

## **MONTGOMERY COUNTY LEPC QUARTERLY MEETING: 7/19/18 NOTES**

---

### **Welcome / Introductions**

#### **LEPC Updates**

- **Hazmat permitting updates – Barbara Moore**
  - Conducting hazmat permitting system training. Recently held classes.
  
- **Commodity Flow Study – Matt Miziorko**
  - Data collected in past few months using Maryland State Police recruits. Awaiting contractor to compile data to include in final report. Data includes hazmat traveling through county, but using information obtained from Hazmat permitting system to determine end point deliveries in county.
  
- **Spring Exercise Review – John Burke**
  - Provided overview of multiple exercises conducted in May. Exercise was a joint EOC, hospital and Montgomery College exercise that simulated an active assailant on Rockville campus of Montgomery College resulting in a mass casualty incident. The patients were then transported to various local area hospitals resulting in hospital surge. Meanwhile the EOC was activated to deal with a weather incident and also had to deal with the active assailant MCI incident. An after-action report is currently being developed.

- **Extreme Weather Alerts – Tina Laboy**
  - OEMHS is beginning a new alert type regarding extreme temperatures (cold and hot). This will result in public messaging and internal messaging to activate the county policies regarding animals in extreme temperatures (powerpoint slides on LEPC website).
  
- **Community Outreach / Partners in preparedness – Joe Corona**
  - Conducts community preparedness training throughout the year. Focusing on setting up training and preparedness activities for the Montgomery County Fair and Preparedness Month activities throughout September.
  - Working to establish Partners in Preparedness work group / program. Looking for those on LEPC who want to be part of this to step forward.
  
- **LEPC Core Group Update – Randy Norman**
  - More involvement in LEPC under revised guidelines
  - Working on developing topics for future meetings
  
- **Fire-Rescue Hazmat Update – Cpt. Ivan Browning**
  - New meter technology allows for vapor sampling related to pentanal as well as other toxic industrial chemicals
  - New training opportunity i.e. tanker truck workshop, tox-medic class
  
- **By-Laws Update and COAD formation – Earl Stoddard**
  - By-laws went to County Attorney for approval. Some questions and clarification needs to be provided prior to County Attorney signature. Should be posted and final in next few weeks.

## **New Business**

**Radiation Safety at NIST – Manny Mejias, NIST Radiation Safety Officer**

- Avg dose of Radiation 610mrem/year; Exposer limits: Radiation worker 5,000 and Public 100
- **Unplanned Contamination Event – Summer 2017**
  - Stored materiel due to aging ruptured in place and one person was exposed internally due to small puncture in hand
  - Found out there was no source of medicine for specific radioactive/medical contamination – could have been worse if more than one person was contaminated

## **Introduction to NIST Reactor and Neutron Research – Brian Kirby, NCNR**

- **Neutron Beam Split Core Reactor (NBSR)**
  - 20 MW
  - D2O moderated
  - 30 fuel elements
  - Runs -250 days per year
  - Not for power
  - Neutrons for research
- **Instrument Suite, 2018**
  - 28 instruments
  - Most are fundamentally similar
  - Highly optimized
  - Constantly changing
- **Access**
  - Industry
  - Academia
  - National Labs
    - General User Access: 2 calls per year, external internal review, no charge
    - Collaborative Access: Merit based per instrument scientist, no charge
    - Proprietary: Private, user pays full cost recovery
    - ~2500 research participants, ~300 publications per year
- Neutrons

- No charge
- Ignore charge of the material
- Penetrating (can go through lead)
- Simple sample environment
- Neutrons can be used to detect things electrons cannot
- Neutrons are not electrically charged but are extremely magnetic
- Reacts directly with the magnetic field of materials
- Examples of Projects
  - Molecular Cages for Petroleum Refinement
    - 100% more efficient in removing n-hexane than common zeolites
    - Can lead to cheaper and more efficient than gasoline products
  - Controlling Magnetism with Oxygen
  - Defusing Jet Fuel
    - Adding ultralong polymer chains in jet fuel helps prevent intensity and extent of fires and also theoretically improves fuel efficiency
- Outlook
  - Licensed through 2029
  - NBSR turned 50 last year
  - Possible to continue for another 50 year
    - No safety issues
    - Reliability likely a problem
  - Designs for a new source

## **Tour of the NIST National Fire Research Laboratory NFRL – Nelson Bryner, EL**

- **Capabilities of NFRL**
  - A combined structural and large fire experimental facility that can be used to study a variety of scenarios
  - Capability of 20 megawatts
- **NFRL Thrust Areas**
  - Supports Post-Fire investigations

- Advance metrology tools
  - e.g. technology that can see through fire
- Validate computer models
- Conducts large scale tests
  - Measurements of Structural Performance