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| Traveler Title | VTA RF Cavity Test Plan | | | |
| Traveler Abstract | Test Plan / Request for testing of cavities in the Vertical Test Area (VTA) | | | |
| Traveler ID | SRFOPS-VTA-CAV-TSTR | | | |
| Traveler Revision | R1 | | | |
| Traveler Author | K. Davis | | | |
| Traveler Date | 15-Sep-23 | | | |
| NCR Informative Emails | STIRBET,AREILLY | | | |
| NCR Dispositioners | JTKENT,POWEN,KDAVIS | | | |
| D3 Emails | STIRBET,AREILLY,JTKENT,POWEN,KDAVIS | | | |
| Approval Names | K. DAVIS | J. KENT | P. OWEN | A. REILLY |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | SME | Project Manager |

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| 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. | | | |
| [VTA SOP](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-48111/A-09-001-SOP-21542%5b1%5d.pdf) NEEDS TO BE LINKED TO MOST RECENT | C75-PR-CPR-VTRF-R4-1 | C100R-PR-VTA-CAV-VTRF-R2 | L2HE-PR-VTA-CAV-VTRF-R1 | NB3SN-CP-C75-CPR-VTRF-R1 |
| Theory and practice of cavity RF test systems | CP-STP-CAV-VTRF-OST-R1 | L2HE-PR-VTA-CAV-AMMS |  |  |

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

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| **VTA TEST REQUIREMENTS FOR CAVITIES**  (To be completed by Principal Investigator) |
| **PROJECT SELECTION** |
| *Select the Project Abbreviation / Charge Code from list.*  [[PROJSN]] <<PROJSN>>  *Select Charge Code from list*.  [[PROJChargeCode]] <<PROJCODESN>>  *If project charge code is not found enter charge code in the text box below.*  [[PROJChargeCode]] <<TEXT>>  [[If a new charge code is entered then add to list]] <<NOTE>> |
| **PRINCIPAL INVESTIGATOR** |
| [[PrincipalInvestigator]] <<SRF>>  [[automate name of PI to session username]] <<NOTE>>  [[TestPlanDate]] <<TIMESTAMP>>  [[autofill date with today date]] <<NOTE>> |
| **TEST SELECTIONS** |
| **TESTPLAN**  Select the VTA Test plan from list.  [[VTATestPlan]] <<TEXT>>  [[Pull all testplans from the traveler SRFOPS-VTA-CAV-TSTP and put in VTATestPlan dropdown]] <<NOTE>> |
| **DATE OF REQUEST**  [[RequestDate]] <<TIMESTAMP>> |
| **CAVITY TO BE TESTED**  *Select the Cavity Serial Number / Cavity Name from list*  [[CAVSN]] <<CAVSN>>  *If Serial Number not found enter NEW Serial Number in the text box below.*  [[CavName]] <<TEXT>>  [[Add new CavName to CAVSN list]] <<NOTE>> |
| **DEWAR REQUEST**  [[PreferredDewar]] {{3,4,5,6,7,8}} <<RADIO>>  [[NumberOfCavities]]{{Single,Pair,Three}}<<Select>> |
| **RELIEF VALVE VERIFICATION**  Is each vacuum space on the test stand protected by a properly sized, cryogenically rated, non-isolable relief valve?  [[ReliefValve]] <<YESNO>>  List location and rating for each relief valve:  [[ReliefValveComment]] <<COMMENT>> |
| **TEST PARAMETERS**  [[TemperatureRequirement]] <<FLOAT>> (float)  [[CavityPimode(MHz)]] <<FLOAT>> (float)  [[SpecialConsiderations]] <<COMMENT>> |
| **ADDITIONAL REQUIREMENTS**  [[PreferedRFSystem]]{{Production,RD}}<<RADIO>>  *Specify if successive RF tests will be done on the same cavity in the same Dewar*  [[SuccessiveRFTests]]<<YES/NO>>  [[DewarTemperatures]]{{Single,Multiple}}<<Select>>  [[DewarMagnetics]]{{Choice1,Choice2,Choice3}}<<Select>>  [[OSTdata]]<<YESNO>> *(Instrumentation for collecting Oscillating Superleak Transducer data)*  [[HOMdata]]<<YESNO>>  *If YES is selected connect/ check cables*  [[AMMSneeded]]<<YESNO>> *(RF setup for Anti-Mode Mixing Control)*  [[OtherRequirements]]<<COMMENT>> |
| **TEST REQUEST SUBMISSION** |
| *IF Test Request is complete, then an email of the request will be sent to the VTA Test Coordinators*  [[SubmitTestRequest]] <<CHECKBOX>>  [[TestRequestEmail]] {{KDAVIS,JTKENT,POWEN,TGOODMAN}} <<EMAIL>>  [[TestRequestEmail]] {{VTA Test Plan Approved}} <<EMAILSUBJ>>  [[Only email if the SubmitTestRequest is YES]] <<NOTE>> |

