Scottish Hospitals Inquiry

Royal Hospital for Children and Young People/ Department of Clinical Neurosciences

Submission on behalf of Wallace Whittle/TÜV SÜD Limited

in respect of the Hearings covering the period

from Financial Close

Introduction

1) These submissions are made on behalf of Core Participant, Wallace Whittle/TÜV SÜD Limited (WWTS) as represented by Laura Donald Solicitor Advocate of BTO Solicitors LLP.

2) The Inquiry has previously examined the theory and practice of ventilation in hospital along with the background and chronology of events in relation to the project for the procurement and construction of the Royal Hospital for Children and Young People/ Department of Clinical Neurosciences (RHCYP/DCN), covering the period from the start of the procurement exercise to Financial Close. Closing submissions were provided to the Inquiry in respect of that period, and this submission is intended to be read alongside those previously submitted and published by the Inquiry given the overlap in evidence on the design of the ventilation system. In particular, paragraphs 2.1 - 2.7, 3.5 and 7.1 – 7.5 are relevant.

3) In writing these submissions we have had regard to the Closing Statement by Counsel to the Inquiry (7 May 2024) (the Closing Statement). For the avoidance of doubt, where this submission makes no specific comment on a particular aspect of the Closing Statement no inference should be drawn that that WWTS either agrees or disagrees with that Statement.

4) These submissions do not seek to review and comment on all of the evidence heard by the Inquiry in the hearings which took place in February and March 2024 but to focus on the key matters which are considered potentially relevant to the Terms of Reference (TOR) and which relate specifically to WWTS. In these submissions we intend to highlight for the Inquiry only those areas where WWTS:

   a) wish to place particular emphasis;
   b) seek to draw a different conclusion from Counsel to the Inquiry;
   c) wish to identify areas where valuable lessons might be learned for the future and suggest further potential recommendations.

5) Accordingly, for ease of reference, these submissions follow the same chapter headings and sequence as the Closing Statement namely:

1. ***The task of the Chair and the approach to the evidence***
2. ***An overview of the themes which emerge from the evidence***
3. ***The list of topics***
4. ***The questions posed in the Terms of Reference 1 – 12***
5. ***Potential Recommendations***

6) WWTS will apply for permission to provide supplementary oral submissions to allow them to consider and respond or adopt (as appropriate) the submissions of other Core Participants. For the avoidance of doubt, where this submission makes no specific comment on the submissions of other CPs, no inference should be drawn that that WWTS either agrees or disagrees with those submissions.

1. The task of the Chair and the approach to the evidence

7) WWTS agrees with that which is set out in the Closing Statement. In particular, WWTS agrees that the Chair should consider all views provided by witnesses objectively. Where opinion is provided it should be assessed against the factual evidence available. In particular, we submit that where there are assertions in the Closing Statement that a particular witness "would have" responded in a certain way, such assertions should be treated very carefully. In those cases the questions had not been put to the witness and the Chair should deal carefully, whilst recognising that a witness may very well have responded as characterised in the Closing Statement, we cannot know whether any commentary, or a rider, would have been added by the witness in evidence.

2. Key Themes

The lack of a clear brief set by NHSL

8) WWTS agrees that the lack of clarity in the brief and the contradictory provisions in relation to NHSL's requirements set the scene for the later confusion and ambiguity in the process followed during the period from financial close whilst the reviewable design data process was underway.

The status of published guidance

9) WWTS agree that the interpretation of SHTM 03-01 is a key document and Mr McKechnie gave a great deal of evidence on this, and the way in which SHTM 03-01 has been revised, updated and extended.

The interpretation of the published guidance

10) We consider the submission in the Closing Statement (paragraph 35) that Mr McKechnie's interpretation of SHTM 03-01 is "difficult to reconcile with the natural meaning of the words used in the guidance" to be unfair, and indeed subjective. The very thing Counsel to the Inquiry ask the Chair to guard against. Suggesting Mr McKechnie to be an "outlier" is equally unfair. That

proposition was one which was put to Mr Maddocks by Counsel to the Inquiry and not something he came up with himself. (transcript 13 March 2024 page 45). It appears to have been done on the basis that Mr McKechnie's interpretation was not in line with that of Mr McLaughlin of Health Facilities Scotland whose email with his interpretation was read to Mr Maddocks. Mr McLaughlin gave no evidence on that point and could be considered in 2019 to have had a vested interest in that interpretation. Counsel to the Inquiry records in paragraph 174 that Mr Maddocks characterised Mr McKechnie as "an outlier" but as submitted, it was Counsel to the Inquiry who put that term to Mr Maddocks. Mr Maddocks had simply disagreed with Mr McKechnie's interpretation. In our submission there is a difference of opinion between two experts.

