46.500 --> 00:03:49.200
 to make or anything to ours and then out of the app

72
00:03:49.200 --> 00:03:52.000
 allow the applicants to respond to any points raise and then move on

73
00:03:52.200 --> 00:03:52.800
 to the next question.

74
00:03:53.900 --> 00:03:56.200
I've moved put the questions into five

75
00:03:56.200 --> 00:03:56.600
 topic areas.

76
00:03:58.200 --> 00:04:01.400
Which I hope makes some sense and logical the first

77
00:04:01.400 --> 00:04:04.200
 bullet points. I've got is massive chemistry.

78
00:04:05.100 --> 00:04:07.200
I've got that then leading into fire risk.

79
00:04:08.400 --> 00:04:11.400

I've got that then leading into gas emissions.

80
00:04:12.800 --> 00:04:13.800
I then got.

81
00:04:14.400 --> 00:04:17.400
a bullet point on the outline battery fast Safety

82
00:04:17.400 --> 00:04:18.000
 Management plan

83
00:04:19.200 --> 00:04:22.900
and finally briefly health and safety ready related

84
00:04:22.900 --> 00:04:23.500
 consents.

85
00:04:24.200 --> 00:04:26.900
So first, it's a battery chemistry.

86
00:04:28.100 --> 00:04:31.800
To the applicants in your response to our first written

87
00:04:31.800 --> 00:04:33.900
 question 1.1.6.

88
00:04:34.800 --> 00:04:36.800
Where we are sure about battery chemistry.

89
00:04:37.800 --> 00:04:40.600
You say that you selected nickel manganese

90
00:04:40.600 --> 00:04:43.800
 Cobalt and MC for short and lithium.

91
00:04:43.800 --> 00:04:46.200
 I am phosphate which I think is lfp for

92
00:04:46.200 --> 00:04:49.700
 short on the basis of good scale performance

93
00:04:49.700 --> 00:04:52.400
 and they're the two dominant battery chemistry.

94
00:04:52.400 --> 00:04:55.100
 So I suppose it's a bit like the HSE betamax back in the day.

95
00:04:55.100 --> 00:04:57.500
 You don't mention safety.

96
00:04:59.300 --> 00:05:00.200
now first off

97
00:05:00.900 --> 00:05:03.100
talking about these batteries are these similar to the

98
00:05:03.100 --> 00:05:05.400
 batteries in our computers and smartphones?

99
00:05:07.100 --> 00:05:10.100
So Bridget only for the applicant. I'm going to just briefly say

100
00:05:10.100 --> 00:05:13.600
 who we've got here. I've got just here Mr. Gregory Paul

101
00:05:13.600 --> 00:05:17.800
 Gregory. Who is the battery safety

102
00:05:17.800 --> 00:05:18.100
 expert?

103
00:05:18.900 --> 00:05:21.200
And online if we need I've got

104
00:05:21.200 --> 00:05:25.500
 Jess Muirhead who is the author of the appendix

105
00:05:24.500 --> 00:05:27.300
 to the es that deals with

106
00:05:27.300 --> 00:05:30.300

the impacts and Battery fire so deals with

107
00:05:30.300 --> 00:05:33.000
 the emissions from that and so there's the two people

108
00:05:33.300 --> 00:05:36.500
 I'm going to rely on. I just want to at the

109
00:05:36.500 --> 00:05:39.400
 outset before I bring in Mr. Gregory to deal with

110
00:05:39.400 --> 00:05:43.200
 the battery chemistry question just be clear those

111
00:05:42.200 --> 00:05:46.400
 that is the chemistry that was identified

112
00:05:45.400 --> 00:05:48.800
 in the es for the purposes of

113
00:05:48.800 --> 00:05:49.500
 assessing.

114
00:05:50.600 --> 00:05:53.400
a an effect for the

115
00:05:53.400 --> 00:05:55.200
 purposes of assessing effects in the ES

116
00:05:56.100 --> 00:06:01.200
The decision about the detail of the batteries is

117
00:06:00.200 --> 00:06:03.400
 a matter, which we're going to come on

118
00:06:03.400 --> 00:06:06.600
 to and Mr. Gregory will help explain why the detailed

119
00:06:06.600 --> 00:06:09.900
 side of battery is something which needs to be dealt with

120
00:06:09.900 --> 00:06:12.400
 the detailed design, but perhaps Mr. Gregory

121
00:06:12.400 --> 00:06:15.800
 can help on that the two alternative battery chemistries that

122
00:06:15.800 --> 00:06:16.400
 have been considered.

123
00:06:18.400 --> 00:06:21.900
Thank you. That's that's helpful. I'm basing my questions

124
00:06:21.900 --> 00:06:23.000
 on what's in your

125
00:06:23.800 --> 00:06:26.900
Application basically, so hence the

126
00:06:26.900 --> 00:06:29.600
 reference to the sponsors to the questions. Yes,

127
00:06:29.600 --> 00:06:32.300
 that will definitely be helpful. I just wanted to

128
00:06:32.300 --> 00:06:35.100
 kick off very simply with just to get

129
00:06:35.100 --> 00:06:38.200
 us grounded it is that kind of battery that we're talking

130
00:06:38.200 --> 00:06:40.900
 about I right or I completely off the mark

131
00:06:41.900 --> 00:06:45.600
So typically for energy storage the

132
00:06:44.600 --> 00:06:47.700
 cell size will be significantly

133
00:06:47.700 --> 00:06:50.200

large. So but it's

134
00:06:50.200 --> 00:06:53.600
 the same same chemistry and there

135
00:06:53.600 --> 00:06:56.400
 are a rainbow chemistries. So for

136
00:06:56.400 --> 00:07:00.000
 grid scale much energy storage systems

137
00:06:59.200 --> 00:07:02.500
 and typically the performance

138
00:07:02.500 --> 00:07:05.500
 criteria from those General chemistries, and

139
00:07:05.500 --> 00:07:08.800
 there are variations within each chemistry are

140
00:07:08.800 --> 00:07:11.400
 applicable for the energy

141
00:07:11.400 --> 00:07:14.500
 storage typically in your phones or

142
00:07:14.500 --> 00:07:17.800
 laptops and what are

143
00:07:17.800 --> 00:07:20.700
 called Souls they could be a range of chemistries and

144
00:07:20.700 --> 00:07:23.200
 the nmc and so yes, I think

145
00:07:23.200 --> 00:07:26.700
 so in my laptop for instance. There is an nmc cell

146
00:07:26.700 --> 00:07:29.700
 very small sort of probably 20

147
00:07:29.700 --> 00:07:32.700
 watt hours where in an energy storage system.

148
00:07:33.500 --> 00:07:37.700
Cells are now in the sort of 400 to 1,000 watt

149
00:07:37.700 --> 00:07:40.300
 hour range. Well, surely the Lums are quite different and I've

150
00:07:40.300 --> 00:07:43.700
 just sort of thinking that basic starting point. It's a

151
00:07:43.700 --> 00:07:44.400
 large version of

152
00:07:45.100 --> 00:07:48.500
What we're already dealing with so the trend now is

153
00:07:48.500 --> 00:07:51.700
 that actually the type of cell is different. It's called Prismatic

154
00:07:51.700 --> 00:07:54.400
 cell. So it's a hard case aluminum will

155
00:07:54.400 --> 00:07:57.500
 still and so it wouldn't be what you

156
00:07:57.500 --> 00:08:00.400
 recognize and you know

157
00:08:00.400 --> 00:08:03.400
 in your household products. Right? Right,

158
00:08:03.400 --> 00:08:06.200
 and that's my second

159
00:08:06.200 --> 00:08:07.900
 question. I suppose we'll take these two together.

160
00:08:11.200 --> 00:08:14.200

How do they compare with other emerging chemistry in

161
00:08:14.200 --> 00:08:17.300
 respect to safety given the safety didn't appear

162
00:08:17.300 --> 00:08:20.600
 to be Insight consideration and response to the question. So it's

163
00:08:20.600 --> 00:08:23.600
 a bass is a system safety process. Okay.

164
00:08:23.600 --> 00:08:26.300
 It's so you do start with your cell

165
00:08:26.300 --> 00:08:29.600
 when chemistry impacts that but there are a lot

166
00:08:29.600 --> 00:08:32.400
 of other components and the electrolyte composition that

167
00:08:32.400 --> 00:08:35.900
 goes in there that from a foreign explosion risk Alters

168
00:08:35.900 --> 00:08:38.300
 it significantly. So for example

169
00:08:39.900 --> 00:08:43.100
A lot of testing I'm involved with if proprietary but

170
00:08:42.100 --> 00:08:43.800
 to give you an example.

171
00:08:45.800 --> 00:08:48.300
Three different involved with testing three

172
00:08:48.300 --> 00:08:52.100
 different lfp in three different nmc chemistry's recently

173
00:08:51.100 --> 00:08:55.200
 and the gas mixtures produced

174
00:08:54.200 --> 00:08:56.000
 in thermal Runaway.

175
00:08:57.900 --> 00:09:01.900
On average, you know, you've got sort of 15% differences,

176
00:09:01.900 --> 00:09:04.400
 you know within the same chemistry of hydrogen production

177
00:09:04.400 --> 00:09:07.100
 sort of ten five to ten percent

178
00:09:07.100 --> 00:09:10.700
 differences in the hydrocarbon gases, which are the main flammable and

179
00:09:10.700 --> 00:09:13.700
 gases and the common monoxide from

180
00:09:13.700 --> 00:09:16.500
 the toxicity perspective. Again, you

181
00:09:16.500 --> 00:09:19.900
 can see the 15 to 20% differences

182
00:09:19.900 --> 00:09:21.800
 in the ranges within the chemistry. So

183
00:09:22.600 --> 00:09:25.800
Point that was made in the responses is

184
00:09:25.800 --> 00:09:28.500
 just yes, you can make General points

185
00:09:28.500 --> 00:09:31.300
 on chemistry, but it's how that cell. It's

186
00:09:31.300 --> 00:09:34.200
 the three different cell designs. You

187

00:09:34.200 --> 00:09:37.500
 can get for example, it's the best design. It's the geometry

188
00:09:37.500 --> 00:09:40.500
 of the cell all these things have a an effect on

189
00:09:40.500 --> 00:09:43.200
 the fire and explosion risk and how

190
00:09:43.200 --> 00:09:46.100
 it's integrated into the battery module and into the

191
00:09:46.100 --> 00:09:49.800
 battery rack. So from a fire Dynamics or an explosive

192
00:09:49.800 --> 00:09:53.300
 risk, and there are lots of variables. So

193
00:09:52.300 --> 00:09:53.900
 that's why

194
00:09:54.900 --> 00:09:57.600
the response was made that yes chemistry. We

195
00:09:57.600 --> 00:10:00.500
 can make generalizations, but the detail

196
00:10:00.500 --> 00:10:03.100
 design stage we get very specific about the types of

197
00:10:03.100 --> 00:10:06.200
 failure responses that you would see in that system.

198
00:10:07.400 --> 00:10:10.600
Thank you. Just a further

199
00:10:10.600 --> 00:10:13.600
 on battery chemistry question. You say

200
00:10:13.600 --> 00:10:15.700
 that severity of any far reaction.

201
00:10:16.500 --> 00:10:19.500
It's driven by cell design chemistry and

202
00:10:19.500 --> 00:10:22.700
 state of charge. So sort of three-way split. Could

203
00:10:22.700 --> 00:10:26.200
 you give us a bit more exploration? It's sort of try course,

204
00:10:25.200 --> 00:10:29.200
 right? So again, I will disregard

205
00:10:28.200 --> 00:10:31.200
 work. So as a general

206
00:10:31.200 --> 00:10:34.600
 rule of thumb across all back from chemistry's it

207
00:10:34.600 --> 00:10:37.700
 will probably be fair to say that 50% stated

208
00:10:37.700 --> 00:10:41.200
 charge might be the cutoff point where rather

209
00:10:40.200 --> 00:10:43.700
 than seeing a burning flaming reaction

210
00:10:43.700 --> 00:10:46.600
 that you might see what we call a venting

211
00:10:46.600 --> 00:10:46.900
 reaction.

212
00:10:48.200 --> 00:10:51.500
And with event and reaction the composition of

213
00:10:51.500 --> 00:10:52.400
 the gases released.

214

214
00:10:53.300 --> 00:10:57.300
But different to in a burning reaction. Okay, and

215
00:10:56.300 --> 00:11:00.500
 a lot of the battery testing for

216
00:11:00.500 --> 00:11:03.600
 best systems is conducted at 100% State

217
00:11:03.600 --> 00:11:07.100
 charge. So that's because it's the

218
00:11:06.100 --> 00:11:09.100
 most energetic venting. So the

219
00:11:09.100 --> 00:11:12.900
 overpressures the burn the flame velocity the deflagration

220
00:11:12.900 --> 00:11:15.500
 index and that cell or that module can

221
00:11:15.500 --> 00:11:18.200
 produce is at its maximum. Now, the

222
00:11:18.200 --> 00:11:22.300
 only way you can exceed that is through overcharging and but

223
00:11:21.300 --> 00:11:24.600
 some batteries when they're

224
00:11:24.600 --> 00:11:27.900
 new don't allow you to do so, so that's

225
00:11:27.900 --> 00:11:30.700
 why heating initiation is used because

226
00:11:30.700 --> 00:11:33.600
 it can be applied to any battery chemistry any cell

227
00:11:33.600 --> 00:11:36.500
 design. However, what that has done for certain

228
00:11:36.500 --> 00:11:41.000
 extent is lead to the fact that because lfp

229
00:11:39.100 --> 00:11:43.600
 has higher trigger point

230
00:11:43.600 --> 00:11:47.000
 thermal run away and it's more stable and and

231
00:11:46.400 --> 00:11:49.600
 each tested is

232
00:11:49.600 --> 00:11:52.200
 tested at the same heating rate. So you could argue for

233
00:11:52.200 --> 00:11:52.900
 instance well,

234
00:11:53.300 --> 00:11:56.500
And I'm seeing cell takes 10

235
00:11:56.500 --> 00:11:59.400
 minutes at a certain heating rate to go to Thermal runaway,

236
00:11:59.400 --> 00:12:02.300
 then you could say well what's the heating

237
00:12:02.300 --> 00:12:05.100
 rate? I need to initiate the lfp, which would be a

238
00:12:05.100 --> 00:12:06.600
 lot higher rate, you know, so.

239
00:12:07.900 --> 00:12:09.600
analysis and comparison

240
00:12:11.900 --> 00:12:14.000
A lot of generalizations have been made and

241

00:12:14.700 --> 00:12:17.200
 false assumptions. So the only way you know, your risk is

242
00:12:17.200 --> 00:12:20.600
 to test at each individual level the cell the

243
00:12:20.600 --> 00:12:23.700
 module the battery rack and the full system and they're

244
00:12:23.700 --> 00:12:24.900
 exposes a trade-off if

245
00:12:25.900 --> 00:12:28.200
You've got to freeze the design somewhere haven't you

246
00:12:28.200 --> 00:12:32.000
 because there may be other revolve emerging chemistries. So

247
00:12:31.500 --> 00:12:34.800
 we may not be as well tried as the ones you looking

248
00:12:34.800 --> 00:12:37.700
 reality is today. So I'm involved in testing.

249
00:12:39.400 --> 00:12:42.300
Best systems and cells are coming to Market may be

250
00:12:42.300 --> 00:12:45.500
 insulating its time and the landscape. And

251
00:12:45.500 --> 00:12:48.500
 again, all I know is my own direct experience. Yeah, and

252
00:12:48.500 --> 00:12:51.300
 all I can say is that all I am seeing

253
00:12:51.300 --> 00:12:55.200
 at the moment is relative MMC.

254
00:12:54.200 --> 00:12:57.400
 Yeah, that's fine. Yeah. Thanks very

255
00:12:57.400 --> 00:13:00.900
 much and thanks for that. So can I just add British

256
00:13:00.900 --> 00:13:03.500
 any of the applicant just to add on that

257
00:13:03.500 --> 00:13:06.500
 exchange you just mentioned design freeze. And

258
00:13:06.500 --> 00:13:09.300
 yes that is important which point you fix the

259
00:13:09.300 --> 00:13:12.500
 design the answer for us in this examination is

260
00:13:12.500 --> 00:13:16.600
 we say that comes post-consent where

261
00:13:15.600 --> 00:13:19.000
 we finalize and

262
00:13:18.600 --> 00:13:21.200
 the battery Fire Safety Management plan and

263
00:13:21.200 --> 00:13:24.400
 where we specify the design for purpose of the detailed approvals.
So

264
00:13:24.400 --> 00:13:27.200
 that's the point where we fix the design. No, that's not

265
00:13:27.200 --> 00:13:30.600
 that's fine. That's understood because obviously you've got them
outline plan,

266
00:13:30.600 --> 00:13:33.300
 which will the main issues to make

267
00:13:33.300 --> 00:13:36.200
 sure they consider the final version, but then you've got

268
00:13:36.200 --> 00:13:39.400
 the flexibility to maximize to do the best you can do better.

269
00:13:39.400 --> 00:13:42.400
Things are getting better. That's it. And the thing that Mr. Gregory

270
00:13:42.400 --> 00:13:45.400
 keeps saying to me is you you can only really

271
00:13:46.400 --> 00:13:49.300
put put the detail into that when you have your

272
00:13:49.300 --> 00:13:52.400
 as he says the various components because you're looking

273
00:13:52.400 --> 00:13:55.200
 at a system as a whole so so you can only really

274
00:13:55.200 --> 00:13:58.300
 get into it. Once you've got the system. Yes. Well, that's that's

275
00:13:58.300 --> 00:14:01.700
 yeah that's accepted. That's fine in that

276
00:14:01.700 --> 00:14:04.500
 just leads into the fourth part of

277
00:14:04.500 --> 00:14:06.800
 this battery chemistry issue.

278
00:14:09.100 --> 00:14:10.400
also referring back to

279
00:14:11.900 --> 00:14:16.100
skew one one six about what

280
00:14:15.100 --> 00:14:18.400
 other component parts of the best other than

281

00:14:18.400 --> 00:14:21.100
 the cells might might present a fire

282
00:14:21.100 --> 00:14:23.800
 hazard and I did actually I was actually hoping for

283
00:14:24.700 --> 00:14:27.100
It more than less. I think you said in the answer

284
00:14:27.100 --> 00:14:28.100
 you weren't sure whether you meant.

285
00:14:29.300 --> 00:14:32.300
Less or more and that was actually thinking the

286
00:14:32.300 --> 00:14:35.200
 whole system. So I don't know if you wanted to say anything

287
00:14:35.200 --> 00:14:39.600
 about that. Yes. So typically that's so in

288
00:14:38.600 --> 00:14:41.200
 the best URL test

289
00:14:41.200 --> 00:14:44.300
 for example, so they yeah the cell

290
00:14:44.300 --> 00:14:48.100
 level they will Define burn velocity

291
00:14:47.100 --> 00:14:50.600
 the defibration in depth

292
00:14:50.600 --> 00:14:54.100
 in the gas production. When you get to the module

293
00:14:53.100 --> 00:14:57.300
 level, it's your combustible materials

294
00:14:56.300 --> 00:14:59.500
 within your battery

295
00:14:59.500 --> 00:15:02.900
 module that can significantly add to the fire. So

296
00:15:04.900 --> 00:15:08.000
thermala can also be generated by your

297
00:15:07.500 --> 00:15:10.200
 internal heating. So as

298
00:15:10.200 --> 00:15:13.400
 well as the the gases or

299
00:15:13.400 --> 00:15:16.200
 the flame. Okay. So any gas that's

300
00:15:16.200 --> 00:15:19.300
 produced. Typically the auto ignition point is between

301
00:15:19.300 --> 00:15:23.300
 400 and 800 degrees Centigrade. Okay, but

302
00:15:24.100 --> 00:15:28.800
Typically, you can also have wiring circuitry

303
00:15:28.800 --> 00:15:32.400
 parallel circuitry that's passing heat internally through

304
00:15:32.400 --> 00:15:35.100
 multiple cells. Okay, so, you know

305
00:15:35.100 --> 00:15:39.800
 in some tests and we see that plastics for example, adds significant

306
00:15:39.800 --> 00:15:42.900
 amounts of the least rates and therefore

307
00:15:42.900 --> 00:15:45.400
 the rate of propagation within your

308
00:15:45.400 --> 00:15:48.300
 module. So what when each cell goes into film

309
00:15:48.300 --> 00:15:51.600
 or run away, the timeframes are involved in the heat that's
generated

310
00:15:51.600 --> 00:15:54.800
 in that reaction. So typically

311
00:15:58.200 --> 00:16:01.300
Far load can come from various of the sources

312
00:16:01.300 --> 00:16:05.300
 and materials in there. You know, when I work with battery oems. I

313
00:16:04.300 --> 00:16:07.400
 always advise take the Plastics out and

314
00:16:07.400 --> 00:16:10.700
 also the venting design. So you're capability to

315
00:16:10.700 --> 00:16:13.300
 events Flames or gases out

316
00:16:13.300 --> 00:16:16.300
 of your battery module in short time frames.

317
00:16:17.300 --> 00:16:21.100
To slow down the potential rate of propagation and then spacing

318
00:16:20.100 --> 00:16:23.600
 passive protection barriers within

319
00:16:23.600 --> 00:16:27.400
 that module can help manage and

320
00:16:26.400 --> 00:16:29.400
 that propagation and the

321

00:16:29.400 --> 00:16:30.400
 heat that's produced Within.

322
00:16:31.700 --> 00:16:34.300
So the way that you're doing with and

323
00:16:34.300 --> 00:16:37.300
 without sort of testing tells you which bits of the system are most

324
00:16:37.300 --> 00:16:40.600
 likely to cause a problem. So I think it'd be

325
00:16:40.600 --> 00:16:43.200
 fair to say that a lot of the issues that we've seen

326
00:16:43.200 --> 00:16:46.900
 over the years in energy storage is that

327
00:16:47.700 --> 00:16:50.700
Modeling has been done from self level data

328
00:16:50.700 --> 00:16:53.600
 and sufficient. Testing

329
00:16:53.600 --> 00:16:54.500
 wasn't carried out.

330
00:16:55.400 --> 00:16:58.700
Freeburn testing. If you liked validate your

331
00:16:58.700 --> 00:17:01.300
 battery module design your rack design Etc.

332
00:17:01.300 --> 00:17:04.500
 And ultimately how you're capable to ventilate the

333
00:17:04.500 --> 00:17:07.400
 gases out of the best enclosure itself.

334
00:17:08.700 --> 00:17:11.600
That's that's fine. Because that's

335
00:17:11.600 --> 00:17:12.500
 I'm sort of.

336
00:17:14.400 --> 00:17:17.200
Coming out involvement with themself. We're all very

337
00:17:17.200 --> 00:17:20.300
 aware of the difference between bits of the system

338
00:17:20.300 --> 00:17:23.400
 and I think that's worth where I would analog everybody

339
00:17:23.400 --> 00:17:26.300
 learned very knowledge is that you have to know what

340
00:17:26.300 --> 00:17:29.400
 all your components are doing in that system to

341
00:17:29.400 --> 00:17:29.800
 make a

342
00:17:30.400 --> 00:17:31.400
an accurate. Yes.

343
00:17:32.200 --> 00:17:33.300
Yeah, thank you very much.

344
00:17:35.500 --> 00:17:38.500
Anybody else want to say anything

345
00:17:38.500 --> 00:17:39.800
 about actually chemistry?

346
00:17:41.100 --> 00:17:42.300
but forum

347
00:17:43.800 --> 00:17:48.000
And Edmund Ford and local resident. Yeah,

348

00:17:46.300 --> 00:17:49.500
 the difference between

349
00:17:49.500 --> 00:17:52.600
 can you hear me? You could get you can

350
00:17:52.600 --> 00:17:55.400
 get closer as well. That's it. Very well. Okay, the

351
00:17:55.400 --> 00:17:59.200
 difference between the metal oxide cell

352
00:17:58.200 --> 00:18:01.800
 chemistries and the phosphate the

353
00:18:01.800 --> 00:18:04.300
 living are on phosphate cell chemistries were

354
00:18:04.300 --> 00:18:07.800
 of course dealt with me and professors of

355
00:18:07.800 --> 00:18:10.500
 David Melville in the paper that we did submit as

356
00:18:10.500 --> 00:18:14.500
 Annex. Yes 16, which the

357
00:18:14.500 --> 00:18:18.000
 applicant seems to dismiss as small

358
00:18:17.300 --> 00:18:20.400
 scale things of no relevance to

359
00:18:20.400 --> 00:18:23.600
 best which is a little bit Rich when their

360
00:18:23.600 --> 00:18:27.100
 own appendix 16d, which I've

361
00:18:26.100 --> 00:18:29.200
 seen we'll get all too later in respect

362
00:18:29.200 --> 00:18:33.400
 that quality does exactly the same thing and I

363
00:18:32.400 --> 00:18:36.100
 didn't think that we ought to maybe attempt

364
00:18:35.100 --> 00:18:38.400
 to converge on what can not be

365
00:18:38.400 --> 00:18:41.300
 reasonably scaled up

366
00:18:41.300 --> 00:18:43.300
 in this

367
00:18:43.800 --> 00:18:46.200
Discussion the other thing I'd like to

368
00:18:46.200 --> 00:18:50.400
 draw to your attention whilst we're on the cell chemistry is Professor

369
00:18:49.400 --> 00:18:52.300
 Paul christensen's latest report, which

370
00:18:52.300 --> 00:18:55.100
 I think was submitted by the certain

371
00:18:55.100 --> 00:18:58.400
 say no to Sonica action Greek a couple

372
00:18:58.400 --> 00:19:02.300
 of days ago. It may not have hit the examination

373
00:19:01.300 --> 00:19:05.100
 Library yet. But

374
00:19:04.100 --> 00:19:07.500
 Professor Christensen has done

375
00:19:07.500 --> 00:19:11.100
 a second review of the outline battery fire

376
00:19:10.100 --> 00:19:13.200
 safety and plan it is

377
00:19:13.200 --> 00:19:17.700
 there in the files. I was going to highlight certain

378
00:19:17.700 --> 00:19:20.400
 things. Yes said, but on the matter of chemistry, that's

379
00:19:20.400 --> 00:19:24.300
 quite interesting. He explains rather clearly the

380
00:19:23.300 --> 00:19:26.700
 difference between the natural oxide.

381
00:19:26.700 --> 00:19:29.700
 So chemistry and the

382
00:19:29.700 --> 00:19:32.400
 living phosphate ones very same

383
00:19:32.400 --> 00:19:35.500
 metal oxides you well UNMC that I'm yes

384
00:19:35.500 --> 00:19:38.500
 nmc. Let's let's be quite clear about this because there's

385
00:19:38.500 --> 00:19:41.800
 a lot of recently sure nickel manganese

386
00:19:41.800 --> 00:19:43.500
 Cobalt oxide.

387
00:19:43.900 --> 00:19:47.800
Cell chemistry is one of the two that Sonica

388
00:19:46.800 --> 00:19:50.100

say yes, that's just establish. Thanking

389
00:19:49.100 --> 00:19:52.200
 but of course, but of course, they could be

390
00:19:52.200 --> 00:19:55.500
 just nickel oxide. They do exist. There are

391
00:19:55.500 --> 00:19:58.700
 the lithium manganese oxides that you exist.

392
00:19:58.700 --> 00:20:01.500
 Always I'm yes, I'm aware of different all

393
00:20:01.300 --> 00:20:04.700
 um metal oxide still

394
00:20:04.700 --> 00:20:08.000
 types. Yeah, and they do tend to behave rather

395
00:20:07.700 --> 00:20:11.000
 similarity. If you look at the detailed fire

396
00:20:10.200 --> 00:20:13.500
 test literature and

397
00:20:13.500 --> 00:20:16.700
 they're quite distinct. I think from the lfp cells and Professor

398
00:20:16.700 --> 00:20:19.700
 Christensen explained why and that is and I'll

399
00:20:19.700 --> 00:20:23.100
 just quote him here in this report the the

400
00:20:22.100 --> 00:20:25.800
 key reactions that occur before thermal runaway

401
00:20:25.800 --> 00:20:28.400
 is the structural collapse. That's a thing called the

402
00:20:28.400 --> 00:20:32.100
 cathode which generates oxygen internally and that

403
00:20:31.100 --> 00:20:34.700
 of course will initiate ignition because

404
00:20:34.700 --> 00:20:37.500
 you you've got a combustion reaction that can take

405
00:20:37.500 --> 00:20:40.900
 place if you've got free oxygenerated internally that

406
00:20:40.900 --> 00:20:43.200
 occurs at a much higher temperature in the

407
00:20:43.200 --> 00:20:43.700
 LF.

