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Yellow Rules

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Evaluation process

- Goals / objectives
- Scenario factors
- Exposure conditions
- Fire test method(s)
- Codes / specifications
- Measurements
  - **Uncertainties**
- Calculations
  - **Uncertainties**
- Performance metric
- Performance criteria

Product/system approval

Measurements

- Temperature
- Heat flux
- Mass loss
- Pressure
- Flow
- Heat release rate
- Smoke release rate
- POCs / concentrations
- Distance/deflection
- Droplet size / dist.
- Flame spread
- Extent of damage
- Timing / response time

Measurement issues

- Calibration standards / services
  - **US** / International
- Uncertainty analysis
  - Factors
  - Methodologies
- Proficiency evaluation

Sources of uncertainty

- Measurement devices / protocols
- Calculation methods / constants
- Operator influences
- System variability
- Material variability

Discussions

- What is purpose of workshop?
  - Globalization issues / US uniformity
  - ISO 17025 looming large
- Potential NIST involvement
  - Facilitate **US** lab compliance with ISO 17025
  - Any step of evaluation process
  - Focus on ISO 17025 issues
    - **Measurements**
    - **Uncertainties**

Recommendations

- NIST should serve as facilitator to coordinate **US** lab activities related to ISO 17025 certification:
  - Identify important issues labs will face related to ISO **17025** certification
  - Identify / prioritize fire test parameters important to **US** economy for certification evaluation
- NIST should provide training for calibration labs

Recommendations

- NIST should consider:
  - Development of uncertainty analysis methodologies for standard fire test methods
    - Suitable for ISO **17025** requirements
  - Addressing / documenting uncertainties associated with:
    - Measurement devices / protocols
      - Temperature/ heat **flux** …
    - Calculation methods