Mechanical and Electrical Installation – Boiler Plant

FAQ

Q.1 The RFI states that we are to allow for LTHW pipework to be flushed, is this the boiler house only or does this mean the whole National Archive buildings. Please clarify.

A.1 The Q2 building LTHW systems is to be flushed if you are to utilise or connect to the main header, we would suggest a water sample is taken in advance to check if this is needed, as the boiler installation is essentially air gaped to the plate heat exchangers

Q.2 Within the specification it states that all insulation is to be Isogenapak, the existing headers/pipework is covered with Ali Clad, does the new insulation need to match the existing? Please clarify.

A.2 No, it can be of an equivalent type providing it meets the same specification

Q.3 Within the specification it states that the new and old pipework within Q2 is to be fully flushed, if we connect on to the existing LTHW connections is this required? If not we can introduce a PC sum if the flushing is required.

A.3 See question Q.1 and answer A.1 above

Q.4 The initial chemical flush – would this be required to be completed out of hours?

A.4 Timing to be advised by the Estates team but depends if existing connections can be used, see below.

Q.5 New boiler/CHP connections – can the existing connection be reused to connect these items to the main header?

A.5 Yes if possible, providing the integrity of the valves are sound and maintainable. That way there may not be a need to drain down the primary header and the system can continue to operate.

Q.6 Is there an area where materials can be safely stored onsite?

A.6 Yes, to be advised by Estates team.

Q.7 Are you able to confirm whether our response to the question on risks and mitigation should cover all risks including H&S or whether it should just include contractual/programme risks?

A.7 Your response should cover all risks and mitigation activities involved with the project, enabling works and builders work in connection.

Q.8 Would it be possible to confirm the form of contract being used for this project, or will you use your standard terms and conditions?

A.8 This Contract, which will be let as a JCT Design and Build Contract

Q.9 Clarification on pressure differential required for in duct mounted pressure relief dampers.

A.9 The damper in the duct connection to the CHP needs to start opening as the CHP fan ramps up (it is variable speed). When the CHP fan is running at full speed it should develop 110Pa discharge pressure so the damper needs to be fully open to say about 90 Pa on the CHP side to allow some pressure loss in the short length of duct to the CHP. The maximum discharge air volume from the CHP is 1.37 m3/s. The other damper on the connection to the plant room needs to start closing as the CHP fan starts to run and progressively close down until the CHP fan is at full speed. When fully open to the plantroom (i.e. CHP not running at all), the damper should allow approx. 0.7m3/s to pass through and the internal negative duct pressure should be about 30Pa in this situation. When the CHP is fully running the damper should be fully closed.

Q.10 Specification or Model details for duct mounted switchable pressure relief dampers

A.10 We have no preference for pressure relief damper manufacturers

Q.11 In the initial email there is a topic of temporary works. SMP were not party to this email and have no comment. As part of the tender we are to specify how temporary works are to be managed. As far as I am aware and from previous clarifications there will be no need for temporary works to be utilised. Can you confirm if this is to be the case?

A.11 The engagement with the specialist SMP did not explore temporary works but inevitably the contract will include some elements of this. We would like you to identify in your responses to this tender, what you have included as temporary works, and equally important what you have excluded.

A definition of temporary works may include “Engineered solutions used to assist with the construction and which may be removed on completion of construction work” which may include for e.g. access equipment for working at height, pipe supports when the boilers are removed, shuttering to the new CH&P plinth, but not limited to.

Q.12 Contact details of panel specialists.

A.12 See specification clause 3.8.1 for BMS Controls. SMP have no preference for the main switch panel modifications.

Q.13 Please confirm the Contractor’s Design responsibility, whether it is full design responsibility or provision of working drawings & CDP or CDP only such as Controls & Flue by a specialist, pipe work arrangements, Bracketry and fixings, high & low point venting & draining on pipe work etc.

A.13 Contractors design responsibility is full design.

Q.14 Specification, section 3.5.2 state that “the contractor shall replace all valves in the plant room on pipework affected by the works” could you provide more clarity on this please.

A.14 If the existing valves can be proven to hold up when they need to, then the existing valves will not need to be replaced, there should then be a cost saving

Q.15 Could you please provide manufacturer, panel job number or reference for the main switch panel to be modified?

A.15 Square D, maintained by Freedom Networks

Q.16 Is there any impact on the existing pressurisation unit and expansion vessels?

A.16 There is no impact on the existing pressurisation unit and expansion vessels as the main system is unaltered.

Q.17 Also specification 4.7 refers to `modifications will be required to the existing switch panel, the electrical contractor will liaise with the switch panel manufacturer for all/ modification additions etc. Can you advise the name of Switch panel manufacturer?

A.17 The new 250A TPN MCCB supply is from a square D panel in the main switch room. It is maintained by Freedom Networks via Bouygues as a specialist subcontractor.

Q.18 Are appendices/attachments permitted outside of the word limit for each question e.g. a case study or company structure diagram?

A.18 There is no word limit for each question

Q.19 Is there any selection questionnaire/ITT form to be filled out with things like company details, accreditations, proposed sub-contractors etc. for this project?

A.19 There is no such selection questionnaire of ITT form to be filled out.