

7 Module Disconnection Checklist

TM4 with UCx #42 in ITE

SEQ	ITEM	NOTE	CHECK
Safety	Acknowledge and Activate Work Permit	Call ISAC operators (x7500) Call Main Control Room if to notify of water shutoff or if supplied airhood is necessary (x.7333)	✓
Safety	Hold Pre-Job Briefing	<ul style="list-style-type: none"> • Discuss hazards, safety protocols and work steps listed in this document and checklists. • All workers on the work permit shall be present. If there are concerns about the job, discuss with supervisors and re-plan if necessary. • If you become contaminated during the job, contact the Main Control Room at x7500 for assistance. 	✓
Safety	<ul style="list-style-type: none"> • Electronic Dosimeter • Tank Suit • Respirator • Overshoes (double) • Gloves (double) • Safety Glasses / Full Face Respirator 	Remove and replace second pair of overshoes when exiting the pit to reduce risk of spreading contamination.	✓
Prep	Check tools: <ul style="list-style-type: none"> • Hex Keys (3/16" & 3/8") • Side Cutter • Wipes • 10" Cable Ties • RAM 	<i>Aluminum Foil</i> <i>4x</i>	✓
Safety	P beam off for at least 30 min before entering target pit Check the General Field of ITW/ ITE	RAM or pole monitor ($\leq 500 \mu\text{Sv/h}$)	✓
1	Switch off: <ul style="list-style-type: none"> • Heaters, Coil • Bias, Einzel Lens, Anode • EE • Turbo Pumps 	Check or confirm with ISAC operators	✓
2	Two HV Cover Keys	Electrical room	✓
3	High Active Cooling Water	Close valves for water supply and return	✓
4	HV Cover and HV Fence on Module Top	Limit switches and signal cable plugs	✓


Target Module Connection and Disconnection Procedure		
Document-141576	Release No. 3	Release Date.: 2019-10-23

SEQ	ITEM	NOTE	CHECK
5	Compressed Air	Release QC Release air cylinder back pressure	✓
6	Shutter	Pull up bellows. Strap tie air cylinder	✓
7	Gas Line	FEBIAD Target only Close two manual valves (station and module)	N/A
8	Two 6-pin connectors (T,H)	Connect grounding wires to 60 kv bias	✓
9	Extraction Electrode (I)		✓
10	Einzel Lens (Y)		✓
11	a) Water Lines: <ol style="list-style-type: none"> 1. Target Oven ✓ 2. Tube Heater ✓ 3. MSP ✓ 4. EE ✓ 5. HS ✓ 6. Window ✓ 7. Coil 1 ✓ b) HS line Purging ✓	b) Nitrogen purge at 90 PSI for 6 minutes to purge the Heat Shield (HS) line in station	✓
12	High Current Cables: <ol style="list-style-type: none"> a) (A)Target Oven + ✓ b) (B)Target Oven - ✓ c) (C)Tube heater - ✓ d) (D)Tube Heater + ✓ e) (H)60KV Bias ✓ f) (PQ)Coil + ✓ g) (RU)Coil - ✓ 	f) FEBIAD target only g) FEBIAD target only	✓
13	Vacuum System <ol style="list-style-type: none"> a) TP1 Controller cable ✓ b) TP2 Controller cable ✓ c) TP1 BV1 ✓ d) TP2 BV2 ✓ e) IG1 ✓ f) TP1 TP2 Fans ✓ 	a) Connectors on pumps c) KF 25 between BVs. Foil cover BVs, 24 V DC plug d) KF 25 between BVs Foil cover BVs, 24 V DC plug e) Beside the shutter, use PNG1 cable f) Switch off all fans (2 of 110 V Plugs for ITW Switch on Extension bar for ITE)	✓
14	Steers ITE: <ul style="list-style-type: none"> • Left ✓ • Top ✓ • Bottom (Right) ✓ ITW: <ul style="list-style-type: none"> • X • Y • Common 	a) Switch off IG1 b) ITE -TM2 <ul style="list-style-type: none"> • Left - Y • Top -X • Bottom (right) - Common c) ITW - TM4 <ul style="list-style-type: none"> • X - Top • Y - Left • Common - Bottom (right) 	✓

Target Module Connection and Disconnection Procedure		
Document-141576	Release No. 3	Release Date.: 2019-10-23

SEQ	ITEM	NOTE	CHECK
15	Final Check	Module is clear for move	✓
16	Return Work Permit and E-log Entry		✓

NOTES:

DATE: 2023-08-28
 TARGET: UCx #42
 TARGET MOUDLE: TM1 TM2 TM3 TM4
 STATION: ITW ITE
 SIGNATURE 1: 
 SIGNATURE 2: 