408
00:20:43.900 --> 00:20:46.800
Cells and he gives a

409
00:20:46.800 --> 00:20:50.000
 recent citation and they are

410
00:20:49.300 --> 00:20:52.800
 considered therefore to be somewhat safer

411
00:20:52.800 --> 00:20:55.700
 in inverted commas than the metal oxide. The

412
00:20:55.700 --> 00:20:59.300
 problem is that they can that will just delay ignition

413
00:20:58.300 --> 00:21:00.400
 of combustibles.

414
00:21:01.500 --> 00:21:04.800
Which can be aerosolized organic

415
00:21:04.800 --> 00:21:08.200

carbonates as much as the actual gases. And

416
00:21:07.200 --> 00:21:10.800
 so the trouble is that the lfp cells

417
00:21:10.800 --> 00:21:13.200
 then are perceived to have a higher risk of the

418
00:21:13.200 --> 00:21:17.200
 vapor Cloud explosion phenomenon, which has been

419
00:21:16.200 --> 00:21:19.200
 I think confirmed in at

420
00:21:19.200 --> 00:21:23.200
 least six of the worldwide catalog of best

421
00:21:22.200 --> 00:21:25.600
 incidents. So there is

422
00:21:25.600 --> 00:21:28.300
 that there is a difference and it's

423
00:21:28.300 --> 00:21:31.200
 a very important difference and that's why I took it to in

424
00:21:31.200 --> 00:21:34.600
 some of my commentary on the applicant's claim

425
00:21:34.600 --> 00:21:37.300
 that there was no real difference between

426
00:21:37.300 --> 00:21:41.900
 the cell types. I don't think that that's the case they NC

427
00:21:41.900 --> 00:21:44.500
 or the metal oxide in general will

428
00:21:44.500 --> 00:21:47.400
 fail more aggressively but by

429
00:21:47.400 --> 00:21:50.900
 the same token the prospect of delaying

430
00:21:50.900 --> 00:21:53.800
 mission is high in the lfp cells.

431
00:21:53.800 --> 00:21:56.800
 So although you may not have the aggressive forever.

432
00:21:56.800 --> 00:21:59.100
 You do have the increased risk

433
00:21:59.100 --> 00:22:00.900
 of an actual cloud.

434
00:22:01.100 --> 00:22:05.100
Medicine thank you. That's very helpful. What the

435
00:22:04.100 --> 00:22:07.400
 applicant want to just come back before that

436
00:22:07.400 --> 00:22:07.500
 one?

437
00:22:08.800 --> 00:22:09.500
Yes, so

438
00:22:10.400 --> 00:22:13.600
like I said, I try to avoid generalities and

439
00:22:13.600 --> 00:22:16.200
 so you can say so for example

440
00:22:17.000 --> 00:22:17.400
and

441
00:22:18.700 --> 00:22:19.700
with nickel

442
00:22:21.700 --> 00:22:24.900

cells and you know the proportion of

443
00:22:24.900 --> 00:22:27.700
 nickel in there varies again,

444
00:22:27.700 --> 00:22:30.000
 that's a detailed design. So generally, you know

445
00:22:30.000 --> 00:22:30.700
 nickel.

446
00:22:31.400 --> 00:22:31.800
does

447
00:22:33.600 --> 00:22:37.600
Can lead to some quiet aggressive burning events. However

448
00:22:39.200 --> 00:22:43.300
I've tested I've been involved our review many nickel cells

449
00:22:42.300 --> 00:22:45.300
 that are in modules. So

450
00:22:45.300 --> 00:22:48.100
 after the mckin incident in, Arizona.

451
00:22:49.500 --> 00:22:52.500
There was pretty much within the industry and obsession with

452
00:22:52.500 --> 00:22:55.400
 flaming cascading. So IE how

453
00:22:55.400 --> 00:22:58.500
 quickly your modules can burn and go combust up

454
00:22:58.500 --> 00:23:00.900
 through your racks and then you spread through your enclosure.

455
00:23:02.100 --> 00:23:06.200
The consequence of that was the protection features were

456
00:23:05.200 --> 00:23:08.300
 then and obviously I have to be General here

457
00:23:08.300 --> 00:23:11.600
 proprietary Etc. But so the

458
00:23:11.600 --> 00:23:14.500
 the passive protection Solutions and the

459
00:23:14.500 --> 00:23:17.300
 architecture within those modules were designed

460
00:23:17.300 --> 00:23:20.100
 to stop so part of the UL testing is that if you

461
00:23:20.100 --> 00:23:24.200
 flame outside the monument, for example, that that's non-compliant

462
00:23:23.200 --> 00:23:26.800
 you have to go to the next level of testing so that

463
00:23:26.800 --> 00:23:29.300
 testing so I've even seen very aggressive.

464
00:23:30.100 --> 00:23:33.400
Nickel cells various types of nickel chemistry

465
00:23:33.400 --> 00:23:37.300
 that under lots of forms of abuse within

466
00:23:36.300 --> 00:23:39.500
 a module aren't flaming

467
00:23:39.500 --> 00:23:42.600
 initially so that would you consider

468
00:23:42.600 --> 00:23:46.300
 that. So if you're not flaming even with say nmc

469
00:23:45.300 --> 00:23:48.400

you'll produce more hydrogen as

470
00:23:48.400 --> 00:23:52.300
 you would expect to see an lfp cell and likewise with

471
00:23:51.300 --> 00:23:54.200
 lfp cells even under single

472
00:23:54.200 --> 00:23:57.900
 salad use on a slow overcharge for instance. I've

473
00:23:57.900 --> 00:24:00.500
 seen single cell deflagrations.

474
00:24:01.700 --> 00:24:04.400
On single cell testing and I've also seen

475
00:24:04.400 --> 00:24:08.000
 under heat testing significant arcing

476
00:24:07.200 --> 00:24:11.900
 in a module IE multiple cells

477
00:24:11.900 --> 00:24:13.300
 initiate at the same time.

478
00:24:14.200 --> 00:24:17.900
And seeing very high burning velocities. So

479
00:24:17.900 --> 00:24:20.600
 and this is ultimately your point because regardless of

480
00:24:20.600 --> 00:24:23.600
 your Chemistry your electrolyte content your

481
00:24:23.600 --> 00:24:26.800
 components. They're all defined. We know what goes the

482
00:24:26.800 --> 00:24:29.700
 detailed design stage. What goes in what gases

483
00:24:29.700 --> 00:24:32.700
 are going to be produced your system your

484
00:24:32.700 --> 00:24:35.400
 mitigation systems have to allow for

485
00:24:35.400 --> 00:24:38.300
 all types of failure and you have

486
00:24:38.300 --> 00:24:41.700
 to understand how that propagation happens under various

487
00:24:41.700 --> 00:24:44.400
 failure responses in your module in your back

488
00:24:44.400 --> 00:24:47.700
 and in your enclosure and ventilation is

489
00:24:47.700 --> 00:24:49.900
 one of those main things and

490
00:24:51.200 --> 00:24:54.300
Things like active cooling systems now are being tested

491
00:24:54.300 --> 00:24:57.400
 in battery modules, which

492
00:24:57.400 --> 00:25:00.600
 again have a greater capability to either stop

493
00:25:00.600 --> 00:25:03.500
 or slow down propagation. So it's that

494
00:25:03.500 --> 00:25:06.800
 chain of events within that module. That's key. And

495
00:25:06.800 --> 00:25:09.700
 yes, I agree. There are certain generalizations

496
00:25:09.700 --> 00:25:12.500

we can make but in testing I've

497
00:25:12.500 --> 00:25:15.900
 been involved with I've reviewed you see big variations

498
00:25:15.900 --> 00:25:17.300
 even within cameras. Yeah.

499
00:25:18.500 --> 00:25:21.900
Yes, that's points taking yes, that's very useful and

500
00:25:21.900 --> 00:25:24.800
 that leads into my sister

501
00:25:24.800 --> 00:25:28.100
 Rigby. Oh, sorry. Yes, Mr. Harris apologies. It's

502
00:25:27.100 --> 00:25:30.400
 a very quick point to you, right? Okay,

503
00:25:30.400 --> 00:25:33.300
 you stick as alcohol your apologies. Yes. I did put my hand to back

504
00:25:33.300 --> 00:25:36.200
 up for you saw me then. It was up. I say not just I'm not gonna repeat what

505
00:25:36.200 --> 00:25:39.300
 the doctor for instead. The only query I wanted to

506
00:25:39.300 --> 00:25:42.400
 raise was this in the updated plan.

507
00:25:42.400 --> 00:25:45.500
 There has been a discussion of two technology types.

508
00:25:45.500 --> 00:25:48.600
 So there is an addition for example the table which talks

509
00:25:48.600 --> 00:25:51.700
 about power and energy

510
00:25:51.700 --> 00:25:55.200
 storage and the results way indicative. I

511
00:25:54.200 --> 00:25:57.800
 understand this indicative layout of the two

512
00:25:57.800 --> 00:26:00.300
 technological types and without wanting to

513
00:26:00.300 --> 00:26:03.800
 repeat any of that all what's in Professor christensen's report. I

514
00:26:03.800 --> 00:26:06.300
 just wanted to ask whether it would be possible for you to

515
00:26:06.300 --> 00:26:09.800
 indicate in a dated plan.

516
00:26:09.800 --> 00:26:12.700
 You can ask me through the panel. Yes, sorry. Yes.

517
00:26:12.700 --> 00:26:17.600
 Yes. Sorry apologies whether at

518
00:26:16.600 --> 00:26:18.300
 least a level.

519
00:26:18.400 --> 00:26:21.100
Got around to you could indicate the factors that you would be

520
00:26:21.100 --> 00:26:24.900
 taking into accounting managing the two contrasting chemistry

521
00:26:24.900 --> 00:26:27.500
 types. It may be answered. You

522
00:26:27.500 --> 00:26:30.500
 can't but our position is but you

523

00:26:30.500 --> 00:26:33.300
 should at least be able to give some direction as to the factors

524
00:26:33.300 --> 00:26:36.300
 that you would take into account at the outline stage, which

525
00:26:36.300 --> 00:26:40.300
 you can crystallize as a later stage. Thank you. Just

526
00:26:39.300 --> 00:26:43.200
 before I go back to the applicant some this

527
00:26:42.200 --> 00:26:45.500
 allowing you wanted to speak. No. I was

528
00:26:45.500 --> 00:26:48.800
 trying to get your attention for Mr. Gazelko. I don't

529
00:26:48.800 --> 00:26:50.600
 want to stop that's funny. You have anything, you know?

530
00:26:51.700 --> 00:26:54.600
does anybody else in the room at the moment have anything

531
00:26:54.600 --> 00:26:56.700
 they want to add refers from Doctor support and

532
00:26:58.300 --> 00:26:59.100
everyone else

533
00:26:59.700 --> 00:27:02.200
fine if you like to respond, please to

534
00:27:03.300 --> 00:27:04.500
just quite

535
00:27:05.400 --> 00:27:08.500
Yes, so basically you're fire and explosion

536
00:27:08.500 --> 00:27:11.500
 risks of proportional to your battery

537
00:27:11.500 --> 00:27:15.400
 capacity. So I how much energy is contained

538
00:27:14.400 --> 00:27:17.700
 within there. So regardless of

539
00:27:17.700 --> 00:27:21.700
 the chemistry and so

540
00:27:25.300 --> 00:27:29.600
I think from a perspective of the plan

541
00:27:28.600 --> 00:27:32.500
 and you can't

542
00:27:32.500 --> 00:27:34.100
 talk about a

543
00:27:35.900 --> 00:27:41.300
Mitigation Suite without

544
00:27:38.300 --> 00:27:41.700
 knowing

545
00:27:41.700 --> 00:27:44.400
 what the system is. Okay, and as a

546
00:27:44.400 --> 00:27:47.100
 huge variation in the system, so for example at the

547
00:27:47.100 --> 00:27:52.600
 moment, you know, you see best containers that might have 700

548
00:27:50.600 --> 00:27:53.300
 kilowatt hours,

549
00:27:53.300 --> 00:27:55.600
 you know through to

550

00:27:56.800 --> 00:27:59.700
generally at the moment. It's it's about

551
00:27:59.700 --> 00:28:01.600
 the four megawatt hours and

552
00:28:03.400 --> 00:28:06.900
it's a differences in variations within that

553
00:28:06.900 --> 00:28:09.700
 sector or our youth. Okay,

554
00:28:09.700 --> 00:28:12.700
 and it's like I said, it's a system. So it's

555
00:28:12.700 --> 00:28:15.700
 the module that your battery rack configuration which

556
00:28:15.700 --> 00:28:18.900
 event and Designs it's the venting of

557
00:28:18.900 --> 00:28:22.000
 deflagration designs in the best enclosure

558
00:28:21.200 --> 00:28:25.100
 itself the cabin itself and suppression

559
00:28:24.100 --> 00:28:28.200
 systems and all you

560
00:28:27.200 --> 00:28:30.600
 passive barriers and spacing active thermal

561
00:28:30.600 --> 00:28:33.500
 management. All these variables are just

562
00:28:33.500 --> 00:28:36.900
 two significant to deal to say all this

563
00:28:36.900 --> 00:28:39.200
 is now FP litigation. This

564
00:28:39.200 --> 00:28:42.200
 is an and see the mitigation has to

565
00:28:42.200 --> 00:28:45.200
 allow for either all venting and

566
00:28:45.200 --> 00:28:46.600
 all learning reactions.

567
00:28:47.100 --> 00:28:50.100
Regardless of chemistry and I think Ridge says the

568
00:28:50.100 --> 00:28:53.100
 applicant I think just to add to that just again put this in the
structure of what we're

569
00:28:53.100 --> 00:28:57.000
 doing to Mr. Gazelle gets point. We are proposing

570
00:28:56.300 --> 00:28:59.400
 that this this battery system cannot

571
00:28:59.400 --> 00:29:02.500
 come into operation unless there is an approved battery Fire Safety

572
00:29:02.500 --> 00:29:05.300
 Management plan. It would be entirely premature to approve

573
00:29:05.300 --> 00:29:08.300
 a battery Fire Safety Management plan without designing the system
for

574
00:29:08.300 --> 00:29:11.500
 exactly those reasons. So you do the two Hand in Hand we

575
00:29:11.500 --> 00:29:14.600
 get to position where the local authorities in in

576
00:29:14.600 --> 00:29:17.300
 consultation with all the other stakeholders that might have

577
00:29:17.300 --> 00:29:21.300
 an interest in this A Satisfied that battery

578
00:29:20.300 --> 00:29:23.700
 safety can be adequately managed the point

579
00:29:23.700 --> 00:29:26.100
 for you and your colleagues. There is really this

580
00:29:26.100 --> 00:29:30.100
 is there really a case to say that in principle.

581
00:29:31.600 --> 00:29:34.500
Battery energy storage systems are so unsafe

582
00:29:34.500 --> 00:29:37.700
 that they shouldn't get in principle development concerns

583
00:29:37.700 --> 00:29:40.300
 and we say there's an obvious answer to that see the

584
00:29:40.300 --> 00:29:43.300
 decisions up and down the country day and day out to consent best.

585
00:29:45.300 --> 00:29:45.300
Thank you.

586
00:29:47.600 --> 00:29:50.400
So right we'll move on to group two

587
00:29:50.400 --> 00:29:51.900
 of my

588
00:29:53.600 --> 00:29:57.700
structure if you like on relating

589
00:29:56.700 --> 00:29:59.100
 to question one 14

590

00:30:00.200 --> 00:30:05.600
We asked you about the configuration of best containers just

591
00:30:03.600 --> 00:30:07.400
 to ask

592
00:30:06.400 --> 00:30:10.500
 about the design.

593
00:30:11.700 --> 00:30:11.900
and

594
00:30:13.400 --> 00:30:16.600
the length and width of each area being such

595
00:30:16.600 --> 00:30:19.600
 a minimize farrisk and ensure that any incident

596
00:30:19.600 --> 00:30:22.400
 dealt with safety and effectively, so that's

597
00:30:23.900 --> 00:30:26.500
perhaps factors that you've identified

598
00:30:26.500 --> 00:30:29.500
 now in outline that you know, we're going to be significant

599
00:30:29.500 --> 00:30:30.800
 when you come to do

600
00:30:31.800 --> 00:30:34.800
the designs of the modules and

601
00:30:34.800 --> 00:30:37.800
 the arrangement within each of the three

602
00:30:37.800 --> 00:30:39.300
 areas that you've got.

603
00:30:40.500 --> 00:30:43.400
Going to have solar panels in so you

604
00:30:43.400 --> 00:30:44.000
 can have best.

605
00:30:45.300 --> 00:30:48.200
You're gonna have batteries store systems, and I think it's three of the

606
00:30:48.200 --> 00:30:48.400
 four.

607
00:30:49.400 --> 00:30:50.100
areas, now that

608
00:30:54.400 --> 00:30:57.100
Yeah. Yeah. So I've just

609
00:30:57.100 --> 00:31:00.400
 just to be to be sure that we're on the same track there and

610
00:31:00.400 --> 00:31:03.200
 that's that's the correct way. That's the way you're intending to

611
00:31:03.200 --> 00:31:04.000
 develop design.

612
00:31:04.900 --> 00:31:07.100
That's right. It's proposed that they'll be there

613
00:31:07.100 --> 00:31:10.200
 with those three separate sites of best. I think in terms

614
00:31:10.200 --> 00:31:13.000
 of the questions about length and which are in

615
00:31:13.200 --> 00:31:15.700
 and things such as separation, perhaps

616
00:31:16.300 --> 00:31:19.500
If Mr. Gregory can give a quick outline as soon approach identified

617
00:31:19.500 --> 00:31:22.300
 in the outline. Yes. I just want to confirm my

618
00:31:22.300 --> 00:31:24.800
 understanding of what you're saying in your response to the
questions.

619
00:31:28.500 --> 00:31:32.900
So sorry, so you referring to the the indicative

620
00:31:32.900 --> 00:31:34.300
 designs that were in the

621
00:31:35.300 --> 00:31:38.300
In the plot. Yes, when you when you're

622
00:31:38.300 --> 00:31:41.900
 beginning to work waiting to go. What was we didn't

623
00:31:41.900 --> 00:31:44.500
 don't know the system design

624
00:31:44.500 --> 00:31:48.200
 that will be selected in line

625
00:31:47.200 --> 00:31:50.300
 with some new codes and

626
00:31:50.300 --> 00:31:53.600
 standards that coming on board and we

627
00:31:53.600 --> 00:31:56.500
 felt it was important for with regards the

628
00:31:56.500 --> 00:31:57.900
 fire and rescue service.

629
00:31:58.800 --> 00:32:01.500
That site planning

630

00:32:01.500 --> 00:32:05.100
 integrating their needs in

631
00:32:04.100 --> 00:32:05.500
 a response.

632
00:32:06.400 --> 00:32:09.200
Could be shown to that's things

633
00:32:09.200 --> 00:32:10.600
 like observation areas.

634
00:32:13.400 --> 00:32:16.300
Potential locations water tax etc, etc,

635
00:32:16.300 --> 00:32:19.000
 emergency access routes and that sort of

636
00:32:19.100 --> 00:32:22.400
 thing. Just what they did on

637
00:32:22.400 --> 00:32:23.000
 on the

638
00:32:23.900 --> 00:32:26.300
On the planning was just to show two types of

639
00:32:26.300 --> 00:32:31.600
 generic systems out there and adopt

640
00:32:29.600 --> 00:32:32.400
 spacing that

641
00:32:32.400 --> 00:32:36.200
 both the National Fire Chiefs Council and

642
00:32:35.200 --> 00:32:38.800
 FM Global and

643
00:32:38.800 --> 00:32:41.500
 say to a life of spacing.

644
00:32:41.500 --> 00:32:45.100
 So that was six meters spacing between each

645
00:32:44.100 --> 00:32:48.100
 best container angle any Associated energy

646
00:32:47.100 --> 00:32:50.500
 storage equipment just to show

647
00:32:50.500 --> 00:32:53.400
 if if that spacing was

648
00:32:53.400 --> 00:32:56.800
 used what it would look like on that side where the lagoons would

649
00:32:56.800 --> 00:33:00.000
 be. So just to start to

650
00:32:59.400 --> 00:33:02.300
 sort of flesh out potentially. What a site

651
00:33:02.300 --> 00:33:02.400
 could

652
00:33:03.400 --> 00:33:06.500
And based on some types of system that

653
00:33:06.500 --> 00:33:09.100
 available on the market at the moment and you

654
00:33:09.100 --> 00:33:13.200
 want to do anyway to be satisfied. You can actually get 500

655
00:33:12.200 --> 00:33:15.500
 megawatts. So I mean so so

656
00:33:15.500 --> 00:33:18.800
 the point the moment that because energy

657

00:33:18.800 --> 00:33:21.500
 density is increasing, you know,

658
00:33:21.500 --> 00:33:24.700
 significantly Thirty forty percent. So and

659
00:33:24.700 --> 00:33:26.700
 it means you can achieve the

660
00:33:28.900 --> 00:33:32.000
Mega what our capacity that you need with fuel cells.

661
00:33:31.700 --> 00:33:33.700
 So like I said, you know, really?

662
00:33:34.400 --> 00:33:37.200
And sort of say LG power cells, for example,

663
00:33:37.200 --> 00:33:41.400
 you know, you're looking about 26,280 Watts

664
00:33:41.400 --> 00:33:44.700
 hours per cell. You know, like I said earlier now, you're

665
00:33:44.700 --> 00:33:47.300
 seeing some Prismatic cells with the capacity of

666
00:33:47.300 --> 00:33:50.200
 the 400 watt hours through to a

667
00:33:50.200 --> 00:33:54.400
 kilowatt hour a thousands if you like. So typically,

668
00:33:53.400 --> 00:33:55.900
 you know, you will need less.

669
00:33:57.100 --> 00:34:00.800
Less cells to generate the energy so in

670
00:34:00.800 --> 00:34:03.200
 terms so the state of confidence. Yes, so

671
00:34:04.300 --> 00:34:07.900
Spacing shouldn't be an issue and actually, you

672
00:34:07.900 --> 00:34:10.200
 know in the new levels of testing that's

673
00:34:10.200 --> 00:34:14.300
 coming through now stipulated by NFPA 855

674
00:34:13.300 --> 00:34:16.800
 for 2023 version and the

675
00:34:16.800 --> 00:34:19.800
 changes to the UL 95408 testing

676
00:34:19.800 --> 00:34:22.600
 is that there's an

677
00:34:22.600 --> 00:34:25.900
 insistence now that you know, you free burn through

678
00:34:25.900 --> 00:34:29.200
 a full best unit to establish heat

679
00:34:28.200 --> 00:34:31.800
 flocks or any defibration issues

680
00:34:31.800 --> 00:34:34.800
 that you might have. So the battery

681
00:34:34.800 --> 00:34:37.300
 OEM or the integration's design,

682
00:34:37.300 --> 00:34:40.600
 you must prove that you can't propagate from one

683
00:34:40.600 --> 00:34:43.200
 container to another in a worst case

684

00:34:43.200 --> 00:34:46.300
 scenario. I the full consumption of your battery system. Yeah,

685
00:34:46.300 --> 00:34:49.100
 so that's That's the basis of specify so

686
00:34:49.100 --> 00:34:50.300
 that's so moving forward.

687
00:34:51.600 --> 00:34:54.800
Those six meters that's just a current,

688
00:34:54.800 --> 00:34:57.800
 you know, best practice you like the testing

689
00:34:57.800 --> 00:35:01.000
 should validate what spacing

690
00:35:00.100 --> 00:35:03.400
 will be required to pull obviously

691
00:35:03.400 --> 00:35:06.300
 not intended and as a technology progresses it

692
00:35:06.300 --> 00:35:09.600
 what you're saying is is things will get more efficient

693
00:35:09.600 --> 00:35:13.600
 and better rather than the reverse things are going to get smaller. Probably

694
00:35:12.600 --> 00:35:15.500
 I think a consequence of

695
00:35:15.500 --> 00:35:18.100
 actually, you know, like I said, it's a systems level you have

696
00:35:18.100 --> 00:35:22.800
 to understand how that event can go through your system models can

697
00:35:21.800 --> 00:35:24.600

be very good, but you have to tested

697

698
00:35:25.400 --> 00:35:29.000
Significant enough multi-modules to see to

699
00:35:28.100 --> 00:35:31.200
 get an accurate model the problem with a lot of the

700
00:35:31.200 --> 00:35:34.300
 earlier systems was that data was taking from a

701
00:35:34.300 --> 00:35:37.700
 single cell so modeling consequences

702
00:35:37.700 --> 00:35:40.300
 when reflective what happened in the real world.

703
00:35:40.300 --> 00:35:43.300
 No, that's that's understood. I'm just thinking that it's the

704
00:35:43.300 --> 00:35:45.900
 same sort of trend technologically as

705
00:35:46.900 --> 00:35:49.400
in volume of Technology between when

706
00:35:49.400 --> 00:35:52.300
 computers used to fill a room and people yes in white

707
00:35:52.300 --> 00:35:55.200
 coats and now it's more processing power in that thing

708
00:35:55.200 --> 00:35:58.600
 and what people on the moon the trend

709
00:35:58.600 --> 00:36:00.300
 at the moment is for us to be to

710
00:36:01.600 --> 00:36:04.600
produce smaller containers now, all I

711
00:36:04.600 --> 00:36:05.000
 can say is

712
00:36:06.100 --> 00:36:09.200
You know again Unlimited generalities.

713
00:36:11.200 --> 00:36:14.100
Maybe that's the case for next in 18 months a couple

714
00:36:14.100 --> 00:36:17.100
 of years. I don't know myself even involved on the

715
00:36:17.100 --> 00:36:21.000
 daily basis. I can't predict, you know, 2026 what

716
00:36:20.400 --> 00:36:23.400
 type of designs you're going to be out there. That's that's

717
00:36:23.400 --> 00:36:27.200
 reality. No, they're just thinking about the Rochdale envelope

718
00:36:26.200 --> 00:36:29.400
 approach and the your environmental assessment.

719
00:36:30.400 --> 00:36:30.600
and

720
00:36:32.300 --> 00:36:33.700
would it be fair to say that?

721
00:36:36.300 --> 00:36:37.700
as the technology develops

722
00:36:38.600 --> 00:36:41.500
The environmental impacts or to reduce is

723
00:36:41.500 --> 00:36:44.500
 that a fair point to put it's

724
00:36:44.500 --> 00:36:47.500

not going to get worse you you're confident you've assessed

725
00:36:47.500 --> 00:36:49.200
 in the environmental assessment. Yes.

726
00:36:50.300 --> 00:36:53.500
you know, so if you had like a 250 megawatt

727
00:36:53.500 --> 00:36:56.500
 hour system, you know, traditionally my

728
00:36:56.500 --> 00:36:57.700
 needed to the

729
00:36:59.100 --> 00:37:02.500
Way north of 900,000 cells, you know potentially you

730
00:37:02.500 --> 00:37:06.600
 could be looking at 240,000 to

731
00:37:06.600 --> 00:37:09.500
 maybe like 500,000 cells

732
00:37:09.500 --> 00:37:09.700
 so

733
00:37:11.500 --> 00:37:13.000
yes, but

734
00:37:14.200 --> 00:37:17.400
one thing I learned in battery test is never trying to predict.
What's

735
00:37:17.400 --> 00:37:20.700
 what's coming along? No, I can I'm an engineer.

736
00:37:20.700 --> 00:37:23.200
 I can understand that. You've got to know what's really going

737
00:37:23.200 --> 00:37:23.600
 to happen.

738
00:37:24.100 --> 00:37:27.400
Having worked out what you think might have so that's that's fine.

739
00:37:27.400 --> 00:37:30.400
 I think the other points is just to remember that

740
00:37:30.400 --> 00:37:34.200
 those those rockstar envelope parameters are parameters

741
00:37:33.200 --> 00:37:36.300
 in Pace for other reasons rather than battery design

742
00:37:36.300 --> 00:37:40.100
 and we are we are limited by them, whatever Innovations Mr.

