AGENDA
Revised 9/20/11
CEAR Annual Meeting
1121 Burlington Engineering Labs
<u>THURSDAY October 6, 2011</u>

1. (8:30) Welcome and Associates Program Overview - Robin Gardner (RG)

2. (8:40) Description of Associates Program Operation - RG

3. (8:45) Status of Cluster, CEAR Computer Codes, and Idea on Using Web to Fund Use of Codes - Adan Calderon (AC) and Johanna Peeples (JP)

4. (8:55) Optimization Studies on PGNAA Coal Analysis, Improvement for Patent Development - Jiaxin Wang (JW) and RG

5. (9:20) Application of the MCLLS Approach to Cargo Monitoring - Cody Peeples (CP) and Wes Holmes (WH)

6. (9:35) Overview of Spectroscopic Analysis Methods Used in Nuclear Security Applications - John Mattingly (JM)

(10:00) COFFEE BREAK

7. (10:15) MCNP Status and Developments and Report on Project "Piezoelectric Transformer Neutron Generator (PTNG) Neutron Source for Well Logging" - Avneet Sood (AS) and Greg Dale (GD) (LANL Project)

8. (10:45) Detector Response Function Development by Using Modified MCNP and the Simple Electron Range Codes - Zhijian Wang (ZW), JW, and WH (Baker Project)

9. (11:00) Automating Spectrum Stripping - RG and WH (EXXON Mobil Project)

10. (11:10) Evaluating MCNP5 Data for Elements/Isotopes in Well Logging Practice - JW (Halliburton Project)

11. (11:20) Monte Carlo Simulation of the Nonlinear Full Peak Energy Responses for Gamma- Ray Scintillation Detectors - JP and RG

12. (11:25) NNSA/DOE Contract: Development of Accurate and Fast Monte Carlo Spectral Simulation Algorithms for Proliferation - RG with Discussion

(11:45) LUNCH

(12:45) LAB TOUR

13. (1:15) NNSA/DOE Contract: Production of Gamma-Ray Spectral Libraries for Cargo Monitoring - CP and RG

14. (1:35) NERI-C Contract: Radioactive Pebble Tracking Using Both Collimated and Uncollimated Detectors and Stochastic Modeling - ZW and Kyoung Lee (KL)

15. (2:00) On the Recent Activity in Fluid Analysis by Prompt Gamma Ray Neutron Activation Analysis (PGNAA) - Ilker Meric (IM) and/or RG

16. (2:15) Current Oil Well Logging Tools; Can we do more? - RG

(2:25) EXISTING CONTRACTS

1. NERI-C Radioactive Particle Tracking and Monte Carlo Simulation in PBR's (DOE)

2. Development of Accurate and Fast Monte Carlo Spectral Simulation Algorithms for Proliferation Detection (NNSA/DOE)

3. Production of Gamma-Ray Spectral Libraries for Nuclear Threat Cargo Monitoring (NNSA/DOE)

4. Development of an Inverse Radiation Transport Modelers' Toolkit (NNSA/DOE) - John Mattingly, PI

(2:30) OUTSTANDING PROPOSALS

1. NEUP Proposal (DOE): A Comprehensive Benchmark Experimental Study of Pebble Movement in PBRs - $1.2M for four years (with INL)

2. DNDO Proposal (Homeland Security): Inverse Gamma-Ray Coincidence Spectroscopic Analysis for Nuclear Threat Detection and Identification - $2.43M for five years (with STL)

(2:35) PLANNED PROPOSALS

1. Adding the MCLLS Approach to GADRAS (with Sandia)

2. Using PGNAA for Sorting Alloys (with Alcoa)

3. Design of a Device for Measuring H, Cl, and S in Pumped Oil (with Aramco)

(2:40) Future Associates Program Research - Open Discussion

(3:15) ADJOURNMENT

FRIDAY, October 7, 2011: INDIVIDUAL MEETINGS CAN BE SCHEDULED

Ref: AnnualMtgAgenda.tex