Scottish Hospitals Inquiry
Witness Statement of
Robert O'Donovan

1. WITNESS DETAILS

1.1 My full name is Robert O'Donovan.

2. QUALIFICATIONS

2.1 My qualifications include a HNC in Construction Management, and an Irish Management Institute Leadership Certificate. I qualified as a mechanical fitter in 1992.

3. PROFESSIONAL BACKGROUND

3.1 Mercury Engineering Limited ("Mercury") build and manage complex engineering projects and work across healthcare, pharmaceutical, data centre and semi-conductor sectors throughout Europe. I began working at Mercury in 1996 as a Project Supervisor. I have since held roles of Package Manager, Project Manager, Project Director, Operations Manager from 2017, Health Care Business Director from 2019 - 2023 and Operations Director Life Sciences 2023 to 2025 . I left Mercury on 24 April 2025.

3.2 I have over 30 years of experience in the construction industry and have had senior management involvement with several high-profile projects in the UK and Ireland including the New Royal Hospital for Children and Young People in Edinburgh, Queen Elizabeth University Hospital ("QEUH") in Glasgow, the Bon Secours North Block Extension in Cork, and the New Children's Hospital in Dublin.

4. QUEEN ELIZABETH UNIVERSITY HOSPITAL, GLASGOW

4.1 In November 2010, Mercury started working on the laboratory building at QEUH. We completed this in March 2012. Mercury was involved in the build of the Adult Hospital and the RHS and Energy Centre thereafter ("the Project").

4.2 Mercury was involved in the following stages of the Project:

4.2.1 Stage 1: construction of the laboratories and FM Hub.

4.2.2 Stage 2: design of the Adult Hospital and the RHC to full business case submission, carried out concurrently with Stage 1. This was a full business case exercise.

4.2.3 Stage 3: design and construction of the Adult Hospital and the RHS and Energy Centre.

4.3 Mercury had worked on a hospital project in Peterborough before QUEH/RHC. I was not involved in that project. Multiplex were also involved in the Peterborough project.

4.4 Mercury was awarded Stage 2 of the Project in around December 2010. At this point we had already secured the Stage 1 contract which was to go ahead regardless of whether we received the Stage 2 award. I had very limited involvement in the contractual side of the Project. Ed McIntyre led on that aspect for Mercury.

I was project manager for the installation of the Mechanical & Electrical Services in the Laboratories starting with the pre-construction works in June 2010 and then the building works which started in November 2010 and finished in March 2012. That ran in parallel with Stage 2 of the Project. I am not familiar with the FM Hub.

4.5 I first became involved in QEUH/ RHC in 2010. I was Project Manager for the Mercury work, reporting to Ed McIntyre, who was then the Healthcare Business Unit Director. My role was to oversee the whole project, and this included the mechanical and electrical aspects. Ciaran Kellegher was the Package Manager for water and gas and Sinead Rogan was the Package Manager for ventilation. Both Ciaran and Sinead reported to me. Ed, Ciaran and Sinead no longer work for Mercury.

4.6 I was based on site for the duration of the Project, and I had an office on site. I generally did not know, nor did I need to know, about the granular detail of the work that was being carried out on site on a day-to-day basis. This information would have been held and overseen at Package Manager level. Each Package Manager also had sub-contractors, supervisors, and floor managers working for them and reporting to them.

4.7 ZBP designed the water and ventilation systems. Mercury was not involved in the design of those systems at all. The design team presented its design to Mercury which would typically include drawings, schematics and equipment data sheets. Mercury's engineers would then source the equipment required as noted in the data sheets, and once the equipment was sourced Mercury would submit the details to the design team through Multiplex who would review that information along with the design team and NHS GGC, the Client. Once the relevant teams had reviewed Mercury's submission, we would receive either an "A", "B" or "C" status. This process is known as design verification, which is used to demonstrate that the design has been interpreted correctly.