743
00:37:39.100 --> 00:37:42.200
 Gregory and his colleagues come up with we're still limited by

744
00:37:42.200 --> 00:37:45.200
 those parameters that that's what we've assessed. Oh, yes, we're fixed.

745
00:37:45.200 --> 00:37:48.300
 So there's no we have to be within them

746
00:37:48.300 --> 00:37:51.600
 and you know whilst we might be well

747
00:37:51.600 --> 00:37:54.600
 within them certainly we will be within them.

748
00:37:54.600 --> 00:37:57.000
 Yeah. Thank you. That's very helpful.

749
00:37:57.700 --> 00:38:00.400
So that's that's a sort of the late sort

750
00:38:00.400 --> 00:38:01.600
 of the layout issues I suppose.

751
00:38:03.300 --> 00:38:06.300
Yes, I want to just carry on to that question before I

752
00:38:06.300 --> 00:38:09.900
 go to the floor the other

753
00:38:09.900 --> 00:38:11.700
 problem of the farrisk argument.

754
00:38:12.500 --> 00:38:15.000
and the design considerations

755
00:38:17.400 --> 00:38:20.400
with touched on it briefly, but the far risk is

756
00:38:20.400 --> 00:38:23.200
 related to volume of free air

757
00:38:23.200 --> 00:38:24.700
 and the energy stored in the

758
00:38:26.900 --> 00:38:29.600
In the battery, that's that's correct. Is

759
00:38:29.600 --> 00:38:29.600
 it?

760
00:38:31.200 --> 00:38:33.900
And how does that inform your initial designs?

761
00:38:35.300 --> 00:38:39.400
So the fire and explosion risk, you know are directly

762
00:38:38.400 --> 00:38:41.700
 proportional to the battery capacity of

763
00:38:41.700 --> 00:38:44.500
 the energy contained. Okay, like we said that, you

764
00:38:44.500 --> 00:38:49.000

know, potentially the different failure modes,

765
00:38:47.200 --> 00:38:51.400
 okay, but the mitigation

766
00:38:50.400 --> 00:38:53.400
 system when you're at a

767
00:38:53.400 --> 00:38:56.400
 detailed best design stage that the

768
00:38:56.400 --> 00:38:59.800
 battery OEM or the integrator, basically you're looking

769
00:38:59.800 --> 00:39:02.200
 into the four major areas. So

770
00:39:02.200 --> 00:39:05.500
 it's a it's a ventilation. So you

771
00:39:05.500 --> 00:39:09.400
 you don't want your environment whether it's module. It's

772
00:39:09.400 --> 00:39:13.200
 the Rack or it's the best enclosure itself you

773
00:39:12.200 --> 00:39:15.600
 want and movement in

774
00:39:15.600 --> 00:39:18.900
 there. You don't want to allow and explosive atmosphere

775
00:39:18.900 --> 00:39:21.300
 to build up and

776
00:39:21.300 --> 00:39:25.400
 okay so ventilations key.

777
00:39:27.400 --> 00:39:30.900
throughout the whole system that okay, the

778
00:39:32.300 --> 00:39:35.300
within the module itself, and the

779
00:39:35.300 --> 00:39:38.400
 pass is barriers in the space in which we touched on and also the

780
00:39:38.400 --> 00:39:42.300
 battery rack design and to basically

781
00:39:44.100 --> 00:39:47.500
try and affect the propagation capability within the

782
00:39:47.500 --> 00:39:47.900
 rack.

783
00:39:48.500 --> 00:39:49.400
and then the

784
00:39:50.600 --> 00:39:54.300
and the active thermal management cooling capability

785
00:39:53.300 --> 00:39:57.300
 that you have at module level okay to

786
00:39:56.300 --> 00:40:00.900
 again impact on that reaction.

787
00:40:00.900 --> 00:40:03.700
 So it doesn't matter whether it's Flames

788
00:40:03.700 --> 00:40:06.300
 or gas. You want to be cooling it and you

789
00:40:06.300 --> 00:40:09.600
 want to be extracting it from the environment from the enclosure of

790
00:40:09.600 --> 00:40:12.800
 whatever level it is in that system. Okay, and then

791
00:40:12.800 --> 00:40:13.500

the

792
00:40:14.900 --> 00:40:17.500
the end part of that the far protection system. So

793
00:40:17.500 --> 00:40:20.200
 the detection for example that needs to be as

794
00:40:20.200 --> 00:40:23.700
 early as possible and you know the incident

795
00:40:23.700 --> 00:40:26.400
 monitoring capability, so you're actually able to assess how

796
00:40:26.400 --> 00:40:27.000
 it's progressing.

797
00:40:27.900 --> 00:40:30.900
At different levels within that system and actually

798
00:40:30.900 --> 00:40:33.600
 the suppression system design

799
00:40:33.600 --> 00:40:36.400
 and its ability to bring the cooling to

800
00:40:36.400 --> 00:40:39.100
 the gases. And/or the Flames to stop that

801
00:40:39.100 --> 00:40:43.200
 atmosphere though. Now the reality is that unless

802
00:40:42.200 --> 00:40:44.800
 you have adequate ventilation.

803
00:40:46.700 --> 00:40:49.100
That explosive atmosphere. So

804
00:40:49.100 --> 00:40:52.300
 even with an nmc cell in a big container.

805
00:40:53.200 --> 00:40:55.200
if you've got a really

806
00:40:57.200 --> 00:41:00.300
volatile burning reaction in

807
00:41:00.300 --> 00:41:03.900
 there you burn through the oxygen in that

808
00:41:03.900 --> 00:41:06.900
 space often within very short timeframes. Okay,

809
00:41:06.900 --> 00:41:09.900
 so it's often said well and

810
00:41:09.900 --> 00:41:12.200
 MC can produce your own option. Well the

811
00:41:12.200 --> 00:41:12.900
 point is that

812
00:41:13.500 --> 00:41:16.600
Portion and oxygen you can produce it's no

813
00:41:16.600 --> 00:41:19.200
 linear enough to make up for the oxygen that you burn through

814
00:41:19.200 --> 00:41:22.500
 and that enclosure. So regardless of

815
00:41:22.500 --> 00:41:25.100
 chemistry regardless of that design if you want

816
00:41:25.100 --> 00:41:25.800
 your airflow,

817
00:41:26.600 --> 00:41:29.100
Flames and the and the gases have to be

818
00:41:29.100 --> 00:41:32.500

exhausted out of that enclosed area. Otherwise, you

819
00:41:32.500 --> 00:41:35.600
 run the risk of an explode, okay?

820
00:41:37.400 --> 00:41:40.900
Dr. Ford, and did you want to have a

821
00:41:40.900 --> 00:41:41.600
 digital points later?

822
00:41:43.700 --> 00:41:46.700
Well, we've covered a lot of ground there were several

823
00:41:46.700 --> 00:41:49.100
 points of which I am would have

824
00:41:49.100 --> 00:41:49.300
 liked to

825
00:41:50.900 --> 00:41:54.200
Interject I suppose the the principle thing

826
00:41:54.200 --> 00:41:57.300
 is that I'm actually going to agree with the

827
00:41:57.300 --> 00:42:00.100
 applicant. You'll be pleased to hear

828
00:42:00.100 --> 00:42:03.400
 and I'm a pleased to hear that the fire and explosion risk is

829
00:42:03.400 --> 00:42:07.400
 indeed proportionate to the energy storage capacity, which

830
00:42:07.400 --> 00:42:10.900
 is one of the basic points that I have been making for

831
00:42:10.900 --> 00:42:14.100
 the last two and a half years and hence why

832
00:42:13.100 --> 00:42:18.300
 it was so important to extract from

833
00:42:17.300 --> 00:42:20.600
 the applicant a number for the

834
00:42:20.600 --> 00:42:23.700
 overall system size. Now, there's

835
00:42:23.700 --> 00:42:27.900
 been a hint in what Mr.

836
00:42:26.900 --> 00:42:29.800
 Gregory has just said that he

837
00:42:29.800 --> 00:42:32.300
 accepts that limiting progression of

838
00:42:32.300 --> 00:42:35.800
 any accident. He's actually quite important now that

839
00:42:35.800 --> 00:42:38.500
 contrast rather than with what I did

840
00:42:38.500 --> 00:42:41.500
 here in his address

841
00:42:41.500 --> 00:42:44.600
 to the East Cambridge District Council

842
00:42:44.600 --> 00:42:49.300
 planning Community where he

843
00:42:49.300 --> 00:42:50.300
 said basically it is

844
00:42:51.500 --> 00:42:55.000
For an accident to go beyond a single container now,

845
00:42:54.400 --> 00:42:57.200

I don't know what basis he

846
00:42:57.200 --> 00:43:00.400
 has the same and I don't think he there is any place I

847
00:43:00.400 --> 00:43:03.600
 should say that particularly. Is there our best accidents on

848
00:43:03.600 --> 00:43:06.300
 record around the world where container to contain

849
00:43:06.300 --> 00:43:09.200
 a propagation and escalation of the event has in fact

850
00:43:09.200 --> 00:43:13.200
 occurred now as the system becomes larger

851
00:43:12.200 --> 00:43:16.100
 and larger and larger than unless

852
00:43:15.100 --> 00:43:18.800
 you can show by the most stringent engineering

853
00:43:18.800 --> 00:43:21.200
 controls that escalation from one

854
00:43:21.200 --> 00:43:24.300
 container to another is essentially impossible. Then the

855
00:43:24.300 --> 00:43:27.300
 only limit on the scale of the accident is going

856
00:43:27.300 --> 00:43:30.500
 to be the overall system size. That is why I

857
00:43:30.500 --> 00:43:34.000
 think that I'm most disappointed. Let's

858
00:43:33.200 --> 00:43:37.400
 say that the question of cabin escalation

859
00:43:36.400 --> 00:43:39.300
 of an accident doesn't really

860
00:43:39.300 --> 00:43:43.700
 seem to come anywhere in the battery

861
00:43:42.700 --> 00:43:45.500
 Fire Safety Management plans because

862
00:43:45.500 --> 00:43:48.600
 that's what has the propensity to

863
00:43:48.600 --> 00:43:51.300
 turn a bad fire or

864
00:43:51.500 --> 00:43:54.800
you can in a single best container into a

865
00:43:54.800 --> 00:43:57.800
 major disaster if it is possible at

866
00:43:57.800 --> 00:43:58.000
 all.

867
00:43:58.700 --> 00:44:01.300
For an accident to escalate from

868
00:44:01.300 --> 00:44:04.200
 Cabin one to cabin too. Then by the same token, it can escalate

869
00:44:04.200 --> 00:44:07.700
 from Cabin to two cabins three and so on Down

870
00:44:07.700 --> 00:44:10.400
 the Line. Yeah. And so what is you

871
00:44:10.400 --> 00:44:13.300
 know, the question of lowers reasonably

872
00:44:13.300 --> 00:44:16.200

practical comes into into play in these things and

873
00:44:16.200 --> 00:44:19.400
 the question then that has to be measured against the risk

874
00:44:19.400 --> 00:44:21.100
 if it is a trivial level.

875
00:44:21.700 --> 00:44:24.400
Then of course what is reasonably practical you don't really

876
00:44:24.400 --> 00:44:27.500
 have to think too much effort to demonstrate that

877
00:44:27.500 --> 00:44:30.900
 you've taken a reasonable precautions when

878
00:44:30.900 --> 00:44:33.800
 the scale is very very large. Then of

879
00:44:33.800 --> 00:44:38.700
 course the effort that you do have to go to to preempt

880
00:44:37.700 --> 00:44:40.900
 and prevent that escalation

881
00:44:40.900 --> 00:44:43.700
 into a major accident goes up

882
00:44:43.700 --> 00:44:45.400
 and I haven't read anything.

883
00:44:46.400 --> 00:44:50.000
And I haven't heard much in the setting of

884
00:44:49.400 --> 00:44:52.100
 the agenda to do with what seems to me to

885
00:44:52.100 --> 00:44:56.800
 be absolutely critical in the major accident prevention

886
00:44:55.800 --> 00:44:58.500
 in litigation, which is this question

887
00:44:58.500 --> 00:45:01.300
 of four stalling container to

888
00:45:01.300 --> 00:45:02.300
 contain resculation.

889
00:45:02.500 --> 00:45:05.500
I think I am agreed and I'm very pleased to hear

890
00:45:05.500 --> 00:45:07.600
 that. It is now accepted.

891
00:45:08.200 --> 00:45:11.800
But the overall megawatt hours of storage, um

892
00:45:11.800 --> 00:45:14.900
 is the primary driver

893
00:45:14.900 --> 00:45:17.400
 if you like of the fire and explosion

894
00:45:17.400 --> 00:45:21.400
 risk, I'll make I wanted to make another point

895
00:45:21.400 --> 00:45:24.700
 if I'm anxious to the configuration of containers. That's

896
00:45:24.700 --> 00:45:27.300
 the subject. We're on the moment. I'm waiting away from

897
00:45:27.300 --> 00:45:31.200
 well in indeed, perhaps. Okay.

898
00:45:30.200 --> 00:45:33.000
 Oh, that's fine. Thank you.

899
00:45:33.600 --> 00:45:36.600

Okay, because otherwise I was

900
00:45:36.600 --> 00:45:39.200
 going to move on to anyone else wanting to

901
00:45:39.200 --> 00:45:42.100
 make any points on the configuration of the containers.

902
00:45:44.100 --> 00:45:46.300
It's not four of just maybe use for points about.

903
00:45:47.700 --> 00:45:50.700
The rubber risk and the size of insulation you

904
00:45:50.700 --> 00:45:53.100
 can actually can I just originate? Can I

905
00:45:53.100 --> 00:45:56.400
 just can I just assure you and

906
00:45:56.400 --> 00:45:59.400
 doctor called them that we we know that

907
00:45:59.400 --> 00:46:02.900
 we have to understand that kind of consequence assessment that

908
00:46:02.900 --> 00:46:06.100
 it has to consider the whole system the point

909
00:46:05.100 --> 00:46:08.200
 that we make is that that is for

910
00:46:09.300 --> 00:46:12.700
The later stage once the system has been designed but it's

911
00:46:12.700 --> 00:46:15.300
 only if there's an acceptable finding on that

912
00:46:15.300 --> 00:46:18.600
 in terms of the consequences that the outline battery five

913
00:46:18.600 --> 00:46:21.400
 Safety Management plan is going to be approved in detail and

914
00:46:21.400 --> 00:46:24.500
 thus that will be able to operate system. So that's where

915
00:46:24.500 --> 00:46:27.700
 it comes can't do that kind of consequence assessment

916
00:46:27.700 --> 00:46:30.900
 at this stage and it wouldn't be expected another planning

917
00:46:30.900 --> 00:46:33.800
 situations. No, I think perhaps the thing to

918
00:46:33.800 --> 00:46:36.800
 be sure about is that the outline plan says

919
00:46:36.800 --> 00:46:39.200
 that you will do it. Even if you're actually done

920
00:46:39.200 --> 00:46:42.200
 it. Yeah, and I think maybe that's an area where we should

921
00:46:42.200 --> 00:46:45.400
 we think it should be understood in

922
00:46:45.400 --> 00:46:48.600
 that way but it might be an area where we need to spell that out in terms double

923
00:46:48.600 --> 00:46:52.100
 underlined. I think that might be might be helpful. I just

924
00:46:52.100 --> 00:46:56.400
 wanted to move on. Oh, sorry, you're stopped forward and briefly. I'm thankfulness

925
00:46:55.400 --> 00:46:59.800
 to read because before we

926
00:46:59.800 --> 00:47:02.200
 just assume that

927
00:47:02.200 --> 00:47:06.500
 container to contain a propagation is dealt

928
00:47:05.500 --> 00:47:08.000
 with nearly by layout.

929
00:47:08.500 --> 00:47:12.300
I'd have to point you to the incident in

930
00:47:12.300 --> 00:47:15.600
 Beijing in April 2021 when

931
00:47:15.600 --> 00:47:19.200
 there was contained to container escalation,

932
00:47:18.200 --> 00:47:21.400
 but it is what I call remote and

933
00:47:21.400 --> 00:47:24.600
 it appears to be by some kind

934
00:47:24.600 --> 00:47:27.600
 of electrical mechanism. The reports

935
00:47:27.600 --> 00:47:30.700
 say that there was probably a rapid

936
00:47:30.700 --> 00:47:33.500
 short circuit of a second container. That was

937
00:47:33.500 --> 00:47:36.300
 what produced the unexpected explosion in

938
00:47:36.300 --> 00:47:39.900
 a spatially separate second containing which

939
00:47:39.900 --> 00:47:43.000

resulted in the two fatalities and the the first

940
00:47:42.300 --> 00:47:45.100
 two foot actual fatalities that we've had

941
00:47:45.100 --> 00:47:48.400
 in less explosions so far, so it isn't

942
00:47:48.400 --> 00:47:52.200
 just a question of layout because layout would

943
00:47:51.200 --> 00:47:54.400
 certainly determine the question of

944
00:47:54.400 --> 00:47:58.100
 propagation by thermal mechanisms. But

945
00:47:57.100 --> 00:48:00.600
 of course, it will be the electrical topology

946
00:48:00.600 --> 00:48:03.600
 determine the question of propagation by electrical

947
00:48:03.600 --> 00:48:05.100
 failures. Thank you.

948
00:48:06.400 --> 00:48:09.300
Did you want to respond briefly on that point before I move

949
00:48:09.300 --> 00:48:10.000
 on? Yeah, so

950
00:48:11.800 --> 00:48:13.700
that was a very specific. So that was a

951
00:48:15.900 --> 00:48:18.600
energy storage system on top of the shopping center

952
00:48:18.600 --> 00:48:22.200
 in Beijing now the layout

953
00:48:21.200 --> 00:48:24.500
 the infrastructure that is

954
00:48:25.600 --> 00:48:29.300
Not anything that I would expect to see in

955
00:48:28.300 --> 00:48:32.300
 Sonica and you actually had firefighters.

956
00:48:33.800 --> 00:48:37.400
Within those sections attacking tackling

957
00:48:36.400 --> 00:48:39.300
 it very close quarters now.

958
00:48:41.700 --> 00:48:43.700
it's unclear perhaps

959
00:48:45.300 --> 00:48:48.900
perhaps assistance when the energized perhaps the

960
00:48:48.900 --> 00:48:52.500
 whole streams At Close Quarters led

961
00:48:51.500 --> 00:48:54.200
 to basically an electrical

962
00:48:54.200 --> 00:48:57.600
 incident that and that caused

963
00:48:57.600 --> 00:49:00.600
 those very sad fatalities with regards

964
00:49:00.600 --> 00:49:00.800
 to

965
00:49:02.300 --> 00:49:03.800
best to best propagation

966
00:49:04.800 --> 00:49:07.700

And generally it has been rare

967
00:49:07.700 --> 00:49:10.700
 and happened Victoria big battery incident

968
00:49:10.700 --> 00:49:15.200
 in Australia. And it's very

969
00:49:15.200 --> 00:49:18.400
 well documented. You know why that happened Tesla where the

970
00:49:18.400 --> 00:49:22.200
 sort of foreigners to actually burn complete

971
00:49:21.200 --> 00:49:26.100
 units and and demonstrate

972
00:49:24.100 --> 00:49:26.400
 that.

973
00:49:28.500 --> 00:49:31.200
Could contain it, you know their systems of designed to

974
00:49:31.200 --> 00:49:34.900
 self ignite. So it'll just burn through safely without any
defibrations.

975
00:49:35.400 --> 00:49:38.200
however, they had plastic heat shields and

976
00:49:38.900 --> 00:49:41.400
They had a joining container that was six inches

977
00:49:41.400 --> 00:49:44.500
 distance. So to me, it's no surprise. It

978
00:49:44.500 --> 00:49:48.200
 failed and they've taken those remedial measures the

979
00:49:47.200 --> 00:49:50.300
 point to make so think what

980
00:49:50.300 --> 00:49:53.300
just to maybe tie in and more of an overarching thing is

981
00:49:53.300 --> 00:49:56.700
thank you for now 2022. We're

982
00:49:56.700 --> 00:49:59.400
at a unprecedented level of

983
00:49:59.400 --> 00:50:02.500
new standards and revisions to codes to come

984
00:50:02.500 --> 00:50:05.600
here. Okay. So for example all the

985
00:50:05.600 --> 00:50:08.600
major URL codes including the scale of fire

986
00:50:08.600 --> 00:50:11.200
and explosion testing you have to do the best

987
00:50:11.200 --> 00:50:14.500
containers has changing and the major revisions to

988
00:50:14.500 --> 00:50:17.900
an FPA 55 and IEC, which

989
00:50:17.900 --> 00:50:20.800
do a lot of the energy story standards

990
00:50:20.800 --> 00:50:24.100
as well revise in 16933 and

991
00:50:23.100 --> 00:50:29.800
they have 12 News the I

992
00:50:29.800 --> 00:50:32.800
travel e and is looking

993

00:50:32.800 --> 00:50:35.300
 at cyber security. No looking at systems level so

994
00:50:35.300 --> 00:50:38.300
 you batch management system and energy storage

995
00:50:38.300 --> 00:50:38.700
 management.

996
00:50:39.200 --> 00:50:42.900
And codes coming in it also

997
00:50:42.900 --> 00:50:46.200
 a standard for the installation operation maintenance testing

998
00:50:45.200 --> 00:50:48.800
 replacement batteries. And you

999
00:50:48.800 --> 00:50:52.100
 know, there's even going to be a standard on design

1000
00:50:51.100 --> 00:50:54.400
 and construction of best enclosures themselves

1001
00:50:54.400 --> 00:50:57.400
 as best practice. So I think the

1002
00:50:57.400 --> 00:51:01.100
 point would be from a worry that detailed

1003
00:51:00.100 --> 00:51:03.800
 design is not brought into

1004
00:51:03.800 --> 00:51:06.500
 the stage is you know, I would say from

1005
00:51:06.500 --> 00:51:09.400
 the safety perspective 2024. If

1006
00:51:09.400 --> 00:51:12.700
 you know if safety is your main focus as it should

1007
00:51:12.700 --> 00:51:15.900
 be for anything is that by 2024 so

1008
00:51:15.900 --> 00:51:19.500
 many new standards will emerge the

1009
00:51:19.500 --> 00:51:22.000
 new testing that we've seen in America at the

1010
00:51:22.100 --> 00:51:25.600
 moment where they are initiating free Burns and

1011
00:51:25.600 --> 00:51:28.400
 full bathrooms which fluence and

1012
00:51:28.400 --> 00:51:31.400
 power and recently validate their space and

1013
00:51:31.400 --> 00:51:34.300
 show you can't get propagation. Yeah, those tasks will

1014
00:51:34.300 --> 00:51:35.700
 have been refined and improved.

1015
00:51:36.900 --> 00:51:39.400
And it's always better to be towards the middle

1016
00:51:39.400 --> 00:51:42.400
 or the end of that process that beginning because that's what

1017
00:51:42.400 --> 00:51:44.700
 we saw. We tested mistakes can get

1018
00:51:45.300 --> 00:51:48.300
Employees, you know ultimately I see in the set

1019
00:51:48.300 --> 00:51:52.200
 to the sales and marketing teams. Take over engineers

1020

```
00:51:51.200 --> 00:51:54.300
 get put to one side. That's that's never good.

1021
00:51:55.100 --> 00:51:58.300
Yeah, thank you. Thanks for that. I just wanted to move on from

1022
00:51:58.300 --> 00:52:02.800
 the configuration towards fast

1023
00:52:01.800 --> 00:52:04.400
 fashion with mentioned a

1024
00:52:04.400 --> 00:52:07.900
 bit already, but the subject

1025
00:52:07.900 --> 00:52:10.800
 to film barriers and air gaps between the

1026
00:52:10.800 --> 00:52:13.000
 modules and would you

1027
00:52:13.500 --> 00:52:16.300
 say I'm thinking question one more forty eight

1028
00:52:16.300 --> 00:52:17.300
 probably refers.

1029
00:52:18.200 --> 00:52:21.100
But would it be your conclusion an air gap?

1030
00:52:21.800 --> 00:52:23.800
It's better than a little barrier for.

1031
00:52:25.200 --> 00:52:26.000
fire suppression

1032
00:52:32.700 --> 00:52:36.000
shield and so so again areas

1033
00:52:35.300 --> 00:52:38.200
 of major testing and research so
```

1034
00:52:38.200 --> 00:52:41.300
 limited to generalities. So so one

1035
00:52:41.300 --> 00:52:45.100
 thing we're seeing which came up in the submissions as well was an

1036
00:52:44.100 --> 00:52:47.800
 ability to emergency discharge best

1037
00:52:47.800 --> 00:52:51.400
 systems. And if there

1038
00:52:51.400 --> 00:52:54.300
 was a worry about system safety So currently you

1039
00:52:54.300 --> 00:52:57.500
 can only isolate because if you want to sort of

1040
00:52:57.500 --> 00:53:00.500
 discharge Battery Systems, you're going

1041
00:53:00.500 --> 00:53:03.900
 to put a lot of heat through so if you potentially got a problem in

1042
00:53:03.900 --> 00:53:06.500
 there putting a lot of heat through in a discharge

1043
00:53:06.500 --> 00:53:09.700
 could well cause a thermal runaway. So there

1044
00:53:09.700 --> 00:53:12.000
 is a lot of testing again in North America about

1045
00:53:13.200 --> 00:53:16.300
How dangerous that is to get it down

1046
00:53:16.300 --> 00:53:19.200
 to a very low stated charge. Okay, the other

1047

00:53:19.200 --> 00:53:21.600
 big area that we're seeing alongside that is

1048
00:53:22.300 --> 00:53:25.400
Whole new variety of direct suppression system

1049
00:53:25.400 --> 00:53:28.400
 testing. So that's actually taking you know

1050
00:53:28.400 --> 00:53:31.000
 water or an acreage agent directly to the

1051
00:53:31.500 --> 00:53:35.300
 module itself. Okay, so actually outside

1052
00:53:34.300 --> 00:53:37.300
 of the passive barriers in the

1053
00:53:37.300 --> 00:53:40.400
 spacing whatever and ability to directly get to the

1054
00:53:40.400 --> 00:53:43.900
 heat and cool the glasses and

1055
00:53:43.900 --> 00:53:46.300
 typically with these bigger.

1056
00:53:47.200 --> 00:53:50.300
Cell phones at the singing. There are bigger gaps.

1057
00:53:51.500 --> 00:53:54.300
and more substantial barriers between cells

1058
00:53:55.500 --> 00:53:59.700
but some point and again, you know, you might see Mica

1059
00:53:58.700 --> 00:54:01.500
 in there creating gas

1060
00:54:01.500 --> 00:54:04.200
 channels. But the point is again, you're the type

1061
00:54:04.200 --> 00:54:07.800
 of failure response. So if you have a a multi cell

1062
00:54:07.800 --> 00:54:11.300
 response in there at some stage within

1063
00:54:10.300 --> 00:54:13.700
 that module those passive barriers

1064
00:54:13.700 --> 00:54:17.000
 access thermal insulation. So electrical ventilation

1065
00:54:16.200 --> 00:54:19.800
 is excellent you're getting out there quickly, you

1066
00:54:19.800 --> 00:54:22.400
 know, you're reflecting the heat back on the cells,

1067
00:54:22.400 --> 00:54:23.100
 so

1068
00:54:25.100 --> 00:54:28.600
In certain family moments. It's very very useful in others.

1069
00:54:28.600 --> 00:54:31.100
 You know, if you've got arching in it doesn't

1070
00:54:31.100 --> 00:54:34.000
 matter what what space and you've got to what varies you've got.

1071
00:54:34.300 --> 00:54:38.400
 You've got a big problem because you've got multi-cell energy. So I

1072
00:54:37.400 --> 00:54:40.400
 am seeing so compared

1073
00:54:40.400 --> 00:54:43.100
 to the cylindrical selves the smaller cells that

1074

00:54:43.100 --> 00:54:46.500
you're a size of people more aware of

1075
00:54:46.500 --> 00:54:50.400
your 18650 the 21700 and

1076
00:54:51.500 --> 00:54:55.600
that was a problem because typically you might only have 0.5

1077
00:54:54.600 --> 00:54:57.300
mil for green cell.

