



7 Module Disconnection Checklist

SEQ	ITEM	NOTE	CHECK
Safety	Acknowledge and Activate Work Permit	Call RIB operators (ext. 7500) Call Main Control Room to notify of water shut-off (ext. 7333)	✓ ✓
Safety	<ul style="list-style-type: none"> • Electronic dosimeter ✓ • Tank Suit ✓ • Respirator ✓ • Overshoes ✓ • Gloves(double) ✓ • Safety Glasses / Full Face Respirator ✓ 	Remove and replace overshoes when exiting the pit to reduce risk of spreading contamination.	✓ OK
Safety	Check the General Field of ITW/ ITE	RAM or pole monitor ($\leq 500 \mu\text{Sv/h}$) ²	
Prep	Check Tools: <ul style="list-style-type: none"> • Hex keys (3/16" & 3/8") ✓ • Wrenches (two 1/2") • Side Cutter ✓ <i>adjustable wrench (L)</i> • Wipes ✓ • 10" Cable Ties ✓ • Aluminum Foil ✓ 	Aluminum foil: Four folded square pieces	OK ✓
1	Switch off: <ul style="list-style-type: none"> • Heaters, Coil ✓ • Bias, Einzel Lens, Anode ✓ • EE ✓ • Turbo Pumps ✓ • Ion gauges ✓ 	Check or confirm with ISAC operators	done ✓
2	Two HV Cover Keys ✓	Electrical room	✓
3	High Active Cooling Water, <i>TP Fans</i>	Close valves for water supply and return	✓
4	HV Cover and HV Fence on Module Top	Use grounding rod Limit switches and signal cable plugs	
5	Compressed Air ✓	Release QC Release air cylinder back pressure	OK
6	Shutter ✓	Pull up bellows. Strap tie air cylinder	OK
7	Gas Line	FEBIAD Target only Close two manual valves (station and module)	N/A
8	52 Pin Connector (H) ✓	Disconnect grounding wire from 60 kV bias	OK
9	Extraction Electrode (I) ✓		
10	Einzel Lens (Y) ✓		

² Ref Dose Estimate Form, Document-19905

11	<p>a) Water Lines:</p> <ul style="list-style-type: none"> ✓ 1. Target Oven ✓ 2. Tube Heater ✓ 3. MSP ✓ 4. EE ✓ 5. HS ✓ 6. Window ✓ 7. Coil 1 8. Coil 2 (ITE only) <p>b) HS line Purging @SHC</p>	<p>a) Water Lines</p> <ul style="list-style-type: none"> 1. Leave bypass loop on 2. Leave bypass loop on 8. Leave bypass loop on for TM2 <p>b) 5 minutes 50 psi inert gas go compression air</p>	OK
12	<p>High Current Cables:</p> <ul 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) (RI)Coil 	<p>a) FEBIAD target only</p> <p>g) FEBIAD target only</p>	OK
13	<p>Vacuum System</p> <ul style="list-style-type: none"> ✓ a) TP1 Controller cable ✓ b) TP2 Controller cable ✓ c) TP1 BV1 ✓ d) TP2 BV2 ✓ e) IG1 f) PNG4 (TM4 only) <p>TP1 TP2 Fans</p>	<p>a) Connectors on pumps</p> <p>c) KF 25 between BVs. Foil cover BVs, 24 V DC plug</p> <p>d) KF 25 between BVs Foil cover BVs, 24 V DC plug</p> <p>e) Beside the shutter, use PNG1 cable</p> <p>f) Switch off all fans (2 of 110 V Plugs for ITW, Switch on Extension bar for ITE)</p>	OK
14	<p>Steers</p> <p>ITE:</p> <ul style="list-style-type: none"> • Left • Top • Bottom • Right <p>ITW:</p> <ul style="list-style-type: none"> • X - Top • Y - Left • Common - Bottom, Right 	<p>3 HV connectors (Ion gauge should be switched off as it will be hot to the touch if left on)</p>	OK
15	Final Check	Module is clear for move	OK
16	Return Work Permit and E-log Entry	<p>Call RIB operators (ext. 7500) ✓</p> <p>Call Main Control Room (ext. 7333) ✓</p>	OK

NOTES:

TARGET: VCx 28
 TARGET MOUDLE: TM1 TM2 TM3 TM4
 STATION: ITW ITE
 SIGNATURE 1: 
 SIGNATURE 2: 

DATE: 2019-10-22

DOSE 1: 0.098 mSv
 DOSE 2: 0.031 mSv