11) Mr McKechnie has a great deal of experience in working in the healthcare setting (see paragraph 6 of his statement). He has worked across Scotland and had he not been involved in the WWTS work in RHCYP/DCN then he might have been considered as an appropriate expert to assist the Inquiry – he is no less qualified than Mr Maddocks. Why then should his interpretation of the guidance be considered any less valid?

12) In terms of number of hospital projects Mr McKechnie named in his witness statement (paragraph 6) these are all relevant to the current Inquiry and in Scotland. Thus subject to SHTM 03-01. None of these hospitals were designed (or built) with the 10 a/c 10Pa regime for ventilation in the critical care areas.

13) Contrast that to Mr Maddocks who named, with some difficulty, three hospitals where his recollection was that 10 air changes at 10Pa were specified. Of note none of the three of those he mentioned (transcript page 42) are subject to SHTM 03 – 01 (Scottish Health Technical Memorandum). Given Mr McKechnie's experience in the Scottish healthcare sphere, we asked the Inquiry team if it would be possible to see the technical drawings for the three hospitals named by Mr Maddocks but unfortunately they are not available.

14) We invite the Chair to find that the guidance is reasonably open to different interpretations, in our submission as is obvious from the conflicting evidence.

15) In further support of that submission, the newer version of SHTM 03-01 which was updated in 2022 is now very clear as to the appropriate air change regime within critical care. This was not just a re-draft, or revision of existing text, but a whole new "block" of guidance in respect of critical care was added as follows:

Applications: Level 2 and 3 critical care areas, bone marrow transplant (BMT), oncology, organ and tissue transplant units

Table 3: Airborne protective facilities

Area/zone	Reason for ventilation	Typical design factors

Note: Level 2 and 3 Critical care areas should be treated identically in terms of service provision as their only difference is the staff to patient ratio.

Level 2 or 3 critical care individual room	Protection of patients from airborne organisms and fungal spores	Supply only in patient's room and cascade air out via door undercut, transfer grille or pressure stabilizer through rooms of a lower classification.
Level 2 or 3 critical care open bays	As above	Design parameters Air change:≥10 per hour Pressure regime: +10 Pa to general area Noise Level; 35 d(B)A Temp range: 20 to 25°C must maintain any selected set point in the range via BMS Humidity; Floating; max 60%RH Final filter; BS EN 1822 – EPA10

16) Counsel to the Inquiry makes several other references to the WWTS interpretation of SHTM 03-01. On each occasion no cognizance is taken of the guidance added to SHTM 03-01 which took effect in 2022 (above), perhaps in recognition of the difficulties which had arisen in both Edinburgh and Glasgow – a silent recognition of the fact that the guidance could be read in different ways?

17) We do agree with the assertion at paragraph 94 of the Closing Statement where it is submitted that "if one proceeds (as Mr McKechnie did) on the basis that the environmental matrix set out NHSL's preferences it is, perhaps, legitimate to say that SHTM 03-01 did not compel a change from them even if they were not consistent with the recommendations which it made." It is relevant to note here that the NHSL preferences did comply with the alternative calculation of 10 litres per second per person.

18) However, more pejoratively, at paragraph 118, Counsel to the Inquiry characterises the interpretation of the guidance to have resulted in a "failure" to apply the SHTM recommendation to the critical care rooms. In light of our submission above, that the WWTS interpretation of guidance was a reasonable approach used in many other hospitals, then not applying a particular recommendation is a choice, not a "failure", as the solution complied with other alternative guidance contained within SHTM 03-01.

