

Dated :

Cadent's background

5. I will start by providing some background about Cadent and the contractual arrangement it had in place in relation to the works performed at the Tower.
6. Prior to 1 October 2016, National Grid Gas pic owned and operated 4 of the 8 UK gas distribution networks. By an agreement dated 30 September 2016, all assets and liabilities (as defined) relating to National Grid Gas pic's gas distribution business were transferred to a new company, National Grid Gas Distribution Limited. On 2 May 2017, National Grid Gas Distribution Limited changed its name to Cadent Gas Limited. Throughout this statement I will refer to all matters as if all actions and activities had been undertaken by Cadent.
7. Cadent is a gas transporter, which means that it owns and operates the pipes and associated apparatus which supply natural gas to commercial and domestic properties within the geographic footprint of its distribution networks. It does not own the gas, rather it is paid to transport gas on via gas suppliers such as Npower and British Gas, who in turn charge customer via a "transportation charge" on customer's gas bills.
8. As the largest distributor of gas in the UK, Cadent owns 4 of the 8 regulated gas distribution networks. It owns and operates over 131,000 kilometres of lower-pressure gas distribution mains, serving 10.8 million homes and businesses (48 percent of the UK's homes, schools and businesses). The Company covers the East of England, North London, the North West and the West Midlands to ensure customers are connected to the gas they need for heating, cooking and to keep businesses running. Cadent manages its networks including connecting new customers and responding to reported gas escapes. It also manages the National Gas Emergency Service number on behalf of all gas distribution networks.
9. Cadent is a private limited company, as opposed to a public sector entity. It has a licence to transport gas in Great Britain and this is regulated by the Office of Gas and Electricity Markets ("Ofgem"). Ofgem both sets the regulatory

framework and the level of the “transportation charges” on customer’s bills. Therefore, there was no need for Cadent to bid for the work as the work already formed part of its business and regulatory obligations. Nor, was it necessary for Cadent to set any level of pricing for payment for the work as this is also included in the regulatory obligations set out by Ofgem.

Contractual arrangements

10. Cadent entered into a Gas Distribution Strategic Partnership (“GDSP”) contract (“the Contract”) with tRiIO on 18 December 2012. tRiIO is an unincorporated joint venture between Morrison Utility Services Limited and Skanska Construction UK Limited whom together undertake work for Cadent as tRiIO. It is a substantial undertaking and was awarded an 8 year contract on 18 December 2012 for London and East of England networks which commenced on 1 April 2013 (the “Contract”).
11. This Contract underpins the relationship between Cadent and tRiIO and sets out the contractual relationship for this 8 year period. tRiIO, as contractor for works under the Contract is required to comply with all statutory requirements (including CDM Regulations (as defined in paragraph 16 below) and any obligations imposed by the Health and Safety Executive or Ofgem), relevant British or European standards or codes of practice, and best practice guidelines in respect of health and safety as are applicable to the activities carried out under the Contract. tRiIO must also ensure that the plant and materials used are compliant with statutory requirements. Pursuant to Clause 10.1.1 of the Contract, tRiIO is required to undertake the GDSP Activities in accordance with the provisions of the Contract and specifically Schedule 1 (GDSP Conditions of Contract). Clause 20.1 of the GDSP Conditions of Contract states: “*The Contractor Provides the Works, both before and after the Contract Date in accordance with:*
- *the Works Information,*
 - *the other provisions of this contract,*
 - *the Statutory Requirements (including the CDM Regulations),*

Health and Safety Requirements, all relevant technical, professional or other applicable standards (including all relevant policies, standards and specifications issued or provided by the Employer and as revised and updated from time to time.) and in each case any modification of or addition to those standards as may from time to time be furnished or approved in writing by or on behalf of the Employer and in compliance with all other applicable provisions of this Agreement.