4.8 If our submission was rejected, we would receive a "C" status, and Mercury would review and make the necessary changes and re—submit the information. If we received a "B" status then there would be minor comments that would need to be addressed, and if we received an "A" grade that would mean that our equipment selection was approved for use.

4.9 If Mercury thought there was any information missing on a design provided to us, or we had a query about a particular design, we would submit a Request for Information ("RFI"). These were sent to the design team through Multiplex, and we would receive a written response or a sketch or drawing in response. The RFI process exists throughout the entire life cycle of a project. The design is always developing and changing so there could be RFIs submitted later in a project. Trackers and logs are usually retained on a centralised system. The Aconex system was the project communication platform for the Project and used for the purposes of uploading RFIs, submittals etc.

ZBP designed the mechanical elements of the water and ventilation systems. Mercury then took ZPB's designs and made sure that they would fit into the space provided. Mercury then created a model using that design. Mercury's role was to make sure that it was possible to construct the design. Mercury would then produce construction working drawings for the installers. The level of detail provided by ZPB in their design meant that Mercury could procure the equipment required. That was done through the submission of Technical Submittals. There was no role assigned to Mercury to critique/comment on the design aspects of the Water/Ventilation Systems. The fast-track construction programme dictated that the Mercury Procurement process proceeded as soon as designs were received. This process involved coordinating the designs for construction, preparing Equipment Technical Submittals, seeking quotations and liaising with the designers. Mercury reviewed drawings but only with constructability in mind and ensuring that the design intent could be delivered. Mercury did not input into any design elements such as air change rates, output or capacity. It was Mercury's understanding that the design had been agreed and signed off by the Clients, and it was therefore Mercury's role to ensure that the M&E aspects were installed and commissioned to design.

The main concerns were securing sufficient design information to progress with procurement & construction.

There were no concerns issued relating to the design of the water systems. RFI's were issued to clarify details of the water systems design for construction.
There were no concerns issued relating to the design of the Ventilation Systems. RFI's were issued to clarify details of the Ventilation Systems design for construction.

4.10 I was not involved in the Reviewable Design Data ("RDD") process or the User Group Meetings.

4.11 I did not sit on the Project Steering Group so cannot comment on its purpose or issues discussed.

4.12 Mercury had and still has a strong relationship with Multiplex. NHS GGC had a good relationship with both Multiplex and Mercury.

I am unable to comment on the specific relationship during the works to Ward 4B in 2015 as I was only involved in the Project for one-month post-handover, at which point I moved on to other projects. However, the relationship with Multiplex during the Project was very good and collaborative. I would not have considered the relationship to be strained.

5. VENTILATION

5.1 I have become aware that single bedrooms were designed with an air change rate of 2.5 air changes per hour ("ACH"), rather than the required 6 ACH. I cannot recall if I was aware of that change at the time of the Project or whether I learned of this afterwards.
The M&E Clarification Log was not prepared or distributed by Mercury.

5.2 Mercury would not have been involved in any decision to change from 6 ACH to 2.5 ACH. That would have been a decision made between the design team and NHS GGC. As explained above, Mercury was presented with the design and we then sourced the materials and equipment required, subject to final approval.

I am not aware of the detail of the agreed ventilation derogation recorded in the M&E Clarification Log. I would suggest that the question related to the specification for areas that required specialist ventilation are more appropriate for the designers.

I am not aware of the location of the restriction to general wards in the derogation.

I am not aware of any risk assessments or decisions regarding the derogation. This would relate to the design, which was not part of Mercury's scope.

5.3 I was not aware of the ZBP Ventilation Strategy Paper until now so am unable to comment on its contents or any action taken or not taken by NHS GGC.

5.4 I was not part of the preparation and submission of the Full Business Case.

5.5 I recall some significant changes which occurred in relation to ventilation. At level 4 of QEUH there was a significant change which happened very near the end of the Project where the design team and NHS GGC decided that they wanted to change both the area and functionality of part of the hospital. I think that related to Ward 4B where the use of the room changed from Renal and Haemato-oncology patients to the Bone Marrow Transplant ("BMT") service. The haematology patients moved to Ward 4C.