1078
00:54:57.300 --> 00:55:01.000
So the propagation could often happen very

1079
00:55:00.100 --> 00:55:03.200
rapidly. You got a site or failure

1080
00:55:03.200 --> 00:55:06.700
in the cell and you know, you blasted through a multiple cells

1081
00:55:06.700 --> 00:55:08.300
with the larger cells.

1082
00:55:09.100 --> 00:55:12.700
The passive protection and a lot of failure response does

1083
00:55:12.700 --> 00:55:15.200
give you some good protection. But like I

1084
00:55:15.200 --> 00:55:17.000
said, you still have to benefit.

1085
00:55:18.100 --> 00:55:21.400
preventing out is really the concentric feature and

1086
00:55:23.400 --> 00:55:26.500
Thank you. That's very good assistance to

1087
00:55:26.500 --> 00:55:29.600
me. I just want to move on to the next

1088
00:55:29.600 --> 00:55:32.600
 topic area. I've got which is gas emissions

1089
00:55:32.600 --> 00:55:35.400
 as we talked about far and explosions. But

1090
00:55:35.400 --> 00:55:38.200
 the other mechanism as I understand, it is

1091
00:55:38.200 --> 00:55:41.900
 vacant clouds and gas emissions unplanned emissions.

1092
00:55:41.900 --> 00:55:44.600
 I suppose we're calling them in the question set.

1093
00:55:45.700 --> 00:55:50.100
um looking at question 1146

1094
00:55:51.500 --> 00:55:53.000
leading on from that.

1095
00:55:54.400 --> 00:55:57.300
You say in your response to that but the

1096
00:55:57.300 --> 00:56:00.600
 only pollutants of concern is hydrogen fluoride HF.

1097
00:56:01.600 --> 00:56:04.500
And concentrations of HF will be below

1098
00:56:04.500 --> 00:56:07.300
 the aegel one value for

1099
00:56:07.300 --> 00:56:09.000
 reaching any sensitive receptors.

1100
00:56:09.800 --> 00:56:12.900
As such were not expected to be any adverse effects

1101

00:56:12.900 --> 00:56:13.300
 from HF.

1102
00:56:14.200 --> 00:56:17.900
The expectation is that exposure will be avoided rather

1103
00:56:17.900 --> 00:56:18.700
 than mitigated.

1104
00:56:19.900 --> 00:56:22.600
And you go on to say that it would

1105
00:56:22.600 --> 00:56:25.600
 be the responsibility of the host authorities of fire Services

1106
00:56:25.600 --> 00:56:28.300
 as First Responders to decide if

1107
00:56:28.300 --> 00:56:31.200
 measures such as evacuation or advising people to stay

1108
00:56:31.200 --> 00:56:34.500
 indoors and keep windows closed. We're appropriate.

1109
00:56:35.500 --> 00:56:38.500
So first off if you put the Mind everybody what's on

1110
00:56:38.500 --> 00:56:42.100
 the AGR one value is

1111
00:56:43.000 --> 00:56:43.300
and

1112
00:56:44.600 --> 00:56:47.300
if is this in the context the fast which

1113
00:56:47.300 --> 00:56:51.000
 are left to burn out rather than being put out. So if

1114
00:56:50.100 --> 00:56:53.200
 I could put that to you first, so Richard only for

1115
00:56:53.200 --> 00:56:55.500
 the applicant we've got Miss Muir had on the

1116
00:56:56.500 --> 00:57:00.400
I hope on the teams link.

1117
00:57:01.300 --> 00:57:02.900
and she's the

1118
00:57:04.300 --> 00:57:07.700
person responsible for the relevant

1119
00:57:07.700 --> 00:57:08.300
 part of the

1120
00:57:10.800 --> 00:57:13.500
of the es. I say that I can't

1121
00:57:13.500 --> 00:57:15.000
 see I can see.

1122
00:57:17.100 --> 00:57:17.800
and hear me

1123
00:57:18.400 --> 00:57:21.300
Yes, I can. Hello, I should say miss you had

1124
00:57:21.300 --> 00:57:24.400
 not here because she's unwell, but she's kindly diving in in any

1125
00:57:24.400 --> 00:57:25.000
 event. So

1126
00:57:26.300 --> 00:57:29.400
I'm grateful. We're also forgive that she

1127
00:57:32.800 --> 00:57:32.900
and

1128

00:57:34.300 --> 00:57:37.300
so and just give you know, please

1129
00:57:37.300 --> 00:57:40.100
 sorry. My name's Jessica head and

1130
00:57:41.100 --> 00:57:41.400
and

1131
00:57:43.300 --> 00:57:46.700
I was the author of The unplanned missions from

1132
00:57:46.700 --> 00:57:47.500
 Beth.

1133
00:57:48.100 --> 00:57:48.400
and

1134
00:57:49.800 --> 00:57:52.400
of the part of the es chapter

1135
00:57:54.400 --> 00:57:57.700
And so I think your first question was the

1136
00:57:57.700 --> 00:58:00.300
 what an aegl value.

1137
00:58:01.400 --> 00:58:04.100
Is so AGL stands for

1138
00:58:04.100 --> 00:58:07.300
 and acute exposure guideline level.

1139
00:58:08.100 --> 00:58:12.900
And so these are set

1140
00:58:11.900 --> 00:58:16.200
 by the environment

1141
00:58:15.200 --> 00:58:17.400
 Public Health, England.

1142
00:58:18.400 --> 00:58:18.800
and

1143
00:58:19.900 --> 00:58:20.100
and

1144
00:58:22.300 --> 00:58:25.600
they go they start at level one

1145
00:58:25.600 --> 00:58:30.000
 and increase in severity of Health outcomes up

1146
00:58:28.600 --> 00:58:31.000
 to level three.

1147
00:58:31.800 --> 00:58:32.700
so

1148
00:58:34.700 --> 00:58:35.400
sorry, they

1149
00:58:37.600 --> 00:58:40.700
the AEG aegl levels

1150
00:58:40.700 --> 00:58:42.000
 start at level 1

1151
00:58:43.500 --> 00:58:46.600
an increase in severity of Health outcome up to

1152
00:58:46.600 --> 00:58:47.200
 level three

1153
00:58:48.100 --> 00:58:52.600
And yep, so AG level

1154
00:58:52.600 --> 00:58:55.400
 one, which is the most conservative level

1155

00:58:55.400 --> 00:58:59.200
which is what we've used the assessment and to

1156
00:58:58.200 --> 00:59:01.100
find is to find as the

1157
00:59:01.100 --> 00:59:04.400
level of the chemical in the air above which

1158
00:59:04.400 --> 00:59:07.900
the general population could experience notable discomfort.

1159
00:59:10.900 --> 00:59:13.100
So what rock saying is

1160
00:59:13.100 --> 00:59:14.500
it is we're below that level.

1161
00:59:16.000 --> 00:59:16.400
Correct.

1162
00:59:17.200 --> 00:59:21.600
and whether this is in reference to situations

1163
00:59:20.600 --> 00:59:22.000
where

1164
00:59:23.500 --> 00:59:26.500
Fast burnout rather than being absolutely put

1165
00:59:26.500 --> 00:59:26.600
out.

1166
00:59:27.900 --> 00:59:30.500
This is a well this is so and

1167
00:59:30.500 --> 00:59:33.500
the level is it's a it's

1168
00:59:33.500 --> 00:59:36.700
a short-term exposure level. So we

1169
00:59:36.700 --> 00:59:38.800
 have modeled.

1170
00:59:39.900 --> 00:59:42.400
So that the dispersion model that we've used

1171
00:59:42.400 --> 00:59:45.400
 models in periods of

1172
00:59:45.400 --> 00:59:49.700
 an hour. That's the period of

1173
00:59:49.700 --> 00:59:52.700
 time that we have meteorological data

1174
00:59:52.700 --> 00:59:55.200
 for that. We can input into our

1175
00:59:55.200 --> 00:59:55.500
 model.

1176
00:59:56.400 --> 00:59:56.500
so

1177
00:59:58.500 --> 01:00:01.300
this is for an hour.

1178
01:00:02.300 --> 01:00:03.900
and obviously that could

1179
01:00:04.800 --> 01:00:08.300
conceivably occur for

1180
01:00:07.300 --> 01:00:09.700
 10 minutes

1181
01:00:10.900 --> 01:00:13.300
or for as long

1182

01:00:13.300 --> 01:00:16.800
 as fire me and continue. So

1183
01:00:16.800 --> 01:00:19.300
 the emission that

1184
01:00:19.300 --> 01:00:20.400
 we have assumed.

1185
01:00:21.600 --> 01:00:23.300
in this risk assessment

1186
01:00:24.200 --> 01:00:27.800
is based on five racks

1187
01:00:27.800 --> 01:00:30.900
 being burning out

1188
01:00:30.900 --> 01:00:33.700
 one time and

1189
01:00:35.100 --> 01:00:36.300
Obviously the fire.

1190
01:00:37.100 --> 01:00:40.100
May burn for a period of

1191
01:00:40.100 --> 01:00:43.500
 time such that the fire moves throughout more

1192
01:00:43.500 --> 01:00:44.700
 racks in total.

1193
01:00:45.700 --> 01:00:48.800
But the fire would

1194
01:00:48.800 --> 01:00:51.400
 have well, not necessarily the fire may

1195
01:00:51.400 --> 01:00:54.700
 not have burned out but all of the hydrogen fluoride

1196
01:00:54.700 --> 01:00:58.600
 available for consumption and

1197
01:00:58.600 --> 01:01:01.100
 and burning would have been used up.

1198
01:01:02.500 --> 01:01:05.200
Before the fire and started in

1199
01:01:05.200 --> 01:01:09.400
 the next rack along. So it's a

1200
01:01:09.400 --> 01:01:12.500
 conservative estimate of the

1201
01:01:15.700 --> 01:01:18.300
total amount that could be released in any one

1202
01:01:18.300 --> 01:01:19.600
 hour period

1203
01:01:20.700 --> 01:01:24.200
that's very helpful and buying fluency

1204
01:01:24.200 --> 01:01:26.300
 could apply in our situation.

1205
01:01:27.400 --> 01:01:30.600
Yes, that's correct. Thank you. That's very

1206
01:01:30.600 --> 01:01:33.200
 helpful. We're coming

1207
01:01:33.200 --> 01:01:35.900
 to the fashion fast Safety Management plan. Later.

1208
01:01:37.100 --> 01:01:40.400
But some I'm just thinking also on

1209

01:01:40.400 --> 01:01:41.600
 this subject.

1210
01:01:42.700 --> 01:01:44.900
the question one month 50

1211
01:01:45.400 --> 01:01:48.200
You mentioned HF gas emissions and

1212
01:01:48.200 --> 01:01:51.800
 say this is a gas would not therefore not

1213
01:01:51.800 --> 01:01:53.200
 deposit on land or water.

1214
01:01:54.100 --> 01:01:57.200
But I wonder if that's always the case and whether

1215
01:01:57.200 --> 01:02:00.500
 there are mechanisms for absorption through plants or through

1216
01:02:00.500 --> 01:02:01.500
 water services.

1217
01:02:03.900 --> 01:02:04.100
the

1218
01:02:06.100 --> 01:02:09.500
the predominant reason that we haven't and looked at

1219
01:02:09.500 --> 01:02:13.500
 the ecological impacts of HF,

1220
01:02:12.500 --> 01:02:15.100
 is that the

1221
01:02:17.100 --> 01:02:20.700
Ecological guidelines for exposure to

1222
01:02:20.700 --> 01:02:23.100
 hydrogen fluoride are based on

1223
01:02:23.100 --> 01:02:27.100
 long-term exposure. So annual

1224
01:02:26.100 --> 01:02:30.100
 means and this would

1225
01:02:29.100 --> 01:02:32.400
 not be the case here.

1226
01:02:32.400 --> 01:02:35.600
 This is a short this

1227
01:02:35.600 --> 01:02:38.500
 would you know, obviously it's not

1228
01:02:38.500 --> 01:02:41.400
 planned to occur at all. But if it were to

1229
01:02:41.400 --> 01:02:44.800
 occur it would be a short-term

1230
01:02:44.800 --> 01:02:47.500
 acute exposure not a

1231
01:02:47.500 --> 01:02:49.600
 long-term chronic exposure, so

1232
01:02:51.200 --> 01:02:55.400
It's not considered to be a risk

1233
01:02:55.400 --> 01:02:58.400
 of leading to

1234
01:02:58.400 --> 01:03:01.600
 those kinds of concentrations over a

1235
01:03:01.600 --> 01:03:06.800
 long period of time that could cause damage to ecosystems.

1236

01:03:08.100 --> 01:03:12.400
And that's the main reason why it wasn't assessed in

1237
01:03:11.400 --> 01:03:12.600
 that way.

1238
01:03:14.300 --> 01:03:17.900
Thanks very much. Hope you better soon. Thank you.

1239
01:03:20.400 --> 01:03:23.500
Is there anything that anyone would like speak

1240
01:03:23.500 --> 01:03:25.200
 to from the floor doctor for them?

1241
01:03:26.500 --> 01:03:29.200
Thank you, Mr. Rigby. First of all,

1242
01:03:29.200 --> 01:03:32.800
 I would like to object to the neglect

1243
01:03:32.800 --> 01:03:35.600
 of all toxic. It's apart

1244
01:03:35.600 --> 01:03:39.200
 from hydrogen fluoride carbon monoxide

1245
01:03:38.200 --> 01:03:42.400
 has been mentioned carbon monoxide,

1246
01:03:42.400 --> 01:03:45.800
 of course those flammable in assessing the

1247
01:03:45.800 --> 01:03:48.400
 fire and explosion risk, but it

1248
01:03:48.400 --> 01:03:51.500
 is also a toxic and it's rather difficult to evaluate because

1249
01:03:51.500 --> 01:03:54.500
 of course how much carbon monoxide you might generate in

1250
01:03:54.500 --> 01:03:55.000
 the battery.

1251
01:03:55.700 --> 01:03:58.100
Depends upon the Air Supply to it.

1252
01:03:58.100 --> 01:04:01.500
 If there's Ellen polar supply, of course, you know, you'll realize

1253
01:04:01.500 --> 01:04:04.400
 that straight away, you know, you're going to oxidize straight away to

1254
01:04:04.400 --> 01:04:07.300
 CO2 and it won't be a problem. If there is

1255
01:04:07.300 --> 01:04:10.300
 smothering of any kind then

1256
01:04:10.300 --> 01:04:14.100
 of course, you might expect to get carbon monoxide

1257
01:04:13.100 --> 01:04:16.500
 in addition. So they're you know that really

1258
01:04:16.500 --> 01:04:19.700
 and in the paper I wrote with today novel that,

1259
01:04:19.700 --> 01:04:22.100
 you know could be a serious contributed to

1260
01:04:22.100 --> 01:04:26.100
 the overall toxic gases. Like

1261
01:04:25.100 --> 01:04:28.300
 now the other thing

1262
01:04:28.300 --> 01:04:32.900
 that hasn't been mentioned is hydrogen cyanide. Now

1263
01:04:31.900 --> 01:04:35.000
 that of course doesn't really

1264
01:04:34.300 --> 01:04:37.700
 come from the functional materials of

1265
01:04:37.700 --> 01:04:40.900
 the best cells and cells because they aren't dominating by

1266
01:04:40.900 --> 01:04:43.600
 any nitrogen containing chemicals. It probably

1267
01:04:43.600 --> 01:04:47.100
 comes from the ancillary Plastics, but in the

1268
01:04:46.100 --> 01:04:49.300
 Lincoln incident in

1269
01:04:49.300 --> 01:04:53.300
 particular that was a reported Hazard

1270
01:04:52.300 --> 01:04:55.300
 and concern to the firefighters.

1271
01:04:55.600 --> 01:04:58.700
They had to be wearing breathing apparators in

1272
01:04:58.700 --> 01:05:01.500
 order to be avoid being overcome by

1273
01:05:01.500 --> 01:05:04.900
 hydrogen cyanide. So the the

1274
01:05:04.900 --> 01:05:07.600
 neglect of everything apart from HF, I

1275
01:05:07.600 --> 01:05:10.400
 think is fundamentally wrong. There's no mention of

1276
01:05:10.400 --> 01:05:13.400

the unstable toxic fluorides like

1277
01:05:13.400 --> 01:05:17.100
 phosphoryl fluoride which has been reported in some

1278
01:05:16.100 --> 01:05:19.900
 of the more careful laboratory investigations

1279
01:05:19.900 --> 01:05:22.200
 and there's no mention

1280
01:05:22.200 --> 01:05:27.400
 at all of our toxic smokes and

1281
01:05:25.400 --> 01:05:29.100
 I'm thinking here particularly of

1282
01:05:28.100 --> 01:05:32.300
 the nanoparticles or inhalable

1283
01:05:31.300 --> 01:05:34.300
 particles sizes of the

1284
01:05:34.300 --> 01:05:37.600
 nickel oxides and probably the manganese

1285
01:05:37.600 --> 01:05:40.900
 and well, the reason I concentrated

1286
01:05:40.900 --> 01:05:43.400
 the nickel oxides smokes is that we

1287
01:05:43.400 --> 01:05:46.400
 know from Professor christensen's experiments that the

1288
01:05:46.400 --> 01:05:50.300
 first thing that happens in a cell that

1289
01:05:50.300 --> 01:05:53.300
 goes into the more runaway and it's ruts is you get

1290
01:05:53.300 --> 01:05:55.300
 an emission of a black smoke which

1291
01:05:56.100 --> 01:05:59.000
Um confirmed I think it's it's more than

1292
01:05:59.600 --> 01:06:03.400
 believed to contain, um nickel oxide

1293
01:06:03.400 --> 01:06:06.200
 in inhalable form and the point I read the reason

1294
01:06:06.200 --> 01:06:09.800
 I mentioned that inhalable form is that it's a potent carcinogen.
And

1295
01:06:09.800 --> 01:06:12.900
 for that reason it is a named

1296
01:06:12.900 --> 01:06:15.600
 hazardous substance in the Hazardous substances and

1297
01:06:15.600 --> 01:06:18.500
 comar regulations. So I think that the

1298
01:06:18.500 --> 01:06:22.200
 the dismissal of smokes on

1299
01:06:21.200 --> 01:06:24.000
 the failure to considers snakes as well

1300
01:06:24.300 --> 01:06:27.300
 as these other toxic gases that I've recited is

1301
01:06:27.300 --> 01:06:30.800
 actually a serious defect of the whole analysis now

1302
01:06:30.800 --> 01:06:33.900
 coming back if I may to

1303

01:06:33.900 --> 01:06:39.200
 the question of hydrogen fluoride and this appendix

1304
01:06:36.200 --> 01:06:39.400
 16

1305
01:06:39.400 --> 01:06:43.300
 D on the unplanned atmospheric conditions. It's

1306
01:06:42.300 --> 01:06:45.500
 all very well to how they dispersion model

1307
01:06:45.500 --> 01:06:48.300
 and I think that the basic mechanics that go into those

1308
01:06:48.300 --> 01:06:52.100
 models is it's fundamentally sound it wouldn't have any problem

1309
01:06:51.100 --> 01:06:55.200
 with it, but the trouble is it's the

1310
01:06:54.200 --> 01:06:55.600
 old question.

1311
01:06:55.700 --> 01:06:58.700
Live when they whether you get yourself a dico, you

1312
01:06:58.700 --> 01:07:01.400
 know a garbage in garbage out. It can only be as

1313
01:07:01.400 --> 01:07:04.200
 good as the input data that you put into it

1314
01:07:04.200 --> 01:07:07.200
 Professor Christensen. I

1315
01:07:07.200 --> 01:07:10.500
 think picks up on the assumed emission rate, which is

1316
01:07:10.500 --> 01:07:13.600
 in that report which is you know, apparently plucked

1317
01:07:13.600 --> 01:07:16.200
 out of there. But the most

1318
01:07:16.200 --> 01:07:21.200
 serious thing that I have to say about that appendix 16d

1319
01:07:20.200 --> 01:07:24.200
 concerns the overall HF

1320
01:07:23.200 --> 01:07:27.100
 flow which we had the applicant's

1321
01:07:26.100 --> 01:07:30.300
 colleague on the on the

1322
01:07:30.300 --> 01:07:34.200
 Remote Link just a while ago and if

1323
01:07:33.200 --> 01:07:36.300
 one goes to table four in that

1324
01:07:36.300 --> 01:07:39.500
 document once talking about HF content

1325
01:07:39.500 --> 01:07:43.100
 in the five rats, that is the reference case, it's five

1326
01:07:42.100 --> 01:07:45.400
 reps 35. No, I don't accept that

1327
01:07:45.400 --> 01:07:48.500
 credible worst case accident at all.

1328
01:07:48.500 --> 01:07:52.400
 I think could take all 35 friends, but the

1329
01:07:51.400 --> 01:07:54.500
 evaluation is

1330

01:07:54.500 --> 01:07:55.700
 made for one kilo.

1331
01:07:55.700 --> 01:07:58.600
Two kilos and three kilos now.

1332
01:07:58.600 --> 01:08:01.400
 I cannot reconcile that load at all

1333
01:08:01.400 --> 01:08:04.200
 with the stand. What is now

1334
01:08:04.200 --> 01:08:07.400
 appears to do the Standard Electric literature reference for the

1335
01:08:07.400 --> 01:08:11.600
 emissions of hydrogen fluoride

1336
01:08:10.600 --> 01:08:14.900
 from a best

1337
01:08:13.900 --> 01:08:16.900
 cells or Libyan battery

1338
01:08:16.900 --> 01:08:19.700
 cells, which is Lawson which

1339
01:08:19.700 --> 01:08:22.700
 I've got here and is one of my annexes and

1340
01:08:22.700 --> 01:08:25.800
 the the irony here. Is that although this

1341
01:08:25.800 --> 01:08:28.800
 appendix 16 D is based upon

1342
01:08:28.500 --> 01:08:32.000
 um, a laboratory report from 2013

1343
01:08:31.400 --> 01:08:34.200
 by Anderson and

1344
01:08:34.200 --> 01:08:37.900
 the standard reference

1345
01:08:37.900 --> 01:08:40.700
 turns out to be by the self-same author

1346
01:08:40.700 --> 01:08:43.500
 team. It just happens to muted the order of the authors

1347
01:08:43.500 --> 01:08:46.700
 Petra Anderson is here in the published peer reviewed

1348
01:08:46.700 --> 01:08:49.400
 paper inside reports part of

1349
01:08:49.400 --> 01:08:52.600
 the nature portfolio. It's very important that

1350
01:08:52.600 --> 01:08:54.200
 that's been out of date now,

1351
01:08:55.600 --> 01:08:59.700
Indeed a laboratory report from 2013 is

1352
01:08:58.700 --> 01:09:01.400
 indeed fully out of date

1353
01:09:01.400 --> 01:09:04.700
 when the self-same authors have put out a peer-reviewed

1354
01:09:04.700 --> 01:09:07.400
 paper in the nature stable in scientific

1355
01:09:07.400 --> 01:09:10.600
 reports, which is now widely cited

1356
01:09:10.600 --> 01:09:13.700
 and they quote these figures between 20 and

1357

01:09:13.700 --> 01:09:16.900
 200 milligrams per watt hour easy enough

1358
01:09:16.900 --> 01:09:19.500
 numbers to remember now if I

1359
01:09:19.500 --> 01:09:22.100
 take those numbers and of course, I have

1360
01:09:22.100 --> 01:09:25.400
 to guess how many megawatt hours and

1361
01:09:25.400 --> 01:09:28.600
 represented by these five rats because the applicants

1362
01:09:28.600 --> 01:09:31.400
 still can't tell us that if I

1363
01:09:31.400 --> 01:09:34.200
 assume that one whole cabinet is five megawatt hours,

1364
01:09:34.200 --> 01:09:38.000
 which I do think is a reasonable estimate getting

1365
01:09:37.300 --> 01:09:40.800
 the size of the containers. Then I

1366
01:09:40.800 --> 01:09:43.500
 I find that these one two,

1367
01:09:43.500 --> 01:09:46.200
 and three one two, three years two kilos is

1368
01:09:46.200 --> 01:09:49.400
 understating the load of HF by a

1369
01:09:49.400 --> 01:09:52.300
 factor of seven. That's even upon their

1370
01:09:52.300 --> 01:09:53.500
 own terms.

1371
01:09:54.100 --> 01:09:57.400
Now I'd also like to draw your attention if

1372
01:09:57.400 --> 01:10:00.500
 I may to the Atkins report

1373
01:10:00.500 --> 01:10:03.400
 that was done for health and

1374
01:10:03.400 --> 01:10:06.500
 safety executive in Northern Ireland. I have it here. I think it's nice.

1375
01:10:06.500 --> 01:10:09.500
 Is that something that we've got? It absolutely is

1376
01:10:09.500 --> 01:10:13.300
 something it's a Rigby. It's there. I think it's an easy 28

1377
01:10:12.300 --> 01:10:16.000
 that's full of sound and that is

1378
01:10:15.300 --> 01:10:18.100
 there a kid, you know

1379
01:10:18.100 --> 01:10:21.400
 actions you'll be fully aware. It's gonna Top

1380
01:10:21.400 --> 01:10:24.100
 Flight Consulting Engineers for as long as I can

1381
01:10:24.100 --> 01:10:27.500
 remember them and they did do

1382
01:10:27.500 --> 01:10:30.400
 this report for the agency in Northern Ireland.

1383
01:10:30.400 --> 01:10:34.500
 They use the Larson results

1384
01:10:34.500 --> 01:10:38.900
 20 to 200 milligrams per

1385
01:10:38.900 --> 01:10:41.400
 water and they have their own

1386
01:10:41.400 --> 01:10:44.500
 atmospheric model which takes a representative

1387
01:10:44.500 --> 01:10:47.400
 representative reference find that what

1388
01:10:47.400 --> 01:10:51.100
 our best and they produce their own room dispersion

1389
01:10:50.100 --> 01:10:52.700
 models with expectant to do

1390
01:10:54.100 --> 01:10:58.500
It's of course what they're then doing is that involves.

1391
01:10:58.500 --> 01:11:02.200
 This would correspond to 1,000 kilos.

1392
01:11:03.900 --> 01:11:06.300
a whole ton a whole

1393
01:11:06.300 --> 01:11:07.400
 tongue and yet

1394
01:11:08.300 --> 01:11:11.300
In that accidentally did the

1395
01:11:11.300 --> 01:11:14.800
 Young the appendix 16d wherever it's gone doesn't

1396
01:11:14.800 --> 01:11:17.200
 matter. They're talking about one. Kilo. Now. This is this is

1397
01:11:17.200 --> 01:11:19.000

out of line by a factor of 500.

1398
01:11:20.300 --> 01:11:23.200
Thank you way way out of line and I'm

1399
01:11:23.200 --> 01:11:26.700
 absolutely unable to reconcile this and I find it astonishing that

1400
01:11:26.700 --> 01:11:29.700
 the applicant is relying upon and citing a

1401
01:11:29.700 --> 01:11:32.700
 2013 lab report when the same authors

1402
01:11:32.700 --> 01:11:35.800
 have done and really rather good peer reviewing

1403
01:11:35.800 --> 01:11:38.800
 paper dated 27 2017, which

1404
01:11:38.800 --> 01:11:41.600
 has been picked up by the regulatory agency

1405
01:11:41.600 --> 01:11:45.900
 at least in Northern Ireland. Thanks very much affordable would

1406
01:11:44.900 --> 01:11:47.200
 care to respond

1407
01:11:47.200 --> 01:11:51.400
 to that. I think giving it the next question is not

1408
01:11:51.400 --> 01:11:54.200
 here those who are in the

1409
01:11:54.200 --> 01:11:57.600
 room including this to Gregory. I think we'll come back to them
writing it if we

1410
01:11:57.600 --> 01:12:00.600
 may not be part

1411
01:12:00.600 --> 01:12:03.100
 of your personality. I think one thing I

1412
01:12:03.100 --> 01:12:06.800
 just would comment on the moment is that this is really why

1413
01:12:06.800 --> 01:12:09.500
 we say consequence assessment comes later, but I

1414
01:12:09.500 --> 01:12:13.000
 know you want to be satisfied as the advocacy. Yes, but consequence

1415
01:12:12.300 --> 01:12:15.600
 assessment must come later as our is the thrust on this.

