

Clarification Log

|        |  |
|--------|--|
| Ref    | IO/21/OT/10021777/JLE  |
| Title  | DMS Fast Shutter - Concept design and proof-of-principle prototyping/testing |
| Log No | 1  |

| No | Item No                               |                     | Questions from the Tenderer  |           | Answers from the IO   |           |
|----|---------------------------------------|---------------------|--|-----------|---|-----------|
|    | Ref. Document                         | Section/Article No. | Contents   | Date      | Contents  | Date      |
| 1  | Technical Specifications_4ND DKB V1.2 |                     | <p>Q1: We are thinking on a pneumatic prototype, so I'd like to ask what is the maximum pneumatic pressure allowed in the interspace?</p> <p>Q2: What is the direction of the magnetic field with respect to the movement of the valve? And is it enough to calculate the effects of the magnetic field? We can calculate magnetic forces and design the prototype accordingly, however, if tests are needed also, we have to move the prototype to another facility which can provide a 2 T magnetic field, and this would increase costs.</p> <p>Q3: Is it needed to test irradiation effects? Irradiation tests are costly and if it is possible, we would like to ensure that the prototype survives the given criteria by choosing materials and forming the design so that it fulfils the requirement based on previous experience (e.g. choosing rad. hard plastic), thus no direct tests needed at this stage.</p> <p>Q4: It was not included in the technical offer, but was the case when the pellet accidentally hits the valve considered (valve somehow left closed or closes before the pellet reach the valve)? Is it needed to test such a case?</p> <p>Q5: Is it possible to use non-rad-hard materials during tests which has the same mechanical properties as their rad-hard counterparts? (e.g. non-rad-hard plastic material vs polyimide)</p> | 8-Sep-21  | <p>on Q1: The maximum allowable pneumatic pressure is 100 bar.</p> <p>on Q2: The main component of the magnetic field is vertical and is expected to be less than 1T. One should note, however, that due to space restrictions it might be necessary to mount the fast shutter rotated by up to 45 degree. The worst case would be then a magnetic field of 0.7T perpendicular to the movement of the shutter, but with the field vector within the plane of the fast shutter.</p> <p>on Q3: No irradiation tests are required. An assessment based on the material choices is sufficient.</p> <p>on Q4: We expect such event only in case of a pellet breakage and a subsequent premature closing request for the fast shutter. The effect/impact of a pellet hitting the fast shutter should be done through a Finite Element calculation. Test will not be necessary.</p> <p>on Q5: Yes, it is possible to use non-radiation-hard materials provided they have the same mechanical properties.</p> | 17-Sep-21 |
| 2  | Instructions to Tenderer              |                     | <p>I'd like to clarify the tender documentation needed to be submitted in the correct form:</p> <p>Envelope A:</p> <ol style="list-style-type: none"> <li>Form 2</li> <li>Form 3</li> <li>Tax certificates</li> <li>Financial statement of the last three year</li> <li>Form 8</li> <li>QA certificates</li> <li>Technical Offer</li> <li>Draft of Quality Plan (containing M2 and M3)</li> </ol> <p>Envelope B:</p> <ol style="list-style-type: none"> <li>Price Schedule (Form 6)</li> <li>Cost breakdown form (in addition to Form 6)</li> </ol> <p>What about Form 4 (declaration of background intellectual property), 5 (Tender form) and 7 (correspondence matrix)? Should they be included in Envelope A also? What about CVs of correspondents, should they be included in Envelope A, also? Are there any documents that are needed to be submitted in these two envelopes, but I haven't listed them?</p> <p>In Form 8, there is a box named as 1. Candidate Number, is there any number marking EK or should we leave it blank then?</p>   | 8-Sep-21  | <p>- Form 4 (declaration of background intellectual property), 5 (Tender form) and 7 (correspondence matrix) shall be included in Envelope A.</p> <p>- All technical and management related proposal (includes CVs) shall be part of Envelope A. Only Form 6 related to financial offer shall be included in Envelop B.</p> <p>- Please leave it as blank for 1. Candidate number on the Form 8</p>   | 17-Sep-21 |
| 3  | Technical Specifications              |                     | <p>We have noticed that technical evaluation criteria T1, T2 and T3 listed in section 2.4 of the ITT do not align with the technical evaluation criteria T1, T2 and T3 listed in section 3.1.2 of the ITT. The content is largely consistent but the order relative to each requirement is not consistent. Can you please advise which is correct so our proposal can accurately reflect this? I have attached a picture highlighting the issue.</p> <p>I would also appreciate if you could provide some feedback on the request for extension and if this will be possible.</p>  | 16-Sep-21 | <p><b>Thank you for pointing this out. Indeed we made a mistake in section 3.1.2. Now required contents for T1, T2 and T3 shall be replaced by followings.</b></p> <p><b>T1 Demonstration of the technical competency</b><br/>The tenderer shall describe in the technical offer their expertise with design and assembly of valves for vacuum applications, mechanical designs including pneumatic/electrical actuators and prototyping of novel components.</p> <p><b>T2 Proposal for methodology and strategy</b><br/>The tenderer shall summarise their methodology and strategy to develop a fast shutter and present possible concepts, their feasibilities and potential expected technical challenges in the realisation.</p> <p><b>T3 Design verification</b><br/>The tenderer shall propose test procedures necessary to demonstrate the compliance of the design with the technical requirements.</p>  | 17-Sep-21 |
| 4  | Instructions to Tenderer              |                     | <p>I would like to request a short extension of two weeks to the submission deadline for this tender? Can you please advise if this will be possible?</p>  | 10-Sep-21 | <p><b>Yes, we decided to extend the submission phase and the new deadline for submitting the tender is now Oct 11th.</b></p> <p><b>Deadline to request clarifications: 26 Sep 2021</b></p> <p><b>Deadline for IO to respond to clarifications requests: 1 Oct 2021</b></p> <p><b>Deadline for Tender Submission: 11 Oct 2021</b></p>  | 17-Sep-21 |