13. IGEM/G/5 details best practice for the design, installation and maintenance of gas installations for multi-occupancy buildings, of which the Tower was one. tRiIO must also provide the works in accordance with Good Industry Practice (clause 10.1.3 the Contract and 20.1 of the GDSP Conditions of Contract (Schedule 1)) as defined within the Contract.
14. The definition of 'Good Industry Practice' is stated in the Contract (at page 9) as: *"the standards, practices, methods and procedures conforming to all Statutory Requirements and the degree of skill care, diligence, prudence and foresight which would reasonably be expected from a skilled and experienced person undertaking all of part of the GDSP Activities, as the case may be, under the same or similar circumstances"*.
15. In accordance with clause 11.4 of the Contract, tRiIO has been appointed on an exclusive basis to undertake gas distribution construction work of this type for Cadent in London and East of England.
16. At the time that the Contract was entered into the Construction (Design and Management) Regulations 2007 ("CDM 2007") were in force. Under CDM 2007 Cadent was the CDM Co-Ordinator and tRiIO was the Principal Contractor. CDM 2015 introduced the new role of Principal Designer and removed the CDM Co-ordinator role. It was intended that tRiIO would undertake the Principal Designer role under the Contract in addition to the Principal Contractor role it had undertaken under CDM 2007. Prior to accepting the role of Principal Designer, and in order to ensure that tRiIO had the competencies to fulfil the Principal Designer role, tRiIO instructed Arup to review their policies and

procedures in order to independently report on the requirements and competencies needed. The cost of this report was shared with Cadent. The report prepared by Arup summarised what additional skills were required by tRlIO to fulfil the Principal Designer role. A project plan was set in train to prepare tRlIO to become the Principal Designer and fulfil the requirements for the role under CDM 2015. On 19 April 2016, tRlIO confirmed that they had the competencies to fulfil the role of Principal Designer. This was accepted by Cadent. tRlIO confirmed that they had the competencies to carry out the types of work involved in the riser replacement work at the Tower.

17. As the CDM regime had changed so did the roles of Cadent as the Client and tRlIO as Principal Designer and Principal Contractor. In order to ensure that Cadent, tRlIO and Cadent's other contractors understood their roles and responsibilities under the new CDM regime, Cadent devised a document to delineate for both parties how these new roles would operate under the Contract. This was to ensure that both parties had clarity as to how roles and responsibilities would operate from what was, for both parties, a new system. This document was entitled the "Clear Bright Line" and is exhibited at Exhibit SM1. The Clear Bright Line was also designed to ensure that Cadent did not "over-reach" its obligations which could cause confusion and be detrimental to safety.

Grenfell Tower

18. The Tower originally had two supplies of gas. The first, a 10" steel service, supplied a communal heating and hot water system in the basement of the Tower. The second, a 4" steel service, supplied gas for cooking in residential flats on the 4th to the 23rd floors via six gas riser pipelines (vertical gas pipes) that were installed when the Tower was built. Our records do not stretch back that far but typically the services would be built into service ducts forming the core of the building at the time of construction, similar to lift shafts. It is understood that the six risers in the Tower were constructed within the original fabric of the building and passed through the concrete floors within each individual flat. Just over 70% of the flats were using a live gas supply. Between

October 2016 and June 2017 a third gas supply service and a replacement for one of the existing risers were installed in the Tower, together with associated works. The circumstances of the replacement are described below.

19. The gas risers in the Tower were subject to periodic inspections in line with Cadent engineering procedures (principally T/PM/LC/21). The most recent survey had been completed on the 30 September 2016. A small gas leak was identified on one of the risers, riser 2, due to corrosion and, as a result, this riser was isolated (the gas supply it provided was cut off) by Cadent in accordance with Cadent's procedures. This was completed on 1 October 2016 isolating the gas supply to all flats at the Tower supplied by riser 2. The flats affected were those flats with a number ending in a 2 (i.e. 12, 22, 32 etc.). In total there were 20 such flats, of which 13 used a gas supply for cooking.
20. In this statement, I will deal with the work undertaken at Grenfell Tower on behalf of Cadent as a result of the gas leak identified on one of the risers. My colleague James Harrison will also provide a statement to the Inquiry and he will deal with the survey undertaken by Cadent of the gas assets at the Tower prior to the works taking place.

The options available following the isolation of riser 2

21. Cadent has a duty to connect customers whose premises are situated (horizontally) within 23 metres from a relevant gas main. Cadent also has a duty to maintain a gas connection until such a time as it is no longer required by the owner or occupier of the premises.
22. Following the isolation of riser 2, there were two options in respect of that element of the gas supply at the Tower. One option was to no longer supply gas for cooking to the building and compensate (“buy-out”) all gas customers within the building for this. This compensation would enable customers to swap to electrical appliances for cooking purposes. This option was only considered viable if all consumers using gas within the Tower agreed to the change (not just those served by riser 2) and the owner/Tenant Management Organisation

is that his appointment will not allow the Contractor to Provide the Works or his appointment will not allow the Contractor to Provide the Works in accordance with the requirements of this Agreement relating to the Employer's health and safety policies, standards and procedures or if the Contractor cannot provide reasonable evidence to the Project Manager that the proposed Subcontractor possess the level of experience and knowledge necessary to perform the relevant subcontracted element of the works in an appropriate manner. The Contractor does not appoint a proposed Subcontractor until the Project Manager has accepted him.