1416
01:12:17.100 --> 01:12:20.100
Thank you, and I just briefly out. Yes. So

1417
01:12:20.100 --> 01:12:23.200
 can you give you no, please so if you

1418
01:12:23.200 --> 01:12:25.000
 turn my internal microphones and we hear

1419
01:12:26.900 --> 01:12:29.100
Okay. Yeah, I just want to make sure it comes

1420
01:12:29.100 --> 01:12:32.200
 out on the recording so that when people listen later, yeah, we've
spoken

1421
01:12:32.200 --> 01:12:32.500
 so

1422
01:12:33.500 --> 01:12:36.500
you l958. Can you give your name into the microphone? So

1423
01:12:36.500 --> 01:12:37.900
 Paul Gregory? Okay.

1424
01:12:39.100 --> 01:12:43.000
So UL 95408 testing absolutely

1425
01:12:42.900 --> 01:12:45.600
 conducts the toxic gas

1426
01:12:45.600 --> 01:12:48.900
 Mission and the particle analysis.

1427
01:12:49.700 --> 01:12:52.600
At cell and module level. Okay. So

1428
01:12:52.600 --> 01:12:55.300
 from a bad system perspective. We're not talking about

1429
01:12:55.300 --> 01:12:58.500
 a paper in 2017, which involve

1430
01:12:58.500 --> 01:13:01.800
 small scale batteries which when energy storage batteries

1431
01:13:01.800 --> 01:13:04.800
 as of alluded to earlier the variables in

1432
01:13:04.800 --> 01:13:08.600
 the mixture, so the battery OEM knows emissions

1433
01:13:08.600 --> 01:13:11.600
 because the content they've got within their self that

1434
01:13:11.600 --> 01:13:14.900
 varies within chemistry with different Coatings and additional mixes

1435
01:13:14.900 --> 01:13:16.800
 you have this is fully

1436
01:13:17.400 --> 01:13:20.500
Find in UL testing. So therefore your

1437

01:13:20.500 --> 01:13:23.500
 actual so rather than assumptions on.

1438
01:13:24.300 --> 01:13:26.900
emissions Etc the actual

1439
01:13:28.300 --> 01:13:31.500
capability of that battery system

1440
01:13:31.500 --> 01:13:34.800
 and what it emits is defined and

1441
01:13:34.800 --> 01:13:37.200
 the consequence modeling uses that

1442
01:13:37.200 --> 01:13:41.400
 data to produce accurate marketing So

1443
01:13:40.400 --> 01:13:43.200
 that obviously the detailed design

1444
01:13:43.200 --> 01:13:46.000
 stage when you know what your battery system is.

1445
01:13:46.900 --> 01:13:49.400
Sorry to button here. We're just

1446
01:13:49.400 --> 01:13:52.000
 going to pause for a minute if you're better off.

1447
01:14:35.900 --> 01:14:40.000
Thanks very much. And so acutely conscious

1448
01:14:39.100 --> 01:14:43.200
 of the time here and the fact that some people

1449
01:14:42.200 --> 01:14:45.600
 have been waiting patient before the other

1450
01:14:45.600 --> 01:14:48.300
 item on the agenda, which is the public rights of

1451
01:14:48.300 --> 01:14:51.700
 way. And what we're going to aim to do if the parties

1452
01:14:51.700 --> 01:14:55.800
 are willing for that item or able to well the

1453
01:14:55.800 --> 01:14:58.700
 panel are prepared to sit till 5:30 or

1454
01:14:58.700 --> 01:15:01.200
 so in order to complete that

1455
01:15:01.200 --> 01:15:04.200
 item with that presents problem

1456
01:15:04.200 --> 01:15:04.900
 with anyone.

1457
01:15:07.300 --> 01:15:11.200
All right a bit of a long day, but hopefully we

1458
01:15:10.200 --> 01:15:13.300
 can make some progress that way then so

1459
01:15:13.300 --> 01:15:16.300
 and thank you very much Mr. So, could I

1460
01:15:16.300 --> 01:15:19.300
 just make one point if I

1461
01:15:19.300 --> 01:15:22.400
 may wait for the Johnsons to steal this thing

1462
01:15:22.400 --> 01:15:25.600
 about I'm I have a pressing method.

1463
01:15:25.600 --> 01:15:28.300
 I've this afternoon. I must be within

1464

01:15:28.300 --> 01:15:31.800
 five o'clock. So if I'm not here then Mr. Gazellka

1465
01:15:31.800 --> 01:15:34.700
 will be able to take the my position my apologies

1466
01:15:34.700 --> 01:15:37.200
 for having not been in a room, but it's just question of

1467
01:15:37.200 --> 01:15:40.300
 getting in there for a few minutes. No, I'd stand

1468
01:15:40.300 --> 01:15:43.600
 and thank you very much for letting us know that thank you.

1469
01:15:45.800 --> 01:15:48.300
Thank you very much, Mr. King before I

1470
01:15:48.300 --> 01:15:51.300
 move on to the last of my brother fourth my

1471
01:15:51.300 --> 01:15:51.800
 five.

1472
01:15:52.700 --> 01:15:53.200
points

1473
01:15:55.300 --> 01:15:58.200
to the county councils here. Are there any

1474
01:15:58.200 --> 01:16:01.100
 First Responders present here? I was thinking the

1475
01:16:01.100 --> 01:16:04.500
 far and rescue folks or whether it's anybody who wishes to

1476
01:16:04.500 --> 01:16:07.300
 make any points on their behalf with her want

1477
01:16:07.300 --> 01:16:08.800
 to references to First Responders.

1478
01:16:10.200 --> 01:16:13.200
So Michael Bedford Suffolk County

1479
01:16:13.200 --> 01:16:17.000
 Council, and obviously the foreign rescue service within or

1480
01:16:16.300 --> 01:16:19.900
 under the County Council. So our position

1481
01:16:19.900 --> 01:16:23.600
 on what has been a fascinating afternoon in

1482
01:16:23.600 --> 01:16:26.600
 terms of technical detail is that

1483
01:16:26.600 --> 01:16:30.000
 we do take the point that the

1484
01:16:29.500 --> 01:16:32.600
 applicant has made that

1485
01:16:34.900 --> 01:16:37.600
A lot ultimately will depend

1486
01:16:37.600 --> 01:16:40.600
 on matters of detail which

1487
01:16:40.600 --> 01:16:43.100
 will come at a later stage in the

1488
01:16:43.100 --> 01:16:44.700
 evolution of the project.

1489
01:16:45.800 --> 01:16:48.200
And so from our perspective what's important

1490
01:16:48.200 --> 01:16:49.000
 to us?

1491

01:16:50.200 --> 01:16:53.600
Is that there is an adequate regulatory regime in

1492
01:16:53.600 --> 01:16:56.700
 place to regulate that when that stage

1493
01:16:56.700 --> 01:17:00.400
 is reached. Now the principle obviously

1494
01:16:59.400 --> 01:17:04.000
 of the outline battery Safety Management plan.

1495
01:17:03.700 --> 01:17:07.000
 We have seen and we

1496
01:17:06.200 --> 01:17:10.300
 see them update to that exactly leads

1497
01:17:09.300 --> 01:17:12.900
 into the detail battery

1498
01:17:12.900 --> 01:17:15.500
 Safety Management plan, which will come at

1499
01:17:15.500 --> 01:17:19.200
 the latest age. When a lot of these were uncertainties

1500
01:17:18.200 --> 01:17:21.800
 will have become more crystallized and

1501
01:17:21.800 --> 01:17:24.000
 therefore can be roughly assessed.

1502
01:17:24.600 --> 01:17:27.100
The point that we stress and we

1503
01:17:27.100 --> 01:17:30.500
 think that we've now hopefully reached a common

1504
01:17:30.500 --> 01:17:34.200
 position both between the authorities and

```
1505
01:17:33.200 --> 01:17:35.600
 the applicant.

1506
01:17:36.400 --> 01:17:40.400
Is that provided that the discharging

1507
01:17:39.400 --> 01:17:43.200
 Authority for the detailed battery

1508
01:17:42.200 --> 01:17:45.700
 Safety Management plan is the

1509
01:17:45.700 --> 01:17:48.700
 appropriate County councils, which

1510
01:17:48.700 --> 01:17:51.700
 are responsible for the foreign rescue service

1511
01:17:51.700 --> 01:17:55.000
 that gives us the confidence that

1512
01:17:54.200 --> 01:17:57.000
 we will be able to Grapple with

1513
01:17:57.600 --> 01:18:00.500
 that level of technical detail at that stage

1514
01:18:00.500 --> 01:18:03.300
 and be able to sign off that

1515
01:18:03.300 --> 01:18:06.700
 which is appropriate and also reject that which

1516
01:18:06.700 --> 01:18:10.900
 is inappropriate. And we you

1517
01:18:09.900 --> 01:18:12.000
 will recall that when we

1518
```

01:18:12.300 --> 01:18:15.400
 were dealing with the dco it was a common position between

1519
01:18:15.400 --> 01:18:18.600
 the County Council and the district council that that

1520
01:18:18.600 --> 01:18:21.600
 was accepted and I think requirements seven

1521
01:18:21.600 --> 01:18:24.600
 in schedule to the requirements. We understand

1522
01:18:24.600 --> 01:18:27.300
 the informally from the applicants that

1523
01:18:27.300 --> 01:18:30.400
 that's also now their position. It's not reflected in the

1524
01:18:30.400 --> 01:18:33.500
 documents currently before the examination, but we

1525
01:18:33.500 --> 01:18:36.300
 understand that the next iteration of the doc.

1526
01:18:36.400 --> 01:18:39.100
Station will catch up with that and if that could

1527
01:18:39.100 --> 01:18:42.300
 be confirmed that would be helpful. But that's really the
contribution that

1528
01:18:42.300 --> 01:18:45.000
 we want to make to this afternoon's discussion.

1529
01:18:45.700 --> 01:18:48.200
Thank you very much Mr. Bad for that's that's very helpful,

1530
01:18:48.200 --> 01:18:51.400
 because that was going to ask that question, which

1531
01:18:51.400 --> 01:18:54.600

you you just answered for me basically that

1532
01:18:54.600 --> 01:18:55.500
 you're satisfied.

1533
01:18:56.400 --> 01:18:59.100
Or if not, totally satisfied you will let the

1534
01:18:59.100 --> 01:18:59.500
 applicant know.

1535
01:19:00.500 --> 01:19:03.200
That everything you want to see in the outline plan is

1536
01:19:03.200 --> 01:19:06.300
 actually there so you can be considered in detail. Later.

1537
01:19:11.200 --> 01:19:15.000
I'm not sure what I'm saying. We are satisfied but we've providentified

1538
01:19:14.300 --> 01:19:17.200
 there is a mechanism which will enable us

1539
01:19:17.200 --> 01:19:20.400
 to be satisfied. Thank you because just going

1540
01:19:20.400 --> 01:19:21.100
 to move on to the

1541
01:19:22.200 --> 01:19:25.800
Multi things related to the outline Safety Management

1542
01:19:25.800 --> 01:19:29.100
 plan. So you'll

1543
01:19:28.100 --> 01:19:31.200
 have the opportunity to comment on

1544
01:19:31.200 --> 01:19:34.900
 what we're saying today in your submissions office. Thank

1545
01:19:34.900 --> 01:19:38.200
 you to help to also just

1546
01:19:37.200 --> 01:19:41.400
 saying sorry. No. No, Mr. Mohammed

1547
01:19:41.400 --> 01:19:44.800
 on behalf of the district council and Cambridge County

1548
01:19:44.800 --> 01:19:46.700
 Council. Thank you just to confirm that.

1549
01:19:47.600 --> 01:19:50.300
Mr. Bedford speaks for for us as

1550
01:19:50.300 --> 01:19:54.100
 well in what he's just said just so that you have that record.
Thank

1551
01:19:53.100 --> 01:19:55.500
 you very much indeed Mr. Howard.

1552
01:19:56.800 --> 01:19:58.700
So if I could move on to

1553
01:20:00.800 --> 01:20:03.400
matters related to the outline battery for our Safety Management

1554
01:20:03.400 --> 01:20:04.100
 plan.

1555
01:20:07.200 --> 01:20:08.500
And we spoke earlier.

1556
01:20:09.600 --> 01:20:12.600
About it being a responsibility of the host authorities

1557
01:20:12.600 --> 01:20:15.800
 and the fire Services as First Responders to decide

1558
01:20:15.800 --> 01:20:18.000
 if measures and I quote such as

1559
01:20:18.700 --> 01:20:21.300
 evacuation or advising people to stay indoors and keep windows

1560
01:20:21.300 --> 01:20:21.900
 closed.

1561
01:20:22.800 --> 01:20:25.100
Is this issue currently captured in

1562
01:20:25.100 --> 01:20:25.900
 the outline?

1563
01:20:26.700 --> 01:20:28.100
after file Safety Management plan

1564
01:20:31.900 --> 01:20:34.700
And if not, should you think it should be in it? But

1565
01:20:34.700 --> 01:20:37.200
 Richard anything? I think it's not.

1566
01:20:38.800 --> 01:20:41.900
if that's something that we need to mention it to

1567
01:20:41.900 --> 01:20:44.200
 be honest, it's really a consideration for others for the

1568
01:20:44.200 --> 01:20:46.500
 for the Emergency Services rather than for

1569
01:20:47.900 --> 01:20:51.100
The applicant but if

1570
01:20:50.100 --> 01:20:53.500
 it's something that needs to be acknowledged or

1571
01:20:53.500 --> 01:20:56.100

identified in that plan, then we can include appropriate wording.

1572
01:20:56.600 --> 01:20:59.200
Thank you. Well, I'm sure Mr. Bedford's just

1573
01:20:59.200 --> 01:21:02.500
 spoken to that point and I think if they do want to make a

1574
01:21:02.500 --> 01:21:04.200
 comment. I'm sure that they will.

1575
01:21:04.800 --> 01:21:05.400
Yes.

1576
01:21:07.900 --> 01:21:10.300
Book Gregory. So yeah, just just to clarify

1577
01:21:10.300 --> 01:21:14.500
 that so typically the emergency response plan happens

1578
01:21:13.500 --> 01:21:15.800
 at the detail of the side.

1579
01:21:17.200 --> 01:21:21.100
As you're going into the detail design stage to get the farm
raspberry

1580
01:21:20.100 --> 01:21:21.600
 service on board.

1581
01:21:22.700 --> 01:21:25.400
There is there has been a movement this year to

1582
01:21:25.400 --> 01:21:28.500
 develop Global and National templates. Okay.

1583
01:21:28.500 --> 01:21:31.700
 So personally with other projects I'm

1584
01:21:31.700 --> 01:21:34.400
 in touch with the UK National Fire Chiefs

1585
01:21:34.400 --> 01:21:37.300
 Council for example and early next year. They are

1586
01:21:37.300 --> 01:21:42.000
 releasing their guidelines for

1587
01:21:41.700 --> 01:21:44.700
 emergency response planning for for best

1588
01:21:44.700 --> 01:21:47.800
 and FPA 855 has produced

1589
01:21:47.800 --> 01:21:50.400
 a template as well, which we're looking at and there's

1590
01:21:50.400 --> 01:21:54.100
 a commitment in the plan that in conjunction

1591
01:21:53.100 --> 01:21:57.200
 with crfs srfs the

1592
01:21:56.200 --> 01:22:00.300
 National Fire Chiefs Council the NFPA

1593
01:21:59.300 --> 01:22:02.700
 855 template and also

1594
01:22:02.700 --> 01:22:05.400
 there's a template in development by the Electric

1595
01:22:05.400 --> 01:22:09.100
 Power Research Institute epri and

1596
01:22:08.100 --> 01:22:11.300
 the First Responders that we will take all this

1597
01:22:11.300 --> 01:22:14.800
 on board. I mean I could briefly just thought through

1598

01:22:14.800 --> 01:22:17.300
 the type of coins. Let me not everybody not in

1599
01:22:17.300 --> 01:22:20.200
 the time. Yeah, but can I just kind of just point out

1600
01:22:20.200 --> 01:22:22.600
 that we do need for an emergency?

1601
01:22:22.700 --> 01:22:25.600
Sponsor plan is identified as a requirement of

1602
01:22:25.600 --> 01:22:26.200
 the outline.

1603
01:22:27.400 --> 01:22:30.200
Budgets page 14 of the most recent craft but whether

1604
01:22:30.200 --> 01:22:33.900
 we need to spell out anything more on that interview, perhaps when you're submission,

1605
01:22:33.900 --> 01:22:36.500
 you could address the pointers of

1606
01:22:36.500 --> 01:22:39.200
 the the interface between the battery file

1607
01:22:39.200 --> 01:22:42.400
 safety and the emergency plan and how

1608
01:22:42.400 --> 01:22:43.000
 they work together.

1609
01:22:44.300 --> 01:22:47.500
Thank you very much that we're very helpful. Just want

1610
01:22:47.500 --> 01:22:50.100
 to move on because not everybody here who I thought

1611
01:22:50.100 --> 01:22:50.400

would be.

1612
01:22:55.800 --> 01:22:58.500
Just just building on that and closing it

1613
01:22:58.500 --> 01:23:01.200
 out. Does the battery fast Safety Management

1614
01:23:01.200 --> 01:23:04.400
 plan or the outline? Would it include

1615
01:23:04.400 --> 01:23:07.400
 Erp procedures relevant to best far

1616
01:23:07.400 --> 01:23:08.400
 safety or would you?

1617
01:23:09.900 --> 01:23:12.200
Make it clear signpost where they will

1618
01:23:12.200 --> 01:23:12.600
 be found.

1619
01:23:15.300 --> 01:23:18.500
In Richmond, I think again if we look

1620
01:23:18.500 --> 01:23:20.100
 at Table Six in the outline.

1621
01:23:20.400 --> 01:23:23.700
It's identifies the need to develop an emergency response plan.

1622
01:23:23.700 --> 01:23:26.700
 So I think it's invisitors being a separate document that

1623
01:23:26.700 --> 01:23:30.400
 would be settled as Mr. Gregory says there's reference

1624
01:23:29.400 --> 01:23:32.100
 there to the guidance that is already touched on

1625
01:23:32.100 --> 01:23:36.300
 in terms of the natural UK National Fire Chiefs Council work.

1626
01:23:35.300 --> 01:23:38.400
 So I think I think it would

1627
01:23:38.400 --> 01:23:39.800
 sit alongside rather than within. Is that right?

1628
01:23:44.400 --> 01:23:46.500
We'll do a detailed document. So yes.

1629
01:23:48.700 --> 01:23:49.200
Thanks.

1630
01:23:50.200 --> 01:23:53.100
So just moving swiftly on actually, I think

1631
01:23:53.100 --> 01:23:57.600
 we can want to confuse here actually come still

1632
01:23:57.600 --> 01:24:00.300
 with the outline Battle of our safety and management plan.

1633
01:24:06.100 --> 01:24:16.900
Here I

1634
01:24:09.900 --> 01:24:17.100
 was

1635
01:24:16.100 --> 01:24:17.500
 sorry.

1636
01:24:24.400 --> 01:24:26.200
yellow covered that one

1637
01:24:28.500 --> 01:24:28.600
so

1638
01:24:30.100 --> 01:24:34.200

just before I get to the end of the outline Safety Management

1639
01:24:34.200 --> 01:24:37.600
 plan issues top 40 raise. Yes.

1640
01:24:38.400 --> 01:24:42.600
Well only is a kind of proxy for Professor Christensen.

1641
01:24:41.600 --> 01:24:44.200
 I did

1642
01:24:44.200 --> 01:24:47.600
 mention earlier on I think that he's now produced a second report

1643
01:24:47.600 --> 01:24:51.100
 on the updated outline battery

1644
01:24:50.100 --> 01:24:54.400
 Fire Safety Management plan. And you

1645
01:24:53.400 --> 01:24:56.400
 know his first report basically said

1646
01:24:56.400 --> 01:24:59.400
 that it was not fit for purpose and the second report says that

1647
01:24:59.400 --> 01:25:00.700
 it still isn't the purpose.

1648
01:25:01.500 --> 01:25:05.000
Um, you know, perhaps I I don't want

1649
01:25:04.100 --> 01:25:07.000
 to sort of speak for him. And I'm not

1650
01:25:07.800 --> 01:25:10.200
 I'm not authorized as being more and I've

1651
01:25:10.200 --> 01:25:13.300
 just got the document in front of me, but I will make a comment

1652
01:25:13.300 --> 01:25:17.200
 Professor Christensen is undoubtedly

1653
01:25:16.200 --> 01:25:20.200
 the country's leading expert in the safety

1654
01:25:19.200 --> 01:25:22.100
 of large scale with

1655
01:25:22.100 --> 01:25:25.300
 your mind batteries. He's far from any

1656
01:25:25.300 --> 01:25:28.800
 kind of Luddite. He is an Enthusiast if

1657
01:25:28.800 --> 01:25:31.400
 you listen to his lectures, they are extremely useful

1658
01:25:31.400 --> 01:25:33.200
 things that they should be used.

1659
01:25:33.600 --> 01:25:36.300
They are indeed his life's work. It was what's

1660
01:25:36.300 --> 01:25:39.600
 the point but the point is that as an engineer of Integrity.

1661
01:25:39.600 --> 01:25:42.200
 He wants them to be safe. And he

1662
01:25:42.200 --> 01:25:45.600
 doesn't consider that the outline battery Fire

1663
01:25:45.600 --> 01:25:48.500
 Safety Management plan can be used as a

1664
01:25:48.500 --> 01:25:51.200
 basis for the battery fire safety. That's

1665
01:25:51.200 --> 01:25:54.400

how you put that in a submission. Yes put this in that

1666
01:25:54.400 --> 01:25:58.200
 is in in his report and it's been uploaded already

1667
01:25:57.200 --> 01:26:00.600
 by the notice something. Thanks very

1668
01:26:00.600 --> 01:26:03.300
 much. We'll I'm assuming that will

1669
01:26:03.300 --> 01:26:06.500
 be on its way to us and we will take a good it should already be

1670
01:26:06.500 --> 01:26:09.800
 there. I mean whether it's sort of I mean Mr. Gazelle can

1671
01:26:09.800 --> 01:26:09.900
 explain

1672
01:26:10.500 --> 01:26:13.700
Sorry, I don't have time on this Mr. Rigby

1673
01:26:13.700 --> 01:26:16.400
 but the reports produce very

1674
01:26:16.400 --> 01:26:19.100
 recently so, you know done because I was

1675
01:26:19.100 --> 01:26:22.100
 saying that Sonicare but the reports produced very recently arising
out

1676
01:26:22.100 --> 01:26:25.600
 to be updated outline batch 35 management plan, and

1677
01:26:25.600 --> 01:26:28.400
 it has been provided already more provided again in

1678
01:26:28.400 --> 01:26:31.700
 deadline for so you have it and yeah can

1679
01:26:31.700 --> 01:26:34.700
 consider it and whether they want to take any of it or respond

1680
01:26:34.700 --> 01:26:34.900
 to it.

1681
01:26:35.400 --> 01:26:38.500
Thanks very much. That's very helpful. I think

1682
01:26:38.500 --> 01:26:41.200
 the only other points I've got

1683
01:26:41.200 --> 01:26:42.000
 to make.

1684
01:26:43.500 --> 01:26:46.700
About I got two things that I thought

1685
01:26:46.700 --> 01:26:49.500
 were worth asking about whether they were already

1686
01:26:49.500 --> 01:26:52.300
 under consideration in the battle fire sector

1687
01:26:52.300 --> 01:26:53.300
 management plan or not.

1688
01:26:54.100 --> 01:26:54.200
And

1689
01:26:56.100 --> 01:26:59.100
Obviously we've been talking about emerging standards and I think

1690
01:26:59.100 --> 01:27:01.600
 one of them is, UL 95408.

1691
01:27:02.600 --> 01:27:05.800
I was wondering whether the applicant would

1692

01:27:05.800 --> 01:27:08.500
 be having an independent expert

1693
01:27:08.500 --> 01:27:11.500
 who would deal with the testing to that standard

1694
01:27:11.500 --> 01:27:15.700
 and whether that's something you propose for your Safety

1695
01:27:14.700 --> 01:27:17.300
 Management plan, but also

1696
01:27:17.300 --> 01:27:19.000
 whether you think about

1697
01:27:21.200 --> 01:27:23.400
new tech but look at

1698
01:27:24.600 --> 01:27:27.700
warnings of maintenance problems or I'll

1699
01:27:27.700 --> 01:27:30.100
 have maintenance or anything going wrong without having to

1700
01:27:30.100 --> 01:27:32.500
 have people in an unsafe.

1701
01:27:33.500 --> 01:27:34.500
Place doing that

1702
01:27:36.700 --> 01:27:40.400
yes, so so firstly generally speaking

1703
01:27:40.400 --> 01:27:44.200
 the battery OEM or the or

1704
01:27:43.200 --> 01:27:47.000
 the integrator of the system on site would

1705
01:27:46.500 --> 01:27:49.800
 provide all that task data. Normally

1706
01:27:49.800 --> 01:27:52.600
 there would be an independent

1707
01:27:52.600 --> 01:27:55.900
 fire protection Engineers analysis of that often, you

1708
01:27:55.900 --> 01:27:59.000
 know, our advise any clients of mine that their own

1709
01:27:58.300 --> 01:27:59.900
 study is conducted like

1710
01:28:01.400 --> 01:28:04.400
that will be agreed to the foreign rescue

1711
01:28:04.400 --> 01:28:07.300
 service would also want that as well. And so that

1712
01:28:07.300 --> 01:28:10.600
 is you know fairly much standard and a detailed

1713
01:28:10.600 --> 01:28:12.400
 design stage. Yes, so

1714
01:28:14.700 --> 01:28:17.200
Some of the lessons from the incidents. Is that

1715
01:28:17.200 --> 01:28:17.600
 happened?

1716
01:28:18.400 --> 01:28:21.100
And interventions by the fire service is because

1717
01:28:21.100 --> 01:28:24.800
 it weren't able to judge what the state of the incident

1718
01:28:24.800 --> 01:28:28.200
 was in the container. So in NFPA

1719

01:28:27.200 --> 01:28:30.600
 855 and there are

1720
01:28:30.600 --> 01:28:33.800
 minimum monitoring standards the referenced

1721
01:28:33.800 --> 01:28:38.300
 and the now is a recommendation that either through

1722
01:28:38.300 --> 01:28:41.800
 cell phone and all through specialist mobile

1723
01:28:41.800 --> 01:28:44.500
 devices that this data the

1724
01:28:44.500 --> 01:28:47.600
 monitoring data is available to First Responders

1725
01:28:47.600 --> 01:28:50.200
 and cyclops. So yes, that was

1726
01:28:50.200 --> 01:28:53.800
 absolutely from safety perspective and your

1727
01:28:53.800 --> 01:28:56.300
 tactics should be driven by the data that you're getting

1728
01:28:56.300 --> 01:28:59.300
 If You Don't See Fire then you know,

1729
01:28:59.300 --> 01:29:03.100
 you must be worried that could be a potential explosive incident

1730
01:29:02.100 --> 01:29:05.300
 and international fire chiefs

1731
01:29:05.300 --> 01:29:08.300
 is actually the end of this summer. It's just in

1732
01:29:08.300 --> 01:29:12.700
 published some preliminary tactics

1733
01:29:11.700 --> 01:29:14.300
 the different best scenario. So

1734
01:29:14.300 --> 01:29:17.600
 we're very much seeing over the next 12 to

1735
01:29:17.600 --> 01:29:18.000
 18 months.

1736
01:29:18.400 --> 01:29:21.400
More strategies and Facilities that

1737
01:29:21.400 --> 01:29:24.500
 they're able to make safety decisions in

1738
01:29:24.500 --> 01:29:27.100
 real time. Definitely. Thanks very much.

1739
01:29:27.100 --> 01:29:29.900
 That's been very helpful. It's coming up to five o'clock.

1740
01:29:30.500 --> 01:29:34.000
And I think that's as far as I need to go today on

1741
01:29:33.100 --> 01:29:36.100
 this topic. I do have one or two other

1742
01:29:36.100 --> 01:29:39.900
 things I want to ask but I think they can be done bearing on

1743
01:29:39.900 --> 01:29:42.500
 what we said. I think I could sort them out my means of

1744
01:29:42.500 --> 01:29:45.300
 written questions pleased to

1745
01:29:45.300 --> 01:29:48.700
 see that progresses being made offline. Yes. It's affordable

1746

01:29:48.700 --> 01:29:48.800
 quickly.

