OMC Suspension Final Design Review Checklist Norna Robertson and Janeen Romie

Feb-09 T0900062-v1

Checklist Description Document # **Document Title** Final Requirements (any changes or 1 refinements from PDR?) 2 Resolutions of action items from PDR 3 Susbsytem block and functional diagrams 4 Drawing package see wiki 5 Final parts list D080327, D080329 BOMs for LLO & LHO, respectively **OMC SUS Assembly & Alignment Document** 6 Final specifications T080117-01 Process of Manufacturing Cantilever Spring Blades for Adv E0900023 E0900039 **UHV Welding Specification** 7 Final interface control documents OMC SUS ICD E0900056 Relevant RODA changes and actions Output Mode Cleaner to be a monolithic cavity 8 completed M040189-00-Y Output Mode Cleaner Suspension Assembly and Installation Hazard Analysis for LLO 9 Signed Hazard Analysis E080020-00-D 10 Final Failure Modes and Effects Analysis 11 Risk Registry items discussed M080359-00-P Advanced LIGO Risk Registry RR 104 Blade procurement: difficulty in identifying vendor, fabrication process RR105 Blade nickel plating: looking for vendor, suitable process 12 Design analysis and engineering test data T0900060-v1 **OMC** Suspension Final Design Document 13 Software detailed design Similar to eLIGO OMC SUS software, using Borkspace. Done 14 Final approach to safety and use issues OMC SUS Production/Procurement Plan 15 Production plans C0900024 Plans for acquisition of parts, components, 16 materials for fabrication C0900024 OMC SUS Production/Procurement Plan

(ref M050220-09)

OMC SUS Inspection Plan

E09000051

17 Installation plans and procedures	E070271-05	OMC SUS Installation Procedures
18 Final hardware test plans	T0900080	OMC SUS Advanced LIGO Test Plan
		OMC SUS Controls Test
		Plan,http://www.ligo.caltech.edu/~jay/documents/T08000
19 Final software test plans	T080008	8-00-C.pdf
20 Cost compatibility with cost book		
21 Fabrication, installation and test schedule	Carol's site	http://www.ligo.caltech.edu/~advligo/index_fullsite.html
22 Lesons learned documented circulated	E0900049	
23 Problems and concerns	E0900049	

Comments

vanced LIGO http://lhocds.ligo-wa.caltech.edu:8000/advligo/UHVWeldingPlan

Suspension design supports an optical bench on which cavity is mounted.

Document signed as required

Required process now captured in E0900023v1. Another round of obtaining blades to widen vendor field is about to take place.

Prototyping has been carried out. Required process now captured in E0900023-v1

vendor-sensitive data