

# POLARIZED TARGET

Readiness of Subsystems



# Subsystems

- 5 T Magnet
  - OVC aka Scattering Chamber
- Refrigerator
  - Insert
- Material ( $\text{NH}_3$ )
- Microwave System
- NMR system
- Installation

# 5 T Magnet

- In Storage since 2002
- To be assembled and set up in EEL in October (Target Group and UVA)
- OVC – being fabricated and will be completely leak checked at company. Delivery, end of summer

ALUMINIUM M616061 T651 AMS -00A/250/11 - 0.25" 17/11/314P1

OUTSIDE

HALETT ALUMINIUM M616061 T651 AMS -00A/250/11 - 0.25" 17/11/314P1

ALUMINIUM

ALUMINIUM

ALUMINIUM

side

0100-0-605L840

7887  
T5NL

OUTSIDE

1100-0-605L840  
7887  
T5NL

OUTSIDE

OUTSIDE

7887  
T5NL  
0100-0-605L840  
1P2

M616061 T651 AMS -00A/250/11



# Refrigerator

- Stored at UVA
- Cleaned up and corrosion removed
- Instrumentation being checked

## **4 Inserts**

- All cups being replaced
- Instrumentation being checked and replaced as necessary





# Material

- $^{14}\text{NH}_3$  - ~200 g Irradiated last Thursday & Friday  
+ ~ 150 g irradiated previously
- $^{15}\text{NH}_3$  - ~150 g Various states of irradiation
- $^{14}\text{ND}_3$  - ~150 g Various states of irradiation
- $^{15}\text{ND}_3$  - ~>150 g Various states of irradiation
- $^6\text{LiD}$  - ~200 g Irradiated

# Microwaves

- 140 GHz EIO Tubes – 3 (UVA),  
1 + 1 (JLab)
- Power Supplies – 2 (UVA), 1 (JLab)  
2 Tubes and 2 supplies in use recently
- Frequency and Power measurement and  
Waveguide components on hand.

# NMR Instrumentation

- Q – meters 11 (+ 4 acquired recently and components to make at least two more (UVA)  
4 (JLab)
- Instrumentation and Software  
On hand and working

# Comments

- Procedures same as previously
- Division of labor between UVA target people and JLab Target Group about the same as previously.
- Move to Hall in May '08. 6 – 8 weeks to install and get operational.

# UVA Personnel

- D. Crabb
- D. Day
- K. Slifer
- V.Tvaskis
- M. Commisso
- J. Maxwell
- J. Mulholland
- + 2 to 3  
Undergraduates  
(summer)