Flame Spread on Objects Workshop on Fire Growth and Spread on Objects

Session Summary

Kathy Notarianni, Chair

After the session, the discussion addressed several themes that serve as an effective summary. These fall under four main categories:

Need relatively simple pyrolysis models for empirical parameters and relatively cheap and reliable tests to determine these. Current wood pyrolysis models need 20-30 parameters per material

We should recognize material science as a discipline and borrow some of their ideas (as we did from fluid dynamics) – still might get 6 or more parameters, but based on physics.

Each model now contains a handful of properties:

- 1. Are these models sufficient?
- 2. Which properties can we already measure well?
- 3. Where do we need to invest in better measurement methods?
- 4. Add all propertied to FDMS database, publish NIST monogram of measured properties.
- 5. How do we differentiate between charring materials and thermoplastics?

Think about the effect of fire retardants in a real fire scenario (ex. Bromine that works in the gas phase).