|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Traveler Title | ER5C Cavity Field Probe Feedthrough Inspection Traveler | | | |
| Traveler Abstract | This traveler covers the necessary steps to perform incoming inspection on ER5C (C20, C50, C75) cavity field probe feedthroughs. Incoming inspection includes visual, dimensional, leak test (in a separate traveler), and cold shock (in a separate traveler). | | | |
| Traveler ID | ER5C-INSP-FPFT | | | |
| Traveler Revision | R1 | | | |
| Traveler Author | L. Zhao | | | |
| Traveler Date | 31-Jan-25 | | | |
| NCR Informative Emails | areilly,overtonr | | | |
| NCR Dispositioners | lzhao,forehand | | | |
| D3 Emails | lzhao,forehand,areilly,overtonr | | | |
| Approval Names | Liang Zhao | Aaron DeKerlegand | John Buttles | Tony Reilly |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer 1 | Reviewer 2 | Project Representitive |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| References | List and Hyperlink all documents related to this traveler. This includes, but is not limited to: safety (THAs, SOPs, etc), drawings, procedures, and facility related documents. | | | |
| [11151-0033\_Cavity pair assembly probe assembly\_RevA](https://misportal.jlab.org/jlabDocs/documents/versions/7275/download) | JL0170822 C75 CAVITY FIELD PROBE | CeramTec Drawing Q464641 RevA |  |  |

|  |  |
| --- | --- |
| Revision Note |  |
| R1 | Initial release of this Traveler. |

|  |  |  |  |
| --- | --- | --- | --- |
| Step No. | Instructions | | Data Input |
| 1 | Visual inspection  Enter the field probe feedthrough serial number from the dropdown menu.  Enter the inspector name and date.  Visually inspect the feedthrough for:   * Cleanliness – should be free of dust, oil, finger prints, or brazing irregularities; * Sealing surface – should be smooth, free of scratches, burrs, or nicks; * Insulator – should be free of cracks and excess of braze material; * Conductor – thread on the center conductor should go all the way from the tip to near the base; * Connector - make sure the SMA electrical connections have no damage and are not loose.   Provide comments and pictures if needed. Generate NCR if the part does not pass visual inspection. | | [[FPFTSN]] <<FPFTSN>>  [[VisualInspectionName]] <<SRF>>  [[VisualInspectionTime]] <<TIMESTAMP>>  [[PassVisual]] <<YESNO>>  [[VisualInspectionComments]]<<COMMENT>>  [[VisualPhoto]] <<FILEUPLOAD>> |
| 2 | Dimensional checks  Enter inspector name and date.  Check the following dimensions of feedthrough using CMM, appropriate gauges, or other designated tools. | | [[DimInspectionName]] <<SRF>>  [[DimInspectionTime]] <<TIMESTAMP>> |
|  | Description | Specified Dimensions (unit in inches) |  |
|  | Collar seal surface to conductor tip | 0.33 ± 0.015 | [[Dim\_seal\_to\_tip]] <<FLOAT>> |
|  | Collar outer diameter | 0.620 +0.000/-0.002 | [[Dim\_collar\_OD]] <<FLOAT>> |
|  | Collar seal inner diameter | 0.437 ± 0.005 | [[Dim\_collar\_seal\_ID]] <<FLOAT>> |
|  | Collar thickness | 0.150 ± 0.015 | [[Dim\_collar\_thickness]] <<FLOAT>> |
|  | External length | 0.89 ± 0.03 | [[Dim\_external\_length]] <<FLOAT>> |
|  | Provide comments and pictures if any | | [[DimPass]] <<YESNO>> [[DimInspectionComments]] <<COMMENT>>  [[DimPhoto]] <<FILEUPLOAD>> |
| 3 | Cold shock of the feedthrough.  Perform in the VTA – use traveler ER5C-VTA-FPFT-CSHK | | [[ColdShockComp]] <<CHECKBOX>> |
| 4 | Leak check of the feedthrough  Perform leak check use traveler ER5C-CMA-FPFT-LEAK | | [[LeakCheckComp]] <<CHECKBOX>> |