## Pre-requisite to Installation

- a. As soon as the bake-out oven is removed from the Central beam-pipe, we need to measure the position of the beam pipe with the PSI tool and Survey collars and flanges (1 day, currently scheduled for June 17<sup>th</sup>.
- b. After a. we can shim BPIX and FPIX to final position in the lab.
- c. Need to check electrical continuity/isolation of cables/power-supplies at PPO with a load-box. This can be done at any time we have access to the bulk-head. Also can be done after hours. Requires ~4 hours per end. Time can be split in several small chunks. Should be placed in the shadow of other activities.

## Installation sequence

			BPIX (Installation from -Z END)	FPIX		
			BMI/BPI - BMO/BPO	BPI/BPO (+Z END)	BMI/BMO (-Z END)	1
	Μ	21	Install whole BPIX & cooling conn.& leak test			
	т	22	left over, connnections and start circulating cooling@+17C			
	W	23	check-out@+17C - Survey BPIX (both ends)			W
	Т	24	check-out@+17C			25
JUZE	F	25	check-out@+17C		Prepare for installation (set table, lower cassette, etc.)	
	S	26	check-out@+17C			
	S	27	check-out@+17C, green light for FPIX installation			
	Μ	28	check-out@+17C	Prepare for installation (set table, lower cassette, etc.)	Install BMI/BMO & cooling conn.& leak test	
	т	29	check-out@+17C	Install BPI/BPO & cooling conn.& leak test	left over, connnections and start circulating cooling@+17C	
J	w	30	check-out@+17C	left over, connnections and start circulating cooling@+17C	check-out@+17C - Survey FPIX (-Z end)	W 26
	Т	1	check-out@+17C	check-out@+17C - Survey FPIX (+Z end)	check-out@+17C, green light for PLT/BCM installation	6
	F	2	check-out@+17C	check-out@+17C, green light for PLT/BCM installation		
	S	3	check-out@+17C	check-out@+17C	check-out FPIX @+17C, check-out PLT/BCM	
	S	4	check-out@+17C	check-out@+17C	check-out FPIX @+17C, check-out PLT/BCM	
	М	5	check-out@+17C	Install PLT/BCM, all connections and start check-out	Close Bluk-Head panels, ready to go cold, continue check-out@+17C	
	Т	6	check-out@+17C	check-out FPIX @+17C, check-out PLT/BCM	check-out FPIX @+17C, check-out PLT/BCM	
	W	7	check-out@+17C	Close Bluk-Head panels, ready to go cold	check-out FPIX @+17C, check-out PLT/BCM	W
	Т	8	Check readiness for cold operation, check interlocks, start lowering the temperature, check seal etc.			2
1	F	9	Chek-out at cold temperature			
Ϋ́	S	10	Chek-out at cold temperature			i
	S	11	Chek-out at cold temperature			
	Μ	12	Chek-out at cold temperature, clean up Surkov frame, Ready to close CMS			
	Т	13				
	W	14	N			w
	Т	15				28
	F	16				8
	S	17				
	S 18					