19) In paragraphs 327 – 330 of the Closing Statement, Counsel to the Inquiry sets out the changes and additional guidance introduced by the most recent version of SHTM 03-01. The Chair is invited to consider whether the issue with "non-compliant" (we do not accept it was non-compliant given Mr McKechnie's evidence and submissions above) ventilation would have arisen had the 2022

guidance been in place at the relevant time. This is of relevance to our submission that the updating of SHTM 03-01 in 2022 cured the lack of guidance available in the earlier (2014) version. It is, we submit, an important point to bear in mind when considering whether different interpretations of the guidance were quite appropriate and understandable. We agree that the 2022 guidance manifestly improves the guidance as to what the specifications should be in the critical care areas as well as making explicitly clear what is referred to as the critical care areas.

20) One comment we wish to make about evidence around the guidance is the apparent contradictions in evidence. We have some concern about the evidence on the levels of servicing suggested as appropriate for the critical care areas. Mr Maddocks, in his report (bundle of witness statements page 5) and in his evidence (transcript page 4), stated that in his opinion the critical care areas are now designed and functioning in compliance with the guidance (SHTM 03-01). In response to questioning during his evidence (transcript page 39) he stated that 10 air changes per hour at 10 Pa was an "all-encompassing requirement" for the critical care area appearing to reference the whole department. Indeed, he then went on to say that the critical care area he had been involved in (transcript page 42) had 10 air changes at 10 Pa "For the whole area, yes." Then when referred to Mr McLaughlan's email (transcript page 43), he appeared to agree with Mr McLaghlan's position, which in turn appeared to reference only ward areas. A contradiction to his earlier evidence. His report at paragraph 2.3.2 (bundle 1 of witness statements page 17) appears to exclude what may be termed "common areas" from the 10 air changes at 10 Pa. It is, in our submission, not at all clear what Mr Maddocks' position in evidence actually was.

Compliance with the published guidance

21) We respectfully agree with that which is set out in the Closing Statement (paragraphs 37 – 43).

The role of advisers

22) We respectfully agree with that which is set out in the Closing Statement (paragraphs 44 – 51).

Adequacy of Governance

23) We respectfully agree with that which is set out in the Closing Statement (paragraphs 56 – 58)

3. The list of topics

We propose only to address those topics identified as involving WWTS

The development of the design of the ventilation system for critical care rooms and isolation rooms in the period after financial close (February 2015) – The Development of the environmental matrix in relation to guidance note 15

24) The Closing Statement notes that Mr McKechnie was "unfamiliar with the concept of Operational Functionality" (paragraph 76) and goes on to note that Mr McKechnie interpreted NHSL's approval

under the RDD process as confirming the proposals were accepted. Given the RDD process was operating as a conventional RDD process with comments being fed back on various elements of the design, it is in our submission reasonable for WWTS to rely on that. This was the understanding of MPX as well as WWTS. Whilst the Closing Statement suggests that NHSL and MML approached the RDD process with a different attitude, this is not the position which was adopted in the evidence provided by Mr McKechnie or the MPX witnesses, Mr Pike or Mr Hall. Nor was their approach commented upon (by NHSL or MML) in meetings at the time.

25) Particular criticism is made of the WWTS approach to updating of the EM in respect of the guidance note 15. In effect an update was made but was not highlighted. It is suggested that by highlighting other changes but not the change to guidance note 15, NHSL and MML were prevented from knowing about it. With respect, this document was a "living document" and one in respect of which changes were regularly being made on a daily basis. Mr McKechnie gave evidence (transcript pages 8 – 9) of elements of the EM which had previously been approved, being marked at a later date as "rejected" (marked "C") or "Accepted – subject to noted comments being addressed" (marked "D") (see also statement paragraphs 21 – 27).

26) Counsel to the Inquiry submit that there is nothing in the correspondence to justify a conclusion reached by both Mr McKechnie and Mr Hall that NHSL were content with the interpretation of the guidance applied by WWTS and MPX. Again this is a subjective criticism for which there is little foundation.

27) The one change made, but not highlighted, was only to a guidance note. It is important in our submission to reflect on the actual design criteria, all of which was still tabulated and available for review. Counsel to the Inquiry themselves note (paragraph 87) that NHSL and MML were aware of the air change parameters and there was no active disagreement over that. The "scrutiny" applied by NHSL and MML is commented upon, and in our submission this is correctly focused on and supports our submission that the change in guidance note 15 is not as key as is being suggested. The actual parameters suggested were available and not commented upon, nor was explanation sought. Of particular note, the air change rates remained the same as the original values contained within the original Hulley and Kirkwood values (see page 135 of Bundle 4) in the original brief.