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| **VTA CAVITY TEST ACTIVATION**  (To Be Completed by CRYO Operator) |
| [[VTATPActive]] <<YESNO>>  [[VTATPActiveCoord]] {{KDAVIS,JTKENT,POWEN,TGOODMAN}} <<SELECT>>  [[VTATPActiveDate]] <<TIMESTAMP>> |
| **EMAIL**: The VTA Facility Manager  [[VTATPActiveEmail]] {{KDAVIS,JTKENT,POWEN,TGOODMAN}} <<EMAIL>>  [[VTATPActiveEmail]] {{VTA Test Plan is Active}} <<EMAILSUBJ>> |
| **DEWAR**  [[Dewar]] {{3,4,5,6,7,8}} <<RADIO>>  [[SpecifyCavityNO]]{{Single,Pair,Three}}<<Select>>  *Select cavity serial number CAVSN1 for single cavity, CAVSN1 and CAVSN2 for pair, CAVSN1 to 3 for three cavities.*  [[CAVSN1]] <<CAVSN>>  [[CAVSN2]] <<CAVSN>>  [[CAVSN3]] <<CAVSN>> |
| **Test stand loaded in DEWAR**  [[TestStandLoaded]] <<TIMESTAMP>>  [[TestStandLoadedOK]] <<YESNO>>  [[CraneOperator]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>> |
| **RELIEF VALVE VERIFICATION**  [[ReliefValveOK]] <<YESNO>>  [[CryoOperator]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>> |
| **ADDITIONAL REQUIREMENTS**  [[DewarMagneticOK]] <<YESNO>>  [[OSTcablesInstrOK]]<<YESNO>>  [[OtherRequirementsFullfiled]]<<COMMENT>>  [[Technician]] <<SRFCVP>> |
| [[VTATestCoord]] {{JKENT}} <<HOLDPOINT>> |

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| **VTA CAVITY TEST FINALIZED**  (To Be Completed by VTA Operator)  Format option 1 |
| [[VTAOperator]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>> |
| [[VTATestDdate]] <<TIMESTAMP>> |
| [[TestDewar]] {{3,4,5,6,7,8}} <<SELECT>> |
| **SINGLE CAVITY TEST** |
| **Select Single Cavity**  [[CAVSNSingle]] <<CAVSN>>  *Provide Traveler AND Sequence Number for the CAVSN tested.*  [[SingleCavProjectTraveler]] <<TEXT>>  [[SingleCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for SingleCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for SingleCavProjectSeqNum]] <<NOTE>> |
| **PAIR CAVITY TEST** |
| **Select Bottom Cavity**:  [[CAVSNBottom]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[BottomCavProjectTraveler]] <<TEXT>>  [[BottomCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for BottomCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for BottomCavProjectSeqNum]] <<NOTE>> |
| **Select TOP Cavity:**  [[CAVSNTop]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[TopCavTraveler]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>>  [[TopCavProjectTraveler]] <<TEXT>>  [[TopCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for TopCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for TopCavProjectSeqNum]] <<NOTE>> |
| **THREE CAVITY TEST** |
| **Select Position 1 Cavity:**  [[CAVSNP1]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position1CavProjectTraveler]] <<TEXT>>  [[Position1CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position1CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position1CavProjectSeqNum]] <<NOTE>> |
| **Select Position 2 Cavity:**  [[CAVSNP2]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position2CavProjectTraveler]] <<TEXT>>  [[Position2CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position2CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position2CavProjectSeqNum]] <<NOTE>> |
| **Select Position 3 Cavity:**  [[CAVSNP3]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position3CavProjectTraveler]] <<TEXT>>  [[Position3CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position3CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position3CavProjectSeqNum]] <<NOTE>> |