31. K&S Pipe Contractors LLP ("K&S") was contracted to install and weld the new replacement riser (vertical pipe) and laterals (horizontal pipes) running into the individual flats. They were initially engaged in October 2016 and were part of the discussions that took place in respect of the proposed route for the new riser. By the time of the fire, K&S and their sub-contractors had completed the work they were contracted to undertake at Grenfell.
32. K&S subcontracted parts of its work to specialist contractors detailed below:
 - a. London Ops Gas, a survey company run by Simon Boygle, was contracted to undertake survey work in connection with the replacement riser and laterals.
 - b. Holland Gas Engineers Ltd ("Holland Gas") was contracted to move the meters within the thirteen residential properties, where necessary. Holland Gas had completed its work at the Tower at the time of the incident.
 - c. Price Brothers Surfacing was contracted to complete the in-ground reinstatement works outside the Tower in respect of the installation of the new PIV.
33. tRlIO also engaged a number of other contractors directly, namely:
 - a. Express Building Contractors Limited ("Express") assisted Holland and tRlIO fitters in running the internal pipework and were then engaged in

April 2017 to box in the replacement riser and lateral pipework in the communal landings to the identified flats.

34. At the time of the fire, the ducting of the riser was complete from the 2nd floor up to the 22nd floor. Following our site visit to the Tower we can confirm that Express had completed the ducting of the laterals on floor 5 and had laid the battens on floor 4 and the floors that had laterals between floors 6 to 10. It was anticipated they would be working on site for a further 5-6 weeks at the time of the fire in order to complete the ducting.
35. Globe Scaffolding Limited ("Globe") was contracted to install scaffolding on the 23rd floor and it did so on 12 and 13 June 2017. This was to allow safe access for the installation of ducting around the replacement riser up to the roof vent. At all other locations within the Tower ducting could be installed without scaffolding.
36. Cape Electrical & Mechanical Limited ("Cape") was contracted to move the lighting in the stairwells and communal areas where additional room was needed for the new lateral pipework and/or ducting. Cape was engaged to work in the Tower between January and March 2017.
37. Lab UK Limited ("Lab UK") was contracted by tRiIO to conduct an asbestos survey of the thirteen flats and adjoining communal areas at the Tower in October 2016 and a further survey in December 2016 following the completion of the design. Their work continued into May 2017.
38. The preferred method for the installation of a new riser, as per the Institution of Gas Engineers and Managers guidance document IGEM/G/5, was an external gas riser with laterals supplying gas to meters immediately on the inside of the external wall of each flat.
39. Any option for the installation of an external riser (generally Cadent's preferred option) was discounted following Simon Boyle's discussions held with KCTMO. This was because the Tower had recently undergone a major refurbishment

which involved the installation of an entire new façade on the outer skin of the building. KCTMO was concerned about the effect of fixing an external riser on the aesthetics of the Tower's appearance and the warranty for the cladding.

40. The possibility of installing the riser in the utility shaft or its existing position was discounted by tRiIO due to insurmountable issues related to access. As stated above, the original pipework was installed within the fabric of the building therefore installing a new supply in the same location was not a viable option as a result of the considerable disruption such work would create. Simon Boygle, tRiIO's appointed surveyor, also surveyed the option for a riser being located in the stairwell running up the centre of Grenfell Tower and this was the proposal that was subsequently surveyed, designed and installed.
41. As part of preparing a detailed design, surveys for the riser replacement works included:
- a. A detailed survey carried out by Simon Boygle to enable the works to be designed and installed. This survey information together with numerous photographs taken inside the Tower at a variety of floors (marked up with the proposed route) and drawings of the proposed new riser system route were passed to tRiIO's Design team. Cadent were copied to this correspondence.
 - b. LAB UK also undertook an initial asbestos survey in October and a further asbestos survey of the Tower on 6 and 8 December 2016. Access to nine of the sixteen floors whose supply had been isolated was obtained and Asbestos Insulation Board ("AIB") was identified over the door of the existing cupboard housing the gas metre installation. (For clarity, at this time we understood that 16 of the potentially affected 20 flats had an active gas supply; we subsequently discovered that it was 13. There may have been a recorded supply to the other 3 flats but they were not using gas for cooking). The AIB contained Amosite and Chrysotile and the textured coating to the ceilings contained Chrysotile. They were reported to be in good condition and presented no significant

