	Activity Name	Duration (Work	Start	Finish	Predecessor			2007					
		Days)	Date	Date	S	Assigned	Jai	n Feb	Mar	Apr	May	Jun	
1	Bladder tests												
2	Define test plan. Set up test fixture. Order bladders, fill materials, and candidate epoxies for bladder tests.												
3	Perform bench test of Teflon bladder to determine properties												
4	Review structural analyses to determine bladder performance requirements. Verify adequate performance of Teflon bladder.												
5	Develop procurement drawings for bladder												
6	Conduct FDR of bladder design												
7	Resolve FDR issues, release procurement drawings for fabrication												
8	Procure bladders												
9													
10	Coefficient of friction (COF) tests												
11	Order candidate materials for screening tests												
12	Pick surface treatment for standard shims. Prepare shims for additional testing.												
13	Perform additional COF tests (LN2 testing, cyclic tests, COF versus normal pressure, etc) for standard shims												
14	Pick and order material for high COF shims												
15	Perform additional COF tests (LN2 testing, cyclic tests, COF versus normal pressure, etc) for high COF shims												
16	Document and conduct review of test results												
17													
18	Tension tests of a bolted joint												
19	Develop drawings of prototypical bolted joint for tapped hole and through hole joints												
20	Procure/fab parts for joint test												
21	Pick candidate concepts for tightening nuts												
22	Procure tools for tightening nuts												
23	Develop design of test fixture and instrumentation												
24	Set up test fixture and equipment						╞╢╋						
25	Measure joint deflection v. preload (include UT or SG measurement of bolt tension)												

	Activity Name	Duration (Work	Start Date	Finish Date	Predecessor s	Resources Assigned	2007 Jan Feb Mar Apr May J						
26	Measure joint deflection v. temperature (including candidate washer materials)	Days)					Jai	Feb	IVIAI	Арі	iviay	Jun	
27	Measure joint relaxation v. time (days)						_						
27	Measure joint relaxation v. cooldown cycles												
29	Perform pullout tests for tapped holes												
30	Document and conduct review of test results												
31	Procure studs, nuts, and washers												
32	Perform analyses to determine geometry and location of high COF shims and placement of new studs												
33	Procure studs, nuts, and washers for new studs												
34													
35	Bushing tests												
36	Indentify candidate schemes for getting a bushing the fits tightly into the hole and around a stud												
37	Procure bushing materials for tests. Fabricate bushings.												
38	Procure tools and materials required for bushing assembly.												
39	Perform trial bushing installations (short of gluing them in) on a production coil.												
40	Document test results. Select bushing configuration. Conduct peer review of test results and bushing selection.												
41	Procure bushing materials for assembly operations.												
42													
43	Shear tests of a bolted joint												
44	Update bolted joint drawings with standard and high COF shims based on friction tests, bushing tests, and tension tests												
45	Procure/fab parts for test												
46	Set up test fixture												
47	Measure joint deflection version shear load. Pull to failure.												
48	Document and conduct peer review of test results												
49	Procure/fab shims for assembly operations												
50 51	Complete design of MC interface hdw												

	Activity Name	Duration (Work	Start Date	Finish Date	Predecessor s	Resources Assigned			20	1		
		Days)	Date	Dale	5	Assigned	Jan	Feb	Mar	Apr	Мау	Jun
52	Establish design criteria for bolted joints											
53	Perform analyses to determine geometry and location of high COF shims and placement of new bolts											
54	Perform structural analyses to establish the adequacy of the proposed design											
55	Develop specs and drawings											
56	Conduct MC interface FDR											
57	Resolve issues, release assembly spec and drawings											
58												
59	Complete the design of the tooling and alignment mechanisms											
60	Prepare Sta2 for initial operations											
61	Conduct JHA											
62	Conduct ACC review of Sta2											
63	Resolve ACC findings											
64	Receive RLM authorization for Sta2 initial ops											
65	Perform trial x-y-z alignments on C1-C2. Demonstrate capability to satisfy alignment requirements.											
66	Prototype bladder installation on C1-C2											
67	Establish alignment mechanisms, metrology equipment complement and positioning requirements, fiducial locations, etc. Conduct peer review.											
68	Procure alignment mechanisms, fiducials, lifting equipment, etc. for assembly operations											
69												
70	Finalize preparations for assembly operations											
71	Document dimensional control plan											
72	Document assembly sequence											
73	Finalize assembly procedure											
74	Establish back office support requirements and data flow											
75	Train technicians in operation of the metrology equipment and measurement procedures											
76	Receive RLM authorization for assembly operations											
77												
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	Activity Name	Duration (Work Days)	Start Date	Finish Date	Predecessor s	Resources Assigned	Jan	May	Jun			
78		Days)						100	With	7.01	widy	Jun
79	Finalize design of coil assemblies											
80	Finalize coolant tube supports and terminations											
81	Finalize instrumenation design (TCs and strain gages)											
82	Complete coil assembly spec and dwgs											
83	Conduct FDR. Resolve issues. Release drawings.											
84	Procure hardware required to finish coil assemblies											
85												
86	Prepare coils for Sta2 operations											
87	Update installation procedures											
88	Complete A1 coil											
89	Complete A2 coil											
90	Pre-fit A1-A2, resolve interferences											
91	Complete B1 coil											
92	Pre-fit A1-B1, resolve interferences											
93	Complete C1 coil											
94	Pre-fit B1-C1, resolve interferences											
95												
96	Start Sta2 assembly operations											
97	Assemble/disassemble A1-A2											
98	Flip A1											
99	Assemble B1-A1											
100	Assemble C1-B1											
101	Remove HP1 (A1-B1-C1)											
							Jan	Feb	Mar	Apr	Мау	Jun