HSE T/ xxxx Question and Answer Summary

Q1 Do you have any document other than Schedule A (specification) which entails the conceptual design of the vessel.

**A1 Yes see attached.**

Q2 Any preliminary sketches, description of inflow and outflow nozzles, their orientation and location.

**A2 The outflow will be through a 100 mm dia. bursting disc unit to be supplied by another manufacturer. The flange size and fittings are still to be agreed with that supplier. The inlet to be through the end plates a 6-8 mm dia supply pipe is envisaged.**

Q3 Any detail of external attachments such as support and lifting etc.

**A3 Not at this stage. The vessel will be on a solid base and will discharge upwards through the bursting disc. However it is mounted it will have to withstand the reaction from the bursting disc opening.**

Q4 Is there a requirement for seismic and fatigue analysis?

**A4 No.**

Q5 What are the design parameters e.g., pressure, temperature and cyclic loading. *The*

**A5 The maximum operating pressure will be 700 bar at room temperature. The vessel is for research purposes and the number of tests is not expected to exceed 100.**

Q6 Any preference to include Design by Analysis in accordance with PD 5500 or ASME VIII Div II.

**A6 No preference.**

Q7 Is there any quality classification and build level category identified or any similar preferences?

**A7 No.**

Q8 Referring to Section 3.4 and 3.5 of Schedule A, we will require further understand to the statement relating to attaching a solid cylinder internally to an end plate? Could you please specify the details. Also how a T shaped central section is supported and isolated from the vessels?

A8 **The volume of the two cylinders combined is 30 litres at some point we need to reduce this to 10 litres hence the need to partially reduce the volume of a cylinder. The central section is not isolated the two cylinders feed their contents into the central section and out through the bursting disc.  See attached sketch.**

Q9 Would it be acceptable to submit a separate design or manufacturing quotation only? or is that mandatory to supply a combined quotation for the design and manufacturing of the pressure vessel.

**A9 *Already answered. Require quote for design and manufacture from a single company.***

Q10 What are the testing requirements e.g., pressure and fluid Characteristics are involved for the vessel? Is the vessel required to be tested on Hydrogen?

A10 Hydrastatic test in accordance with design code, will require a blanking plate over the outlet.

Q11 What is the proposed material of construction for the vessel?

**A11 This is a matter for the designer. The tests will take place in an open ended tunnel.**

Q12 Is there any requirement for PED/PER conformance?

**A12 Yes PED compliance required.**

Q13 What are the boundaries of the scope of supply e.g., vessels, T shaped central section, cylinders and end plates?

**A13 Supply of complete vessel, cylinders, centre section and end plates all included.**

Q14 Is there any specific requirements on design deliverable e.g., reports, drawings (native CAD files?), quality, etc.?

**A14 We need to review the basis of design before proceeding with manufacture.**

Q15 Is there a provision for design and manufacturing review cycles and what will be their duration?

**A15 To be agreed with supplier.**



End