- risk if not disturbed. With the proposed pipework in the flats connecting the new meter position to the existing installation pipework, the AIB would need to be removed and if any fixing holes were to be drilled into the ceiling these would need to be drilled and sealed by a licensed contractor in accordance with the Control of Asbestos Regulations 2012. Lab UK advised that either the route for the piping should be changed or the asbestos part of the meter cupboard should be removed and replaced.

45. On 3 January 2017, a final survey was undertaken to confirm which flats were using gas prior to the fitting of lateral pipework. This commenced on 12 January 2017 and continued until 20 February 2017.
46. During the installation of the lateral pipes, Cape was asked by tRIIO to lower the lighting in the communal areas by approximately 70-75mm in order to allow the laterals to run at a high level. This work was carried out by a means of a conduit system. A similar process was used in the stairwell but as the stairwell was the single escape route, temporary emergency lighting was installed during the works and then removed upon completion. No new lighting or cabling was installed in the Tower as there was sufficient cable within the existing fittings to drop the lights by 70/75mm.
47. During the design and construction phases of the work, contractors faced access issues with a number of properties and where this occurred their gas supplies were connected at a later date. The access issues arose if occupants were absent or away when access was required. The network of pipes to all residential floors was completed and commissioned before the fire on the 14 June 2017 by the Principal Contractor. However, it became apparent at our site visit that not all flats had been connected to the network. In some circumstances, some flats had the new supply installed but the meters had not been moved and as such the residents were not yet using the gas supply.
48. tRIIO and its contractors undertook a range of inspections at the Tower. This included visual inspections of the welded riser and lateral welds being undertaken by an independent welding inspector. Magnetic particle inspections were completed on 10% of the welds. The new riser and laterals were also pressure tested by, or on behalf of, tRIIO prior to being commissioned. Visual inspections were also undertaken of the gas appliances impacted by the works by the Internal Works Engineers and internal soldered pipework by supervisors from tRIIO and Holland Gas as per gas safety regulation requirements. Further, any pipework inside individual properties after the ECV that was impacted by the works was also pressure tested.

49. Cadent also attended the Tower as a result of resident complaints surrounding the length of time the riser replacement works were taking and also as a result of the asbestos incident referred to at paragraph 54.
50. Health and safety inspections were completed by tRiIO, and the tRiIO Project Manager and Design Manager also toured the site.
51. tRiIO appointed inspectors who worked at the Tower and had the following competencies:
 - a. Pressure Testing
 - i. Utility SHEA (Gas), NCO (G) Service Layer, Safe Control of Operations EUSR, T/SP/P1 Specification for welding of steel pipe designed to operate at pressures not greater than 7 bar.
 - ii. City & Guilds “Conduct Specified Testing of Engineering Products or Assets (Servicelaying)” and “Riser Team Leading”.
 - b. Welding Inspector – BGAS Approvals Scheme – Magnetic Particle Inspector, Radiographer, Welding Inspector.
 - c. Internal Works Inspections – CCN1 and MET1 plus Gas Safe Registration.
 - d. The tRiIO Project Manager held SMSTS (“Site Management Safety Training Scheme”) along with numerous industry qualifications and experience. The tRiIO Design Manager held NEBOSH Construction qualifications plus numerous industry qualifications and other experience.

Refurbishment Works

66. As a result of the small leak identified during the course of the routine survey that took place on 30 September 2016, Cadent's repair team isolated the riser supplying the flats ending in a 2, as detailed above and as explained in my colleague James Harrison's statement. Cadent also instructed tRiIO to complete the riser replacement work as detailed above. Cadent had no other involvement in works at the Tower.
67. Cadent is aware, from information disclosed to it as a Core Participant to the Inquiry, that as part of the refurbishment work conducted principally by Rydon completing in July 2016, new heating systems for all areas of the Tower was installed. We understand that as part of this work, new central gas-fired boilers were provided in the basement, with low temperature hot water distributed from the new boilers to the individual heat interface units installed in the residential flats. Cadent had no involvement with or responsibility for this work.

Statement of Truth

I believe the facts stated in this witness statement are true.

Signed Detlaon

Dated 19th October 2018