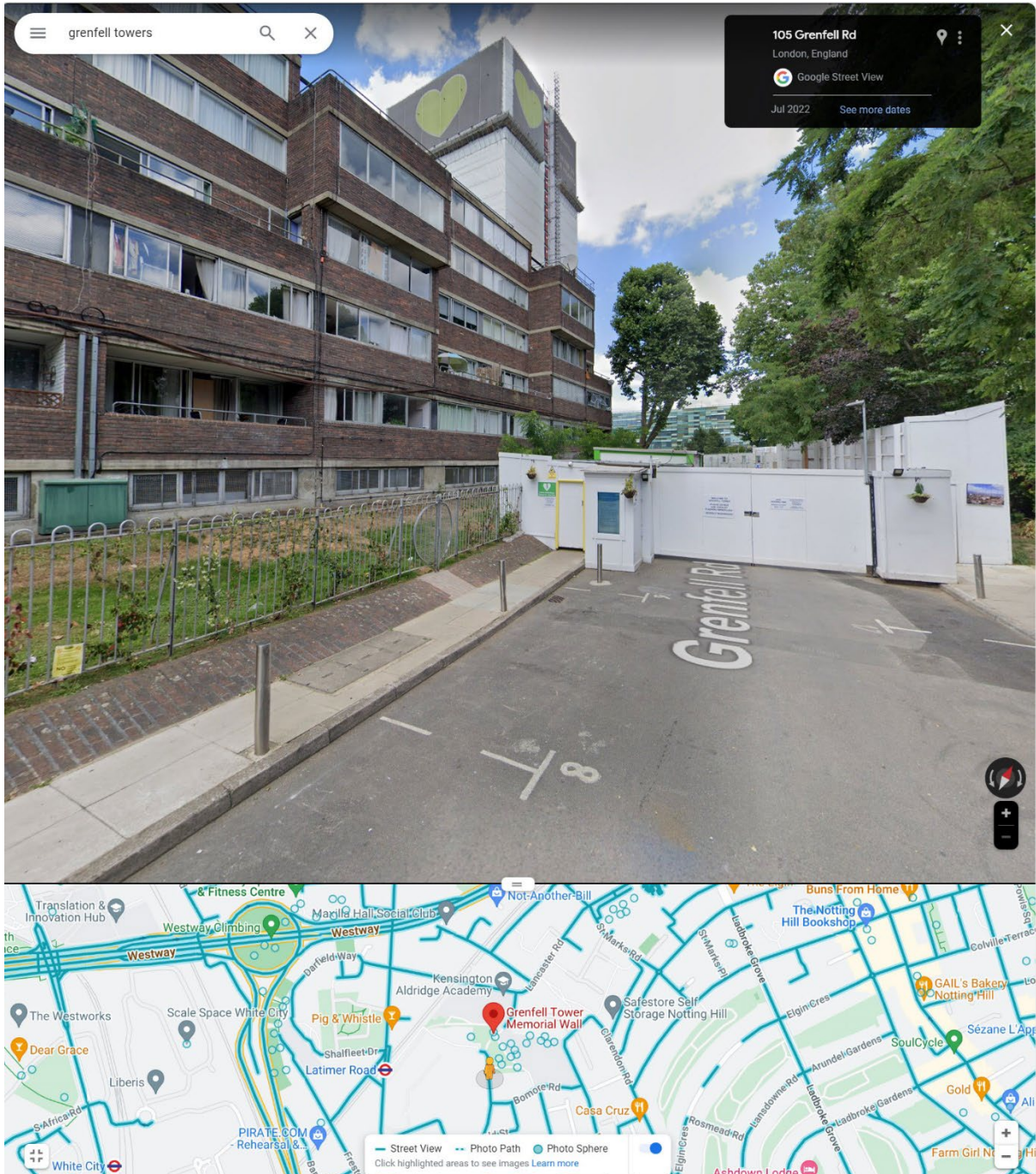


Grenfell Tower Roots



There follows an extract from the Phase 1 Report of the Grenfell Fire Inquiry

Chapter 31

Isolating the Tower from the Gas Supply

- 31.1 Gas was supplied to the tower by Cadent Gas Ltd (Cadent). At 03.22 on 14 June 2017 the LFB contacted the Gas Emergency Call Centre and asked Cadent to attend.¹ By 03.50 an Emergency Response Team from Cadent was present at the incident.² Between 04.30 and 05.00 they reported to the LFB command unit on Bramley Road and were told to stand by and await further instructions. At all material times Cadent was a Category 2 responder within the meaning of Part 3 of Schedule 1 to the CCA and as such had an obligation to assist the LFB in the performance of its duties under the Act. In practice, that meant that Cadent was required to support the LFB by cutting off the gas supply to the tower when required to do so.
- 31.2 Jason Allday, a Level 7 Network Engineer and member of Cadent's Emergency Response Team, gave written and oral evidence describing the operations that were carried out in order to shut off the supply of gas to the tower.³ A number of written statements from Cadent personnel also addressed that topic.⁴
- 31.3 Although Jason Allday was not on standby for the Emergency Response Team that night, he attended the incident because he was very familiar with the area as a result of his involvement in gas repair work on Bramley Road near to the tower. He had also attended training in managing an emergency incident in conjunction with other emergency services, including the LFB. Having seen news reports about the fire in the early hours of 14 June, he realised that his assistance would be required and decided to attend the incident.⁵ He reached the incident ground at around 07.20 and, after gathering key information about the situation and the resources available to him,⁶ reported to CU8, where he was told that the LFB wanted the gas supply to the tower to be cut off.⁷
- 31.4 In principle there were three methods by which that might be achieved: (1) by closing the pipeline isolation valves (PIVs) immediately outside the perimeter of the tower, (2) by shutting off the gas governors serving the local area and (3) by cutting the gas mains in the streets adjacent to the tower. In the event, neither of the first two methods could be adopted. PIVs are normally located within one or two metres of the building they serve and in this case they were completely inaccessible due to falling debris.⁸ The gas governors are pressure-reducing valves within the gas network⁹ which operate, in effect, like taps, so that if one is closed the others open more widely in order to maintain the pressure in the system. It would have been necessary to close at least 10 governors in order to shut off the gas supply to the tower and it would also have been necessary to place physical isolations behind each of them.¹⁰ In those circumstances, Jason Allday and his team quickly rejected that option.¹¹

¹ [CAD00000002].

² [MET00007821] p. 2; [MET00007956] section 20.

³ Day 73; [MET00012710]; [CAD00003018].

⁴ Read into the record on Day 73 (14 November 2018) <https://www.grenfelltowerinquiry.org.uk/hearings/evidence-cadent-gas-ltd-and-bsrs>

⁵ Day 73/14/17-15/18.

⁶ Day 73/30/15-24.

⁷ Day 73/31/2-32/10.