Mercury was not involved in any risk assessments or design decisions in relation to the changes made to Ward 4B. Mercury was presented with a new, revised ventilation design for Ward 4B in August 2013 where architectural changes had been made. Using the revised design Mercury then re-coordinated the duct work and other services. That involved removing some duct work and installing new duct work, and a new riser down from the plant room in level 12. (**Bundle 16, Document No.29, Page 1699 referenced**).

I am not familiar with any changes made to Ward 4C.

5.6 These changes were dealt with in the same way as every other aspect of the hospital: Mercury was given new drawings and designs, and our technical team had to work with those to source the required materials. The changes involved moving walls, and it was quite disruptive being so close to the end of the Project.

5.7 There was also a significant change made to level 2 of the RHC, known as the Schiehallion Unit. Mercury was provided with the design specification; we had no involvement or input into the design. There may have also been changes made post practical completion. However, I left site in around February 2015 to work on another project so am unable to comment on those.

The revised ventilation design provided by designers included the addition of Terminal Hepa Filter Units, additional Cross Talk Attenuators and some minor revisions to air flow rates.

5.8 I cannot comment on specific aspects of design of the isolation rooms, other than Mercury was provided with the design and installed the ventilation systems on that basis.

Mercury had no role in providing analysis or comment on the ventilation system design.

5.9 I was not involved in the commissioning of the ventilation system. Mercury engaged a sub-contractor, H&V, to commission the ventilation system.

Mercury installed, tested & commissioned the ventilation systems in accordance with the design provided.
Validation was to be performed by an independent party, but I do not who had responsibility for appointing that party and when it was to happen. Mercury had no control over validation.

6. WATER SYSTEMS

6.1 I recall that there were various discussions related to the use of Horne taps during the process of getting them approved for use. There were several meetings between NHS GGC and the relevant teams. I believe that there were meetings which the owners of Horne attended with NHS GGC and others. I vaguely recall a meeting with the owner of Horne and the outcome of that meeting was to continue using the taps. At that point they were approved for use and would have been installed in around 2013. I have no notes of that meeting so cannot confirm what was the discussed or the justification for the decision to continue to use the Horne taps.

6.2 I was not directly involved in either the commissioning or testing of the domestic water system. However, my understanding is that the water system was filled when it was because of the length of time it was going to take to commission each section of the system. It was a large water system.

The size of the domestic water systems demanded that detailed planning was required for filling, flushing & sterilization of the hot and cold system. There were no concerns raised on this.

As noted above, the filling of the entire water system required detailed planning to ensure all of the necessary aspects were included, flushing, cleaning & sterilization. There were no concerns raised.

The draining & cleaning of the water systems pipework was part of the Flushing/Cleaning/Sterilization Process. Furthermore, there was a regime in place to open taps daily to ensure movement of water.

All water systems require to have their water quality monitored once filled. This regime needed to be put in place when the pipework systems were filled. This included the opening of taps on a daily basis, as referred to above.

The programme for completion of the pipework systems necessitated the testing, cleaning, filling & sterilization activities to be completed in timely fashion. This dictated when these activities took place.

The testing documentation shows that Hydraulic Pressure Tests took place on dates from 15-06-2013 to 14-08-2014. The dates for air pressure testing are currently not visible.

The Testing documentation shows the Hydraulic Pressure Tests took place on dates from 15-06-2013 to 14-08-2014, to suit the construction programme. This was done in accordance with the specified testing requirements and was satisfactory. The testing documentation was provided to Multiplex and uploaded to Zutec. I believe that Mercury retained records of everything uploaded to Zutec.

The hydraulic testing was done by Mercury. It is Industry practice to engage a specialist water treatment company to perform the flushing, cleaning & sterilisation and this was executed by a Pre-Commissioning & Sterilisation Specialist, H&V Commissioning Services Ltd, in accordance with the designer's specification which aligned with BSRIA Standards.

