Engineering schedule #20

FETS laser diagnostics

Updated: *P.Savage, 12th Mar 2013*

Table 20.1: Dipole production schedule

#	Task	Duration (weeks)	Running total
20.1.1	Create design specification for dipole	4	4
20.1.2	Create dipole B-field simulation	2	6
20.1.3	Include B-field in MEBT optics design	2	8
20.1.4	Find dipole suitable manufacturers	4	12
20.1.5	Request quotes for manufacture	4	16
20.1.6	Review B-field simulation from manufacturer	2	18
20.1.7	Manufacture	16	34
20.1.8	Deliver	1	35
20.1.9	Map B-field and reference datums	2	37
	Total	37	

Table 20.2: Vacuum vessel production schedule

#	Task	Duration (weeks)	Running total
20.2.1	Create design specification for vessel	1	1
20.2.2	Review stress analysis	4	5
20.2.3	Complete vessel design	4	9
20.2.4	Produce engineering drawings	3	12
20.2.5	Find suitable manufacturers	4	16
20.2.6	Request quotes for manufacture	4	20
20.2.7	Manufacture	10	30
20.2.8	Inspect	1	31
20.2.9	Deliver	1	32
20.2.10	Vacuum test	1	33
	Total	33	

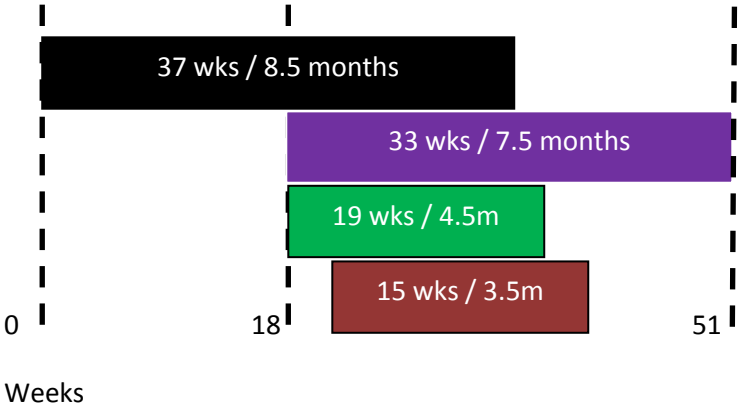
Task 20.2.3 can begin when task 20.1.7 begins

Table 20.3: Dipole and beam dump support structures

#	Task	Duration (weeks)	Running total
20.3.1	Design	4	4
20.3.2	Stress analysis	1	5
20.3.3	Produce engineering drawings	2	7
20.3.4	Find suitable manufacturers	2	9
20.3.5	Request quotes for manufacture	3	12
20.3.6	Manufacture	5	17
20.3.7	Deliver	1	18
20.3.8	Install	1	19
	Total	19	

Table 20.4: Breadboard enclosure

#	Task	Duration (weeks)	Running total
20.4.1	Design	4	4
20.4.2	Produce engineering drawings	2	6
20.4.3	Manufacture in-house	4	10
20.4.4	Assemble	1	11
20.4.5	Deliver	1	12
20.4.6	Fit interlocks	1	13
20.4.7	Test	1	14
20.4.8	Install	1	15
	Total	15	



Conclusion: Decide on which date there must be a dipole with vacuum vessel, breadboard enclosure and supports in R8. Then subtract **51 weeks** to find when item 20.1.1 must begin.