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| **VTA CAVITY TEST FINALIZED**  (To Be Completed by VTA Operator)  Format option 2 | | |
| [[VTAOperator]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>> | | |
| [[VTATestDdate]] <<TIMESTAMP>> | | |
| [[TestDewar]] {{3,4,5,6,7,8}} <<SELECT>> | | |
| **SINGLE CAVITY TEST** | **PAIR CAVITY TEST** | **THREE CAVITY TEST** |
| **Select Single Cavity**  [[CAVSNSingle]] <<CAVSN>>  *Provide Traveler AND Sequence Number for the CAVSN tested.*  [[SingleCavProjectTraveler]] <<TEXT>>  [[SingleCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for SingleCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for SingleCavProjectSeqNum]] <<NOTE>> | **Select Bottom Cavity**:  [[CAVSNBottom]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[BottomCavProjectTraveler]] <<TEXT>>  [[BottomCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for BottomCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for BottomCavProjectSeqNum]] <<NOTE>> | **Select Position 1 Cavity:**  [[CAVSNP1]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position1CavProjectTraveler]] <<TEXT>>  [[Position1CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position1CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position1CavProjectSeqNum]] <<NOTE>> |
|  | **Select TOP Cavity:**  [[CAVSNTop]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[TopCavTraveler]] {{CHOICE1,CHOICE2,CHOICE3}} <<SELECT>>  [[TopCavProjectTraveler]] <<TEXT>>  [[TopCavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for TopCavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for TopCavProjectSeqNum]] <<NOTE>> | **Select Position 2 Cavity:**  [[CAVSNP2]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position2CavProjectTraveler]] <<TEXT>>  [[Position2CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position2CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position2CavProjectSeqNum]] <<NOTE>> |
|  |  | **Select Position 3 Cavity:**  [[CAVSNP3]] <<CAVSN>>  *Provide Traveler Sequence Number for the CAVSN tested.*  [[Position3CavProjectTraveler]] <<TEXT>>  [[Position3CavProjectSeqNum]] <<TEXT>>  [[Pull all Project VTRF traveler into dropdown for Position3CavProjectTraveler]] <<NOTE>>  [[Once Project is selected then fill with SeqNum and CAVSNs from that traveler into dropdown for Position3CavProjectSeqNum]] <<NOTE>> |
| **NEUTRON GENERATION DURING VTA CAVITY QUALIFICATION TESTS** | | |
| [[NeutronGenerated]] <<YESNO>>  *Inform / send emails if YES is selected*  [[VTAFacilityManager]] {{ KDAVIS,JTKENT,POWEN,TGOODMAN,HAMLETTE}} <<EMAIL>>  [[VTAFacilityManager]] {{Dewar, CAVSN, NeutronGenerated,VTA test date}} <<EMAILSUBJ>>  [[replace email subject with actual data from this traveler]] <<NOTE>> | | |
| **TEST COMPLETE? Verify all data has been entered.** | | |
| [[TestCompleteHoldpoint]] {{KDAVIS,JTKENT,POWEN,TGOODMAN}} <<HOLDPOINT>> | | |
| [[CloseTraveler]] <<YESNO>>  [[THE HOLDPOINT WILL PREVENT THE TRAVELER FROM BEING ABLE TO BE CLOSED UNTIL IT IS CLEARED; DO NOT NEED ADDITIONAL QUESTION TO CLOSE TRAVELER]] <<NOTE>> | | |