1747
01:29:50.500 --> 01:29:51.400
and the floor first

1748
01:29:51.900 --> 01:29:52.800
Sorry, Mr. Bedford.

1749
01:29:55.000 --> 01:29:55.300
very

1750
01:29:57.100 --> 01:30:00.800
So just before we leave this topic when I made my contribution Michael

1751
01:30:00.800 --> 01:30:03.000
 Bedford Suffolk County Council, I did say that we

1752
01:30:03.600 --> 01:30:06.400
 understood informally from the applicant that they were in

1753
01:30:06.400 --> 01:30:09.700
 agreement with us about the discharging Authority point and I

1754
01:30:09.700 --> 01:30:12.300
 said it would be helpful if it could be some clarification on that

1755
01:30:12.300 --> 01:30:15.100
 point. I haven't heard any yet and it would just be

1756
01:30:15.100 --> 01:30:16.800
 helpful if we could put that to bed this afternoon.

1757
01:30:17.900 --> 01:30:20.300
Thank you. Is there anything anyone else wants to

1758
01:30:20.300 --> 01:30:23.600
 write if I go back to the applicant the last time? Yeah, Dr. Fordham.

1759

01:30:23.600 --> 01:30:26.300
 Yes. Well, I'm not quite clear this to

1760
01:30:26.300 --> 01:30:29.300
 read be whether you were going to go on. I think

1761
01:30:29.300 --> 01:30:31.800
 you mentioned something about consents.

1762
01:30:32.500 --> 01:30:35.200
In your Preamble. Yes, I think

1763
01:30:35.200 --> 01:30:38.200
 that's something that I feel I can deal with that by means of

1764
01:30:38.200 --> 01:30:41.800
 written questions. Well bang your mind what I've heard. Well, I'm

1765
01:30:41.800 --> 01:30:42.800
 just I'm interested in.

1766
01:30:43.900 --> 01:30:47.000
Working out what position each person's

1767
01:30:46.400 --> 01:30:49.600
 position is and getting that narrow as

1768
01:30:49.600 --> 01:30:52.600
 far as possible. So what I was going to suggest that

1769
01:30:52.600 --> 01:30:56.100
 people please continue talking offline and

1770
01:30:55.100 --> 01:30:59.000
 reach as much consensus as you can and you

1771
01:30:58.100 --> 01:31:01.700
 can help us bearing in mind that we're somewhere

1772
01:31:01.700 --> 01:31:05.000
 into examination Now by using the

1773
01:31:04.500 --> 01:31:07.700
 state to Common Ground process where possible

1774
01:31:07.700 --> 01:31:10.600
 or else perhaps by issuing a

1775
01:31:10.600 --> 01:31:14.700
 position statement. There's other dress. Sure. Well, not

1776
01:31:13.700 --> 01:31:16.500
 entirely I mean I have read

1777
01:31:16.500 --> 01:31:19.200
 recently the applicants response to

1778
01:31:19.200 --> 01:31:23.500
 my written representation. Where is you, you know, I

1779
01:31:22.500 --> 01:31:26.200
 concluded that has a

1780
01:31:25.200 --> 01:31:29.300
 substances consent. He's almost certainly

1781
01:31:28.300 --> 01:31:31.800
 may legal requirement. Yes.

1782
01:31:31.800 --> 01:31:34.700
 I think we're doing that in the dco hearing

1783
01:31:34.700 --> 01:31:38.100
 Dr. Fordham. This is intended as a technical Forum

1784
01:31:37.100 --> 01:31:40.300
 right on that issue nevertheless. There has

1785
01:31:40.300 --> 01:31:43.600
 been a response to it and I have a paper here, which I haven't.

1786

01:31:43.900 --> 01:31:47.600
Four contributed to the examination because I

1787
01:31:46.600 --> 01:31:49.300
 you know, I wanted

1788
01:31:49.300 --> 01:31:52.500
 to know whether the applicant did or did not accept that has a
substances

1789
01:31:52.500 --> 01:31:55.200
 consent was required and I'm not quite clear what

1790
01:31:55.200 --> 01:31:58.800
 that position is. They have cited a parliamentary answer

1791
01:31:58.800 --> 01:32:01.400
 which didn't come as a

1792
01:32:01.400 --> 01:32:05.000
 surprise to me because I have had independent correspondence

1793
01:32:04.100 --> 01:32:08.800
 with the hell. Yes, and you sorry we're

1794
01:32:07.800 --> 01:32:10.900
 running out of time and that's a dco

1795
01:32:10.900 --> 01:32:13.800
 hearing issue. I think so if you've asked

1796
01:32:13.800 --> 01:32:15.600
 for response or not received one.

1797
01:32:16.200 --> 01:32:19.200
Could you put that paper in your posterior submission with

1798
01:32:19.200 --> 01:32:22.400
 the question, right? So yeah and the opportunity to comment

1799
01:32:22.400 --> 01:32:25.900

on your yeah on your submission. In fact, I

1800
01:32:25.900 --> 01:32:28.500
 think we'd be great for if you could put it in anyway doctor

1801
01:32:28.500 --> 01:32:32.100
 for them. Yes very much

1802
01:32:32.100 --> 01:32:32.700
 Mr. Key.

1803
01:32:33.700 --> 01:32:36.100
Thank you very much. And could I go back

1804
01:32:36.100 --> 01:32:39.300
 to the applicant which I was thank you for reminding me Mr. Bedford

1805
01:32:39.300 --> 01:32:42.700
 about Mr. Bedford

1806
01:32:42.700 --> 01:32:46.300
 is just raised it recorded just a

1807
01:32:45.300 --> 01:32:49.200
 for the applicant. We we are content

1808
01:32:49.200 --> 01:32:52.300
 to go with the consensus. We express

1809
01:32:52.300 --> 01:32:55.200
 the view previously and maintain the view that would normally be a district

1810
01:32:55.200 --> 01:32:58.300
 matter. I mean approval for a matter

1811
01:32:58.300 --> 01:33:01.300
 of this nature that if all the authorities say it

1812
01:33:01.300 --> 01:33:04.000
 should be dealt with by the county then we're content.

1813
01:33:05.400 --> 01:33:05.400
Thank you.

1814
01:33:11.400 --> 01:33:14.300
So Richard West suffer Council, so

1815
01:33:14.300 --> 01:33:18.300
 just to confirm that is very much opposition. We would like the counties to

1816
01:33:17.300 --> 01:33:19.300
 be discharging Authority.

1817
01:33:20.500 --> 01:33:23.200
Thank you. And I suppose to practical point is

1818
01:33:23.200 --> 01:33:24.900
 is making sure that

1819
01:33:25.900 --> 01:33:28.400
that the district because obviously it's environmental health

1820
01:33:28.400 --> 01:33:31.900
 issue. So that's why it's surprising that the captain wanted because

1821
01:33:31.900 --> 01:33:34.600
 they're not the relevant Authority but if they want to determinate

1822
01:33:34.600 --> 01:33:37.700
 and say beard, but they will have to consult with the

1823
01:33:37.700 --> 01:33:39.800
 relevant officers who are environmental health officers.

1824
01:33:41.600 --> 01:33:44.200
Great. Thanks very much everyone for all your

1825
01:33:44.200 --> 01:33:47.300
 contributions. It's been a fairly fast-paced thing I

1826
01:33:47.300 --> 01:33:51.500
 suppose but then we did have quite a lot of ground we had to cover. So thank

1827
01:33:50.500 --> 01:33:53.700
 you. All that's concludes what

1828
01:33:53.700 --> 01:33:56.300
 I wanted to cover in this item. So thank you to everybody.

1829
01:33:57.200 --> 01:34:00.300
Thank you very much, Mr. Ricky. So one item

1830
01:34:00.300 --> 01:34:05.100
 left on the agenda public rights of way, and I

1831
01:34:03.100 --> 01:34:07.000
 would just want to raise a couple

1832
01:34:06.200 --> 01:34:10.100
 of issues by way of introduction. And then

1833
01:34:09.100 --> 01:34:12.400
 I know East

1834
01:34:12.400 --> 01:34:15.700
 Cambridge District Council are interested has no doubt and Suffolk

1835
01:34:15.700 --> 01:34:19.000
 County Council are and still Western

1836
01:34:18.600 --> 01:34:21.600
 so chapter 13

1837
01:34:21.600 --> 01:34:25.400
 of the transport and access environmental statement

1838
01:34:24.400 --> 01:34:27.700
 notes that eight public rights

1839
01:34:27.700 --> 01:34:31.200
 way are required to be temporarily closed

1840
01:34:30.200 --> 01:34:34.200
 during the construction period which

1841
01:34:33.200 --> 01:34:36.800
 will be for up to three weeks in

1842
01:34:36.800 --> 01:34:39.300
 the worst case scenario.

1843
01:34:41.200 --> 01:34:44.100
The the assessment goes on to say that

1844
01:34:44.100 --> 01:34:47.300
 the public rights way are not expected to be

1845
01:34:47.300 --> 01:34:48.900
 closed at the same time.

1846
01:34:49.900 --> 01:34:53.100
Then it goes on to say that in addition three

1847
01:34:52.100 --> 01:34:55.800
 permissive groups are being proposed

1848
01:34:55.800 --> 01:34:59.700
 as part of the scheme post-construction, which

1849
01:34:59.700 --> 01:35:02.800
 is outlined in the transport assessment. And

1850
01:35:02.800 --> 01:35:05.500
 that's a document that has the exam Library

1851
01:35:05.500 --> 01:35:08.900
 reference a PP one one seven.

1852
01:35:10.700 --> 01:35:13.700

I noticed in passing that Natural

1853
01:35:13.700 --> 01:35:16.500
 England raised concerns of

1854
01:35:16.500 --> 01:35:19.400
 a generalized nature about the impact of

1855
01:35:19.400 --> 01:35:22.700
 the proposed closures on people's connection

1856
01:35:22.700 --> 01:35:25.700
 with nature. And these are outlined in

1857
01:35:25.700 --> 01:35:30.000
 more detail in its relevant representations. Rr1291.

1858
01:35:28.700 --> 01:35:32.100
 Paragraph four point

1859
01:35:31.100 --> 01:35:33.600
 eight point two.

1860
01:35:35.600 --> 01:35:38.100
Natural recognizes that these closures are

1861
01:35:38.100 --> 01:35:41.700
 required for safety and will be temporary. However concerns

1862
01:35:41.700 --> 01:35:43.600
 remain about the impacts.

1863
01:35:44.900 --> 01:35:48.800
and more specifically perhaps I'm

1864
01:35:47.800 --> 01:35:49.900
 cognizant of

1865
01:35:51.100 --> 01:35:55.700
the response to the right relevant representations

1866
01:35:54.700 --> 01:35:57.500
 from the

1867
01:35:57.500 --> 01:36:00.200
 applicant which picks up the

1868
01:36:00.200 --> 01:36:04.500
 concern that the footpaths

1869
01:36:03.500 --> 01:36:07.900
 and rights of way lost temporarily our

1870
01:36:06.900 --> 01:36:09.300
 potentially unable to

1871
01:36:09.300 --> 01:36:13.300
 be restored properly and in response

1872
01:36:12.300 --> 01:36:15.800
 the applicant and

1873
01:36:15.800 --> 01:36:20.500
 he just shortly as

1874
01:36:18.500 --> 01:36:21.400
 I understand. It

1875
01:36:21.400 --> 01:36:24.700
 states that the scheme proposes no permanent changes to

1876
01:36:24.700 --> 01:36:28.100
 the existing public right of way Network. Although

1877
01:36:27.100 --> 01:36:30.400
 say some short-term temporary closures are

1878
01:36:30.400 --> 01:36:30.900
 required.

1879
01:36:31.800 --> 01:36:34.800

The length of time the public

1880
01:36:34.800 --> 01:36:37.300
 rights where forecast to be closed expected to

1881
01:36:37.300 --> 01:36:40.600
 be maximum of three weeks and say which would

1882
01:36:40.600 --> 01:36:41.900
 be worst case scenario.

1883
01:36:42.600 --> 01:36:45.600
And the applicant I'm given

1884
01:36:45.600 --> 01:36:48.400
 to understand is committed to restoring the

1885
01:36:48.400 --> 01:36:51.900
 public rights of way to their previous condition following their

1886
01:36:51.900 --> 01:36:54.200
 closures and then stand that will

1887
01:36:54.200 --> 01:36:57.900
 be documented or was to be documented in the next iteration of

1888
01:36:57.900 --> 01:37:00.800
 the framework CE MP.

1889
01:37:02.900 --> 01:37:05.400
And I think if I

1890
01:37:05.400 --> 01:37:10.200
 just go on briefly to outline that there was

1891
01:37:09.200 --> 01:37:12.900
 concern also that construction traffic

1892
01:37:12.900 --> 01:37:15.400
 had the potential to cause damage

1893
01:37:15.400 --> 01:37:17.000
 to public rights of way.

1894
01:37:17.500 --> 01:37:21.400
Hmm and the the those

1895
01:37:21.400 --> 01:37:24.700
 eight public rights way, which required to be temporarily closed

1896
01:37:24.700 --> 01:37:28.200
 during the construction period our identified

1897
01:37:27.200 --> 01:37:31.000
 in the framework construction traffic

1898
01:37:30.300 --> 01:37:33.400
 management plan and travel plan. That's

1899
01:37:33.400 --> 01:37:36.100
 ap118

1900
01:37:37.300 --> 01:37:40.400
And it is said that where construction

1901
01:37:40.400 --> 01:37:43.300
 vehicles are required to Cross Public rights of

1902
01:37:43.300 --> 01:37:47.400
 way during construction. The applicant would undertake public

1903
01:37:46.400 --> 01:37:50.200
 rights await conditional surveys before

1904
01:37:49.200 --> 01:37:52.300
 during and after the

1905
01:37:52.300 --> 01:37:55.300
 construction period to identify any

1906
01:37:55.300 --> 01:37:58.900

impacts which are as a result of the scheme that

1907
01:37:58.900 --> 01:38:01.600
 need to be rectified. Now that

1908
01:38:01.600 --> 01:38:04.700
 particular understanding was going to be dealt with documented in

1909
01:38:04.700 --> 01:38:08.200
 the next iteration of the framework construction traffic

1910
01:38:07.200 --> 01:38:10.100
 management plan and travel plan.

1911
01:38:11.100 --> 01:38:14.300
So there are two framework plans that issue

1912
01:38:14.300 --> 01:38:17.200
 there. I noticed in

1913
01:38:17.200 --> 01:38:20.700
 passing that's Frameworks and that's the framework

1914
01:38:20.700 --> 01:38:23.700
 construction traffic management plan. So I

1915
01:38:23.700 --> 01:38:26.200
 just part of what I want to do is just

1916
01:38:26.200 --> 01:38:29.400
 bottom out what's going into what if parties can

1917
01:38:29.400 --> 01:38:30.100
 help me out there.

1918
01:38:31.100 --> 01:38:34.600
So I think I'll just

1919
01:38:34.600 --> 01:38:37.500
 ask Mr. Turney if I've got that right as

1920
01:38:37.500 --> 01:38:40.700
 a summary and you'll know that they wish

1921
01:38:40.700 --> 01:38:43.300
 to add something on behalf

1922
01:38:43.300 --> 01:38:46.000
 of the applicants and then I'll turn to the councils.

1923
01:38:46.700 --> 01:38:49.200
Thanks, Sarah Rich attorney for the applicant that

1924
01:38:49.200 --> 01:38:52.200
 in in summary I think is correct. I think one point I

1925
01:38:52.200 --> 01:38:56.300
 would emphasize is and reflected in the certainly the

1926
01:38:56.300 --> 01:38:59.000
 latest draft of the framework construction traffic management plan.

1927
01:38:59.600 --> 01:39:02.900
Is that the assessment of and powers

1928
01:39:02.900 --> 01:39:05.300
 for the temporary closure of public rights of

1929
01:39:05.300 --> 01:39:07.300
 way or there is a precaution.

1930
01:39:08.800 --> 01:39:11.800
And we would seek to limit any

1931
01:39:11.800 --> 01:39:15.300
 closures so far as possible and potentially

1932
01:39:14.300 --> 01:39:17.700
 avoid them entirely through the

1933
01:39:17.700 --> 01:39:20.200

use of banksmen to ensure that they

1934
01:39:20.200 --> 01:39:23.500
 those public rights way can be safely crossed.

1935
01:39:25.600 --> 01:39:27.300
by by vehicles

1936
01:39:29.700 --> 01:39:30.700
without them actually being

1937
01:39:31.600 --> 01:39:34.300
Closed so I think that's why we say this really

1938
01:39:34.300 --> 01:39:34.900
 is a worst case.

1939
01:39:35.800 --> 01:39:41.300
Assessment in terms of conditions preconditioned pre-construction

1940
01:39:39.300 --> 01:39:43.000
 conditions surveys and

1941
01:39:42.400 --> 01:39:46.400
 subsequent condition surveys that

1942
01:39:45.400 --> 01:39:49.000
 is reflected in the updated

1943
01:39:48.400 --> 01:39:51.400
 draft construction traffic management

1944
01:39:51.400 --> 01:39:54.200
 plan and indeed it's referred to in the

1945
01:39:54.200 --> 01:39:56.700
 scent as well.

1946
01:39:58.500 --> 01:40:02.000
Um in terms, I think the only other point I'd make

1947
01:40:01.100 --> 01:40:02.400
 is that

1948
01:40:03.800 --> 01:40:06.500
we would emphasize that these closures are

1949
01:40:06.500 --> 01:40:09.400
 not that they're short periods at worst case,

1950
01:40:09.400 --> 01:40:12.500
 but also they're not going to be simultaneous so there will

1951
01:40:12.500 --> 01:40:12.500
 be

1952
01:40:14.400 --> 01:40:17.100
Sequential closure because the way in

1953
01:40:17.100 --> 01:40:18.500
 which the skin will be constructed. Yes.

1954
01:40:19.800 --> 01:40:22.100
Sorry, I just wanted on that point.

1955
01:40:23.800 --> 01:40:26.400
Whether there's a way of I mean, is there a program to

1956
01:40:26.400 --> 01:40:27.500
 that effect do we know?

1957
01:40:28.500 --> 01:40:31.600
Can we get an idea of when those

1958
01:40:31.600 --> 01:40:34.800
 closures will come on and how that will affect the wider

1959
01:40:34.800 --> 01:40:38.300
 network of Rights way. I

1960
01:40:37.300 --> 01:40:40.600

think I think Rich technology that's

1961
01:40:40.600 --> 01:40:43.700
 been worked up into any sort of program in detail, but

1962
01:40:43.700 --> 01:40:44.100
 we can

1963
01:40:47.900 --> 01:40:50.100
It's effectively. It's a

1964
01:40:50.100 --> 01:40:54.400
 sequential going on the camera. It says and I

1965
01:40:53.400 --> 01:40:56.100
 think I think what we could

1966
01:40:56.100 --> 01:40:59.000
 do is sort of work that's up indicatively identity would be able to give

1967
01:41:00.100 --> 01:41:03.400
A particular months but we could say indicatively that disclosure is

1968
01:41:03.400 --> 01:41:07.400
 likely to fall. Yes this long before so

1969
01:41:06.400 --> 01:41:09.400
 let's closure. Yes. So I understand

1970
01:41:09.400 --> 01:41:11.600
 that the way then you proceeding is to go

1971
01:41:12.500 --> 01:41:15.600
very often along the cable route

1972
01:41:15.600 --> 01:41:17.500
 and closing as and when you

1973
01:41:18.400 --> 01:41:22.300
Require it from the point of view of the of the

1974
01:41:22.300 --> 01:41:25.200
 construction. I was just wondering from looking at it

1975
01:41:25.200 --> 01:41:28.600
 from the other lens what that individual

1976
01:41:28.600 --> 01:41:31.300
 or cumulative effect of closures might be

1977
01:41:31.300 --> 01:41:36.000
 in the in the relevant timescale

1978
01:41:35.200 --> 01:41:38.600
 or whatever that time scale is upon the

1979
01:41:38.600 --> 01:41:41.400
 wider network of Papyrus, but in

1980
01:41:41.400 --> 01:41:45.400
 the main be no effect, I don't know I'll be advised by the by

1981
01:41:44.400 --> 01:41:45.700
 the

1982
01:41:47.300 --> 01:41:52.300
And definitive up Authority

1983
01:41:50.300 --> 01:41:53.600
 County councils, and

1984
01:41:53.600 --> 01:41:54.500
 I'm sure.

1985
01:41:56.100 --> 01:41:59.500
So I should think that if it helps reach anything, I

1986
01:41:59.500 --> 01:42:02.400
 think if it does help I should think we could

1987

01:42:02.400 --> 01:42:05.300
 provide a more narrative around that I don't even want it

1988
01:42:05.300 --> 01:42:08.400
 being approved program, but for the purposes of understanding what we

1989
01:42:08.400 --> 01:42:11.400
 mean by three weeks maximum and then

1990
01:42:11.400 --> 01:42:14.100
 moving on to other yes, then at least you'd be able to see

1991
01:42:14.100 --> 01:42:17.700
 some spatially and sequentially how they those might

1992
01:42:17.700 --> 01:42:20.700
 fit together. Yes, and then the the users of

1993
01:42:20.700 --> 01:42:23.700
 the past would be in a better position to appreciate

1994
01:42:23.700 --> 01:42:27.500
 what's happening when and where and of

1995
01:42:26.500 --> 01:42:29.500
 course I assume there will be liaison with

1996
01:42:29.500 --> 01:42:33.300
 the with the county councils over

1997
01:42:32.300 --> 01:42:35.400
 the precise timing and

1998
01:42:35.400 --> 01:42:38.200
 the arrangements that they may have to

1999
01:42:38.200 --> 01:42:43.000
 make with regard to Diversion signage

2000
01:42:41.200 --> 01:42:44.100

and that sort of thing

2001
01:42:44.100 --> 01:42:47.300
 so yes, but also the

2002
01:42:47.300 --> 01:42:50.100
 communication strategy in the center obviously is going

2003
01:42:50.100 --> 01:42:52.000
 to have a role to play in this but certainly in terms of

2004
01:42:53.200 --> 01:42:57.200
Liaison the county cancer that's not problematic. And

2005
01:42:56.200 --> 01:42:59.000
 the I think one of

2006
01:42:59.200 --> 01:43:02.200
 the points that is made is well, what about diversary routes? We're
not

2007
01:43:02.200 --> 01:43:05.000
 proposing to formally divert those roots for the period of

2008
01:43:05.200 --> 01:43:08.400
 their closure. But clearly an indication

2009
01:43:08.400 --> 01:43:11.300
 that the router ahead of you is closed is going to

2010
01:43:11.300 --> 01:43:14.600
 be of use to users. Yes that sort

2011
01:43:14.600 --> 01:43:17.600
 of information I think will be fairly bullied particularly to

2012
01:43:17.600 --> 01:43:20.500
 people who are you know, who regularly use the

2013
01:43:20.500 --> 01:43:24.300
 roots for recreational or

2014
01:43:24.300 --> 01:43:26.100
 other purposes?

2015
01:43:26.900 --> 01:43:29.400
Street there's a reference to this which is

2016
01:43:29.400 --> 01:43:29.900
 in the

2017
01:43:31.600 --> 01:43:35.300
Framework construction environment and management plan page 16c

2018
01:43:34.800 --> 01:43:37.700
 -45 and it's the

2019
01:43:37.700 --> 01:43:39.000
 latest. It's the latest iteration.

2020
01:43:40.500 --> 01:43:42.600
Which is rep3 - 15.

2021
01:43:46.800 --> 01:43:49.300
May not have the latest with

2022
01:43:49.300 --> 01:43:52.500
 me. But so could you give me the reference again?

2023
01:43:52.500 --> 01:43:55.900
 Yes. It's right. Sorry page 16c

2024
01:43:55.900 --> 01:43:56.700
 iPhone 45

2025
01:44:03.700 --> 01:44:04.600
I think it's

2026
01:44:07.700 --> 01:44:10.900
I think it's in the table. No, sorry.

2027

01:44:10.900 --> 01:44:13.200
 That's the incent. There's a reference in

2028
01:44:13.200 --> 01:44:17.000
 the sense as well. I think it's 16c43 at

2029
01:44:16.200 --> 01:44:18.800
 least on the version I've got. Thank you.

2030
01:44:20.500 --> 01:44:23.300
And disruption to users of public rights

2031
01:44:23.300 --> 01:44:26.100
 of way, that's it. And so I think

2032
01:44:26.100 --> 01:44:29.100
 that the truck amendments so that

2033
01:44:30.200 --> 01:44:33.800
Let me just read the paragraph where possible temporary closures

2034
01:44:33.800 --> 01:44:37.200
 of public rights of way will be supported by.

2035
01:44:39.100 --> 01:44:42.700
I know see that that wording is taken out will be

2036
01:44:42.700 --> 01:44:45.100
 supported by appropriate and clearly signed existing

2037
01:44:45.100 --> 01:44:48.400
 alternative routes and where possible so, I think you've

2038
01:44:48.400 --> 01:44:52.000
 made it more definitive haven't you? So so what

2039
01:44:51.200 --> 01:44:55.100
 it reads now according to my version is temporary

2040
01:44:54.100 --> 01:44:57.300
 closures of Rights of way will be

2041
01:44:57.300 --> 01:45:00.400
 planned and programmed to minimize disruption to

2042
01:45:00.400 --> 01:45:03.700
 users prior to such closures at

2043
01:45:03.700 --> 01:45:06.600
 condition survey will be undertaken of the public right

2044
01:45:06.600 --> 01:45:09.600
 way and the public right away will be restored to

2045
01:45:09.600 --> 01:45:12.700
 their previous condition following any closure.

2046
01:45:14.500 --> 01:45:18.000
All members of the construction Workforce and visitors will

2047
01:45:17.100 --> 01:45:20.300
 be made aware of the equestrian roots or

2048
01:45:20.300 --> 01:45:23.500
 areas affected by the construction of the scheme.

2049
01:45:24.500 --> 01:45:28.600
So not entirely sure if that's the updated version. I'm

2050
01:45:27.600 --> 01:45:30.400
 not sure it is the the

2051
01:45:30.400 --> 01:45:32.900
 better reference. Sorry.

2052
01:45:36.800 --> 01:45:38.000
mostly communication

2053
01:45:46.200 --> 01:45:47.700
there's always a reference in the

2054

01:45:49.600 --> 01:45:52.200
In the scent if I can just briefly. I've got

2055
01:45:52.200 --> 01:45:55.100
 a notice of the reference but I didn't have it and

2056
01:45:56.300 --> 01:45:57.700
table 3 7

2057
01:46:01.900 --> 01:46:03.400
I'm just getting

2058
01:46:05.500 --> 01:46:06.400
what's the latest?

2059
01:46:13.600 --> 01:46:16.700
Yeah, if you've got the examination Library reference,

2060
01:46:16.700 --> 01:46:17.900
 I'll just quickly.

2061
01:46:31.900 --> 01:46:32.700
because I'm just

2062
01:46:42.100 --> 01:46:46.200
05 thank you rep 3 0 1 5 and

2063
01:46:45.200 --> 01:46:46.500
 key.

2064
01:46:48.600 --> 01:46:49.600
right three

2065
01:46:52.700 --> 01:46:55.300
zero one five. I'm sorry. My computer

2066
01:46:55.300 --> 01:46:56.500
 doesn't want to play.

2067
01:47:00.800 --> 01:47:03.600
So anyway, there's a table there is only that.

2068
01:47:04.700 --> 01:47:05.600
You're referring to.

2069
01:47:07.600 --> 01:47:09.000
That's right. And

2070
01:47:20.800 --> 01:47:23.300
It and it's it's table

2071
01:47:23.300 --> 01:47:26.700
 three seven which requires

2072
01:47:26.700 --> 01:47:28.300
 a communication strategy.

