

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

7 Module Disconnection Checklist

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)	✓ OK
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. 	✓ OK
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.	OK
Prep	Check tools: <ul style="list-style-type: none"> • Hex Keys (3/16" & 3/8") ✓ • Side Cutter ✓ • Wipes ✓ • 10" Cable Ties ✓ • RAM ✓ 		OK
Safety	P beam off for at least 30 min before entering target pit ✓ Check the General Field of ITW/ ITE ✓	RAM or pole monitor ($\leq 500 \mu\text{Sv/h}$)	OK
1	Switch off: <ul style="list-style-type: none"> • Heaters, Coil ✓ • Bias, Einzel Lens, Anode ✓ • EE ✓ • Turbo Pumps ✓ 	Check or confirm with ISAC operators	OK
2	Two HV Cover Keys ✓	Electrical room	OK
3	High Active Cooling Water ✓	Close valves for water supply and return	OK
4	HV Cover and HV Fence on Module Top ✓	Limit switches and signal cable plugs	OK

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SEQ	ITEM	NOTE	CHECK
5	Compressed Air ✓	Release QC Release air cylinder back pressure	OK
6	Shutter ✓	Pull up bellows. Strap tie air cylinder	OK
7	Gas Line checked	FEBIAD Target only Close two manual valves (station and module)	OK
8	Two 6-pin connectors (T,H)	Connect grounding wires to 60 kv bias	NA
9	Extraction Electrode (I) ✓		OK
10	Einzel Lens (Y) ✓		OK
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 <i>Good purging this time</i>	OK
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	OK
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)	OK
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) 	OK

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

NOTES:

90ps. Nitrogen purge HS line at ITE.
The purging result is good.

DATE:

TARGET: Ta# 59

TARGET MOUDLE: TM1 TM2 TM3 TM4

STATION: ITW ITE

SIGNATURE 1: 

SIGNATURE 2: 