⁸ Day 73/32/20-36/9.

⁹ Shown in Exhibit JMA/3 [CAD00003012].

¹⁰ Day 73/37/14-42/14.

¹¹ Day 73/41/25-42/7.

- 31.5 The third method, which involved cutting and sealing the pipes supplying gas to the area of the tower at suitable points in streets nearby, was therefore chosen as the best option for isolating the tower. There were three gas mains serving the area of the tower and it was therefore necessary to cut all three in order to achieve complete isolation.¹² By using a combination of electric laptop devices (known as “Go-Books”) and hard copy maps, Jason Allday and his team identified three locations, on Grenfell Road, Testerton Walk and Station Walk respectively, at which it was safe to excavate the roadway and expose the pipes for work to be carried out on them.
- 31.6 The pipes beneath Testerton Walk and Station Walk were both made of ductile iron. In order to stop the flow of gas in metal pipes of up to 12 inches in diameter, a “bagging off” system is used, which involves drilling six holes in each pipe, three on either side of the point at which it is intended to make the cut, inserting four air bags and inflating them to create a seal and creating a bypass line to check that the flow of gas has ceased. Once a tight seal has been created, the pipes can be cut and capped.¹³ The pipe beneath Grenfell Road was made of polyethylene. Pipes of that kind can be compressed using a special tool to cut off the flow of gas to enable the pipe to be cut and capped off.
- 31.7 At 08.50 Jason Allday discussed with the LFB safety officers his proposal to cut the three gas mains and obtained their approval to do it. He said that until that time cutting off the gas supply to the tower had not appeared to be a priority for the LFB, given the more immediate pressures of fighting the fire and attempting to save life.¹⁴ No concerns were raised by the LFB at that time about the possibility that gas could be fuelling the fire or reigniting sections of the tower.¹⁵
- 31.8 It was not until later in the day, at some time between 14.00 and 15.00, that Jason Allday became aware that the LFB was concerned about gas burning inside the tower,¹⁶ when orange flames, which appeared to be fed by gas, could be seen in some compartments.¹⁷ That was consistent with his own view that it was not until that stage that gas had been contributing to fires in the tower.
- 31.9 At around 14.00 Jason Allday was asked by the LFB for the first time whether there were any valves in the building which could be used to shut off the gas. After consulting his colleagues, he explained that there were four risers in the building serving the residential flats, with a separate gas supply for the communal boilers.¹⁸ The LFB asked him whether he was prepared to go into the basement to try to operate the valves to shut off the risers. That was the first time he had considered entering the basement because up to that point burning debris falling from the building had made it impossible to approach it.¹⁹ At around 15.50, Jason Allday and Patrick Kelly, a member of the contract management team at Cadent, approached the basement together with three LFB officers. In order to gain access to the entrance door on the east side of the tower, they were escorted by LFB officers carrying riot shields to protect them against the risk of falling debris.