2073
01:47:30.400 --> 01:47:33.200
the noting changes to highways

2074
01:47:34.200 --> 01:47:37.700
Right. Okay, so that's where yeah, that's

2075
01:47:37.700 --> 01:47:40.500
 where we would fill in any details that

2076
01:47:40.500 --> 01:47:43.400
 were appropriate that we're specifically

2077
01:47:43.400 --> 01:47:47.300
 tailored to communicate with

2078
01:47:47.300 --> 01:47:51.100
 users of the right way Network. Yes, but

2079
01:47:50.100 --> 01:47:53.200
 I think I think as I said

2080
01:47:54.200 --> 01:47:57.700
Because the one of the key points to emphasizes that we will seek

2081

```
01:47:57.700 --> 01:48:00.700
 in liaison with the county highways

2082
01:48:00.700 --> 01:48:03.400
 authorities will see to afford to closures full stop

2083
01:48:03.400 --> 01:48:06.100
 if we can manage it instead then that obviously is

2084
01:48:06.100 --> 01:48:07.300
 a better outcome for all concerned.

2085
01:48:08.100 --> 01:48:11.600
Thank you very much and just like

2086
01:48:11.600 --> 01:48:14.400
 to go back then to the to the county.

2087
01:48:14.400 --> 01:48:15.500
 Council's Mr. Mohammed.

2088
01:48:16.300 --> 01:48:18.700
Thank you very much. So I was going to invite.

2089
01:48:20.200 --> 01:48:24.000
I've got your amazing. So sorry and Claire to

2090
01:48:23.100 --> 01:48:27.100
 speak first. And then I'm going to invite Miss

2091
01:48:26.100 --> 01:48:29.300
 Rhodes on our side to follow up. Thank you.

2092
01:48:29.300 --> 01:48:29.900
 Yes.

2093
01:48:33.600 --> 01:48:36.200
I'm gladics and Suffolk County Council. I'm the West area

2094
01:48:36.200 --> 01:48:40.400
 rights of way manager, and we obviously believe that
```

2095
01:48:39.400 --> 01:48:42.200
 very strongly as a height as a

2096
01:48:42.200 --> 01:48:43.200
 highway authorities that

2097
01:48:44.400 --> 01:48:47.300
And proposed temporary closures can near enough be

2098
01:48:47.300 --> 01:48:50.700
 avoided and that they can be managed through banksmen

2099
01:48:50.700 --> 01:48:53.200
 and we would like to see Limited in sorry can be managed through

2100
01:48:53.200 --> 01:48:56.300
 for the use of banksmen and signing. It has

2101
01:48:56.300 --> 01:48:59.100
 been done elsewhere and cable corridors in the

2102
01:48:59.100 --> 01:49:02.500
 east of Suffolk. For example of there are

2103
01:49:02.500 --> 01:49:05.900
 there and schemes of ea1 and ea2 and

2104
01:49:05.900 --> 01:49:09.100
 we had multiple Crossings of during

2105
01:49:08.100 --> 01:49:11.100
 the construction of a cable Corridor and they

2106
01:49:11.100 --> 01:49:14.500
 were managed fully free Banks and avoiding any

2107
01:49:14.500 --> 01:49:17.800
 closures on there. So we do think there's there's best

2108

01:49:17.800 --> 01:49:20.500
 practice that can be looked at elsewhere and to work

2109
01:49:20.500 --> 01:49:24.100
 with us to ensure we've got limited impacts on the

2110
01:49:23.100 --> 01:49:26.700
 network in addition.

2111
01:49:26.700 --> 01:49:29.400
 I just wanted to share with you that this is quite a

2112
01:49:29.400 --> 01:49:32.400
 sparse right to way Network in this part of

2113
01:49:32.400 --> 01:49:35.300
 Suffolk and the east of Cambridge here. It's not

2114
01:49:35.300 --> 01:49:38.400
 like other areas of the two counties where it's quite a dense.

2115
01:49:39.500 --> 01:49:42.700
Network and there are lots of alternative routes here are

2116
01:49:42.700 --> 01:49:45.900
 Severance of one route means actually a

2117
01:49:45.900 --> 01:49:48.400
 severance of somebody's daily walk

2118
01:49:48.400 --> 01:49:51.500
 exercise. Um, so that is there's

2119
01:49:51.500 --> 01:49:54.500
 not many alternative routes. So as a highway Authority,

2120
01:49:54.500 --> 01:49:58.900
 we usually look for an alternative route to be provided
foreclosures.

2121
01:49:57.900 --> 01:50:01.000

That's our standard practice when

2122
01:50:00.300 --> 01:50:03.500
 the highway Authority are for using

2123
01:50:03.500 --> 01:50:07.200
 temporary traffic regulation orders where possible the

2124
01:50:06.200 --> 01:50:10.000
 first quarter call is if it needs closing then

2125
01:50:09.200 --> 01:50:12.400
 we would like to see an alternative route that can

2126
01:50:12.400 --> 01:50:15.800
 either be on another highway or potentially

2127
01:50:15.800 --> 01:50:19.300
 land within the applicants control

2128
01:50:18.300 --> 01:50:21.200
 and that's something I do think

2129
01:50:21.200 --> 01:50:24.500
 that the applicant needs to consider as well. Can they

2130
01:50:24.500 --> 01:50:27.200
 manage alternative routes to limit the

2131
01:50:27.200 --> 01:50:27.900
 impact on

2132
01:50:28.900 --> 01:50:31.100
on the public this writes away

2133
01:50:31.100 --> 01:50:34.500
 our Community Asset and that is how it is seen by the local

2134
01:50:34.500 --> 01:50:36.400
 communities within that area.

2135
01:50:41.800 --> 01:50:44.000
Thank you

2136
01:50:44.300 --> 01:50:48.000
 very much music since the Mohammed again on

2137
01:50:47.400 --> 01:50:50.500
 behalf of the district council and the County

2138
01:50:50.500 --> 01:50:52.300
 Council. Can I now introduce?

2139
01:50:53.800 --> 01:50:56.300
Miss Rhodes who says to my right? I'm just

2140
01:50:56.300 --> 01:50:59.600
 remind us of what was in the agenda six temporary

2141
01:50:59.600 --> 01:51:02.000
 closure and restoration. But also, I think one of

2142
01:51:02.100 --> 01:51:05.700
 the things we've been trying to talk about is what what happens
afterwards after

2143
01:51:05.700 --> 01:51:09.000
 the the development leads the

2144
01:51:08.400 --> 01:51:11.400
 area, so I'm going to invite Ms. Rhodes

2145
01:51:11.400 --> 01:51:15.000
 to make our points very briefly. Yes. Thank

2146
01:51:14.100 --> 01:51:18.100
 you very much good evening threads. Good

2147
01:51:17.100 --> 01:51:20.600
 evening Camilla wrote for Cambridge County Council.

2148

01:51:20.600 --> 01:51:23.500
 I'm the asset information manager there and

2149
01:51:23.500 --> 01:51:27.000
 managing order Highway in public way every

2150
01:51:26.300 --> 01:51:29.300
 records and so just to

2151
01:51:29.300 --> 01:51:32.500
 follow on from what my colleague at South

2152
01:51:32.500 --> 01:51:36.400
 Africa Council was saying to with temporary

2153
01:51:35.400 --> 01:51:38.400
 closures, it's also really important

2154
01:51:38.400 --> 01:51:41.600
 that when looking at

2155
01:51:41.600 --> 01:51:42.300
 signage,

2156
01:51:43.800 --> 01:51:46.900
To consider where the signage is set

2157
01:51:46.900 --> 01:51:49.500
 up so and it needs

2158
01:51:49.500 --> 01:51:52.200
 to be right for the beginning of a group for example, so that

2159
01:51:52.200 --> 01:51:56.200
 the decision point at which the public are going to be making their

2160
01:51:55.200 --> 01:51:58.600
 decisions not like five meters before the

2161
01:51:58.600 --> 01:52:01.600
 closure. They need to be able to consider the whole

2162
01:52:01.600 --> 01:52:04.900
 of the alternative. It's an impact on their planned route.

2163
01:52:04.900 --> 01:52:07.600
 And so that's why we

2164
01:52:07.600 --> 01:52:10.300
 ask that the

2165
01:52:11.200 --> 01:52:14.300
Any any proposed quotas should they be

2166
01:52:14.300 --> 01:52:18.000
 proposed with diversion groups and be

2167
01:52:17.200 --> 01:52:21.100
 agreed with the highway Authority and it's why

2168
01:52:20.100 --> 01:52:24.500
 we are seeking to have that plan

2169
01:52:23.500 --> 01:52:26.600
 agreed with us. It's

2170
01:52:26.600 --> 01:52:29.200
 it's very easy for the applicant to say

2171
01:52:29.200 --> 01:52:30.300
 yes, we'll do this, but actually

2172
01:52:31.300 --> 01:52:34.300
it comes down to a contractor delivering it on site and

2173
01:52:34.300 --> 01:52:38.100
 that can be very different in our experience from this phase

2174
01:52:37.100 --> 01:52:41.100
 of a scheme. So

2175

01:52:41.100 --> 01:52:42.400
 that wants to be secured.

2176
01:52:44.600 --> 01:52:47.700
That's and oh, the

2177
01:52:47.700 --> 01:52:50.700
 other point we're going to say about temporary closures

2178
01:52:50.700 --> 01:52:53.800
 is we have a concern about the the restoration

2179
01:52:53.800 --> 01:52:56.400
 of the boundary features, you know,

2180
01:52:56.400 --> 01:52:59.900
 there's very few boundary features in this area. Lots

2181
01:52:59.900 --> 01:53:02.300
 of people have spoken about that from a landscaping point of

2182
01:53:02.300 --> 01:53:05.900
 view. That's a very often form the a defining

2183
01:53:05.900 --> 01:53:08.500
 feature within a landscape with Hedges and

2184
01:53:08.500 --> 01:53:10.400
 outside or ditches or whatever it is.

2185
01:53:11.300 --> 01:53:14.300
So we're right we're Crossings are proposed over

2186
01:53:14.300 --> 01:53:17.300
 rights of weight might result in taking a

2187
01:53:17.300 --> 01:53:20.300
 hedge down we concerned about how that's going

2188
01:53:20.300 --> 01:53:23.300
 to be restored and it may be picked up

2189
01:53:23.300 --> 01:53:26.300
 by ecology system. That's something we were talking about a meeting

2190
01:53:26.300 --> 01:53:29.800
 together last week, but we wait to see yet how

2191
01:53:29.800 --> 01:53:32.800
 we've not yet had any confirmation about how

2192
01:53:32.800 --> 01:53:36.400
 they might propose to achieve that ensuring that

2193
01:53:36.400 --> 01:53:39.700
 they don't encrypt upon the legal

2194
01:53:39.700 --> 01:53:40.700
 extent of the highway.

2195
01:53:44.500 --> 01:53:47.300
Yes, that's a much more

2196
01:53:47.300 --> 01:53:49.200
 to make about the temporary closures. So.

2197
01:53:50.600 --> 01:53:53.900
the county councils shared concern

2198
01:53:54.700 --> 01:53:56.900
and with regard to

2199
01:53:59.300 --> 01:54:02.900
permanent access and what what

2200
01:54:02.900 --> 01:54:05.100
 is the scheme doing to provide?

2201
01:54:06.400 --> 01:54:10.200
benefit to the local community as a result of an in

2202

01:54:09.200 --> 01:54:12.900
 terms of mitigating the negative impact

2203
01:54:12.900 --> 01:54:13.800
 of the

2204
01:54:14.700 --> 01:54:17.400
And development upon the

2205
01:54:17.400 --> 01:54:21.100
 local waxwing network and the impact on the users for

2206
01:54:20.100 --> 01:54:25.200
 the local communities who whose?

2207
01:54:26.400 --> 01:54:28.700
who's network it is and

2208
01:54:30.400 --> 01:54:33.900
the scheme proposes a few permissive paths

2209
01:54:33.900 --> 01:54:36.500
 in Cambridge year, there's one and it's dead

2210
01:54:36.500 --> 01:54:40.300
 end within the red line boundary. It links

2211
01:54:39.300 --> 01:54:42.400
 to a the permit the

2212
01:54:42.400 --> 01:54:45.100
 Broadway coming from suffer that goes nowhere else.

2213
01:54:45.100 --> 01:54:50.500
 So it's as good as useless. Unfortunately and for

2214
01:54:48.500 --> 01:54:51.000
 a scheme of this

2215
01:54:51.600 --> 01:54:54.100
 size, which is very large and it's gonna have

2216
01:54:54.100 --> 01:54:58.100
 a very significant impact on the local community and

2217
01:54:59.100 --> 01:55:03.500
which has low Public Health indices and

2218
01:55:04.700 --> 01:55:08.000
is a fringe Community anyway, and

2219
01:55:08.900 --> 01:55:11.700
we would normally expect to see a significant.

2220
01:55:14.500 --> 01:55:17.900
Rights of Way Package to improve and enhance

2221
01:55:17.900 --> 01:55:20.600
 the right way Network in accordance with paragraph 100

2222
01:55:20.600 --> 01:55:23.400
 then ppf which says that's development

2223
01:55:23.400 --> 01:55:27.700
 should consider and protect and

2224
01:55:27.700 --> 01:55:30.100
 enhance the right Subway Network for the

2225
01:55:30.100 --> 01:55:33.800
 health and well-being of communities and that's just

2226
01:55:33.800 --> 01:55:37.000
 not being done here. And so we would

2227
01:55:36.200 --> 01:55:38.900
 expect to see

2228
01:55:40.800 --> 01:55:42.400
either

2229

01:55:43.600 --> 01:55:47.500
permissive access of meaningful quality during

2230
01:55:46.500 --> 01:55:49.400
 the course of the development such as

2231
01:55:50.500 --> 01:55:54.500
access around the principal

2232
01:55:53.500 --> 01:55:56.600
 sites or some of the sites

2233
01:55:56.600 --> 01:56:00.200
 perhaps with a visitor parking place where visitors

2234
01:55:59.200 --> 01:56:02.200
 can with some interpretation to what's

2235
01:56:02.200 --> 01:56:05.600
 going on with the ski some effort to integrate and

2236
01:56:05.600 --> 01:56:08.500
 and get the local community and

2237
01:56:09.500 --> 01:56:12.100
on board with it, but provide something back about what

2238
01:56:12.100 --> 01:56:15.400
 this scheme is doing something educational and that certainly
happened with

2239
01:56:15.400 --> 01:56:18.500
 mineral sites. We've got several examples when

2240
01:56:18.500 --> 01:56:19.100
 in chemistry

2241
01:56:20.400 --> 01:56:23.400
up and the last 20 30 years where we've got

2242
01:56:23.400 --> 01:56:27.200

Section 1 obligations such 106 obligations and

2243
01:56:26.200 --> 01:56:29.300
 developers have provided

2244
01:56:29.300 --> 01:56:32.700
 some permissive access during the scheme sometimes definitive

2245
01:56:32.700 --> 01:56:35.400
 access as well that's dedicated rights of way to

2246
01:56:35.400 --> 01:56:38.700
 give immediate benefit back to the community and then

2247
01:56:38.700 --> 01:56:39.200
 a

2248
01:56:41.200 --> 01:56:45.900
As part of the planning conditions and a requirement

2249
01:56:45.900 --> 01:56:48.600
 to provide a pod scheme

2250
01:56:48.600 --> 01:56:52.300
 that's agreed with the local Highway Authority County Council,

2251
01:56:51.300 --> 01:56:55.100
 which is then delivered

2252
01:56:54.100 --> 01:56:57.300
 upon restoration of the scheme. So

2253
01:56:57.300 --> 01:57:00.500
 here this is quite comparable because it's a 40th scheme

2254
01:57:00.500 --> 01:57:03.900
 and most minimal schemes are somewhere around that and

2255
01:57:03.900 --> 01:57:06.700
 so we really

2256
01:57:06.700 --> 01:57:09.400
 disappointed that this is not being

2257
01:57:10.400 --> 01:57:12.800
seeing even has been seen to been considered here.

2258
01:57:16.100 --> 01:57:19.700
Okay, thank you very much for that.

2259
01:57:19.700 --> 01:57:23.200
 Just let me ask you you mentioned

2260
01:57:22.200 --> 01:57:26.500
 some previous Arrangements involved

2261
01:57:25.500 --> 01:57:27.700
 section 106.

2262
01:57:28.400 --> 01:57:31.400
And I think you said that your view

2263
01:57:31.400 --> 01:57:35.000
 this was a comparable situation and do

2264
01:57:34.100 --> 01:57:37.800
 I take it that you consider some provision

2265
01:57:37.800 --> 01:57:40.100
 should be made using such mechanism.

2266
01:57:41.500 --> 01:57:43.700
Yes, so, I'm sorry.

2267
01:57:45.800 --> 01:57:49.500
So it's quite normal for a landowner

2268
01:57:48.500 --> 01:57:50.800
 and to

2269
01:57:53.100 --> 01:57:56.500

To commit to improvements to the rights, they Network

2270
01:57:56.500 --> 01:57:59.700
 through section 106 obligation and that

2271
01:57:59.700 --> 01:58:02.700
 can be typically to land within their control

2272
01:58:02.700 --> 01:58:05.300
 but it can be for land outside their controls or so.

2273
01:58:05.300 --> 01:58:08.200
 For example, we would very much like to see a link

2274
01:58:08.200 --> 01:58:11.900
 from the dead end Bridal way that comes from frackenham and

2275
01:58:11.900 --> 01:58:14.800
 Suffolk through to Iceland because as

2276
01:58:14.800 --> 01:58:17.400
 my body being Suffolk said the rights

2277
01:58:17.400 --> 01:58:20.800
 for Network around here really poor and for public

2278
01:58:20.800 --> 01:58:24.000
 health and well-being purposes. You really need to improve Public

2279
01:58:23.500 --> 01:58:27.100
 Access. And and that

2280
01:58:26.100 --> 01:58:29.800
 would that's a key link between communities improving

2281
01:58:29.800 --> 01:58:32.200
 connectivity between communities that something really

2282
01:58:32.200 --> 01:58:35.400
 that they could deliver partly within the red line

2283
01:58:35.400 --> 01:58:38.400
 boundary through a section 106 obligation and then

2284
01:58:38.400 --> 01:58:41.500
 a bit that's outside of it could be delivered through a

2285
01:58:41.500 --> 01:58:44.700
 through providing funds such 106

2286
01:58:44.700 --> 01:58:47.400
 funds to the local Authority who could then deliver

2287
01:58:47.400 --> 01:58:50.600
 it through section 25 or 26 of

2288
01:58:50.600 --> 01:58:52.600
 the highways act creation agreement.

2289
01:58:53.100 --> 01:58:54.200
the password

2290
01:58:56.800 --> 01:58:59.400
Okay, thank you. Just let me ask you one more question. Well, it's

2291
01:58:59.400 --> 01:59:02.300
 actually both of you and you have a right

2292
01:59:02.300 --> 01:59:05.500
 way Improvement plan and take it as to

2293
01:59:05.500 --> 01:59:08.200
 you mistakes. And yeah, yes, we do

2294
01:59:08.200 --> 01:59:09.000
 have it we have

2295
01:59:09.200 --> 01:59:13.600
It green access to strategy is referenced in documentation and

2296
01:59:13.600 --> 01:59:17.600

Cambridgeshire have also a Brightway Improvement

2297
01:59:17.600 --> 01:59:21.000
 plan. They are the same legal document. Yes and

2298
01:59:20.200 --> 01:59:24.100
 mistakes. And do you regard that planners

2299
01:59:23.100 --> 01:59:26.400
 an important and relevant consideration in the

2300
01:59:26.400 --> 01:59:29.500
 context of this application? Yes, I do. It does reflect

2301
01:59:29.500 --> 01:59:32.500
 about linking communities as well, which is is key

2302
01:59:32.500 --> 01:59:35.500
 to this kind of development. And if anything this

2303
01:59:35.500 --> 01:59:38.600
 development is severing communities, we're about

2304
01:59:38.600 --> 01:59:41.400
 linking thinking communities and that is something that's

2305
01:59:41.400 --> 01:59:44.500
 reiterated in both the both Improvement plans

2306
01:59:44.500 --> 01:59:47.600
 something that's that's quite important to think about

2307
01:59:47.600 --> 01:59:50.200
 now with the health and well-being of the public in that area

2308
01:59:50.200 --> 01:59:53.300
 how you link them rather than traveling in

2309
01:59:53.300 --> 01:59:56.200
 a car to get to a destination and this is something I

2310
01:59:56.200 --> 02:00:00.300
 think this development could achieve through mitigation.

2311
01:59:59.300 --> 02:00:03.000
 Can I also raise about

2312
02:00:02.300 --> 02:00:05.000
 the permissive paths and the duration of

2313
02:00:05.000 --> 02:00:05.400
 those?

2314
02:00:06.700 --> 02:00:10.100
So they are being proposed as permissive rather than

2315
02:00:09.100 --> 02:00:12.700
 permanent public rights way, and the

2316
02:00:12.700 --> 02:00:15.100
 applicant has stated tourist numerous times. This is

2317
02:00:15.100 --> 02:00:16.400
 for a period of 40 years.

2318
02:00:17.400 --> 02:00:20.200
That we are very clear that we

2319
02:00:20.200 --> 02:00:23.500
 would like to see these as dedicated public rights of

2320
02:00:23.500 --> 02:00:26.300
 way for the period after the 40 years that they

2321
02:00:26.300 --> 02:00:29.400
 are available to the public and the mechanism for that is to do

2322
02:00:29.400 --> 02:00:32.200
 that as a dedication of a public priority way could be

2323
02:00:32.200 --> 02:00:35.600

done as a creation agreement. If not, but we would we would

2324
02:00:35.600 --> 02:00:38.500
 be seeking that that is something that as a highway

2325
02:00:38.500 --> 02:00:41.200
 Authority. We feel quite strongly on this is a

2326
02:00:41.200 --> 02:00:44.400
 Community Asset and should be given to the community as a

2327
02:00:44.400 --> 02:00:44.900
 permanent basis.

2328
02:00:49.700 --> 02:00:54.000
Activistics Michael Bedford

2329
02:00:53.400 --> 02:00:56.200
 County could I just say because I know what's going to

2330
02:00:56.200 --> 02:01:02.400
 be said in the sense but response from the applicant

2331
02:01:01.400 --> 02:01:04.600
 because we had something of the flavor of

2332
02:01:04.600 --> 02:01:07.700
 it in our earlier discussions, but we will be addressing in

2333
02:01:07.700 --> 02:01:10.700
 our submissions the as

2334
02:01:10.700 --> 02:01:13.200
 were quasi legal Point that's being raised about

2335
02:01:13.200 --> 02:01:16.100
 whether or not that is properly to be seen

2336
02:01:16.100 --> 02:01:19.100
 as either mitigation or compensation. Yeah, if you've got

2337
02:01:19.100 --> 02:01:22.600
 a project of 40 years and is permanent provision

2338
02:01:22.600 --> 02:01:25.400
 referable to that we think it can

2339
02:01:25.400 --> 02:01:28.300
 be and will I say we will address that so that's

2340
02:01:28.300 --> 02:01:31.500
 just to say I know what's coming, but we have thought about

2341
02:01:31.500 --> 02:01:34.200
 that and we will address it and if I

2342
02:01:34.200 --> 02:01:37.300
 just in terms of other points to draw your attention

2343
02:01:37.300 --> 02:01:38.600
 you will know.

2344
02:01:39.500 --> 02:01:43.100
In app 244 there is

2345
02:01:43.100 --> 02:01:47.100
 a plan which shows the proposed

2346
02:01:46.100 --> 02:01:49.200
 public rights of way,

2347
02:01:49.200 --> 02:01:53.800
 which would be affected during the construction period and

2348
02:01:53.800 --> 02:01:56.600
 certainly we see no reason why if

2349
02:01:56.600 --> 02:01:59.800
 it becomes necessary to close

2350
02:01:59.800 --> 02:02:03.800

as opposed to manage to

2351
02:02:03.800 --> 02:02:06.500
 a bank spin type system. We see no reason

2352
02:02:06.500 --> 02:02:10.400
 why the applicant would not be able to provide diversion. We

2353
02:02:10.400 --> 02:02:13.200
 roots and the reason for provided there's

2354
02:02:13.200 --> 02:02:17.100
 diversion routes is through the reasons and the sticks already
explained

2355
02:02:16.100 --> 02:02:19.800
 to you and similarly

2356
02:02:19.800 --> 02:02:23.100
 if you look at 245 which shows

2357
02:02:22.100 --> 02:02:25.500
 the indicative provision of permissive Roots

2358
02:02:25.500 --> 02:02:28.400
 one only needs to look at those by reference

2359
02:02:28.400 --> 02:02:32.700
 to the rights of way Network to see The Limited utility

2360
02:02:31.700 --> 02:02:34.200
 of what is currently being

2361
02:02:34.200 --> 02:02:38.600
 proposed by the applicant and we would certainly welcome further
dialogue

2362
02:02:38.600 --> 02:02:39.000
 and discussion.

2363
02:02:39.500 --> 02:02:42.900

Different about improving what is

2364
02:02:42.900 --> 02:02:44.700
 to be provided in that?

2365
02:02:48.100 --> 02:02:51.600
Forum whether it's by way of permissive roots

2366
02:02:51.600 --> 02:02:54.500
 or whether it's by more longer-term routes is probably

2367
02:02:54.500 --> 02:02:57.500
 a debate still to be had but certainly

2368
02:02:57.500 --> 02:03:01.400
 we would welcome both the inclusion

2369
02:03:00.400 --> 02:03:02.800
 of additional routes

2370
02:03:03.200 --> 02:03:06.900
Either within the site which obviously the applicant is able

2371
02:03:06.900 --> 02:03:10.300
 to achieve through its own control or

2372
02:03:09.300 --> 02:03:12.300
 potentially through provision of

2373
02:03:12.300 --> 02:03:15.900
 funding contributions to enable the public authorities

2374
02:03:15.900 --> 02:03:19.100
 either by the section 25

2375
02:03:18.100 --> 02:03:22.000
 or section 26 mechanisms of the

2376
02:03:21.300 --> 02:03:23.600
 highways X would be mentioned to you.

2377
02:03:24.200 --> 02:03:27.800
Utilizing land under their control to

2378
02:03:27.800 --> 02:03:31.100
 improve or provide missing links. So

2379
02:03:30.100 --> 02:03:33.200
 there's additional points. We just draw

2380
02:03:33.200 --> 02:03:36.800
 your attention. Thank you, Mr. Bedford. And just I want

2381
02:03:36.800 --> 02:03:39.200
 to just before I

2382
02:03:39.200 --> 02:03:42.800
 want to ask the same question of Miss Rhodes

2383
02:03:42.800 --> 02:03:46.000
 about the right way Improvement plan.

2384
02:03:45.900 --> 02:03:48.800
 Do you regard it as an important and relevant

2385
02:03:48.800 --> 02:03:51.600
 consideration in context of this application?

2386
02:03:53.400 --> 02:03:54.900
Committed Rose came to camp.

2387
02:03:54.900 --> 02:03:59.100
So, yes, absolutely. It's been documented

2388
02:03:57.100 --> 02:04:00.300
 and reference within

2389
02:04:00.300 --> 02:04:03.300
 representations including in

2390
02:04:03.300 --> 02:04:07.000

the local impact report cambridge's latest

2391
02:04:06.500 --> 02:04:11.100
 version is 2016 and statements

2392
02:04:09.100 --> 02:04:13.000
 of action specifically address

2393
02:04:12.800 --> 02:04:16.500
 the need for development to

2394
02:04:16.500 --> 02:04:19.500
 not only not damaged Countryside

2395
02:04:19.500 --> 02:04:22.200
 provision. But where appropriate events should

2396
02:04:22.200 --> 02:04:25.500
 contribute to the provision of new links and or Improvement of
existing

2397
02:04:25.500 --> 02:04:28.300
 backspin network access to action three

2398
02:04:28.300 --> 02:04:31.700
 and we have a second action to the

2399
02:04:31.700 --> 02:04:35.300
 relates to safe and health enhancing activities and think

2400
02:04:34.300 --> 02:04:37.500
 of action five is feeling the gaps

2401
02:04:37.500 --> 02:04:40.800
 Countryside provision should build on the platform of historical
Network

2402
02:04:40.800 --> 02:04:44.400
 to meet the need of today's users particularly equestrians

2403
02:04:43.400 --> 02:04:47.100

and and land managers now and

2404
02:04:46.100 --> 02:04:49.300
 so yes, I do

2405
02:04:49.300 --> 02:04:52.100
 think it's vital. We always cite it in

2406
02:04:52.100 --> 02:04:53.900
 relation to any planning application and we do

2407
02:04:54.600 --> 02:04:57.600
that's the framework under which we work which

2408
02:04:57.600 --> 02:05:00.500
 does connect very well to nppf.

