

Mike's Meeting

(14APR10)

Update on Cathode Chamber Work

Cathode Transfer System (NML)
Cathode Preparation System (Lab 7)

The Original Plan

- Cathode Prep System (Lab 7) (Brad, Ryan, Elias)
 - **Monday (12APR10)**
 - 1) After obtaining materials from NML, repair the support structure
 - 2) Move the entire assembly to its final location (M. Albertus available to assist)
 - **Tuesday (13APR10)**
 - 1) Begin vacuum repairs (replacement valve is located in room adjacent to Prep Chamber room)
 - 2) Connect vacuum system (Lucy Nobrega is locating vacuum pumping equipment)
 - **Wednesday (14APR10)**
 - 1) Leak check system and begin pump down
 - 2) Prepare system for bakeout
- Cathode Transfer System (NML) (Craig Rogers, Chris Exline, Ron Kellett, Dave Franks)
 - **Monday (12APR10)**
 - 1) Vent to Nitrogen, and remove the Transport System from the assembly
 - 2) Prepare the 500 l/s ion pump for installation (remove and replace flanges and position it under the installed Transfer System support structure)
 - 3) Reposition the Transfer System and prepare to transfer it to its installed position
 - 4) Seal, leak-check and begin pump down of system.
 - **Tuesday (13APR10)**
 - 1) Vent and begin installation of manipulators and Transport System (this may require support structure modification to accept the weight of the Transport System)
 - **Wednesday (14APR10)**
 - 1) Leak check system and begin pump down
 - 2) Prepare system for bakeout
- A-O Photo-injector
 - **Monday evening**
 - Daniele worked w/ staff to heat the cathodes and sources

Preparation System inside of Lab 7



Prep System unveiled



Prepping for the move



Beginning the move





Turning into the front entrance



Walking into 22 Nequa



Through the window



Returning to the original support



Remounting onto the Support Stand



Final location

(We can begin repairs and assembly)



Revised plan



- Wednesday (14APR10)
 - Complete the stand repairs
 - One more bracket to replace
 - Attach to the floor
 - Begin the vacuum work
 - Install the 500 l/s ion pump
 - Replace the broken valve
 - Install the RGA
 - Possibly replace the NuPro valve
- Thursday (15APR10)
 - Install and align the manipulators
 - Install the sources
 - Checkout the microbalance
- Friday (16APR10)
 - Begin pump out
 - Leak check
- Next week
 - Begin bakeout
- Additional Tasks:
 - 208/30amp service complete
 - PC and LabView installed
 - Internet available

NML Plan

- Cathode Transfer System (NML) (Craig Rogers, Chris Exline, Ron Kellett, Dave Franks)
 - Monday (12 APR 10)
 - 1) Vent to Nitrogen, and remove the Transport System from the assembly
 - 2) Prepare the 500 l/s ion pump for installation (remove and replace flanges and position it under the installed Transfer System support structure)
 - 3) Reposition the Transfer System and prepare to transfer it to its installed position
 - 4) Seal, leak-check and begin pump down of system.
 - Tuesday (13 APR 10)
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 - Wednesday (14 APR 10)
 - 1) Leak check system and begin pump down
 - 2) Prepare system for bakeout

Ion pump in position

Awaiting
connection
of heat
tapes



1st Interface Issue

(One of two C-channels needed opening to permit ion pump passage)



Support Structure (after machining)



2nd Interface Issue:
Transverse Adjustment
(or in this case: lack of)



Transfer Chamber Awaiting Installation



Transport Chamber @ NML



NML Revised Plan



- **Wednesday:**
 - Position 500 l/s ion pump and lower Al support structure into place on the rails
 - Remove Transfer Chamber from its stand and mount on ion pump
 - Make chamber/ion pump connection
 - Obtain any measurements for Thursday's work
- **Thursday:**
 - No tunnel access
 - Need to make a stand for small ion pump
 - Procure a 2nd VAT valve
- **Friday:**
 - Reconnect Transport Chamber
 - Pump out and leak check

Remaining Tasks

- Goal:
 - Assemble Transfer System and Transport System
 - Assemble and connect dummy gun
 - Pump out and leak check
- Bakeout:
 - To be done in June
- Training:
 - Assemble w/ dummy gun and begin some training of personnel
 - Better to conduct training and practice before baking