28) The air change parameters were not changed and there was no further review made. No efforts were made to ensure the EM parameters complied with NHSL's preferences. Mr McKechnie explained that he had twice offered a line-by-line review of the EM with MML in an effort to draw a close to the constant revisions and queries. On one hand the EM was NSHL's reference design and formed a key part of the Project Agreement, and on the other hand they maintain the EM was not their brief.

29) The Closing Statement makes reference (paragraph 126) to the haematology/oncology ward being a neutropenic patient area. Whilst this may be the case it is relevant to note that in the original Clinical Output Specification (COS), it was not made clear that it was intended to be exclusively neutropenic.

30) In considering the issue of the multi-bed wards in the critical care area, and how best to achieve the change from positive pressure to negative or balanced pressure, WWTS came up with options as to how to achieve that – in our submission, the Closing Statement over emphasises the suggestions made by WWTS as "proposals". WWTS were asked how the change in pressure might be achieved and one of those options was to reduce the air change rates. The original design for all multi-bed rooms had resulted in a positive pressure within those rooms and had applied the original EM air change rates.

31) Of note, in the IOM commissioning report which states that 10 air changes at 10 Pa is being provided but it would appear that the HEPA filters were only provided in the Isolation Rooms, not in the multi-bed areas. The position adopted by Counsel to the Inquiry (that WWTS should have adhered to the guidance in SHTM 03-01 throughout Critical Care) does not appear to be critical of the lack of HEPA filters, which we submit ought to have been included in the multi-bed areas also if the referenced Critical Care guidance is being applied as being suggested by Counsel. This position contrasts with their position on the WWTS evidence.

Changes in Policies, Procedures, Protocols and Governance Arrangements after the project

32) The issue of the updated SHTM 03-01 is dealt with in paragraphs 327 – 330 of the Closing Statement. We have addressed this above.

4. The questions posed in Terms of Reference 1 – 12

33) We comment only on the Terms of Refence (TOR) of relevance to WWTS.

TOR 1

34) The Chair requires to examine the issues in relation to the adequacy of ventilation in respect of the RHCYP/DCN adversely impacting on patient safety and care. He requires to consider whether the ventilation system was defective in the sense of not achieving the outcomes or being capable of the function of purpose for which the system was intended and not conforming to the relevant recommendations, guidance and good practice.

35) We have set out our position in relation to the relevant guidance. It is our submission that the WWTS design did conform to guidance, and it was only later in the project when NHSL changed their parameters, moving away from that which had originally been in their own EM, as part of the BCRs that the ventilation system was redesigned. If the original specification was not in line with SHTM 03-01 "as NHSL had intended that it should" (para 341 of the Closing Statement) then that is something for which NHSL must answer.

TOR 3

36) In our submission whilst there may have been governance procedures in place, there was a failure on the part of NHSL and their advisers MML to provide a clear and unambiguous brief, and to

monitor the ongoing design issues with rigour. Had MML accepted a line-by-line review of the EM when offered by Mr McKechnie in the face of his frustration at the moving goal posts, or suggested to NHSL that such a review would be in line with good practice, then it would have become clear at a much earlier stage where parties were acting at cross-purposes. Of note, in 2021, prior to final handover, just such a line-by-line review was carried out (Lindsay Guthrie statement paragraph 185 and transcript page 132)

Potential Recommendations

37) The Closing Statement contains several suggestions for recommendations that would be suitable for an Interim Report. We respectfully agree with those set out in paragraphs 425 – 458. They are sensible and straightforward in terms and appear to reflect the evidence heard.

38) We submit that it is essential to have “one source of truth” as suggested in Mr Maddock’s evidence. In designing hospitals we agree it is essential, to have one clear brief with one encompassing document the design parameters will be clear to all at all times. The client brief will be met. WWTS would go further than that and suggest that all design parameters must be capable of being cross-checked against an audit trail of applicable design guidance. WWTS provided an Report on the Review of the Critical Care Briefing Review (Bundle 1 page 757) in which they recorded each area of where they considered the guidance applied or did not apply. Such an approach on audit, taken by all, will provide more certainty that a design is compliant and consistent with the client brief and guidance, and more importantly will flag where the guidance has been set aside and why.