¹² As shown in Exhibit JMA/1 [MET00012914] at points 3, 4 and 5 on the map.

¹³ Day 73/72/4-73/22.

¹⁴ Day 73/62/18-65/3 and [MET00012710] section 38.

¹⁵ Day 73/65/4-10.

¹⁶ Day 73/66/12-16, 81/24-82.

¹⁷ Day 73/108/9-109/3.

¹⁸ Day 73/92/19-24.

¹⁹ Day 73/82/10-19.

- 31.10 Once inside the basement Jason Allday was able to identify three of the four gas risers, which were located in the corners of the room with valves at a high level,²⁰ but conditions in the building prevented him from carrying out anything more than a cursory inspection. There was a significant quantity of water present and he realised that the electricity was still on, which immediately gave him cause for concern. Apart from that, after no more than 5 minutes, the LFB advised everyone to leave the building because there were fears that it was about to collapse. In those circumstances it was not possible for him to try closing the valves, which would have involved taking ladders down into the basement to enable people to climb up to them. The risk to life posed by the conditions in the basement made that impossible.²¹ (When later that evening at around 20.15 the LFB asked Jason Allday to consider re-entering the basement, he declined to do so in view of the serious risks to safety, a decision which was supported by his line manager, Tony Day.)²²
- 31.11 The team from Cadent therefore turned their attention to cutting off the supply of gas at the locations that had been identified in Grenfell Road, Testerton Walk and Station Walk. They had difficulty gaining access to the excavation sites in Grenfell Road and Testerton Walk because both were brought within the inner exclusion safety cordon around the tower when it was extended during the afternoon. In addition, the activities of other emergency services made it difficult to bring the vehicles and equipment needed to carry out the excavations into the area.²³ As a result, part of the excavation had to be carried out by hand at both sites and at one stage the Cadent team had to pull back when it was considered too dangerous to remain within the inner cordon because of fears for the stability of the building. Work could continue only with the help of a team of LFB “spotters” who were deployed to watch for signs of instability in the tower. Jason Allday described a number of tense moments when difficult decisions had to be taken on whether it was safe to carry on with the work.²⁴ In the event, excavations in both locations started at around 14.30 and the work was completed by 20.00 that evening.
- 31.12 The work to cut the gas main on Station Walk also proved difficult. Both the Go-Book electronic map and the paper maps showed it as a 12-inch main, which was consistent with the size of pipe marked as branching off the nearby governor at Latimer Road.²⁵ However, after some difficulty finding the pipe (five attempts were needed to locate it and it lay deeper in the ground than had been expected),²⁶ the team from Cadent discovered that the pipe was in fact 15 inches in diameter. They did not have the proper equipment to isolate a main of that size, but they decided to adopt an improvised method which involved over-inflating the air bags designed for use on a 12-inch pipe. That enabled them to avoid waiting for a specialist subcontractor to arrive, which would have caused further delay. In the event, their plan was successful and at 23.40 the flow of gas to the building ceased. In the early hours of 15 June a more permanent solution was achieved with the assistance of Cadent’s specialist subcontractor.²⁷

²⁰ Day 73/92/9-14.

²¹ [MET00012710] section 57.

²² Day 73/95/7-96/14; [MET00012710] section 64.

²³ [MET00012710] sections 47-49.

²⁴ Day 73/96/25-100/5.

²⁵ Day 73/50/22-62/17, 103/1-104/22.

²⁶ Day 73/76/18-80/15.

²⁷ [MET00012710] sections 66-73; Day 73/100/11-107/10, 111/8-112/7.

- 31.13 When the gas was cut off at 23.40, Jason Allday described seeing the flames in the tower die down almost immediately,²⁸ demonstrating the contribution that gas had been making to the fires at that time. He remained on hand to supervise the permanent work on the pipe beneath Station Walk and eventually left at 07.15, having been on site for around 24 hours.²⁹
- 31.14 There can be no doubt that the Cadent team did an excellent job in finding the local gas mains and cutting off the supply of gas to the tower. They succeeded in completing a challenging task over a long period of time in difficult and sometimes dangerous conditions. Their success was to a large extent due to Jason Allday's inspirational leadership, clarity of planning and careful execution.

²⁸ [MET00012710] section 72; Day 73/107/11-108/8.

²⁹ [MET00012710] sections 72-74; Day 73/111/23-112/7.