The Method Statement includes a description of how the works were due to be executed, all risks associated with the works and how these were to be mitigated.

The documents recording the filling, flushing, sterilization, & testing were issued to Multiplex and uploaded onto Zutec. Mercury was satisfied by this recording process. Records were kept on site of the opening of taps to keep water moving.

Water testing records were provided to Multiplex/ Zutec. I believe Mercury have retained copies.

6.3 Mercury engaged a sub-contractor, H&V, to commission and test the domestic water system. Mercury pressure tested the water system with air, prior to it being filled with water. After it was filled the system was pressure tested with water and handed over to H&V for flushing and testing. H&V prepared a method statement which Mercury submitted to Multiplex who then approved it. The water system was flushed with water after it was filled, and then it was sterilised with a sterilising agent. After that the system was tested at various outlets and maintained by keeping the water in the system moving. This process was repeated until it was handed over to NHS GGC.

6.4 There were full records of testing and maintenance kept and handed over to NHS GGC at completion.

6.5 I am unable to comment on whether Capita was given the opportunity to witness testing of the water system.

7. ENERGY CENTRE

7.1 I am unable to comment on commissioning and handover of the energy centre.

8. HANDOVER

8.1 I was not directly involved in handover of the water and ventilation systems, but all information which required to be handed over would have been provided to Multiplex by being uploaded to Zutec.

Multiplex oversaw contractual compliance. The Mercury Ventilation & Water Package managers were responsible for providing the necessary testing & commissioning documents. These were signed off by the Multiplex M&E Commissioning Manager. Validation of the ventilation system was provided by an independent third party.

The ventilation & water systems were tested & commissioned in accordance with the design specification and the required documents were issued.

All equipment was labelled on site and Mercury provided all the information requested on Zutec. That was accepted as being complete. However, there was no electronic platform provided for asset tagging. I believe that was to be populated onto GGHB's own facilities management platform.

In the 5-to-6-month period between Practical Completion and patient migration into the building, in my view it would have been prudent for the owner/ occupier to carry out a risk assessment closer to the expected date of migration of patients into the building. Mercury handed over the water system as installed, commissioned and tested, and there was a process in place for turning over the system pre-handover. It was GGHB's duty to keep that going between Practical Completion and migration of patients.

8.2 I am unable to comment on works carried out post-handover as I moved to another project in February 2015.

Declaration

I believe that the facts stated in this witness statement are true. I understand that proceedings for contempt of court may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief in its truth.

The witness was provided the following Scottish Hospital Inquiry documents for reference when they completed their questionnaire statement.

Appendix A

1. Scottish Hospitals Inquiry – Hearing Commencing 13 May 2025 – Bundle 40 – Miscellaneous Minutes from Design and Construction Phase (External Version) - **A52281466**

2. Scottish Hospitals Inquiry – Hearing Commencing 12 June 2023 – Bundle 6 – Miscellaneous documents (External Version) - **A43293438**

3. Scottish Hospitals Inquiry - Hearing Commencing 13 May 2025 - Bundle 33 - NEC3 Supervisor's Reports and Project Supervisors Interface Action Notes (External Version) - **A51769432**

4. Scottish Hospitals Inquiry - Hearing Commencing 13 May 2025 - Bundle 43 - Volume 6 - Procurement, Contract, Design and Construction Miscellaneous (External Version) - Website (External Version) - **A52862169**

5. Scottish Hospitals Inquiry – Hearing Commencing 19 August 2024 – Bundle 15 – Water PPP (External Version) - **A47664054**

6. Scottish Hospitals Inquiry – Hearing Commencing 19 August 2024 – Bundle 16 – Ventilation PPP (External Version) - **A47851278**

7. Scottish Hospitals Inquiry – Hearing Commencing 19 August 2024 – Bundle 17- Procurement History and Building Contract PPP (External Version) - **A49342285**

The witness provided the following documents to the Scottish Hospital Inquiry for reference when they completed their questionnaire statement.

Appendix B

N/A