

Short Shutdown Task List

<u>Task</u>	<u>Skill Set</u>	<u>No. of people (keys) required</u>	<u>*Priority</u>	<u>Minimum time required</u>	<u>Total Time required</u>	<u>Earliest start date for project</u>	<u>Comments</u>
MECHANICAL							
EPB Dipole Shielding	Mechanical Technicians	6 (8)	High	1 shift	10 shifts	15-Mar-04	Also requires 1 physicist and 1 engineer. Installation of shielding around 2 magnets will require 3-8 hour shifts. A total of 6 magnets require this shielding
Modify LCW Valve Mounts	Mechanical Technicians	2 (3)	High	1 shift	1 shift	December '03	Needed to put a few shut off valves in a visible position
Install LCW Hoses	Mechanical Technicians	2 (3)	High	1/2 shift	2 shifts	January '04	Needed before the LCW system can be filled
Fill LCW System	Mechanical Technicians	3 (4)	High	2 shifts	2 shifts	March '04	Need above jobs and MCC in MI-62
Install Vacuum Cans on ends of 12 inch pipe	Mech Tec + Welder	2 (3)	Medium	1/2 shift	3 shifts	January '04	Need access to the carrier Tunnel
Install Ion pumps and spools in NuMI Stub	Mech Tec + Welder	2 (3)	Low	1/2 shift	2 shifts	March '04	Can be done in several accesses
Install Ion pumps and spools in the extraction Area	Mech Tec + Welder	2 (3)	Low	1/2 shift	2 shifts	March '04	Can be done in several accesses
Build and Install long vacuum pipe spools around Q106, Q107, Q108	Mech Tec + Welder	2 (3)	Low	1 shift	2 shifts	March '04	Can be done in several accesses
ELECTRICAL							
Flag Cleanup	Electrical Techs	2 (3)	High	1 shift	5 shifts	February '04	This task includes plating of the flags, measuring for the jumpers to be installed, and installing them.
CABLING							
Install Klixon Cables in MI Enclosure	Electricians	2 Electricians in Enclosure (3 keys)	High	2 shifts	3 Shifts	January 6, 2004	High Priority for HV101, Medium Priority for rest
Verify Continuity of Installed Cables to Magnets	Fermilab Technical Staff or Electricians	2 Electricians in Enclosure (3 keys)	High	1 shift	2 Shifts	January 6, 2004	Can Effectively Be Accomplished During an 8 Hour Controlled Access
Install Interconnecting High Voltage Leads for Loss Monitors	Electricians	2 Electricians in Enclosure (3 keys)	Low	2 shifts	3 Shifts	February 16, 2004	Low Priority. May Want to Install Cables pre-terminated. Need to Investigate with Gianni.
SURVEYING							
Rough Align Q-103	surveyors	3 (4)	Medium	0.5 shift	0.5 shift	November-03	MI-60 Extraction Channel
Rough Align Q104-107	surveyors	3 (4)	Medium	1 shift	1.5 shifts	November-03	4 Magnets in MI-60 Crossover AP150 line
Rough Align Q108-112	surveyors +	3 (4)	Medium	1 shift	3.0 shifts	November-03	11 magnets in NuMI stub area
Adjust Q108-112	tech technician	1	Medium	1 shift	3.0 shifts	November-03	adjust above magnets
*Priority							
High - must be completed before the Summer Shutdown or earlier (we want to test the shielding before the Summer Shutdown.)							
Medium - could be done during the Summer Shutdown, but would require an extension to the 8 weeks required.							
Low - originally scheduled for the Summer Shutdown, but could be done earlier.							