**NNLC597 Procurement of VTR Dust Scrubber Solids Detection and Characterisation Equipment**

**Request for Information (RFI)**

This exercise is a request for information as part of a pre-tender market consultation, it does not constitute a formal procurement process. The purpose of this exercise is to assess the capabilities within current markets to delivery this service. National Nuclear Laboratory (NNL) may choose to contact suppliers because of completing this questionnaire, if you wish for us not to contact you please make this clear on your questionnaire response.

We are not requesting quotations at this stage, although some questions request examples of previous contracts. This is to understand the indicative cost of any future procurement, but respondents will not be held to these values.

Purpose

The purpose of this RFI is to obtain information about technology that is able to identify both caesium phosphomolybdate (CPM) and zirconium molybdate (ZM) through the curved glass of the dust scrubber on the Vitrification Test Rig (VTR) in situ, in order to measure build-up on the inside of the dust scrubber.

Background

As part of the VTR in B141 on the Sellafield site, the off gas goes through a dust scrubber, in order to remove calcine dust from off-gas and recycle it to the calciner. The dust particles are removed on impingement plates, which are then washed off by counter-current irrigation of scrub liquor into which they dissolve. One additional effect which occurs during this is the plating of CPM and zirconium molybdate ZM. This is a concern, especially for longer term operations on the Waste Vitrification Plant (WVP). By being able to measure the material composition and the thickness as it builds up, experiments can be conducted to determine the impact of different additives on the build-up of CPM and ZM in the dust scrubber.

Requirements

• The ability to identify the composition of a material through curved glass.

• The ability to identify the thickness of a material through curved glass.

• The ability to identify CPM, ZM, and mixtures of the two.

• The ability to carry out requirements 1-3 whilst liquor is flowing across the inside of the glass.

• The opportunity to test the technology in situ to prove the requirements are met before purchase.

Further information can be found below in the attached specification:



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| **Contact Information** |
| Company Name |  |
| Address |  | Postcode |  |
| Name of person completing this form |  |
| Contact Details |  |
| Email Address |  |
| Phone Number |  |

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|  | **Relevant Experience** |
| Have you worked with the Nuclear Industry before? |  |
| Have you worked with the National Nuclear Laboratory before? |  |
| Please detail up to three contracts where you have previously provided a similar contract.You should highlight who the contracting body is/was, the work carried out and details of the goods/contract. | Contract 1: |  |
| Contract 2: |  |
| Contract 3: |  |
| Please can you describe your company’s area of expertise. |  |
| Please detail your capabilities and a brief summary of how you would deliver the requirements outlined within the specification (can be provided in a separate document if required) |  |
| Is your company prepared to provide a (Rough Order of Magnitude) ROM cost to support with the project approval stage? Please provide here. |  |

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| **Procurement** |
| Are you on any frameworks operated nationally by Framework providers, for example:CCS – Crown Commercial Service,NHS SBS - NHS Shared Business ServicesLUPC – London Universities Purchasing Consortium Yorkshire Purchasing Organisation - YPO,Eastern Shires Purchasing Organisation – ESPODynamic Purchasing System (DPS) - NNL |  |
| If yes, please provide the following information in relation to the framework. | Framework Provider |  |
| Framework Reference |  |
| If Lots, list all applicable |  |
| Do you have any internal or external pressures facing your business which would prevent you from tendering for this opportunity, should it become available after September 2024? |  |

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| **Additional Comments** |
| If you DO NOT wish to be contacted by NNL please write so here. Otherwise, you may provide any further information you think may be of use during this early market engagement exercise. |  |

**Please return this questionnaire to** **david.brown@uknnl.com** **before 17:00 on**

**Friday 20th September 2024.**