

Draft Agenda

The AARM Collaboration Meeting will be focused on the specific plan for the DUSEL FAARM and associated engineering issues

**** **Important Note for Speakers: Please include a slide on COST in your presentation. Cost of screener, cost of radiochemistry lab, cost per electroforming bath, cost of the engineering already done for a project... Whatever it is you report on, taking the time to find the cost of the project or the item will help us finalize our overall cost estimate.**

Friday, March 19

8-9 *Breakfast*

9:00 - 9:30 Presentation of AARM Goals (Prisca Cushman)

9:30 – 10:00 DUSEL S4 schedule (Steve Marks)

10:00 -10:45 Engineering requirements, Conceptual Plan, Discussion (Lee Petersen)

1. *Spaces Summary*
2. *DUSEL modules at 4850*
3. *FAARM conceptual layout*
4. *Unresolved issues*
5. *Discussion*

Coffee break

11:00 - 1:00 Characterization of the Homestake Backgrounds

Current Status

- Gamma Ray (Chao Zhang – 15')
- Radon Measurements (Keenan Thomas – 20')
- Muon/Neutron (Gary/Mei – 15')
- Sanford Lab and Future Plans (DongMing Mei – 15')
- Radon Mitigation (talk or discussion – 15')
- Materials Database/Screening before DUSEL (discussion – 15')

Lunch

2:00 – 4:15 Water Shield

- Thickness Calculation (Dong Ming – 10')
- Eureca Water Shield Simulations (Vitaly Kudryavtsev – 15')
- Materials for Eureca Water Shielding (Pia Loaiza – 10')
- General Shield Concepts and guidelines (Bob Altes – 15')
- 1. *Structural-Construction*
 2. *Structural-Strength Issues*
 3. *Design for minimum radiation "Shine"*

4. Fabrication

Baseline Concept and approximate cost (Lee Petersen - 20')

1. General arrangement

2. Functional requirements

3. Materials

4. Construction concepts (modular or stick-built)

5. Cost drivers

6. Approximate Cost

Water Purification Plants at DUSEL (Steve Marks - 10')

LUX Purification System (Lee Petersen – 10')

Other Hydrogenous Shield Ideas (Discussion – 30')

coffee break

4:30 – 7:00 Immersion Tank

The Borexino CTF (Richard Ford - 20')

Water tank for LUX (Lee Petersen 15')

Choice of Materials (Kara Keeter – 30')

Scintillator (fluor, WLS, oil v water)

PMT's

Support structure and liner materials

Tank Engineering and Concept (Discussion – 20')

Top-loading vs Side-loading

Group Dinner at Berkeley Restaurant

Saturday, March 20

8-9 *Breakfast*

9-10:30 Screeners

Gamma screening in European Labs

Gran Sasso (Matthias Laubenstein – 15')

Modane (Pia Loaiza – 15')

Gamma screening needs (Dong Ming – 10')

Beta Cage (Richard Schnee – 10')

XIA (Jodi Cooley – 10')

Discussion

Number and sensitivity needed

Collaboration across labs

Funding infrastructure

Shielding constraints

R&D on new screeners.

Coffee break

11:00 – 12:00 Auxiliary Services & Surface Bldg

Electroforming Cu (Eric Hoppe – 15')

NAA (Henning Back – 15')

Storage, chemistry, machine shop

12:00 - 12:30 Bio and Geo needs (Tullis Onstott)

12:30 – 1:00 How to bring back the Synergy Component

1:00 – 1:30 Conclusions, Summaries, Action Items

Lunch and departure