

EN-MME Activities (20 min)

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Source JMT, situation 11/10/2016

MME Design Office workload

	Number of jobs	Date fin	Estimated workload (h)	Work in Progress (h)
Source JMT, situation 11/10/2016	38	≤ 2015	16 800	5 100
	31	S1 2016	9 100	2 000
	100	S2 2016	66 400	15 200
	11	S1 2017	7 100	3 300
	13	S2 2017	15 000	10 300
	1	≥ 2018	100	100
	∑ 194		∑ 114 500	∑ 36 000
cf LS2 Da	ys 2015 ∑ 169		∑ 88 200	∑ 30 400





MME Design Office issues

- Workload: increasing (again... and trend for many years)
- Capacity
 - Increased (again...) from 44 to 50 MME Designers on-site (15 staff, 33 Industrial Support, 2 Temp)
 - This is maximum capacity that we will not exceed (re. staff/non-staff ratio of 1:2) in order to allow follow-up and control (cf other Design Offices 1:1)
 - ~72 000 job hours / year in 2016 (~76 000 h planned for 2017)
 - Missing resources !!! support request to recruit additional staff designers (note: 1 staff designer generates ~ 1 MCHF spending)
- Hence a bottleneck and an existing Work in Progress (WIP) workload of ~6 months
- ~ 5% capacity will be absorbed by CAD2020 (CDD/Smarteam synchronization and cleanup of data) either supported centrally or by Users/Projects





MME Fabrication issues

- Workload capacity
 - Known bottlenecks:
 - Electron beam welding for long components
 - Milling for large components
 - Vacuum brazing
 - Job preparation & subcontracting
- Raw materials availability:
 - 316 LN / 304 L vacuum use, copper
 - Store items (sheets, bars, flanges) and special forgings
 - CERN-wide issue: Stores, Purchasing, MME (specifications), Users. Discussed in MAP (MME Advisory Panel), long-term actions but need short-term flexibility.
- Also an existing Work in Progress (WIP) workload of ~6 months





Recommendations

- Design & fabrication requests
 - Think ahead in time:
 - consider one Semester (or more) for new MME design requests
 - Consider a 2nd Semester (or more) for MME fabrication requests
 - Include in PLAN
 - In launching a design job do not assume that MME fabrication automatically follows
 - Integration = ACE and Design = MME
 - In following-up an MME design&fabrication job, balance the necessary time for both activities
 - When design is 80% ready start fabrication contacts (too early = ignored, too late = wasted time ...)
 - Special supplies can take several months (3 to 12 months), e.g. special raw materials, forgings, bellows, ceramics





PLAN for MME

- MME uses JMT to manage its workload: PLAN and JMT are not synchronised
- Users can help:
 - Consistency between PLAN and JMT in Username and title
 - Link to JMT Job if existing
- Be clear with "request-by date"
 - Specify date for "job finished by MME" (not installation date)
- Be clear with "Deliverables" for Design Office:
 - If fabrication will be "internal MME" or "Sub-contracting MME", then "job finished" = fabrication drawings ready (include time to iterate with Workshop)
 - If fabrication is "responsibility of Users", then "job finished" = <u>Tender</u> <u>drawings</u>
 - User with Design Office to discuss fabrication strategy early
 - Avoid "responsibility of User" becoming "MME subcontracting".





Project/Job Priorities

- Play this card early:
 - Better to discuss early at the Design stage (working back from Installation date minus semester(s) fabrication time)
- Message for Group/Project Leaders:
 - Do not sign a JMT job request unless the indicated dates satisfy the "semester rule"
 - Do not assume a PLAN request is enough and the end of the story: ask "what is the JMT job number?"



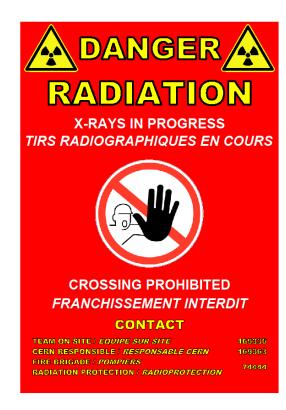


NDT radiography

- By its nature, activity outside normal working hours
- Performed by Contractor (Dekra, new contract S171) with MME support ensured on a "best effort" basis:
 - Assist with access difficulties
 - RP issues
 - Urgent technical issues (exceptionally)

7th & 8th November 2016

- "Best effort" becoming too much, but "piquet" not justified
- Ongoing discussion to introduce (small) changes to make better use of existing piquets (CCC, CSA, Fire Brigade/RP)







RP workshop in Bldg. 109

- □ The only general purpose RP workshop
- But need GS (→SMB)-consolidation support to finish renovation in 2017.





Thank-you for your attention



