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| Traveler Title | Warm Girder Removal |
| Traveler Abstract | Outline the removal of the Girder from CEBAF tunnel and disassembly of the girder |
| Traveler ID | SRFOPS-ACC-WMGRDR-RMV |
| Traveler Revision  | R1 |
| Traveler Author | G. Marble |
| Traveler Date | 2-Jul-24 |
| NCR Informative Emails | fhumphry,marble,forehand |
| NCR Dispositioners | ruber,drury |
| D3 Emails | fhumphry,marble,ruber,drury |
| Approval Names | G. Marble | F. Humphry | R. Ruber | M. Drury |
| Approval Signatures |  | Frank Humphry |  |  |
| Approval Dates |  | 8-29-2024 |  |  |
| Approval Title | Author | Reviewer | 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. |
| [SRFOPS-PR-ACC-WMGRDR-TRBPHU](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-287576/SRFOPS-PR-ACC-WMGRDR-TRBPHU-R1.docx) | [Girder assembly drawings](https://jlabdoc.jlab.org/docushare/dsweb/View/Collection-52957) |  |  |  |
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| Revision Note |  |
| R1 | Initial release of this Traveler.  |

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| Step No. | Instructions | Data Input |
| \*Note | 1. During the girder re-work process, there will be some items labeled as "Radioactive Material". **Radioactive Material (RAM)** is defined in the RadCon manual as any activated material, equipment or system component with radiation levels distinguishable from background. The following guidelines are to be adhered to when handling RAM in order to follow Radcon requirements:* There are no requirements for dosimetry for Radioactive Material Areas unless otherwise notified by a member of the RCD.
* Persons must be Radiation Worker I qualified to handle RAM.
* The RAM tag must accompany the item at all times with the following exceptions. Cleaning, heating or any process in which the tag will impede that process or the tag could be potentially damaged or destroyed.
* When performing processes listed above, the tag is to be removed by personnel performing the task and placed on the RAM tag board located in the area.
* Each component removed from the Girder needs to be tagged with a RadCon coupon, recorded on the dedicated list.
* All hardware (bolts, nuts, gaskets...) needs to be gathered in a Rad waste bag.
* Once task is complete, the tag is to be placed back on the material/equipment.
* Eating, drinking or smoking is not permitted in Radioactive Material Areas.
* Remove all tags prior to installation of Girder in the Accelerator.

**Tasks associated with this traveler will be performed in the designated area of the clean room.****2 .The Girder needs to be maintained upright in the same orientation it had on the beamline. Do not flip over, topple.** |
| 1 | Serial Number of Girder | [[GRDRSN]] <<SN>>[[add GRDRSN to db for future travelers to use]] <<NOTE>>[[GRDRremovalPhoto]] <<FILEUPLOAD>> |
| 2 | All work to be done in a portable clean room or flow hood area. | [[GirderStyle]]<<TEXT>>[[GirderStyle create working list]] <<NOTE>>[[ExistingVacPressure]] <<SCINOT>>[[BleedUpType]] {{Nitrogen,Helium}} <<RADIO>>[[CleanConditions]]<<YESNO>> |
| 3 | Note time and disconnect verification. Rad Waste Components – Hold until girder is built. Parts will be sent to RAD waste. | [[Disconnected]]<<YESNO>>[[DisconnectSRFtech]]<<SRFVAC>>[[BleedTime]]<<TIMESTAMP>> |
| 4 | Move the girder to the holding area, and mark the girder with a RAM tag. \*\*Coordinate with RadCon to have the girder surveyed, and prepared for transport to TEDF High Bay RM# 1604 RCA; If not taken to TEDF at initial Radiation Survey; before transport must contact Radiation Control Group and inform them of transfer to RCA.\*\* | [[RAMTagAttached]] <<CHECKBOX>>[[GirderRadTech]] <<RAD>>[[GirderRadComment]] <<COMMENT>>[[RadDate]] <<TIMESTAMP>>[[GirderRAMLevel1]] <<FLOAT>>[[GirderRemovalComments]] <<COMMENT>> |

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| Step No. | Instructions | Data Input |
| DISASSEMBLY |
| BPM Information |
| 5 | Disassembly of Girder will be done in TEDF Highbay Rm#1604 RCA; once Girder disassemble, Call Radiation Control Group 7578761743 for need of Radiation Survey of Components being re-used and then inform RCG of transfer of Component to Groups doing further testing of Components. | [[DisassemblyDate]] <<TIMESTAMP>>[[RadConContact]] <<YESNO>> |
| **COMPONENT Removal and RAM tagging** |
| **Component Type** | **Component SN** | **REUSE COMPONENT?** | **Component RAD Level** |
| Pump drop | [[PMPDRPSN]] <<SN>>[[add PMPDRPSN to db for future travelers to use]] <<NOTE>> | [[ReusePMPDRP]] <<YESNO>> | [[PMPDRPSNRAM]] {{RAM,RCA,NO}} <<RADIO>> |
| IPM (Beam Position Monitor) | [[BPMSN]] <<SN>>[[add BPMSN to db for future travelers to use]] <<NOTE>> | [[ReuseBPM]] <<YESNO>> | [[BPMSNRAM]] {{RAM,RCA,NO}} <<RADIO>> |
| Contact Seth Green (757-269-7024 / sethg@jlab.org) for RF measurement of IPM before entry to cleanroom.If any of the RF measurements exceed 0.25dB, note them in the comments.Take IPM to Test Table in TEDF RM# 1551.Seth Green will contact Radiation Control Group and Chemistry for transfer of the IPM. | [[ContactedRFMeasTech]] <<YESNO>>[[XplusMeasurement]] <<FLOAT>>[[XnegMeasurement]] <<FLOAT>>[[YplusMeasurement]] <<FLOAT>>[[YnegMeasurement]] <<FLOAT>>[[GirderRadComment]] <<COMMENT>> |
| Gate valve | [[BLGVSN]] <<SN>>[[add BLGVSN to db for future travelers to use]] <<NOTE>> | [[ReuseBLGV]] <<YESNO>> | [[BLGVSNRAM]] {{RAM,RCA,NO}} <<RADIO>> |
| ITV (Beamviewer) assembly | [[BVWRSN]] <<SN>>[[add BVWRSN to db for future travelers to use]] <<NOTE>> | [[ReuseBVWR]] <<YESNO>> | [[BVWRSNRAM]] {{RAM,RCA,NO}} <<RADIO>> |
| RAM Information |
| 6 | RAM Tag associated beamline, pumps, or other relevant components that will be removed with the Girder, and arrange to have them surveyed.Record Serial Numbers where available, and record RAM levels of anything identified as RAM. | [[RAMtaggedItemsComments]] <<COMMENT>> |