SHUTDOWN GUIDELINES FOR AØPI

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LASER

1. Close the laser shutter, "**UVSHUT**", using *ParameterPage*. (Channel 5aa:140)

2. Access the **Laser Room** in accordance with the document *Access Guidelines for AØ Laser Room*.

3. Toggle both MP **Amplifier shutter** state switches to "N.C." (Normally Closed). (UniBlitz shutter control boxes on the southwest top of Multipass optical table tent enclosure).

4. Disconnect the "**Laser Flash Trig (DT01)**" BNC cable from spigot "EXT TRIG" on "Amplifier Flashlamp Trigger Delay" *SRS DG-535*. (Left DG-535 timing box perched above the southwest optical table).

5. Disconnect the "**1MHz Pockells Cell Trig**" BNC cable from spigot "EXT TRIG" on "Pockell's Cells Trigger Delay" *SRS DG-535*. (Right DG-535 timing box perched above the southwest optical table).

3MW KLYSTRON

1. Turn **off** the "***Gun low-level RF drive***". (i.e. set the *SP Voltage* to **0** in the *FERMI.RF/DSP/PHOTO_GUN* window of the *DDD* program on a Linux machine).

2. Switch the ***3 MW RF TWA*** to "STANDBY". (Located in relay rack RF07).

3. Remove the "**TWA Permit**" key and return it to the MCR. But first make sure 200KW TWA is in STANDBY. (Located in the Safety System relay rack in room A0S-102).

4. Return the "**Cave Reset**" key to the MCR. (Located in your pocket).

If the 3 MW Klystron will be off for more than 24 hours, continue on…

5. Zero the "**PFN Phase Controller knob**" 10-turn pot. (Located in relay rack RF02).

6. Switch OFF the "**CHARGE SWITCH**" in the *3 MW RF KLYSTRON INTERLOCK CHASSIS*. (Located in relay rack RF03).

7. Press the "OFF" button on the ***CHARGING SUPPLY CONTROLLER PANEL***. (Located in relay rack RF01).

8. Switch off the "3 MW RF" **480 VAC disconnect switch** in the back of the *3 MW RF CHARGING SUPPLY CABINET*". (Located in back of relay rack RF01).

9. Ensure that the *3 MW RF KLYSTRON FILAMENT P.S.* is set to "**BLACK HEAT ENABLED**". (Located in relay rack RF04)

10. Ensure that the "3 MW RF WAVEGUIDE **SULFUR HEXAFLUORIDE**" bottle gas valve is closed. (Located by the 3 MW Klystron Tube).

200KW KLYSTRON

1. Set the 9-Cell "**SP voltage**" to 0.00 and turn off the Mode "Feedback" in the FERMI.RF/DSP/CAPTURE_CAVITY window of the DOOCS Data Display program. (A0 Control Room on Hazel).

2. Switch the ***200 KW RF TWA*** to "STANDBY". (Located in relay rack RF06).

3. Remove the "**TWA Permit**" key and return it to the MCR. But first make sure 3MW TWA is in STANDBY. (Located in the Safety System relay rack in room A0S-102).

4. Return the "**Cave Reset**" key to the MCR. (Located in your pocket).

If the 200KW Klystron will be off for more than 24 hours, continue on…

5. Zero the "**H.V. Knob**" 10-turn pot on the *200 KW RF High Voltage Power Supply*. (The high voltage will slowly decrease. Allow it to decrease below 20 kV before proceeding.)

6. Press the "**EMERGENCY OFF**" button on the *200 KW RF HIGH VOLTAGE POWER SUPPLY*.

7. Switch off the Modulator Control Unit's **High Voltage switch**. (Located in the 200 KW RF Modulator).

8. Switch off the "**CHARGE SWITCH**" in the *200 KW RF KLYSTRON INTERLOCK CHASSIS*. (Located in relay rack RF06).

9. Switch off the *200 KW RF HV Power Supply* **480 VAC disconnect** switch. (Located on the East wall).

CRYOGENICS

1. Ensure that *ACNET* settings are "**ENABLED**". (Utilities window).

2. Activate the "**A0PI 1.8K to 5K**" FSM (A0 FSM 014). (A0PI Graphic from ACNET page F6, or ACNET page F26).

If the Cryogenics will be off the next weekday…

3. Activate the "**A0PI 1.8K to 5K**" FSM (A0 FSM 014). (A0PI Graphic from ACNET page F6, or ACNET page F26).
4. Inactivate the "**START LATER**" FSM (A0 FSM 007). (A0PI Graphic from ACNET page F6, or ACNET page F26).

LOCK-OFF –if off for more than 24 hours

Ensure that all **6** (six) YELLOW **Configuration Control** locks are locked on their disconnects. (Look for the yellow "Configuration Control" stickers on the disconnects and the locks).

1. *3MW KLYSTRON H.V. POWER SUPPLY*. ("3MW RF" switch, located in RF gallery).
2. *200KW H.V. POWER SUPPLY*. (Switch 1, located in RF gallery).
3. *PRIMARY SOLENOID*. (Switch 6, located in RF gallery).
4. *SECONDARY SOLENOID*. (Switch 5, located in RF gallery).
5. *TRIM SOLENOID*. (Switch 4, located in RF gallery).
6. *SPECTROMETER MAGNET P.S.* (Plug located in RF gallery by Switch 6).