2409
02:05:01.200 --> 02:05:01.900
aircraft 100

2410
02:05:03.300 --> 02:05:03.500
and

2411
02:05:04.300 --> 02:05:07.900
may I add or yes? Yes,

2412
02:05:07.900 --> 02:05:09.400
 okay, and

2413
02:05:10.800 --> 02:05:13.400
so I wanted to reference the fact that I know you've

2414
02:05:13.400 --> 02:05:16.100
 had submissions from I think

2415
02:05:16.100 --> 02:05:20.600
 local residents and groups like Fordham Cambria and

2416
02:05:20.600 --> 02:05:23.000
 walking group and I think

2417
02:05:23.300 --> 02:05:26.900
 it isn't a Ramblers Association in this area and due

2418
02:05:26.900 --> 02:05:30.600
 to the fact that the representatives elderly and so

2419
02:05:29.600 --> 02:05:30.900
 effectively

2420
02:05:32.100 --> 02:05:35.900
they that's the representation is from those communities and

2421
02:05:35.900 --> 02:05:38.400
 clear. There is a strength of feeling and it's

2422
02:05:38.400 --> 02:05:41.100
 it's one thing in any discussions. We

2423
02:05:41.100 --> 02:05:44.500
 might have think we would want to be able to take take stock of

2424
02:05:44.500 --> 02:05:47.200
 that to take into account what those local people do

2425
02:05:47.200 --> 02:05:50.900
 want and I wanted

2426
02:05:50.900 --> 02:05:51.300
 to

2427
02:05:52.300 --> 02:05:53.200
point out that

2428
02:05:54.400 --> 02:05:57.100
there is the here and now so there are users who currently use

2429
02:05:57.100 --> 02:06:00.800
 the network who will be put off by any Development

2430
02:06:00.800 --> 02:06:03.900

coming and that's the negative impact that

2431
02:06:03.900 --> 02:06:06.300
 we seek to mitigate and

2432
02:06:06.300 --> 02:06:10.000
 address and the developer needs to think harder about and

2433
02:06:09.700 --> 02:06:12.900
 it changing the the

2434
02:06:12.900 --> 02:06:15.700
 open landscape to a very different more urbanized

2435
02:06:15.700 --> 02:06:18.400
 when we'll put off some users and they might get in their

2436
02:06:18.400 --> 02:06:22.200
 car and go away somewhere else, which is not what we want and
however,

2437
02:06:21.200 --> 02:06:24.900
 you know, some people that will happen for and

2438
02:06:24.900 --> 02:06:27.400
 because it's changed that is

2439
02:06:27.400 --> 02:06:30.200
 unacceptable to them. However, you also have taken

2440
02:06:30.200 --> 02:06:34.300
 to account that if you have improved Network

2441
02:06:34.300 --> 02:06:37.200
 there where there's good connectivity between communities.

2442
02:06:38.200 --> 02:06:41.700
and means of active travel for example on and

2443
02:06:41.700 --> 02:06:44.300
 more Health giving

2444
02:06:44.300 --> 02:06:47.500
 opportunities, then there will be people always moving into

2445
02:06:47.500 --> 02:06:50.400
 those areas as well who'll be looking at that and

2446
02:06:50.400 --> 02:06:53.400
 given the schemas for a half of a lifetime

2447
02:06:53.400 --> 02:06:56.200
 and certainly would see me out probably

2448
02:06:56.200 --> 02:06:57.200
 now that's

2449
02:06:58.100 --> 02:07:01.300
That's something quite big to be considered when families are making
decisions about where

2450
02:07:01.300 --> 02:07:04.600
 they're going to locate when there's new developed housing
developments happening

2451
02:07:04.600 --> 02:07:05.400
 in areas as well.

2452
02:07:08.600 --> 02:07:09.500
Thank you very much.

2453
02:07:11.300 --> 02:07:14.200
Right on the return to Mr. Attorney. Thank you.

2454
02:07:14.200 --> 02:07:17.100
 Thanks there Rich attorney for the app. And can I

2455
02:07:17.100 --> 02:07:20.400
 just pick up a few of these points? I think

2456
02:07:20.400 --> 02:07:24.000
 in respect to Temporary interference such

2457
02:07:23.100 --> 02:07:26.300
 as his there is

2458
02:07:26.300 --> 02:07:29.200
 a power in the order in article 11

2459
02:07:29.200 --> 02:07:33.100
 to divert. It may be possible to deliver dive localized

2460
02:07:32.100 --> 02:07:35.800
 diversions depending on where the

2461
02:07:35.800 --> 02:07:38.400
 way in which the construction compound is

2462
02:07:38.400 --> 02:07:41.200
 progressing along the Route, but obviously we

2463
02:07:41.200 --> 02:07:44.300
 can't through that power divert outside of the

2464
02:07:44.300 --> 02:07:47.100
 air at the order limits. So we need

2465
02:07:47.100 --> 02:07:51.200
 to look at that as we go along it agreed entirely

2466
02:07:50.200 --> 02:07:53.200
 that the signage and so on needs to

2467
02:07:53.200 --> 02:07:54.000
 be agreed with the

2468
02:07:54.800 --> 02:07:57.200
Highway Authority and that should I think be reflected.

2469
02:07:58.200 --> 02:07:59.800
and enticing up the wording in the

2470

02:08:01.100 --> 02:08:02.600
in the camp and

2471
02:08:03.600 --> 02:08:07.300
in terms of the permanent or

2472
02:08:06.300 --> 02:08:09.100
 the impacts are in the operational life of the

2473
02:08:09.100 --> 02:08:12.800
 scheme. I think the key Point emphasizes obviously

2474
02:08:12.800 --> 02:08:15.500
 don't interfere at the operational phase with

2475
02:08:15.500 --> 02:08:18.200
 any rights of way. They are retained as

2476
02:08:18.200 --> 02:08:21.200
 they are during the operational phase and instead we

2477
02:08:21.200 --> 02:08:24.800
 give further access in terms of permissive Roots just

2478
02:08:24.800 --> 02:08:27.300
 to add on that. We're in discussions on a further

2479
02:08:27.300 --> 02:08:30.500
 permissive route in eo5.

2480
02:08:31.600 --> 02:08:34.200
And obviously we in looking at the

2481
02:08:34.200 --> 02:08:37.200
 the crash site as

2482
02:08:37.200 --> 02:08:40.800
 well. We're looking at the way in which that uses that

2483
02:08:40.800 --> 02:08:43.100
 will be promoted and enjoyed in terms

2484
02:08:43.100 --> 02:08:46.600
 of signage and information boards

2485
02:08:46.600 --> 02:08:49.300
 and so on. So there's more work being done on

2486
02:08:49.300 --> 02:08:52.200
 permissive Roots. We can't for the reasons

2487
02:08:52.200 --> 02:08:55.500
 of explained previously nothing to admitigation in this point

2488
02:08:55.500 --> 02:08:56.600
 it we can't

2489
02:08:57.600 --> 02:09:01.600
The reason don't described previously dedicate public footpath

2490
02:09:00.600 --> 02:09:03.200
 because it's not our land and it won't

2491
02:09:03.200 --> 02:09:06.400
 be our land. So that's that's we've simply won't have

2492
02:09:06.400 --> 02:09:09.600
 if it all goes according to plan. We won't have the legal power

2493
02:09:09.600 --> 02:09:12.300
 to do it. And that's the point that Mr. Bedford needs to explain
why he

2494
02:09:12.300 --> 02:09:15.700
 says we would have the legal power as a leaseholder to dedicate

2495
02:09:15.700 --> 02:09:19.900
 public rights way. I think that's well. I

2496
02:09:18.900 --> 02:09:21.400
 don't want to say what was

2497
02:09:21.400 --> 02:09:25.200
 said it seems to me the other point was contributions

2498
02:09:24.200 --> 02:09:27.200
 for office. Absolutely and I was going to come on

2499
02:09:27.200 --> 02:09:30.000
 to that and we are we absolutely would like

2500
02:09:30.100 --> 02:09:33.700
 to have some concrete proposals from the county councils

2501
02:09:33.700 --> 02:09:36.500
 as to how we can improve the right way Network

2502
02:09:36.500 --> 02:09:40.100
 or contribute to their Improvement out to the site and and

2503
02:09:39.100 --> 02:09:40.500
 whether that's

2504
02:09:41.600 --> 02:09:44.300
Tech works in the sense of improving existing

2505
02:09:44.300 --> 02:09:47.200
 or whether it's funding the creation of new routes, which I

2506
02:09:47.200 --> 02:09:50.300
 think was what Miss Rhodes was referring to in terms of joining up
an existing

2507
02:09:50.300 --> 02:09:54.600
 footpath and absolutely please County

2508
02:09:53.600 --> 02:09:56.900
 councils specify precisely

2509
02:09:56.900 --> 02:09:59.300
 what it is you need and let's get it

2510

02:09:59.300 --> 02:10:02.300
 drafted into section 106 agreement. We're entirely supportive of

2511
02:10:02.300 --> 02:10:05.600
 the idea that we can make meaningful contributions to

2512
02:10:05.600 --> 02:10:09.500
 the right way Network and we

2513
02:10:08.500 --> 02:10:11.300
 can also I think look at and this

2514
02:10:11.300 --> 02:10:13.400
 might be the way around the permissive path.

2515
02:10:13.900 --> 02:10:16.100
Argument we can look at

2516
02:10:16.100 --> 02:10:19.900
 ensuring that there is a fund available to the local authorities.

2517
02:10:19.900 --> 02:10:22.600
 Should they wish to see further

2518
02:10:22.600 --> 02:10:26.800
 path creation orders later

2519
02:10:25.800 --> 02:10:28.400
 on in the life of the scheme. In

2520
02:10:28.400 --> 02:10:31.200
 other words should they wish themselves to promote public

2521
02:10:31.200 --> 02:10:36.100
 path creation orders after Sonica has

2522
02:10:35.100 --> 02:10:36.200
 gone.

2523
02:10:37.100 --> 02:10:40.400
Then we could look at whether we can assist them in doing that. It's

just

2524
02:10:40.400 --> 02:10:43.900
 this lead straight forward legal impediment. We cannot dedicate

2525
02:10:43.900 --> 02:10:46.700
 our Overland which we do not own and that's

2526
02:10:46.700 --> 02:10:50.100
 not within our power. It is a power which sits

2527
02:10:49.100 --> 02:10:52.400
 with the highway Authority though because they can

2528
02:10:52.400 --> 02:10:53.400
 create parts.

2529
02:10:53.800 --> 02:10:56.100
And that's really where they need to focus they need

2530
02:10:56.100 --> 02:10:59.200
 to say we want to create a part in this location and we need

2531
02:10:59.200 --> 02:11:02.200
 this amount of money to do so and I think that's where the

2532
02:11:02.200 --> 02:11:05.500
 conversation has to go at anywhere odds and the objective at all.

2533
02:11:05.500 --> 02:11:08.200
 We're at odds in the means of

2534
02:11:08.200 --> 02:11:08.700
 delivery.

2535
02:11:09.500 --> 02:11:13.700
So if we can have that bottomed out Quantified we

2536
02:11:13.700 --> 02:11:17.000
 will be reporting. I'm sure if that's done by the cash councils.

2537
02:11:16.600 --> 02:11:19.300
We'll be reporting to you that there

2538
02:11:19.300 --> 02:11:22.700
will be agreement or has been agreement on section 106
contributions

2539
02:11:22.700 --> 02:11:25.200
on those points. So I think

2540
02:11:25.200 --> 02:11:28.200
that's where I'll leave it. We absolutely agree with the

2541
02:11:28.200 --> 02:11:31.400
motivation of the council. It's really about how

2542
02:11:31.400 --> 02:11:31.800
it's done.

2543
02:11:32.800 --> 02:11:36.100
I'm grateful for that Mr. Turney and it

2544
02:11:35.100 --> 02:11:39.700
sounds encouraging both parties

2545
02:11:39.700 --> 02:11:42.200
or both sets of parties will have heard what the

2546
02:11:42.200 --> 02:11:45.200
others have been saying. So I don't need to say anymore. I don't

2547
02:11:45.200 --> 02:11:48.900
think except just encourage those

2548
02:11:48.900 --> 02:11:51.800
discussions. Does anybody

2549
02:11:51.800 --> 02:11:54.200
have anything else they want to say at this stage

2550

02:11:54.200 --> 02:11:57.200
 or will it conveniently be the

2551
02:11:57.200 --> 02:12:01.000
 subject of the post hearing submission process? We don't

2552
02:12:02.300 --> 02:12:06.500
Camilla Rose came to Canada just comment and it's

2553
02:12:05.500 --> 02:12:08.500
 been really difficult for the

2554
02:12:08.500 --> 02:12:13.000
 local hire authority to understand the legal status

2555
02:12:12.500 --> 02:12:16.200
 of the land of the of the

2556
02:12:16.200 --> 02:12:19.200
 proposed intentions regarding the land, hence.

2557
02:12:19.200 --> 02:12:22.300
 We're only just having this discussion now and because

2558
02:12:22.300 --> 02:12:25.000
 we it's not being clear to us, even when I was

2559
02:12:25.200 --> 02:12:28.500
 asking lastly the lands plans say to

2560
02:12:28.500 --> 02:12:31.800
 compulsively purchase the principal sites and

2561
02:12:31.800 --> 02:12:34.400
 or leaseholding and it's not being clear

2562
02:12:34.400 --> 02:12:37.200
 at all. And so, you know, that's not

2563
02:12:37.200 --> 02:12:40.900
 been helpful. It would be really useful to have absolutely Clarity

2564
02:12:40.900 --> 02:12:43.800
 on that what the

2565
02:12:43.800 --> 02:12:46.500
 intention is with regard to the principal sites.

2566
02:12:47.200 --> 02:12:50.800
And and I know the cable routes are different, but it

2567
02:12:50.800 --> 02:12:54.000
 because it affects what you can and can't put forward

2568
02:12:53.100 --> 02:12:57.300
 and propose and what the legal mechanisms are. So

2569
02:12:56.300 --> 02:12:59.100
 we did I mean,

2570
02:12:59.100 --> 02:13:02.700
 it just strikes me that that is perhaps an issue of communication
and

2571
02:13:02.700 --> 02:13:05.100
 I'm not saying whether it's so I think one side or the

2572
02:13:05.100 --> 02:13:07.400
 other I think it may be that obviously.

2573
02:13:08.200 --> 02:13:11.100
Some people in the room won't hear on Tuesday and where we mentioned

2574
02:13:11.100 --> 02:13:14.100
 this point, but just to be absolutely in respect

2575
02:13:14.100 --> 02:13:17.600
 to the principal sites. The mechanism that

2576
02:13:17.600 --> 02:13:21.600
 the applicant is pursuing is to lease the

2577
02:13:21.600 --> 02:13:23.800
 land for the duration of the scheme.

2578
02:13:24.900 --> 02:13:27.100
That's makes it magnificoing and

2579
02:13:27.100 --> 02:13:29.500
 that's why you're not hearing from a lot of

2580
02:13:30.400 --> 02:13:33.200
objectives for the principal sites because we're

2581
02:13:33.200 --> 02:13:36.400
 in we've either got those sites under option or we're very close
having them

2582
02:13:36.400 --> 02:13:39.400
 under options. So it's a lease for the life of the scheme.

2583
02:13:40.200 --> 02:13:43.400
Because that's less than the CPA Powers. We

2584
02:13:43.400 --> 02:13:46.500
 have the full back of the CPO Powers the compulsory

2585
02:13:46.500 --> 02:13:49.600
 appcision Powers at Freehold. Yeah

2586
02:13:49.600 --> 02:13:53.300
 in the event. We're unable to complete those agreements. Okay. I

2587
02:13:52.300 --> 02:13:53.700
 mean, I think

2588
02:13:56.500 --> 02:13:59.800
in terms of explaining what what what's happening

2589
02:13:59.800 --> 02:14:02.600
 what's likely to what would be likely

2590

02:14:02.600 --> 02:14:05.200
 to happen if the DCA were

2591
02:14:05.200 --> 02:14:05.700
 granted?

2592
02:14:07.800 --> 02:14:11.100
Could fruitfully be the subject of some Outreach

2593
02:14:10.100 --> 02:14:15.500
 to this roads

2594
02:14:15.500 --> 02:14:16.100
 and her colleagues.

2595
02:14:16.800 --> 02:14:21.600
On the on the other authorities so and

2596
02:14:20.600 --> 02:14:23.500
 again, I would encourage, you know

2597
02:14:23.500 --> 02:14:26.500
 to talk out outside of the formal process

2598
02:14:26.500 --> 02:14:30.200
 and feed that into the

2599
02:14:29.200 --> 02:14:32.300
 statements of Common Ground so that so that

2600
02:14:32.300 --> 02:14:36.800
 we as an example in Authority have a clear idea of how far

2601
02:14:36.800 --> 02:14:39.600
 your prepared to go as an applicant in relation

2602
02:14:39.600 --> 02:14:43.100
 to these matters and what the reason justification is

2603
02:14:42.100 --> 02:14:45.700
 on the part of the county councils

2604
02:14:45.700 --> 02:14:47.900
 for for such provision.

2605
02:14:50.200 --> 02:14:50.500
So

2606
02:14:51.900 --> 02:14:54.600
unless there's a handle from the back. Yes, sir.

2607
02:14:58.200 --> 02:15:01.800
It's a good year folding Cambridge here

2608
02:15:01.800 --> 02:15:04.500
 walking group. Oh, yes. We

2609
02:15:04.500 --> 02:15:07.900
 were on the site visit just yes. I have submitted

2610
02:15:07.900 --> 02:15:10.800
 a written written representation on behalf

2611
02:15:10.800 --> 02:15:11.500
 of the group.

2612
02:15:12.100 --> 02:15:17.000
And my question for the inspector panels is

2613
02:15:15.400 --> 02:15:17.700
 a simple one.

2614
02:15:19.600 --> 02:15:24.400
We we have been forward in articulating what

2615
02:15:23.400 --> 02:15:27.000
 we believe should be the local

2616
02:15:26.700 --> 02:15:30.800
 permissive groups. And my

2617

02:15:29.800 --> 02:15:32.500
question is are we

2618
02:15:32.500 --> 02:15:35.300
excluded because we're not a party

2619
02:15:35.300 --> 02:15:38.000
registered to speak and it's supposed to

2620
02:15:38.100 --> 02:15:41.600
be principally a written process by the

2621
02:15:41.600 --> 02:15:44.300
fact that on that basis we chose not to

2622
02:15:44.300 --> 02:15:44.700
speak.

2623
02:15:46.100 --> 02:15:49.500
Right. I'm a little unclear forgive members

2624
02:15:49.500 --> 02:15:52.500
to Goodyear. And did you register as

2625
02:15:52.500 --> 02:15:55.200
an interested party you made some

2626
02:15:55.200 --> 02:15:58.700
representations I've read the outset. So

2627
02:15:58.700 --> 02:16:01.600
you will have been registered as an interest that's

2628
02:16:01.600 --> 02:16:04.800
already sir. So that yes opens you

2629
02:16:04.800 --> 02:16:07.300
into the examination. I think

2630
02:16:07.300 --> 02:16:10.400
what I'm coming to so he's will we

2631
02:16:10.400 --> 02:16:13.900
 have an opportunity to comment further in

2632
02:16:13.900 --> 02:16:17.100
 relation to permissive groups by

2633
02:16:16.100 --> 02:16:19.300
 all means. I don't I can't guarantee

2634
02:16:19.300 --> 02:16:23.000
 that there will be any further oral opportunity to to

2635
02:16:22.700 --> 02:16:25.900
 reconvene in this in this forum, but

2636
02:16:25.900 --> 02:16:28.200
 certainly there are opportunities along the way and

2637
02:16:28.200 --> 02:16:31.600
 I'm suggest is that you speak with

2638
02:16:31.600 --> 02:16:35.900
 my colleague as far away or either

2639
02:16:34.900 --> 02:16:37.100
 after the close of this

2640
02:16:37.100 --> 02:16:40.400
 hearing or subsequently to one

2641
02:16:40.400 --> 02:16:44.900
 of the case of team and they

2642
02:16:43.900 --> 02:16:45.800
 will be able to advise.

2643
02:16:46.600 --> 02:16:49.900
You as to the best process for making your

2644

02:16:49.900 --> 02:16:51.500
 your further submissions.

2645
02:16:52.500 --> 02:16:55.500
Thank you, sir. I have one constraint and

2646
02:16:55.500 --> 02:16:58.700
 that is that I'm away on leave with

2647
02:16:58.700 --> 02:17:03.300
 unlikely internet access until 17th

2648
02:17:02.300 --> 02:17:05.900
 of December and I'm conscious

2649
02:17:05.900 --> 02:17:08.600
 of deadline for will that

2650
02:17:08.600 --> 02:17:11.400
 be a factor? Well, I don't know

2651
02:17:11.400 --> 02:17:14.500
 and I can't really advise you on that. But as I

2652
02:17:14.500 --> 02:17:18.200
 say if you have a word with the case manager, you

2653
02:17:17.200 --> 02:17:20.800
 may well be able okay something out so, you

2654
02:17:20.800 --> 02:17:23.200
 know like so I can confirm if it

2655
02:17:23.200 --> 02:17:26.400
 helps reach anything. I can confirm for Mr. Goodyear's

2656
02:17:26.400 --> 02:17:29.400
 reassurance before he goes away that reps is

2657
02:17:29.400 --> 02:17:33.000
 most recent representation of the seventh December where

2658
02:17:32.200 --> 02:17:35.100
he set out his concerns that I

2659
02:17:35.100 --> 02:17:38.300
don't want to speak Ice Age 3, but here's my concern. He's on

2660
02:17:38.300 --> 02:17:38.600
the website.

2661
02:17:39.500 --> 02:17:42.100
So and it's been given a number which is

2662
02:17:43.600 --> 02:17:48.200
as 315. Oh

2663
02:17:47.200 --> 02:17:50.600
you are there. So you're on the record of Goodyear.

2664
02:17:50.600 --> 02:17:54.400
And as I say the examination

2665
02:17:53.400 --> 02:17:57.500
is ongoing I've worked

2666
02:17:57.500 --> 02:18:00.500
with case officers to see how you may be able to input into

2667
02:18:00.500 --> 02:18:01.600
that process that

2668
02:18:02.700 --> 02:18:03.200
Okay.

2669
02:18:04.200 --> 02:18:05.600
Thank you, Mr. Tony.

2670
02:18:06.400 --> 02:18:08.100
Now anything else?

2671

02:18:09.200 --> 02:18:12.400
I want to go through very briefly if you can bear

2672
02:18:12.400 --> 02:18:16.200
 it just some action points, and

2673
02:18:15.200 --> 02:18:19.300
 I only have about three or so. So

2674
02:18:18.300 --> 02:18:21.100
 I'll just go through them.

2675
02:18:23.500 --> 02:18:24.700
the first was

2676
02:18:26.200 --> 02:18:30.900
the hatchfield appeal decision

2677
02:18:30.900 --> 02:18:31.300
 letter

2678
02:18:34.500 --> 02:18:35.400
this course

2679
02:19:02.200 --> 02:19:05.100
just going through the

2680
02:19:05.100 --> 02:19:08.800
 couple of action points that I had arising from today session

2681
02:19:08.800 --> 02:19:11.300
 firstly the applicant was

2682
02:19:11.300 --> 02:19:14.200
 going to supply a copy of the appeal decision that you had to

2683
02:19:14.200 --> 02:19:17.500
 Field farm just for the avoidance of doubt. I'll

2684
02:19:17.500 --> 02:19:20.200
 give the reference for that because I think

2685
02:19:20.200 --> 02:19:23.500
 there are a couple of associated appeals. I wasn't originally
wasn't

2686
02:19:23.500 --> 02:19:26.900
 quite sure which one was those pertinent but

2687
02:19:26.900 --> 02:19:29.200
 the reference I think which is

2688
02:19:29.200 --> 02:19:31.300
 the right one is app.

2689
02:19:32.100 --> 02:19:36.000
Oblique h3510 I believe

2690
02:19:35.400 --> 02:19:40.100
 V for Victor oblique 14 oblique

2691
02:19:38.100 --> 02:19:42.300
 to to eight seven

2692
02:19:42.300 --> 02:19:45.400
 one. That's stated 31 August 2016.

2693
02:19:46.300 --> 02:19:49.500
And so if if the relevant

2694
02:19:49.500 --> 02:19:52.200
 passages could be highlighted or a note

2695
02:19:52.200 --> 02:19:53.600
 company it that will be helpful.

2696
02:19:55.500 --> 02:19:57.900
to Richard anything

2697
02:19:59.100 --> 02:20:02.400
I think that is not actually the decision letter that's been the
subject

2698
02:20:02.400 --> 02:20:05.400
 to mostly exchanges. I think that's interesting.

2699
02:20:05.400 --> 02:20:08.200
 So I I'm sure I saw that reference. I

2700
02:20:08.200 --> 02:20:11.600
 think I think one of I think there's a there's another reference.
There's a 2020 decision

2701
02:20:11.600 --> 02:20:12.000
 letter as well.

2702
02:20:13.100 --> 02:20:16.200
That those are the two. So what we should do is we should provide

2703
02:20:16.200 --> 02:20:20.200
 both but we already agreed that we would identify which

2704
02:20:19.200 --> 02:20:22.300
 parts would want you

2705
02:20:22.300 --> 02:20:22.900
 to read. Yeah.

2706
02:20:23.600 --> 02:20:26.600
And hopefully we can we can

2707
02:20:26.600 --> 02:20:29.100
 do that in agreement with them. Say no Seneca.

2708
02:20:30.500 --> 02:20:33.800
Secure thank you. Your second item was

2709
02:20:36.700 --> 02:20:40.400
Mr. Tanks referred to a report

2710
02:20:39.400 --> 02:20:44.700
 which you can

2711
02:20:42.700 --> 02:20:45.900
 supply us

2712
02:20:45.900 --> 02:20:46.400
 with its

2713
02:20:48.600 --> 02:20:52.400
Reference S p04018. It's

2714
02:20:52.400 --> 02:20:55.900
 the research project for soil recovery. Organic

2715
02:20:55.900 --> 02:20:56.200
 matter.

2716
02:20:57.600 --> 02:21:00.100
It was Mr. Bad. But yes was Mr. Oh, I'm sorry.

2717
02:21:00.100 --> 02:21:01.800
 Yeah, all right.

2718
02:21:03.600 --> 02:21:06.800
so that and

2719
02:21:06.800 --> 02:21:10.500
 the decision left by decision for sorry

2720
02:21:09.500 --> 02:21:11.200
 deadline for

2721
02:21:12.500 --> 02:21:14.000
and then thirdly

2722
02:21:15.100 --> 02:21:19.200
the applicants to

2723
02:21:18.200 --> 02:21:22.200
 produce a copy of the technical notes

2724
02:21:21.200 --> 02:21:25.000

and that's referred

2725
02:21:24.100 --> 02:21:27.300
 to that was

2726
02:21:27.300 --> 02:21:30.900
 a request of Natural England in their submission

2727
02:21:30.900 --> 02:21:33.000
 as 314.

2728
02:21:37.600 --> 02:21:40.600
I think that was my

2729
02:21:40.600 --> 02:21:41.500
 deadline for as well.

2730
02:21:43.700 --> 02:21:46.300
Thank you. So there's the ones I

2731
02:21:46.300 --> 02:21:46.600
 had.

2732
02:21:49.100 --> 02:21:52.800
That's okay. Good and okay. Well

2733
02:21:52.800 --> 02:21:55.400
 unless I've missed anything else and as I

2734
02:21:55.400 --> 02:21:58.500
 say we will take the Water Resources issue

2735
02:21:58.500 --> 02:22:01.100
 offline and deal with

2736
02:22:01.100 --> 02:22:05.300
 it that way at this stage. Thank you

2737
02:22:05.300 --> 02:22:08.700
 very much everyone. Thank you for your patience Now 26 and

2738
02:22:08.700 --> 02:22:09.900
 earrings are closed.